CHAPTER 9

Industrial Policy

CHAPTER 9

Industrial Policy

Industrial Policy in a Canadian Context

Commissioners have chosen to define "industrial policy" in a broad sense to cover all government efforts to promote growth, productivity and the competitiveness of Canadian industries. We recognize, however, that industrial policy means different things to different people. Consequently, we believe that it is important to review what Canadians have said to us about this term before we go on to suggest a fundamental realignment of our country's industrial policies.

Some observers see the industrial policy of a nation as nothing more than a general framework for public and private sector co-operation, a framework that includes the accumulated trade, tax, expenditure and regulatory policies of the government. Others use the concept in a more particular sense, associating it with the manufacturing sector as distinct from the resource and service sectors. In this context, some see industrial policy as a blueprint for action: for government support of private sector "winners" and adjustment assistance for private sector "losers".

Still others equate industrial policy with a whole range of general economic development policies: that is, with anything and everything the government does to influence the evolution of the structure of the economy over the longer term. Since private enterprise provides the organizing force for a substantial part of economic activity, a critical prerequisite for successful economic development is the existence of a supportive framework of laws and institutions. Adequate investment in either physical or human capital is unlikely to be forthcoming if the rewards of investment are subject to expropriation or heavy taxation. Similarly, private enterprise is unlikely to flourish and workers are unlikely to be mobile if they are subject to undue red tape. The incentives for aggressive participation in the private enterprise system must be clear. Workers and their families require some sort of basic minimum security if they are to take risks and move to new locations or

change careers. Finally, macro-economic policies must also ensure that output and employment grow at a reasonably even pace, and that inflation is held under control.

Economic development policies embrace such diverse areas as education and training, investment in infrastructure such as roads and airports, tax policies that bear on savings and investment, social security, unemployment insurance, resource policies, tourist promotion and regional development. Some of these policies have much broader goals than economic development alone. Education support is first and foremost a response to the social objective of ensuring that all Canadians receive the necessary education to enable them to participate effectively in all aspects of our society, including the economy. Tax provisions that encourage home ownership are motivated as much by social objectives as they are by aims of economic development. Still, the implications of such provisions for economic development and industrial policy are extremely important.

These implications derive from the fact that in general, resources devoted to one sector become unavailable to another sector, although the return in the form of national or regional benefits may be greater if resources are allocated to a sector with greater potential for growth and development than another. Explicit encouragement of growth in one sector often means implicit discouragement of growth in other sectors. The sectors that are not favoured face stiffer competition for inputs or less favourable demand conditions for their outputs. Encouragement to a favoured sector has to be paid for; subsidies for one sector require higher tax rates elsewhere. Subsidization of investment also raises the demand for capital and thus affects interest rates and the exchange rate. Subsidization of labour in one sector causes the contraction of labour inputs and product-output levels in other sectors. Special tariff or quota protection puts upward pressure on the exchange rate, making exports more expensive abroad and imports cheaper at home; the result is a contraction in the exporting and import-competing sectors other than those that benefit from the special protection.

In part, the diversity of opinion about industrial policy reflects ideological differences among groups in Canadian society, but the variation in views also stems from a far-from-perfect understanding of how the economy works, or what will make it work better. The question is not whether a country should have an industrial policy; whether by design or by default, a country will inevitably have an industrial policy of some kind. The relevant question is to what degree industrial policy should favour some sectors over others. Should government endeavour to be, in some overall sense, neutral in setting its trade policy, tax regime, expenditure program and regulatory framework? Or should it attempt to identify and promote the industrial activities in which the country has, or should have, a comparative advantage? Should government go even further and attempt to engineer a trade or competitive advantage? If Canadians conclude that a targeted industrial policy is indeed the best choice, does it follow that our government is well placed to devise and implement such a policy?

Most of the business sector's presentations to this Commission on the subject of economic development held that any attempt by government to

undertake a comprehensive and targeted industrial policy would be neither feasible nor desirable:

> *It is [the Board's] conviction that the thrust of government should be to create an environment in which private enterprise can thrive and prosper. The business of government is to govern not to compete actively in the marketplace.*
>
> (Saint John Board of Trade, Brief, September 12, 1983, p. 17.)

> *The role of the state in the Canadian economy . . . has already reached a level that cannot be surpassed without risk of discouraging private initiative.*
>
> (*Conseil du Patronat du Québec*, Brief, October 14, 1983, pp. 8–9.)

> *We do not believe that a comprehensive national industrial strategy is either feasible or necessary. With respect to the question of feasibility, it must first be shown how an effective, co-ordinated industrial strategy could be developed and implemented on an ongoing basis in such a diverse nation as Canada, in which eleven governments are typically pursuing often divergent policies. Extensive decentralization of economic and industrial policy making powers is simply incompatible with the notion of a co-ordinated national industrial strategy . . .*
>
> *Another problem that must be addressed in assessing the feasibility of a Canadian industrial strategy is the absence of a clear consensus on what such a strategy would consist of, with the result that various advocates are constantly producing lists of worthy objectives that are in fundamental conflict with each other.* (Business Council on National Issues, Brief, December 6, 1983, pp. 34–35.)

The basis of the business community's argument against government intervention is experience, sometimes bitter experience:

> *In the past, we have found government policy to be inconsistent, at times contradictory, and not responsive. But more important . . . too much government policy has been developed in isolation without consultation with industry.*
>
> (Celanese Canada Inc., Brief, October 14, 1983, p. 10.)

> *Governments do not have an enviable record in choosing winners or cushioning losers in the marketplace, or managing essentially private sector investments and operations.* (Retail Council of Canada, Brief, November 1, 1983, p. 60.)

> *The argument goes that if only the government would give the right command – if only it would adopt the right "industrial strategy" – then the country, like a huge army, would get back on the right track again. The advocates of this approach to Canadian economic development do not appear to comprehend that most economic development in this country is taking place despite these kinds of policies, not because of them.*
>
> (Andriy J. Semotiuk, Brief, November 3, 1983, p. 3.)

Basically, the business community believes that government should confine its activity to the creation of a positive environment for private sector investment and growth:

> *Governments have a crucial role to play in economic development . . . Governments must decide the direction the economy is to take and then work with industry to permit it to achieve the desired goals. Governments must create*

the environment to which entrepreneurs are attracted and in which they will flourish. Successful economic planning should not result in governments doing the investment or acquiring operating assets . . . Similarly, successful economic planning should not provide support or protection for the non-entrepreneurs in our industry even when they are Canadian companies.

(H.N. Halvorson, Consultants Ltd., Brief, August 19, 1983, p. 4.)

The economic problems currently facing Canadians (slower growth, poor productivity performance, structural unemployment, shifts in export markets, etc.) indicate a need for a fundamental re-structuring of the economy . . .

This needed restructuring will require a constructive and co-operative joint effort by business and government. Government definitely does have a role to play in such efforts but this role must be clearly defined. New directions in industrial development must come from the business sector itself.

(Burns Fry Limited, Brief, November 24, 1983, p. 1.)

A second, quite different view is that government's proper role in industrial policy is that of a "guiding hand". Proponents of this view insist that the private sector and the public sector must work together to devise strategy and tactics that will reinforce the competitive position of domestic industry at home and abroad. Some observers attribute Japan's spectacular rise to the close co-operation between its private and public sectors and, particularly, to the catalytic role of government in providing a focused process for the taking of decisions on new industrial initiatives. Several newly-industrialized countries (NICs) have followed the Japanese example, with some apparent success. In the view of those who see a relationship of cause and effect between an active industrial policy and positive economic performance, Canada and the United States cannot afford to be passive bystanders. To meet off-shore competition, they argue, North American economies, too, may have to emulate, at least partially, the co-operative industrial/government relationship practised by Japan.

A number of representations to this Commission suggested that employment considerations, not economic growth as such, ought to be at the forefront of public policy. Many social service and labour groups doubt that economic growth is fully reflected in job creation and job security. They believe that government should play a strong role in guiding industrial policy in order to ensure that employment is a priority:

Private enterprise is only interested in profits and the largest possible return on their invested capital. They are not interested in creating jobs . . .

If the business establishment is not responsible for providing employment, it is obvious that the government must be prepared to make the necessary decisions or recommendations that will benefit all of society, not just a privileged few.

(United Steelworkers of America, Local 6500, Brief, October 3, 1983, p. 2.)

The role of government in economic decision-making must be much more instrumental in the achievements of socially desirable and democratically determined investment and production goals. Private profitability should not be the sole [criterion] for measuring contribution to social need . . . The alternative

is a system where community based initiatives and entrepreneurship form the basis of a rational economic policy for full employment. Planning to meet human/social needs becomes the function of economic policy.

(Social Planning Council of Metropolitan Toronto, Brief, November 9, 1983, p. 79.)

The current approach in business circles of advocating a reduced role for government in the economy does not make sense in light of these impending issues. To the extent that business cannot reasonably be expected to promote the public interest at the expense of markets and profits . . . it is the responsibility of government to provide [business interests] with incentives and constraints that will ensure that their actions also serve the public's well-being. When this is not possible, government has to perform these functions itself. That includes making public investments when private investments are insufficient to keep the economy at a high employment level.

(Canadian Mental Health Association, Brief, October 31, 1983, pp. 18–19.)

Those who favour an active role for government in directing industrial policy have seldom been any more specific than those who consider that government's role should be limited. Nonetheless, the following excerpts from briefs to this Commission give some flavour of what the assumption of an activist role by government would involve:

In a democratic political system only *government can have the power, and* only *government can be entrusted with the responsibility to maintain economic stability and employment, and secure a fair distribution of income.*

(United Steelworkers of America, Brief, October 28, 1983, p. 10.)

The impact of new technology is so widespread and impacts in so many ways that it will take government action to create the kind of framework that we think is necessary to cope in the years ahead. In our view, it is really a case of the government acting in advance to maximize our ability to build a fair and just society of opportunity. (Communications Workers of Canada, Transcript, Edmonton, November 15, 1983 [vol. 46], p. 9421.)

We . . . propose that the Commission clearly recognize the increased role which government must assume in economic affairs in order to ensure a society of equity and security, as well as initiative, from which no one will be left out. Let the Commission clearly define the share of responsibility which should fall to the federal, provincial, and municipal governments respectively. Let the Commission at the same time declare that the federal government must in addition be ultimately responsible for making sure that the provinces, and through them the municipalities, assume and faithfully discharge the share of responsibility which falls to them, and that they do so in such a way that minimum acceptable standards are retained throughout the country.

(Ontario Public Service Employees Union, Brief, November 16, 1983, p. 49.)

A regeneration of dynamism in industry . . . cannot, in our opinion, rest principally on the initiative of private enterprise. To the contrary, the success of such a strategy implies an extension and a deepening of economic intervention by the state. (*Centrale de l'enseignement du Québec*, Brief, November 23, 1983, p. 61.)

Clearly, Canadians have widely divergent views about the extent to which government should involve itself in the promotion of economic growth and employment. It would seem, in fact, that relatively few observers recognize the existence of any viable middle position between a strict "hands-off" approach to industrial policy and a highly interventionist approach. Yet it is reasonably certain that neither of the extreme positions is tenable. A fundamental change is taking place in the world economy, a change that casts doubt on the wisdom of the hands-off approach. Commissioners recognize that opposition to a more active role for government arises, in no small measure, from adverse experience with the growth in government intervention since the early 1960s. It is precisely because intervention has often been unsuccessful that we have undertaken to consider what can be done to develop a sounder and more fruitful working relationship between government and the private sector.

At the same time, our analysis leads us to conclude that governments generally lack the capability to orchestrate, or even formulate, a comprehensive, detailed, industrial strategy of the kind advocated by the more ardent interventionists. Even if a detailed strategy were possible, it would not be desirable. The world is just too complex, and the need for flexibility and adaptability too great, to justify confining the private sector in such a straitjacket.

Canadian Industrial Policy in Historical Perspective

Canadian industrial policy has evolved through four general phases in response to changing circumstances at home and abroad. In the period from 1867 to 1914, a substantial emphasis was placed on tariff protection and the subsidization of secondary industry, and major investments were made in infrastructure in transportation and other areas. During the years between the two World Wars, the catastrophic impact of the Great Depression led to a focus on policies aimed at restoring and sustaining demand. Between 1945 and 1957, industrial policy, broadly defined, included macro-economic stabilization policies devised in the Keynesian tradition, concerted moves to reconstruct the peacetime economy, strong incentives for foreign investors, and a second National Policy that relied heavily on a new underpinning of social welfare programs. Finally, the period from 1957 to the present has witnessed a series of moves towards freer international trade and towards continental integration of certain sectors such as the automotive industry, defence production, and crude oil and natural gas production. This period was marked by growing domestic ownership of the Canadian economy and, in the 1960s and early 1970s, by increased government involvement in promoting development in slow-growth regions. In addition, government provided more assistance for industries and for particular companies confronted by severe competition at home or abroad, by obsolescence or by declining demand; it also provided increasing support for existing or new companies to enable them to keep pace with rapidly emerging economic developments around the globe.

Federal Industrial Policies

In the 1950s, federal industrial policy included encouragement to foreign, primarily American, direct investment and a continuation of Canada's efforts, in concert with those of other countries, to entrench a stable international monetary system and a liberal trade regime. These moves generated considerable prosperity, but they also led to growing concern about the extensive degree of foreign ownership in both the manufacturing and the resource sectors.

The election in 1957 of the Conservative government of Prime Minister John Diefenbaker resulted, in part, from the disaffection of some regions that had not shared fully in the post-war prosperity. The Diefenbaker government sought to make industrial policy more directly responsive to regional concerns. The National Oil Policy of 1961 strengthened the petroleum sector in the Western provinces. The government also sought to shift trade away from its growing dependence on the United States. Nevertheless, it quickly became involved in decisions that reflected the changing structural realities of the North American economy. Thus the cancellation of the Avro Arrow aircraft program led ultimately to the Canada-U.S. Defence Production Pact, under which Canada obtained guaranteed access to the American defence-procurement market.

The early and middle 1960s brought a renewed emphasis on the manufacturing sector. This emphasis was reflected in the establishment of a new Department of Industry, and it was made even more evident in the negotiation by the Pearson government of the Canada-U.S. Auto Pact. The 1960s also produced further tariff reductions under the Kennedy Round of negotiations under the General Agreement on Tariffs and Trade (GATT). In the middle and late 1960s, there was a growing debate on the underlying technological competitiveness of the Canadian economy; much of this debate centred on the question of "science policy" and the adequacy of Canada's research and development (R&D) incentives. Fundamental changes were made in the nature and extent of federal support for employment training and education. Before the decade ended, the federal government had created the Department of Regional Economic Expansion (DREE), which was to provide a focus for the development and co-ordination of regional policy. Meanwhile the establishment of the Department of Consumer and Corporate Affairs prepared the ground for a sustained effort to develop more effective competition policies.

The growth in federal support for employment training and education was dramatic. An initial increase in federal grants to universities culminated in a 1967 federal-provincial agreement under which the Government of Canada would provide 50 per cent of the operating costs of post-secondary educational institutions through a combination of cash grants and the surrender of tax points. Under the Technical and Vocational Training Act of 1960 and the programs that succeeded it, the federal government encouraged job training, first through a shared-cost program and then, beginning in the late 1960s, through the purchase of accommodation and courses from the growing provincial certificate- or diploma-granting institutions.

It was only in the 1970s, however, that the federal government came to identify its evolving bundle of policies as an industrial strategy. In 1972, Jean-Luc Pépin, then Minister of Industry, Trade and Commerce, announced that he and his department were embarking on the development of a "better" industrial strategy, which he described as an "ensemble of coordinated objectives and instruments, i.e., policies, programs and institutions."[1]

External shocks of varying orders of rapidity and magnitude confirmed the need for a more closely co-ordinated approach. These shocks included the policies initiated by President Richard Nixon in an effort to deal with pressing U.S. balance-of-payments problems and the 1973–74 crisis imposed by the Organization of Petroleum Exporting Countries (OPEC). Canada's evolving industrial strategy focused heavily on the development of a secondary manufacturing sector. Increasingly, the federal government undertook various kinds of consultation with key interests, including business, labour and the provincial governments.

A number of other political and economic developments during the 1970s had a bearing on industrial strategy and its evolution. The Foreign Investment Review Agency (FIRA) was established to advise the government on whether or not to authorize foreign investments in Canada, and to negotiate terms that would maximize the benefits available to this country from such investment. The Tokyo Round of GATT negotiations, which took place between 1973 and 1979, had a significant effect on the industrial climate, as did the controls imposed on profits and incomes under the Anti-Inflation Program of 1975–78.

The federal government experimented with other policy initiatives, as well. The Canada Development Corporation, which was established in 1971 with a provision for mixed public and private ownership, subsequently acquired assets in many sectors of the economy. In the same year, the Government of Canada sought to devise better policies on science and technology by creating a Ministry of State for Science and Technology. In 1975, with the creation of Petro-Canada, it moved directly into oil and gas exploration, production and marketing.

Despite all these activities, federal industrial policy had little clear focus during most of the 1970s, nor did the exercise launched early in the decade by Mr. Pépin result in the emergence of a comprehensive statement of the government's industrial strategy during the 1970s. Federal support for Canada's economy represented "a patchwork of industry-by-industry and some across-the-board incentives and programs, produced without much consultation with business and labour."[2] Responsibility for industrial policies was scattered across several government departments.

In the late 1970s, the Department of Industry, Trade and Commerce attempted to build a consultative process from the bottom up. This initiative involved discussions of the process at a First Ministers' Conference in February 1978, followed by the establishment of 23 sectoral task forces covering 21 manufacturing industries, plus construction and tourism. The task forces were composed of representatives of business, labour, the federal and provincial governments, and the academic community. In their reports, they proposed a strategy for the development of each sector. Many of them

called for increased government assistance for their respective sectors through tax breaks and other measures.

The sector task forces, which became known as "Tier 1 committees", were succeeded by the so-called "Tier 2 committee", which was directed to make recommendations that cut across sectoral lines and involved broad economic policy issues. However, by the time the Tier 2 committee reported, in the fall of 1978, the federal government had embarked on a series of budget cuts and other restraint measures which greatly reduced the prospects for substantial new assistance to industry. The emergence of a powerful small-business lobby further changed the political calculus of industrial policy, since it demanded greater attention to the needs of smaller firms and the fast-growing service sector. The small-business sector was very sensitive to regulatory and tax burdens.

In 1978, the federal government assigned the task of co-ordinating development spending to a new committee of the Cabinet, the Board of Economic Development Ministers (BEDM)[3]. This committee was to be headed by a president and served by a new central agency, the Ministry of State for Economic Development (MSED). In 1980, amid growing economic difficulties, the minister responsible for MSED, Senator H.A. (Bud) Olson, announced an agenda for economic development that attempted to shift emphasis from the needs of specific industries to the strength of basic factors of production, such as human resources, capital and technology.

Internal government debate about appropriate development strategies in light of changing circumstances subsequently gathered new momentum. This debate not only involved renewed concerns about the extent and utility of government intervention, but also reflected the broader controversy taking shape over such matters as the Constitution and federal-provincial relations generally. All of this boiled down to a battle between the proponents of rival concepts of the nature of Canada and the way in which the country should evolve in the future. The outcome of the debate was a statement on economic development presented in the November 1981 budget. The 1981 "Economic Statement" was related to the National Energy Program introduced a year earlier. It was based on the fundamental view that Canada's opportunities lay in the development of its rich bounty of natural resources. The statement did not ignore manufacturing, but it linked future development in this sector to the need for manufactured goods produced by the rapidly growing resource industries. By this means, its proponents sought to bridge the interests of Atlantic, Central and Western Canada. The approach was influenced by the (Blair-Carr) Task Force on Major Projects,[4] which recommended the establishment of an Office of Regional and Industrial Benefits within the Department of Industry, Trade and Commerce.

Soon, however, the worsening of Canada's economic situation brought the new strategy into disrepute. The break in world oil prices after 1981, the escalating federal budget deficit, soaring inflation and record levels for interest rates combined to produce a totally different context for policy measures. The downward movement of world oil prices, in combination with other economic factors, resulted in the abandonment or suspension of many of the energy megaprojects and cast doubt on the fundamental assumption that

lay behind the new industrial strategy. This assumption consisted of the view that a permanent improvement had taken place in the terms of trade for natural resources in relation to those for manufactured goods. The Economic Statement seemed to demonstrate the difficulties of attempting to combine political and economic objectives in a concerted industrial strategy and, indeed, of formulating any type of strategy that would prove effective for an extended period in an uncertain and changing world.

Provincial Industrial Policies

During the 1960s and 1970s, industrial policy questions involved federal-provincial relationships of increasing complexity. Alternative strategic approaches – particularly insofar as they meant a choice between giving priority to the manufacturing sector and giving it to the resource sectors – inevitably favoured some regions over others.

Even without the constitutional division of powers between the two levels of government, it would have been difficult to devise industrial policies that would bridge the different interests of different regions and, at the same time, ensure that benefits would be widely distributed. As matters stood, these constitutional divisions complicated the situation even further. First, they enabled provinces to pursue industrial strategies designed to maximize benefits for their own citizens. This consideration naturally raised concerns about interprovincial competition and internal barriers to trade which could reduce the efficiency of the economy as a whole.

Secondly, provincial control over so many of the jurisdictional areas critical to economic development policy, such as natural resources, education, labour relations and securities regulation, meant that a high degree of co-operation and co-ordination would be necessary if effective national policies were to be formulated and implemented. These policies would, in fact, have to be devised jointly by federal and provincial governments, and they would be very hard to develop in the context of the heightened interregional and intergovernmental conflict of the 1970s. The circumstances gave rise to a paradox. Regional diversity required that policies be devised to assist specific regions of the country. However, decisions involving such allocations – whether an auto plant was to be built in Quebec or in Ontario, for example, or how the counterpart of industrial benefits deriving from Canada's acquisition of a new U.S.-designed jet fighter were to be distributed among the regions – became matters of continuing controversy.

During the 1970s, many provincial governments intensified their attempts to promote economic development. They were able to do this because of the growth that had taken place in their financial and bureaucratic resources during the 1950s and 1960s. Massive energy revenues dramatically expanded the resources available to the Prairie provinces, especially Alberta, and became the basis of aggressive strategies to diversify those provinces' economies. The range of policy tools also expanded. In particular, the provinces began to make much more active use of public enterprise to promote regional development. Of 233 provincial Crown corporations identified in 1983, 76 had been created after 1960, and 48 after 1970.

In addition, the provinces introduced policies that were aimed, much more explicitly than any provincial policies in the past, at counteracting the adverse effects on their economies of both the forces of the market-place and the policies of the federal government. The concept of their pursuing only activities in which their own regions had a comparative advantage was partially rejected. More and more provinces sought to use their resources to broaden their economic bases. Moreover, some provincial policies were introduced to counter federal policies that were seen to be discriminatory or ineffective. Throughout the 1970s, it was a matter of vigorous debate whether the condition of the outlying provinces was simply a consequence of impersonal market forces or the result of the misapplication of federal power.

Whatever the cause of regional disparities, provincial policies were directed to redressing them and to forcing changes in the regional distribution of private investment. The champions of this approach saw the province, rather than the nation, as the economic unit in which wealth was to be maximized. As Premier William Bennett of British Columbia told the 1978 First Ministers' Conference on the economy:

> *In listening to my fellow First Ministers here, I must say that what has come out clearly to me, is . . . that we are not a single national economy; we are a country with distinct regions, with distinct economies unique to themselves, that need the attention and cooperation of the governments in meeting their own specific aspirations and needs.*[5]

The provinces' industrial policies varied with their economic conditions and needs, their available resources, the ideologies of their governments, and the pressures that private interests brought to bear on their leaders. The goal of the Western provinces was to use the new revenues provided by the energy boom to strengthen and diversify their economies, to redress their historic economic and political grievances, and to force a shift in political power. Alberta and Saskatchewan had, perhaps, the most explicit and concerted provincial industrial policies of the 1970s.

Alberta's plans for diversification emphasized the encouragement of local processing of energy and agricultural resources. The province hoped that this strategy would result in expansion of industry, growth in employment, and the enhancement of its political power and influence. The provincial government adopted many means to promote these goals. One such means was the Alberta Heritage Savings and Trust Fund, into which the province funnelled about 30 per cent of its annual oil and gas revenues in order to create a large pool of capital for subsequent investment. By 1984, the fund held $13.7 billion in total assets.

Another provincial undertaking was the joint public-private Alberta Energy Company Ltd. In 1974, the province acquired Pacific Western Airlines, a company that it considered could play an important part in reinforcing its position as the "gateway to the North". The government also actively supported the transformation of Alberta Gas Trunk Line Ltd. into Nova, an Alberta Corporation. The original company was established in the 1950s to gather and distribute gas inside the province and to deliver it to other pipelines for transmission beyond its borders. The change of name

reflected the company's rapidly expanding interests in major petroleum-related projects across North America and around the world. Two new agencies, the Alberta Oil Sands Technology and Research Authority and the Alberta Research Council, were set up to encourage the processing of Alberta's resources within the province. Through these and other agencies, development funds were channelled into such areas as petrochemicals, tourism, forestry, high technology and medical research. The province encouraged small business through changes in the corporate tax system and other measures; it also promoted the transfer to the province of head-office activity, particularly in the oil and gas industry.

Saskatchewan developed an explicit industrial strategy based on a high degree of public ownership. Its New Democratic Party (NDP) government took control of a significant part of the potash industry in the 1970s, and played a major entrepreneurial role in other resource sectors, including oil, mining and, especially, uranium. It promoted industrial development through the Saskatchewan Economic Development Corporation and a variety of other means, including support for research and for expansion of the West's largest steel maker, Interprovincial Steel. In 1983, Saskatchewan, like Alberta, established a heritage fund.

British Columbia's industrial policy has traditionally focused on the development of such resource sectors as mining and forestry. The province has undertaken major rail and highway projects and aggressive development of its hydro resources. In the 1970s, it, too, began to press for diversification of its economy through stimulation of manufacturing and promotion of high-technology industries. Manitoba governments have been active in promoting forestry and power developments in the North, and have also established a wide variety of programs to aid manufacturing.

On the east coast, Newfoundland has emulated the strategy of Alberta and Saskatchewan, seeking to obtain greater control over its own resources as a means of promoting economic development. After experiencing a series of failures in earlier development projects, such as the Come-by-Chance oil refinery and the Stephenville Linerboard mill, the province's industrial policy now emphasizes the further processing of its resource endowments. In addition, the manufacturing sector is being encouraged to produce goods, such as fishing equipment, complementary to the province's industrial structure. The Newfoundland government has argued that in order to pursue the development of "Newfoundland for Newfoundlanders" and to preserve the fabric of the maritime rural community, it is vital for the province both to control its offshore oil and gas development and to exercise greater control over the fishery.

Nova Scotia's industrial policies have concentrated on the long-standing problems of the Cape Breton coal and steel industry, and on the development of manufacturing, especially in the Halifax-Dartmouth and Strait of Canso areas. The province has sought to link development to the offshore resources of fish and oil, and to promote diversification of its industries into high-technology manufacturing. A similar mix of incentives, subsidies, grants, provision of infrastructure, and procurement policies has been used in Prince Edward Island and New Brunswick, but generally these provinces have not

acted as aggressively as a number of others. One indication of this restraint is that in 1980, when Newfoundland had 42 provincial Crown corporations, the largest number in the country, each of the other three Atlantic provinces had fewer Crown corporations than any of the remaining provinces.

If the primary goal for Western and Eastern Canada is to shift economic development in their direction and end their dependent status, the challenge for Central Canada is to preserve and expand its manufacturing economy in a changing world economy. Between 1970 and 1977, Ontario's share of gross domestic product (GDP) dropped from 41.9 per cent to 39.2 per cent; its growth rate was among the lowest in the country. Both Ontario and Quebec experienced major structural shifts as a result of changes in economic patterns in the United States and in the world at large. Measures taken by Ontario to encourage industry have included the founding of an Employment Development Fund which, among its other projects, has helped the Ford Motor Company to build an engine plant in the province and promoted capital investment in pulp and paper. In 1981, Ontario brought all of its industrial development activities under the umbrella of a cabinet committee, the Board of Industrial Leadership and Development (BILD). The province planned to concentrate on resource development, development of rail and urban transit technology, and increased nuclear generation and rail electrification, which would minimize its dependence on imported oil. It also established several technology-development centres to encourage advances in computer technology and related fields. The provincial government, however, has avoided any claim that it is following a grand industrial strategy.

Since the early 1960s, the makers of Quebec's industrial policy have sought both to promote the growth of the province's economy and to increase francophone participation in that economy. In pursuit of these goals, the Quebec government has stressed the function of provincial Crown corporations. Hydro-Québec and the James Bay Development Corporation have made hydro development a major engine for growth. Francophone participation in industry has been strongly encouraged by Crown corporations active in the financial sector. Important Crown corporations include the *Société générale de financement*, an investment and holding corporation; the *Société de développement industriel du Québec*, which provides development loans and grants; and the *Caisse de dépôt et placement du Québec*, which manages the assets of the Quebec Pension Plan (QPP). Through these agencies, Quebec has invested in a wide variety of provincial industries. Besides trying to support traditional industries, the province has done more in recent years to promote technologically advanced industries. It has also gone further than most provinces, through a series of economic "summits" and related activities, in building mechanisms for consultation between government and the private sector.

Financial Support for Industrial Development

Table 9-1 gives an indication of the overall importance of direct financial assistance by the federal government to the manufacturing sector during the 1960–80 period. Federal financial assistance in the form of various subsidies

TABLE 9-1 Federal Grants to the Manufacturing Sector

Year	Total: Millions of Current $	Total: Millions of Constant 1971 $	Grants Relative to Value Added	Grants as a Percentage of Total Federal Expenditures	Grants as a Percentage of Manufacturing Investment
1960–61	4.4	6.2	0.042	0.084	0.177
1961–62	8.0	11.0	0.077	0.139	0.330
1962–63	33.7	45.9	0.295	0.552	1.444
1963–64	64.4	86.2	0.525	1.000	2.985
1964–65	59.5	77.7	0.440	0.827	2.182
1965–66	76.0	96.2	0.509	1.054	2.293
1966–67	81.3	98.3	0.497	1.011	2.028
1967–68	107.7	125.7	0.633	1.177	2.919
1968–69	103.3	116.5	0.563	1.029	3.011
1969–70	159.0	171.7	0.790	1.441	4.071
1970–71	177.7	183.4	0.886	1.349	3.829
1971–72	249.1	249.1	1.146	1.634	5.563
1972–73	258.8	246.5	1.067	1.456	5.620
1973–74	282.2	246.2	0.982	1.366	5.051
1974–75	301.1	227.9	0.858	1.161	4.147
1975–76	295.5	202.0	0.818	0.886	3.709
1976–77	323.9	202.2	0.811	0.929	3.876
1977–78	275.6	160.8	0.625	0.707	2.965
1978–79	287.5	157.7	0.558	0.676	2.942
1979–80	410.0	203.9	0.676	0.866	3.552

Source: André Blais, Philippe Faucher, and Robert Young, "L'Aide financière directe du gouvernement fédéral à l'industrie canadienne, 1960–1980", Notes de recherche 12 (Montreal: Université de Montréal, Département de science politique, 1983).

and grants increased rapidly during the 1960s. Financial assistance in real terms (that is, discounting inflation) peaked in the early 1970s and fell steadily until 1979–80. In that year, direct financial assistance to the manufacturing sector accounted for less than 1 per cent of total federal expenditures; it also accounted for less than 1 per cent of total value added in the manufacturing sector. On the other hand, federal financial assistance constituted as much as 5.6 per cent of manufacturing investment in the early 1970s; in 1979–80, the figure was 3.5 per cent.

The overview of federal financial assistance to the manufacturing sector presented in Table 9-1 incorporates many programs. Almost all of these programs have been substantially modified or restructured over time, but only a very few of them have been phased out. The majority of the programs are discretionary rather than automatic: that is, instead of providing funds on the basis of some prescribed formula, they require firms to persuade the administering department that the project for which assistance is requested could not be undertaken in the absence of support. Most automatic-assistance programs are related to research and development, training and the shipbuilding industry. During the 1960s and 1970s, a disproportionate share

of financial assistance went to declining sectors, slow-growth provinces, and big business.

At present, the single most important federal financial assistance scheme is the Industrial and Regional Development Program (IRDP). Assistance under the IRDP is available for each stage of project development: innovation, plant establishment or modernization and expansion, marketing, and restructuring. The program uses an indexed tier system that distinguishes census regions on the basis of a number of economic measures. The rate of subsidy varies between 25 and 75 per cent, depending on the employment and income levels of the census region and the financial capacity of the province. Estimated expenditures for 1984–85 stand at about $470 million. Other major federal subsidy programs include the Defence Industry Productivity Program, the Shipbuilding Industry Assistance Program, the National Industrial Training Program, and the Canadian Industrial Renewal Program.

The estimated value of federal corporate tax incentives is shown in Table 9-2. Over the 1960s and 1970s, the value of these tax incentives increased almost tenfold even in constant dollar terms. Still, their value was small relative to total value added in the manufacturing sector. In the mid-1960s, corporate tax incentives exceeded 2 per cent of total value added, but they fell sharply in importance thereafter. New measures introduced in the 1970s reinforced the importance of corporate tax incentives, returning them to the 2 per cent level by 1979. The contribution of corporate tax incentives to investment decisions is difficult to assess because these incentives often change substantially over time. Indeed, some observers argue that the uncertainty generated by frequent modifications to the corporate tax law significantly discourages investment. Within the manufacturing sector, only industries related to resource processing benefit disproportionately from tax incentives. Furthermore, the effective tax rate does not vary significantly according to the size of the firm. Thus the corporate tax system is largely neutral as an industrial policy instrument within the manufacturing sector, even though some tax incentives are substantial.

At least since the early 1970s, however, the Canadian tax system has tended to favour investment in manufacturing plant and equipment. Investment in most service sectors does not generally bring any special tax advantages. The fact that small business, which does receive relatively favourable tax treatment, accounts for a large share in many service sectors may mean that the average effective tax rates on the return to capital may be no higher in the service sector than they are in the manufacturing sector. Three provisions of the corporate tax system are of key importance: accelerated capital-cost allowances for machinery and equipment used in manufacturing processes; a preferential rate of tax for manufacturing corporations; and the investment tax credit, which varies from 7 per cent to 50 per cent, depending on the region and the nature of the business investment.

Gauging the nature and overall extent of provincial initiatives is difficult. The provinces vary widely in both their fiscal and their political capacity to engage in activist industrial policy. In part, because the Atlantic provinces and Manitoba are more dependent than the other provinces on federal

TABLE 9-2 Federal Corporate Tax Incentives: Manufacturing Sector

Year	General Tax Incentives			Selective Tax Incentives		
	Millions $		Percentage	Millions $		Percentage
	Total: Current $	Total: Constant 1971 $[a]	Tax Benefit Relative to Value Added	Total: Current $	Total: Constant 1971 $[a]	Tax Benefit Relative to Value Added
1960	63.5	88.1	0.61	46.5	64.5	0.45
1961	83.0	115.3	0.80	68.0	93.8	0.65
1962	176.5	239.8	1.54	131.6	178.8	1.15
1963	181.5	242.3	1.48	184.8	246.7	1.51
1964	214.7	279.2	1.59	203.7	264.9	1.50
1965	287.4	362.9	1.93	323.5	408.5	2.17
1966	423.8	511.2	2.59	429.5	518.1	2.62
1967	237.0	275.9	1.39	260.0	302.7	1.53
1968	130.0	146.2	0.71	229.9	258.6	1.25
1969	174.0	187.5	0.86	202.0	217.7	1.00
1970	153.1	158.0	0.76	132.0	136.2	0.66
1971	172.2	172.2	0.79	178.2	178.2	0.82
1972	120.1	144.4	0.49	233.8	213.1	0.92
1973	405.7	354.0	1.41	379.0	330.7	1.32
1974	456.4	345.5	1.30	594.6	450.1	1.69
1975	430.5	294.3	1.19	570.9	390.2	1.58
1976	463.8	289.5	1.16	532.3	332.3	1.33
1977	472.0	275.2	1.07	528.5	308.2	1.20
1978	919.5	503.3	1.79	751.9	411.5	1.46
1979	1085.0	539.5	1.79	1214.8	604.1	2.00

Source: André Blais, Philippe Faucher, Robert Young, and Roger Pouport, "Les avantages fiscaux du gouvernement fédéral à l'industrie manufacturière canadienne", Notes de recherche 13 (Montreal: Université de Montréal, Département de science politique, 1983).

a. Deflated by the Consumer Price Index.

transfer payments, they simply have less financial room for manœuvre. This Commission's research on federal and provincial budgeting shows that the share of provincial spending (in per capita constant dollars) devoted to economic-development activities declined markedly in most provinces between 1960 and the mid-1970s, and has increased only slightly since then.[6] This is a somewhat surprising trend, given the provinces' recent efforts to develop their economies. Many of these efforts, however, have employed regulatory and other instruments, as well as expenditure. Part VI of this report analyses the implications for the economic union of provincial industrial policy initiatives. The analysis concludes that the impediments to the movement of labour, capital, and goods and services within Canada do not, at least as yet, seriously injure our overall competitive position. In any event, national policies, such as the policy of holding domestic oil price below world price, have played a more pervasive role in influencing resource allocation.

Notes

1. As cited in Richard D. French, *How Ottawa Decides: Planning and Industrial Policy-Making 1968–1980* (Ottawa: Canadian Institute for Economic Policy, 1980), pp. 105 – 6.
2. G. Bruce Doern and Richard W. Phidd, *Canadian Public Policy: Ideas, Structure, Process* (Toronto: Methuen, 1983).
3. BEDM was later renamed the "Cabinet Committee on Economic Development" and, still later, the "Cabinet Committee on Economic and Regional Development".
4. Canada, Consultative Task Force on Industrial and Regional Benefits from Major Canadian Projects, *Major Canadian Projects: Major Canadian Opportunities* (Ottawa, 1981).
5. W.R. Bennett, "The British Columbia Position: Towards an Economic Strategy for Canada", opening remarks at the Conference of the First Ministers, Ottawa, February 13, 1978, p. 1.
6. Allan M. Maslove, Michael J. Prince, and J. Bruce Doern, *Federal and Provincial Budgeting*, vol. 41 (Toronto: University of Toronto Press, 1985).

Industrial Policy In Canada and Abroad[1]

The debate over how best to bolster industrial growth and development is by no means unique to Canada. Virtually every advanced country, including the United States, is undergoing the same searching process. Many of the submissions to this Commission expressed an interest in what Canadians might learn from the successes and failures resulting from other countries' efforts to strengthen their industrial bases. It is important, of course, to remember that many approaches which work well abroad might not be successfully transplanted to Canada without considerable adaptation and modification. Even so, it is still well worthwhile to compare with our own the approaches adopted by other nations. Not surprisingly, given Japan's miraculous flowering as an industrial nation, both its national approaches to industrial development and the management practices of individual Japanese companies and industries have attracted considerable attention. Other countries, too, have developed policies and programs that are worthy of study.

Any comparison of industrial policies among countries is complicated by several factors. First, there are many kinds of industrial policy instruments: these can be applied in varying degrees and in different combinations, and the data relating to them can be assembled in different ways. Moreover, as Commissioners have already noted, the distinction between economic-development policy and industrial policy as such is not always clear. Again, in the view of a number of observers, the manner in which policies are determined and implemented is at least as important as the policies themselves.

In the review that follows, Commissioners do not attempt to make a precise distinction between general policies and instruments used to achieve particular goals. We seek, instead, to compare developments in other countries with developments in Canada, in five broad areas of relevance to industrial policy: regional development, policies intended to encourage economic openness to the world economy, technological progress, direct government involvement, and institutional-regulatory/framework areas such as competition policy and banking. Last, but certainly not least, we consider efforts to direct measures to specific firms. Our review ends with an attempt to summarize the overall orientation of various national industrial policies and to relate this summary to the economic performance of Canada and certain other industrial countries.

Regional Policies

National governments differ in the emphasis they place on regional development policies. The United States, for example, offers no explicit regional development incentives, although most other industrial countries do so. The U.S. Congress has used the defence budget and major agencies such as the National Aeronautics and Space Agency (NASA) to pursue the same kind of regional development results as Canada has pursued through explicit regional development programs.

Britain's regional development incentives have their roots in policies formulated in the 1920s to retard the decline of the textile, shipbuilding and coal-mining industries in northern England and Scotland. Since that time, policies of providing aid to depressed regions have been formalized in legislation that has created a hierarchy of assisted regions. The principal tool for regional assistance in the United Kingdom is the non-discretionary regional development grant. The grant is received automatically by any firm in possession of an Industrial Development Certification. Its level is equal to a proportion of qualifying assets, which varies with the location of a given firm. The regions that receive the greatest assistance are called "Special Development Areas" (SDAs); Development Areas (DAs) and Intermediate Areas (IAs) receive lower levels of assistance.

Forty-nine per cent of the aid granted to industries in West Germany is channelled through regional development programs that are funded equally by the federal and state governments. The emphasis of regional development programs has shifted from assistance aimed at sustaining particular enterprises to measures specifically designed to promote increased productivity and investment. All programs are open to both foreign and domestic enterprises. Over the past decade, the average annual budget for regional programs has been $4 billion (in 1980 U.S. $), or 15 per cent of total German industrial investment during this period. Assistance is distributed to regions and not to specific industries, with special emphasis on the Ruhr, the Eastern Border Zone, and West Berlin. The Program for the Improvement of Regional Economic Structure identifies less-developed regions on the basis of employment opportunities, income per capita, and the level of regional infrastructure.

Accelerated depreciation allowances of up to 50 per cent of the value of assets are available to operations in the Eastern Border Zone and West Berlin. The allowance is limited to new depreciable investment. In addition to an investment allowance, projects may also receive a discretionary investment grant. Ceilings for the grant are set at 15 per cent of investment if the project is in a normal growth area, 20 per cent if it is in an area fairly close to the eastern border, and 25 per cent if it is in the border zone. The condition for assistance is that the project create 50 new jobs or provide a 15 per cent increase in the employment level of a firm.

Another West German program provides aid to regional industry associations. Applications for aid must be approved by a bank, and the bank must commit a substantial proportion of the funds required. This condition ensures an important role for private sector institutions in the provision of regional aid. The proposal is reviewed by the Ministry of Economics, and assistance takes the form of a loan made by the firm's bank and guaranteed by the government; the private sector lenders assume the responsibility for administering the investment.

Sweden grants low-interest loans and subsidies of up to 30 per cent of investment in the northern part of the country. France has a detailed set of regional development incentives, including regional development grants tiered by region and by the number of jobs created. A more recent program offers

forgivable loans (*prêts participatifs*) for business locating in regions dominated by declining industries. Japan maintains a subsidy system that awards up to 50 per cent of the cost of relocating in one of 3000 designated locations outside the largest metropolitan areas.

The major analysis of Canadian regional policy appears in Part VI of this Report and need not be anticipated here. It is sufficient in this context for Commissioners to make the point that although resources devoted to overt regional policy do not represent a large part of federal spending in Canada, regional policy as an implicit goal of other policies is extensive, as we have seen earlier in this chapter.

Policies Indicative of the Degree of Openness to the World Economy

Three policy areas are particularly indicative of the degree to which countries are prepared to encourage the openness of their economies to the world economy. They are tariff and non-tariff barriers to trade, foreign-investment restrictions, and export-promotion measures.

Table 9-3 summarizes international differences in tariff rates. Australia and, to a lesser extent, Canada have above-average tariff rates. Although nominal Japanese tariff rates are below European Community (EC) levels, the effective protection accorded Japanese industry during earlier periods was relatively high by international standards, and it is probably still higher than the nominal tariff rates suggest. Countries also shield their industries behind non-tariff barriers (NTBs). A complaint frequently levelled against Japan is that its trade and distribution system makes virtually impossible the

TABLE 9-3 Average Industrial Tariff Levels

	No Trade Weighting[a] Simple Average		Own Country Import Weighting[b]		"World" Weights[c] Imports Weights on BTN Aggregates[d]		Import Weights on Each BTN Commodity[e]	
Country	1976 Ave.	Final[f] Ave.	1976 Ave.	Final Ave.	1976 Ave.	Final Ave.	1976 Ave.	Final Ave.
Australia								
Dutiable[g]	28.8	28.0	29.1	28.1	27.8	26.7	26.4	25.2
Total[h]	16.9	16.5	15.4	15.1	13.3	12.8	13.0	12.6
New Zealand								
Dutiable	31.4	28.3	28.6	25.5	33.0	30.4	30.2	27.5
Total	24.3	21.9	19.7	17.6	20.5	18.7	18.0	16.3
European Community								
Dutiable	8.8	6.0	9.8	7.2	9.5	7.0	9.6	7.1
Total	8.0	6.5	6.3	4.6	7.0	5.2	6.9	5.1

TABLE 9-3 (cont'd.)

Country	No Trade Weighting[a] Simple Average		Own Country Import Weighting[b]		"World" Weights[c] Imports Weights on BTN Aggregates[d]		Import Weights on Each BTN Commodity[e]	
	1976 Ave.	Final[f] Ave.	1976 Ave.	Final Ave.	1976 Ave.	Final Ave.	1976 Ave.	Final Ave.
United States								
Dutiable	15.6	9.2	8.3	5.7	9.2	5.5	7.6	4.8
Total	14.8	8.8	6.2	4.3	7.1	4.1	5.6	3.5
Japan[i]								
Dutiable	8.1	6.2	6.9	4.9	8.0	5.7	7.9	5.5
Total	7.3	5.6	3.2	2.3	6.1	4.4	5.8	4.1
Canada								
Dutiable	13.7	7.8	13.1	8.9	12.0	7.3	12.9	8.3
Total	12.0	6.8	10.1	6.8	8.9	5.5	9.4	6.1
Austria								
Dutiable	14.2	9.8	18.8	14.5	15.9	12.0	17.0	13.3
Total	11.6	8.1	14.5	11.2	10.5	7.9	10.9	8.5
Finland								
Dutiable	17.0	14.6	11.6	9.2	11.2	9.0	11.5	9.1
Total	14.3	12.3	8.2	6.5	6.7	5.3	6.7	5.3
Norway								
Dutiable	11.1	8.2	10.5	8.0	10.2	7.4	10.0	7.5
Total	8.5	6.3	6.4	4.9	5.8	4.3	5.8	4.4
Sweden								
Dutiable	7.8	6.1	7.7	5.9	7.4	5.3	7.1	5.2
Total	6.2	4.9	6.3	4.8	4.6	3.3	4.5	3.3
Switzerland								
Dutiable	3.7	2.7	4.1	3.3	4.2	3.1	4.0	3.1
Total	3.7	2.7	4.0	3.2	3.3	2.4	3.2	2.4

Source: Mancur Olson, *The Rise and Decline of Nations: Economic Growth, Stagflation, and Social Rigidities* (New Haven: Yale University Press, 1982), p. 134.

a. An average of tariff levels on the assumption that all commodities are of equal significance.
b. The relative weight attributed to each tariff is given by the imports of that commodity in relation to the total imports of the country concerned.
c. The significance of each tariff determined by world imports of the commodity, or aggregate of commodities, to which the tariff applies. World imports are the imports of the countries listed and the European Community.
d. BTN = Brussels Tariff Nomenclature. The weight attributed to each tariff is given by the world imports of the BTN class of commodities in which it falls.
e. Each tariff weighted by world imports of that particular commodity: the maximum attainable disaggregation.
f. "Final" means after the Tokyo Round of tariff reductions.
g. Average tariff rates considering only those commodities on which tariffs are levied.
h. Average tariff levels of duty-free commodities, as well as those to which duties apply.
i. Some anecdotal evidence, as well as casual impressions of the relatively high costs that Japanese consumers must pay for many imported goods, and the fact that agriculture tariffs are not included beg the question whether these figures may give the impression that the level of protection is lower than it actually is. This is a matter in need of further research.

introduction of foreign goods into its market. Alternatively, a country may establish environmental or safety standards for goods that foreign firms find difficult to meet, or it may impose strict quotas on the value or quantity of imported goods. Thus Canada, like many other countries, sets quotas for imports of textiles, shoes and Japanese automobiles.

Like imports, foreign direct investment can be controlled in a number of different ways. Countries can prohibit or limit the participation of foreign-owned firms in specific areas of activity, such as banking or communications. They can screen direct investments and require investors to make certain undertakings regarding local sourcing, exporting, employment maintenance and technology transfer. Finally, countries can control the type of direct investment that is allowed (such as minority-interest or joint-venture investment) or the terms on which direct investment is permitted (say, by imposing dividend restrictions). Moreover, foreign investors are subject not only to national investment-review mechanisms, but also, to general investment regulations, local government restrictions, and implicit restrictions arising from the public ownership of various sectors such as transportation and utilities.

Until recently, Japan was unique among the industrial nations in the extent to which it excluded foreign investment. Its stringency was particularly apparent in areas that its government had singled out as targets for growth, including telecommunications and computer technology. Restraints on foreign investment included the designation of the percentage of foreign ownership permitted any given firm in each industry and of the approval required for each investment proposal. Approval was provided only after certain criteria were met; these included limitations on the scale of output and provisions for the appointment of Japanese directors in joint ventures.

These restrictions were relaxed, however, in response to intense international pressure; among other measures, some countries imposed limits on Japanese investment in their domestic economies. By 1976, Japan permitted foreign ownership in most industries, but it restricted foreign ownership in mining to 50 per cent and severely limited foreign participation in agriculture, forestry, fisheries and petroleum. Validation is still required for foreign investment, but it is usually automatic. The foreign presence in the Japanese economy is increasing with the relaxation of restrictions.

At the other end of the spectrum are Germany and the United States, the only large industrial nations that have not subjected incoming investment to a formal review process at any time during the post-Second World War period. Both countries do, however, sometimes restrict foreign investment in indirect ways, notably under national security legislation. In response to several large investments undertaken in the mid-1970s by interests in the countries that are members of the Organization of Petroleum Exporting Countries (OPEC), West German authorities have established an informal notification system whereby banks and major companies report large impending foreign acquisitions to the government. In a few instances, the government has quietly encouraged a purchase by German investors to forestall foreign acquisitions. Banks have increased their industrial shareholdings for the same purpose.

Australia's method of screening foreign investment is similar to that followed, until very recently, by Canada. The Australian Foreign Investment Review Board (FIRB) advises the government on the desirability of foreign investment ventures in that country. It also ensures that Australian investors will have a chance to participate with foreign investors in the ownership of natural resources and industries. The FIRB has four main tasks: to inhibit foreign investment in real estate/property, except for immediate residential purposes; to screen all foreign investment in non-bank financial intermediaries and insurance companies where the growth rate of assets is in excess of 15 per cent per annum; to examine all new business proposals where the foreign investment is greater than $5 million; and to require minimum Australian participation levels in mining ventures within Australia.

France also reviews all foreign direct investment, although investment from other EEC countries requires only prior notification to the Minister of Economics. Investment originating from non-EEC countries requires the authorization of the Minister of Economics, whether the investment is foreign-based or made by French companies under foreign control. Investment is judged by its contribution to output, employment, exports and improved technology. Foreign direct investment will be prohibited if, because of the amount involved, or of other factors, a specific transaction or transfer would have an exceptionally detrimental effect on the interests of France.[2]

France generally welcomes foreign investment in depressed areas and in growth industries, but resists foreign dominance. In an effort to restrict or reduce the role of wholly foreign-owned firms, the French government has, on occasion, subsidized joint foreign-domestic ventures, such as the computer firm CII Honeywell Bull. Thus France's policy towards foreign investment is highly pragmatic: France imposes restrictions only if such investment raises concerns about national independence.

Foreign investment in Canada and foreign control of sectors of the Canadian economy have long been contentious political issues in this country. Public opinion has shifted several times since the Second World War, and each shift has influenced the broad pattern of our industrial policy. A subsequent section of this chapter outlines in some detail the measures used to control foreign investment in Canada. It is sufficient here to note that during the 1970s and early 1980s, the federal government intensified its efforts to "Canadianize" sectors of the economy. While some observers dispute the efficacy of these initiatives, the degree of foreign ownership and control of the Canadian economy has, in fact, fallen significantly over the past two decades. This fall has been particularly significant in the petroleum sector, but the manufacturing sector, too, has experienced a considerable degree of "Canadianization". More than 50 per cent of all major sectors of the economy is now owned by Canadians. Indeed, in recent years, Canadians have been net exporters of capital. In part, at least, this shift has been a result of the acquisition by Canadian companies of interests previously owned by foreigners. Nevertheless, reinvestment of internally generated funds by foreign-owned corporations operating in Canada continues to be an important factor in maintaining the latter's presence in Canada.

One partial measure of the restrictions imposed on foreign direct investment by a given country is the prevailing level of foreign investment in that country. It should be noted, however, that the level of foreign investment reflects both the restrictions imposed on would-be foreign investors by the country in question and its overall attractiveness to foreign companies as a site for investment.

In 1978, as Table 9-4 shows, Canada absorbed 17.7 per cent of all foreign direct investment in the developed market economies. Some 16.7 per cent was in the United States, 13 per cent in Britain, and 12 per cent in West Germany. Canada's ratio of foreign direct investment inflows to capital formation was above average until 1974 and, as Table 9-5 demonstrates, has been about average since then. By contrast, the stock of foreign-owned assets in Sweden is relatively small, and foreign direct investment provides only a small part of Swedish capital formation. Foreign investment appears to have become relatively more important in recent years as a source of new capital in France.

The government of virtually every industrial country is heavily involved in export promotion. All governments provide industry with the services of trade officers and commercial intelligence gathering. All engage in export financing at concessionary rates. Some countries have gone much further, by such means as treating export income more favourably than other income, for tax purposes.

The proponents of certain new theories of trade maintain that export promotion need not involve the ongoing subsidization of export activity. Domestic procurement policies may provide a local firm with the volume of production it needs to move further up the learning curve than would-be competitors abroad and perhaps, in this way, securing a long-term cost advantage over them. Current export success may correlate less with current export-promotion activities than with past subsidy or domestic market-restructuring policies.

The instruments used by the U.S. federal government to promote exports include the Export-Import Bank, the Overseas Private Investment Corporation, and a provision allowing U.S. exporters to establish Foreign Sales Corporations (FSCs) as a means of securing favourable tax treatment on export earnings. Most U.S. export-assistance programs provide subsidized loans, loan guarantees, insurance and tax reductions, rather than direct subsidies. According to some assessments, the programs have had a minimal effect on the improvement of the long-term competitiveness of U.S. industry. They have made U.S. exports marginally more attractive than they would otherwise be and have helped U.S. manufacturers to conduct business abroad. However, the programs have not been integrated into a coherent export strategy, nor have they been carefully targeted to assist businesses for which such funding would be critical.

The Export-Import Bank was established in 1934 to help foreign buyers purchase U.S. exports. The Bank has recently focused its efforts on facilitating aircraft sales; in the past, agricultural products, communications equipment, electric power plants, and mining and manufacturing equipment have received assistance. The Overseas Private Investment Corporation

TABLE 9-4 Stock of Direct Investment from and in Developed Market Economies[a]

	Stock of Direct Investment Abroad						Stock of Inward Direct Investment					
	1967		1973		1978		1967		1973		1978	
Region or country	$ Billion	Percentage	$ Billion	Percentage	$ Billion	Percentage	$ Billion	Percentage	$ Billion	Percentage	$ Billion	Percentage
North America	60.3	53.7	109.1	52.7	181.7	48.9	29.1	40.4	53.5	38.1	84.0	34.4
Canada	3.7	3.3	7.8	3.8	13.6	3.7	19.2	26.6	32.9	23.4	43.2	17.7
United States	56.6	50.4	101.3	48.9	168.1	45.2	9.9	13.7	20.6	14.7	40.8	16.7
Western Europe[b]	48.2	42.9	84.8	41.0	158.1	42.5	28.7	39.8	66.1	47.1	133.8	54.9
Belgium and Luxembourg	1.3	1.1	2.2	1.1	4.7	1.3	1.4	1.9	3.8	2.7	9.6	3.9
France	6.0	5.3	8.8	4.3	14.9	4.0	3.0	4.2	5.8	4.1	14.9	6.1
Germany, Federal Republic of	3.0	2.6	11.9	5.8	31.8	8.5	3.6	5.0	13.1	9.3	29.2	12.0
Italy	2.1	1.9	3.2	1.5	3.3	0.9	2.6	3.6	6.8	4.8	10.1	4.2
Netherlands	11.0	9.8	15.4	7.4	23.7	6.4	4.9	6.8	7.5	5.4	12.8	5.3
Sweden	1.7	1.5	3.0	1.4	6.0	1.6	0.5	0.7	1.0	0.7	1.3	0.5
Switzerland	3.7	3.3	10.2	4.9	27.8	7.5	0.4	0.5	2.2	1.6	7.7	3.2
United Kingdom	17.5	15.6	26.9	13.0	41.1	11.0	8.2	11.4	17.4	12.4	32.5	13.3
Japan	1.5	1.3	10.3	5.0	26.8	7.2	0.6	0.8	1.2	0.8	2.2	0.9
Southern hemisphere[c]	2.4	2.1	2.7	1.3	5.2	1.4	13.7	19.0	19.7	14.0	23.9	9.8
Australia	0.4	0.4	0.5	0.2	1.1	0.3	5.4	7.5	10.2	5.2	10.9	4.4
South Africa	1.9	1.7	2.1	1.0	3.8	1.0	7.2	10.0	8.1	5.7	10.8	4.4
Total	112.4	100.0	207.0	100.0	371.8	100.0	72.1	100.0	140.5	100.0	243.9	100.0

Source: United Nations Centre on Transnational Corporations, *Salient Features and Trends in Foreign Direct Investment* (New York: United Nations, 1983), p. 34.

a. The estimated stock figures for the Federal Republic of Germany, Italy, Norway, Portugal (until 1975), Spain and the United Kingdom excluded reinvested earnings.
b. Stock estimates for Austria, Denmark, Finland, Norway, Portugal and Spain are included in the estimated stock for Western Europe.
c. Stock estimates for New Zealand are included in the estimated stock for the southern hemisphere.

TABLE 9-5 Flow of Direct Investment into Developed Market Economies as a Percentage of Gross Fixed Capital Formation, 1960–1979

Region or Country	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
North America	1.0	0.9	0.8	0.4	0.5	0.7	0.8	0.9	30.8	1.0	1.2	0.6	0.7	1.3	1.9	1.1	1.3	1.0	2.1	2.3
Canada	7.9	6.7	5.7	2.9	2.4	4.1	5.1	4.4	3.8	4.2	5.0	4.5	2.7	2.7	2.1	1.7	−0.7	0.9	2.1	2.9
United States	0.4	0.3	0.4	0.2	0.3	0.3	0.3	0.5	0.5	0.8	0.9	0.2	0.4	1.2	1.9	1.0	1.6	1.0	2.1	1.9
Western Europe	1.1	2.0	1.8	1.9	2.0	2.2	2.2	2.2	1.9	2.1	2.3	2.4	2.4	2.6	2.9	1.9	1.4	2.0	2.3	1.7
Belgium and Luxembourg	—	—	—	—	—	3.6	1.8	5.0	5.5	5.5	5.3	6.8	5.0	7.0	8.5	6.3	5.2	7.2	6.7	4.4
France	—	1.3	1.6	1.2	1.1	1.0	1.0	1.2	0.7	1.0	1.9	1.4	1.4	1.8	2.3	1.6	1.0	1.9	2.9	2.1
Germany, Federal Republic of	1.2	1.6	1.6	2.1	2.6	3.1	3.3	2.9	1.8	1.5	1.3	2.0	2.8	2.4	3.1	1.4	1.7	1.3	1.2	0.6
Italy	—	2.0	3.2	2.6	4.1	2.4	2.5	1.8	2.0	2.2	2.8	2.3	2.5	2.0	1.6	1.6	0.3	2.7	1.0	0.6
Netherlands	1.6	2.0	3.8	3.1	3.8	3.3	3.0	4.3	4.9	6.0	6.6	6.2	5.5	6.1	6.3	5.6	1.9	1.5	1.3	2.5
Sweden	0.7	0.4	1.4	2.1	0.8	1.6	2.4	1.6	1.6	2.3	1.5	1.1	0.8	0.6	0.7	0.5	—	0.3	0.2	0.2
United Kingdom	3.2	5.0	2.7	3.2	3.2	3.3	3.0	2.3	3.4	3.7	3.8	4.2	3.5	5.1	5.0	2.6	3.0	3.6	4.2	3.8
Japan	0.1	0.3	0.2	0.4	0.3	0.2	0.1	0.1	0.2	0.1	0.1	0.3	0.2	—	0.1	0.1	0.1	—	—	—
Southern hemisphere	9.1	8.2	7.7	9.3	9.2	9.9	7.5	7.4	8.6	7.4	9.7	10.7	8.9	0.8	7.0	2.1	4.6	5.2	5.8	4.8
Australia	9.1	8.2	7.7	9.3	9.2	9.9	7.5	7.4	8.6	7.4	9.7	10.7	8.9	0.8	7.0	2.1	4.6	5.2	6.6	5.4
Total	1.2	1.4	1.3	1.2	1.3	1.4	1.4	1.4	1.3	1.4	1.7	1.5	1.5	1.6	2.1	1.3	1.2	1.3	1.7	1.6

Source: United Nations Centre on Transnational Corporations, *Salient Features and Trends in Foreign Direct Investment* (New York: United Nations, 1983), p. 44.

(OPIC), established in 1969, seeks to expand direct U.S. investment in developing countries. OPIC encourages capital exports by insuring U.S. investors against political risks such as expropriation in foreign countries. Under the provisions of the Internal Revenue Code relating to Foreign Sales Corporations, certain categories of domestic corporations selling products in foreign markets are to be treated for tax purposes as foreign corporations. The effect is to allow deferral of federal income tax on the corporation's current income.

Australia's Export Finance and Insurance Corporation provides insurance on credit extended by exporters, guarantees loans made for exports, and makes export loans itself. To develop export markets, Australia also makes direct grants to exporters.

Japan makes use of both direct and indirect methods of export promotion. Between the end of the Second World War and the early 1970s, the Japanese government stimulated exports, restricted manufactured imports, and facilitated large-scale imports of raw material. Tax incentives and accelerated depreciation effectively shielded significant portions of export revenue from taxation. The Japan Development Bank and Japan's Export-Import Bank provided long-term credit for export-related investment at reduced rates. High duties and quotas blocked imported manufactured goods where Japan perceived itself as uncompetitive.

Since the early 1970s, international pressure has induced Japanese policy makers gradually to liberalize trade and open their country's economy. Broad export incentives have been curtailed; the tax incentives still in place apply only to exports by small businesses and to overseas investment. The principle arm of the Japanese government in promoting trade, the Ministry of International Trade and Industry (MITI), no longer directly assists exports, although certain other government policies and practices continue to support knowledge-intensive industries. Japan's Export-Import Bank aggressively finances and insures exports of factory systems, a rapidly growing part of trade.

Many observers argue that the basis of current Japanese export-promotion strategy is initial protection of the domestic market for a chosen range of products. The products selected for support are those that have high-income elasticities of demand: that is to say, demand for these products grows significantly faster than the income of potential purchasers. In addition, the products – which may be based on technology imported from other industrial countries – tend to be of a kind that can be turned out with increasing efficiency and, hence, lower cost, as a result of lessons learned from practical production experience. The government provides producers with sufficient protection to enable them to develop large-scale production for the domestic market. By the time the producers move into the export market, they have acquired the experience necessary to give them an advantage over would-be competitors.

France provides both direct and indirect export assistance, although it has not been as successful as Japan with the indirect approach. From 1975 to 1977, the French government directly financed overseas trade (through long-term credits and general interest subsidies) in the amount of some ten billion

francs, almost 2 per cent of the value of its total exports in 1977. It also channels subsidized export finance through the banking system (mainly through the *Crédit national*) and credit agencies such as the *Compagnie française d'assurance pour le commerce extérieur* (COFACE). Government assistance extended through COFACE may cover up to 70 per cent of the cost of additional productive capacity for enterprises that undertake to increase foreign sales by a specified amount. A similar role is assigned to the *Banque française du commerce extérieur*. The French government also provides "mixed credits", a combination of commercial credits and development aid for developing nations. Finally, France pursues a policy of exporting complete plants to developing countries. In 1977, sales of these plants, totalling 26 billion francs, amounted to one-third of French capital-goods exports. The plants are usually sold on favourable terms, and their sales may lead to re-exports in sectors such as steel.

Given these developments elsewhere and the importance of international markets, Canada has been obliged to expand its own policies for export promotion. Instruments used to promote and develop export markets include the services of trade commissioners, the international marketing and trade-relations divisions of the Department of External Affairs, the industry-sector branches of the Department of Regional Industrial Expansion (DRIE), and various market-intelligence, promotional and aid-related programs. Both the Canadian Commercial Corporation (CCC) and the Export Development Corporation (EDC) play vital roles in facilitating export transactions. The CCC acts as the principal mechanism for government-to-government sales from Canada, while the EDC acts as the principal mechanism for insuring the export sales of Canadian firms against non-payment by foreign buyers. The EDC also facilitates medium- to long-term export financing for foreign buyers of Canadian capital goods and services. This financing includes *crédit mixte*: export financing which mixes highly concessional financing with conventional export financing to produce very low, blended, interest rates. Canada uses this device to counter *crédit mixte* terms offered by competitors.

Policies Relating to Technological Progress

Governments can support technological progress and innovation directly, through research and development (R&D) grants, contracts and tax incentives, or indirectly, by facilitating the acquisition of technology. These kinds of support are connected with basic policies to assist education, especially to produce qualified scientists and engineers.

Chapter 8 compared Canadian research and development (R&D) expenditures with those of a number of other nations. The data indicated that while total Canadian outlays as a proportion of national output have generally been below those of the other major members of the Organisation for Economic Co-operation and Development (OECD), the disparity appeared to be smaller when R&D expenditures on defence and space were deleted. Table 9-6 indicates the proportion of research and development financed directly by government. Again, Canada's rank is relatively low, while the

United States, the United Kingdom, Norway, and Portugal all provide relatively high levels of direct support.

The Japanese support level for R&D shown in Table 9-6 seems to be fairly low. One reason may be that research support is often conveyed in the form of low-interest, partially forgivable loans. An example is provided by the Very Large Scale Integrated Chip project completed by five Japanese electronic companies in 1979. The project cost $308 million, of which $132 million was a government loan repayable out of profits over a five-year period beginning in 1983. Often, according to one observer, the five-year period is used for product development, and repayment is usually a small fraction of the loan.[3]

Sweden, the United States, Japan, and Singapore currently provide significant R&D tax incentives. Canada has offered an R&D tax incentive of one kind or another since 1962.

An assessment of overall support levels is exceedingly difficult to make because its validity depends on the subsidy element in R&D contracts, the tax treatment of subsidy income, the definition of R&D for tax purposes, and the opportunities for transferring unused tax savings (credits) either to other tax years or to other taxpayers. In general, industry observers conclude that overall support levels, broadly defined, are relatively high in West Germany, Japan and the United States. In testimony before the Senate Committee on National Finance, Bernard Ness, the president of Canada Wire and Cable, stated that:

> *Combined tax and non-tax support covers only 19 per cent of industrial R&D expenses in Canada, compared to 38 per cent in the United States and on a scale between 25 and 34 per cent in Germany, France and the United Kingdom.*[4]

Recent Canadian commentaries have noted that the direction of R&D efforts is as important as the amount spent.[5] There are, however, wide variations in the way in which research and development are directed in different countries. In the United States, which provides little in the way of direct grants, government R&D contracts are driven largely by defence and space requirements, and are generally awarded to individual firms. In France, most R&D assistance is targeted to strategic sectors considered worthy of support by the government. Another program provides forgivable loans to firms with fewer than 200 employees to enable them to introduce new products or processes. The West German government allocates R&D support with the help of an advisory committee from industry and labour. Selection criteria are oriented less to particular sectors than to the relative extent of expenditure and risk that a given project involves. The greater the risk and the R&D cost relative to the applicant's resources, the more likely is approval. Finally, Japanese R&D support in the form of grants and forgivable loans is channelled both to individual firms and to research associations made up of three or more co-operating firms and approved by the Agency for Industrial Science and Technology. R&D priorities are set on the basis of agreement reached between interested firms and the government.

In Canada, the National Research Council (NRC) provides substantial support to industrial development in many forms. Approximately half of its

TABLE 9-6 Resources Devoted to R&D Since 1980 (NSE + SSH)

	United States			Japan		Germany			France		United Kingdom
	1981	1982	1983	1981/82	1982/83	1981	1982[b]	1983[b]	1981	1982	1981/82[c]
GERD											
Million national currency	73 724	82 017	89 522	5 982 356	6 528 700	38 351	41 300	43 000	62 471	73 000	6 205
Million United States dollars PPP	73 724	82 017	89 522	27 104	30 961	15 488	17 353	—	10 827	11 987	11 304
Annual average percentage increase (1975 price)	5.2	4.4	4.7	11.1	7.2	2.8	2.8	1.1	7.0	3.9	2.1
Percentage of GDP	2.52	2.7	2.73	2.38	2.47	2.49	2.58	2.58	2.01	2.06	2.42
Sector of performance (percentage)											
Business enterprise	70.3	72.0	72.1	60.7	—	68.3	69.7	69.7	58.9	59.4	62.9
Government	12.1	11.6	12.0	11.1	—	14.3	13.8	13.9	23.6	—	—
Higher education	14.4	13.4	13.0	24.2	—	16.3	16.0	15.9	16.4	—	—
Private non-profit	3.2	3.0	2.9	4.1	—	0.5	0.5	0.5	1.1	—	—
GERD	100	100	100	100	—	100	100	100	100	100	100
Source of funds (percentage)											
Business enterprise	48.8	49.4	48.5	62.3	—	57	56.9	58.1	40.8	42.2	41.1
Public	49.2	48.7	48.6	26.9	—	41.6	42.1	41.0	37.5	—	49.8
Government direct	46.6	46.2	46.1	15.7	—	—	—	—	—	—	—
General university funds	2.6	2.5	2.5	11.2	—	—	—	—	—	—	—
Other national sources	2.0	1.9	1.9	10.7	—	0.4	—	—	16.5	—	—
Abroad	0	0	0	0.1	—	0.9	1.0	0.9	5.1	—	9.1
GERD	100	100	100	100	—	100	100	100	100	100	100
Total R&D Personnel											
Number in FTE	—	—	—	64 977	—	371 548	—	—	249 000	—	—
Average annual percentage increase	—	—	—	3.1	—	1.1	—	—	3.9	—	—
Per thousand of total labour force	—	—	—	11.4	—	13.6	—	—	10.7	—	—

Sector of employment (percentage)											
Business enterprise	—	—	—	56.1	—	65.3	—	—	51.3	—	—
Government	—	—	—	8.3	—	14.4	—	—	24.8	—	—
Higher education	—	—	—	3.3	—	19.7	—	—	22.2	—	—
Private non-profit	—	—	—	2.6	—	0.7	—	—	1.8	—	—
Total R&D Personnel	—	—	—	100	—	100	—	—	100	—	—
Total RSE											
RSE/University graduates in FTE	691 400	723 000	750 000	392 625	406 042	128 162	—	—	85 500	—	—
RSE/University graduates as % of total R&D personnel	—	—	—	60.5	—	34.5	—	—	34.5	—	—
RSE by sector of employment (percentage)											
Business enterprise	72.3	73.4	74.1	49.1	—	60.1	—	—	41	—	—
Government	9.5	9.1	8.8	7.4	—	15.2	—	—	18.4	—	—
Higher education	14.3	13.8	13.5	41.6	—	23.6	—	—	38.2	—	—
Private non-profit	3.9	3.7	3.6	1.9	—	1.1	—	—	2.3	—	—
Total RSE	100	100	100	100	—	100	—	—	100	—	—

TABLE 9-6 (Cont'd)

	Italy		Canada		Netherlands	Sweden[a]	Norway	Finland	Portugal	Ireland	
	1981	1982[d]	1981/82	1982/83	1981	1981	1981	1981	1980	1981	1982
GERD											
Million national currency	4 055 335	5 080 438	4 244	5 117	6 643	12 740	4 214	2 483	4 119	83	98
Million United States dollars PPP	4 595	5 219	3 423	3 998	2 526	2 227	625	572	126	157	169
Annual average percentage increase (1975 price)	18.3	6.8	8.7	9.5	−0.9	10.0	1.1	8.1	7.6	5.9	0.9
Percentage of GDP	1.01	1.08	1.22	1.39	1.88	2.23	1.28	1.17	0.33	0.79	0.79
Sector of performance (percentage)											
Business enterprise	56.4	56.8	47.2	50.3	53.3	66.6	52.1	57.1	28.6	43.6	43.6
Government	25.7	26.7	25.2	24.6	20.8	6.4	18.4	25.8	47.3	39.3	39.3
Higher education	17.9	16.5	26.8	24.4	23.2	26.8	29	16.5	19.9	16	16
Private non-profit	—	—	0.7	0.7	2.8	0.3	0.5	0.6	4.2	1.1	1.1
GERD	100	100	100	100	100	100	100	100	100	100	100
Source of funds (percentage)											
Business enterprise	50.1	48.7	39.3	41.8	46.3	57.3	40.1	54.2	26.6	37.7	37.7
Public	47.2	49.2	41.4	40.1	47.2	39.9	57.2	43.6	66.8	56.5	56.5
Government direct	—	—	—	—	26.1	21.4	34.4	31.2	—	45.6	45.6
General university funds	—	—	—	—	21.1	18.5	22.8	12.3	—	10.8	10.8
Other national sources	0	0	15.8	14.5	1.3	1.3	1.4	1.2	4.7	1.1	1.1
Abroad	2.7	2	3.4	3.6	5.2	1.5	1.4	1	1.9	4.8	4.8
GERD	100	100	100	100	100	100	100	100	100	100	100
Total R&D Personnel											
Number in FTE	102 836	—	65 712	—	54 470	43 114	14 843	17 650	7 711	5 474	5 449
Average annual percentage increase	7.3	—	7.7	—	1.7	8.8	−1.1	5.1	8.6	−5.7	−0.5
Per thousand of total labour force	4.5	—	5.5	—	10.1	10	7.5	7.3	1.8	4.3	4.2

Sector of employment (percentage)											
Business enterprise	49	—	46.6	—	49.8	63.4	45	47.4	18.4	26.8	28.4
Government	19.8	—	30.7	—	23.4	7.6	21	29.8	48.1	43.4	40.6
Higher education	31.2	—	21.6	—	24	28.8	33.3	22.1	30.8	28.8	29.5
Private non-profit	—	—	1	—	2.8	0.2	0.8	0.7	2.6	0.9	1.4
Total R&D Personnel	100	—	100	—	100	100	100	100	100	100	100
Total RSE											
RSE/University graduates in FTE	52 060	—	29 670	—	19 436	15 235	7 496	—	2 663	2 636	2 774
RSE/University graduates as % of total R&D personnel	50.6	—	45.2	—	35.7	35.3	50.5	—	34.5	48.2	50.9
RSE by sector of employment (percentage)											
Business enterprise	37.4	—	46.5	—	43.4	52.8	41.1	—	14.1	23	23.6
Government	15.1	—	27.2	—	23.4	10.0	19.2	—	31.4	24.2	24.5
Higher education	47.5	—	25.3	—	31.5	36.8	38.7	—	91.8	51.2	49.9
Private non-profit	—	—	0.9	—	1.7	0.4	1	—	2.7	1.6	2
Total RSE	100	—	100	—	100	100	100	—	100	100	100

Source: Organisation for Economic Co-operation and Development, *Science Resources, Newsletter* (Paris: OECD, 1984), no. 8, pp. 4–5.

Note: GERD = Gross Domestic Expenditure on R&D
PPP = Purchasing Power Parity
FTE = Full-Time Equivalent
RSE = Researchers, Scientists and Engineers
NSE = Natural Sciences & Engineering
SSH = Social Sciences and Humanities.

a. NSE only. Growth rates are slighty overestimated because of increased coverage of HE and BE sectors since 1979.
b. National estimates.
c. Preliminary. Partially OECD estimates.
d. Preliminary.

current $400 million budget is directly allocated to industry-related programs (broadly defined); another $100 million provides supporting services and facilities. The NRC undertakes extensive research and development itself and in co-operation with industry. It also provides information about existing technologies (particularly to small and medium-sized companies) through its Technical Inquiry and Field Advisory Service. A number of other federal departments and agencies also provide technical assistance to firms, as do most provincial governments. At both the federal and the provincial levels, technical assistance is primarily directed at small firms.

The Federal Business Development Bank, through its Counselling Assistance to Small Enterprise (CASE) program, provides both counselling and training assistance to managers; in fiscal 1984, more than 13 000 firms benefited from the program. The bank also provides business-management seminars, owner/manager courses, and management clinics; more than 68 000 Canadian business people participated in these activities in 1984.

Japan's technology-acquisition (TA) activities have attracted considerable attention. Japan has promoted the acquisition of new technology from abroad through a variety of means, including the provision of translations of foreign technical literature, the regular dispatch of large missions abroad, international exchanges of academics, industrial co-operation agreements, the licensing of pilot plants, and the approval of foreign direct investment. Its use of such methods enabled it to close many technological gaps between itself and the United States, at a fraction of the cost of the R&D expenditures in the latter country. The Agency of Industrial Science and Technology is responsible both for Japan's technology-acquisition arrangements at the government level and for its national R&D effort. In 1983, it had a budget of $600 million and supported nearly 4000 researchers in 116 institutions. The Japan External Trade Organization is the government's commercial intelligence service. More than 600 of its employees were stationed in 56 foregn countries in the early 1980s.

At the company level, technological acquisition in Japan involves a thorough scanning of foreign technological information from patent offices, trade conventions and academic journals. Almost 1000 Japanese companies are said to engage in these activities; over 500 have stationed or sent research staff offshore, and almost 400 engage the services of universities and research agencies. The most sophisticated information gatherers are the nine general trading companies that operate globally, trading in virtually everything, including technology. Another source of information scanning is provided by government-supported research institutes, which supply subscribers with a continuous flow of information concerning important developments.

The Korean technology-acquisition effort, remarkable for its speed and size, is based in large part on the Japanese model. Nine general trading companies dominate the private sector's technology-acquisition effort. The Korean Technological Development Corporation is a technology venture-capital company that promotes close associations between foreign sources of high technology and Korean manufacturers. Another organization, the Korean Technology Advancement Corporation, arranges technology imports and joint ventures, and exports the technologies developed by the state-run

contract-research institute, the Korean Institute of Science and Technology. Both the Korean Trade Promotion Corporation, which forms part of the Ministry of Commerce, and the Ministry of Finance maintain technology officers abroad to provide intelligence on new technological developments.

The technology-acquisition effort in Sweden rests on three pillars: the "Big 13" indigenous multi-nationals that sell, operate and acquire technologies abroad; industrial research institutes and associations, particularly in pharmaceuticals, transport equipment, and electrical machinery; and the government. The Board for Technological Development has the responsibility for promoting the technological development of small and medium-sized firms. With a staff of 125 (1981), it follows foreign technology developments, co-operates with foreign governments and companies, and supports collective research on an industry-wide basis. Sweden also makes extensive use of its patent office and technical universities as information sources. In addition, it maintains technological attachés in eight cities abroad.

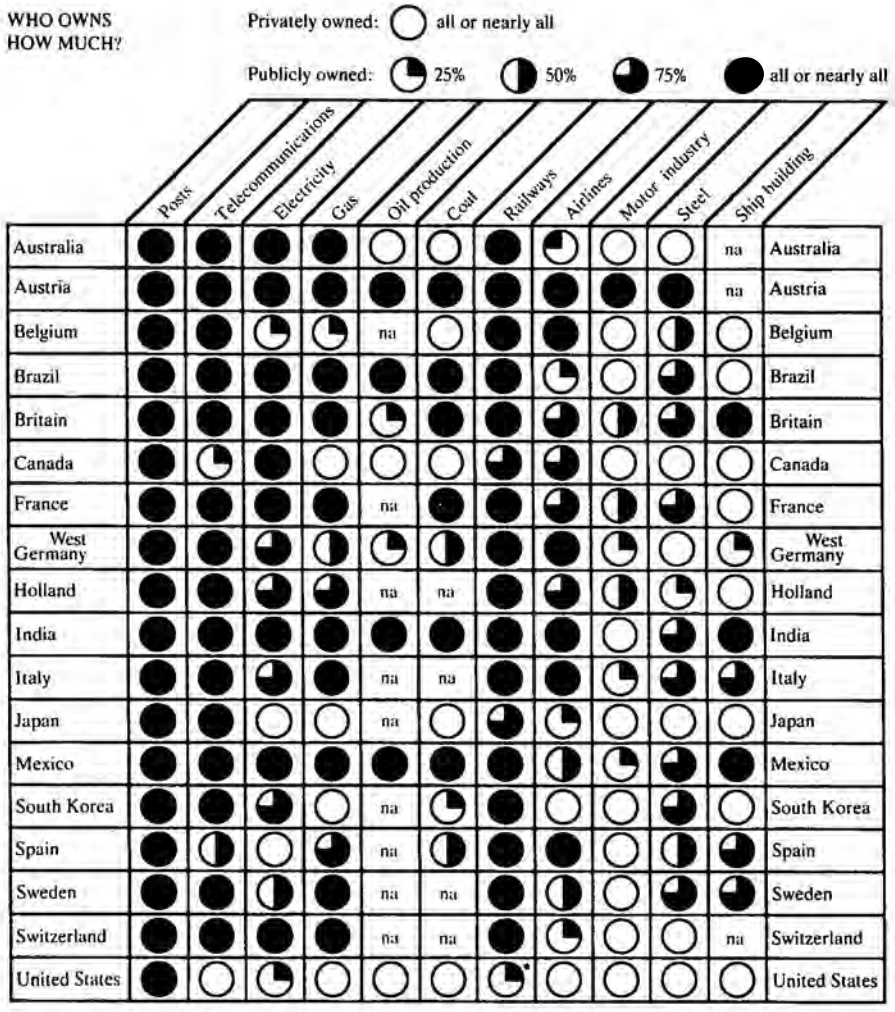
France relies largely on indigenous multi-nationals, foreign multi-nationals and government agencies for its technological acquisition. The *Agence nationale de la valorisation de la recherche* has the mandate to commercialize French inventions both within France and abroad and, more generally, to disseminate innovation throughout the French economy. It has a staff of 200 and works closely with the *Centre national de la recherche scientifique*. France also maintains a long-range technology-assessment capacity in the form of the *Centre d'études des systèmes et des technologies avancées*, which has the responsibility to ensure that the nation develops a capability in emerging technologies.

Direct Government Involvement: Public Enterprise and Government Procurement

Among the more direct vehicles of government involvement in industrial policy are public enterprise and government procurement. As Figure 9-1 shows, the use of public enterprise as a policy instrument varies among countries with market economies. At one extreme is the United States, which has very few public enterprises. At the other extreme is Austria, where nearly all of the utilities, oil refineries, coal mines, railways, steel mills, airlines, and motor-vehicle plants are publicly owned. Japan and Canada have relatively low levels of public enterprise. In Japan, complete or partial public ownership is confined to telecommunications, the railways and the airlines; in Canada, electrical utilities, railways, airlines and the telecommunications industry exhibit substantial degrees of public ownership. In both Britain and Italy, by contrast, the level of public ownership is relatively high. Figure 9-1 shows that telecommunications, railways, electrical utilities, and airlines are in state hands in many countries, and that some less-developed countries (LDCs), such as Mexico, Brazil and India, rely quite heavily on state enterprise.

It is worth observing that until recently, public ownership was an explicit component of industrial strategy in Britain, where it was used to sustain declining sectors, such as shipbuilding and coal mining, and to bail out companies in difficulty, such as the automobile and steel industries. The

FIGURE 9-1 The Extent of Public Enterprise in Eighteen Countries



Source: Cited in J.R.S. Prichard (ed.). *Crown Corporations in Canada* (Toronto: Butterworth 1983), p.106.

na - not applicable or negligible production.
* including Conrail.

present Conservative government has embarked on a course of selling off certain of its interests in state enterprises. France has used nationalization to bail out its steel industry and to create a "national champion". Sweden has employed public enterprise to bail out its shipbuilding industry.

In Canada, both the federal and the provincial governments use Crown corporations as instruments of industrial policy. In 1981, Crown corporations had revenues of $40 billion, an amount equal to 13 per cent of Canada's gross national product. Total assets of Crown corporations in the same year

amounted to $140 billion, that is, to 11 per cent of total corporate assets. In 1983, Crown corporations accounted for 20 per cent of total investment in Canada and for about 3 per cent of total employment. That they represent a significant element in the economy is readily apparent from these statistics.

Provincial Crown corporations figure more prominently than their federal counterparts, accounting for more than 50 per cent of total public enterprise sales and employment, and about 70 per cent of assets and investment. The most important provincial enterprises are the Crown-owned electrical utilities. Power utilities account for more than 60 per cent of the assets of provincial Crown corporations and more than 40 per cent of the assets of all Crown corporations. Public enterprise has been growing in importance, particularly at the provincial level. The emergence of enterprises owned jointly by government and private interests, such as the Canada Development Corporation, has added to government involvement in investment and asset holding. In 1981, government equity investments in mixed enterprises amounted to about 7.5 per cent of total equity capital in Canada; an estimated 5 per cent of all assets of non-financial corporations were held by mixed enterprises.

Both levels of government have used public enterprises in order to fulfil basic infrastructure requirements. Thus some 50 per cent of the federal government's public enterprises, in terms of assets and revenues, are concentrated in the transportation sector. There is relatively little Crown-corporation activity in the manufacturing sector, although government participation in this sector has been increasing in recent years. Crown corporations such as the Federal Business Development Branch and the Export Development Corporation serve to assist all sectors in business development and marketing.

Government procurement policy can be a powerful tool of industrial policy. Through procurement, governments can guarantee a cash flow to the innovator, provide a demonstration of the innovation in action, and assist private companies by assuming some of the risk associated with innovation. A number of studies have pointed to "procurement pull" as a useful alternative to "subsidy push" in encouraging innovation.

Some analysts have cited government procurement as the principal and, historically, the most effective instrument of U.S. industrial policy. Important – indeed, critical – commercial developments in aircraft, aircraft engines, semi-conductors, and computers have flowed from defence and space procurement. In one view:

> *Government purchases have been used to subsidize and shape the development of emerging products and markets by providing the stimulus of large demand in early stages of products. The impact has been pronounced in the electronics and aerospace sectors. Government purchases in 1977 accounted for 56 percent of total aircraft shipments, and 57 percent of radio and television communications equipment.*[6]

As a rule, procurement practices implicitly or explicitly favour domestic suppliers. The three levels of government in Canada purchase an estimated $40 billion-worth of final goods and services annually, excluding the wages of

government employees, but including capital formation; the federal government accounts for about $16 billion-worth of the total amount. All levels of government use their purchases of goods and services to pursue industrial policy objectives, particularly assistance to domestic or local manufacturers. Before the introduction of the recent Agreement on Government Procurement within the General Agreement on Tariffs and Trade (GATT), the federal Department of Supply and Services routinely gave priority to Canadian-based manufacturers. If there were three or more Canadian vendors, they were used exclusively, and the item required was not put to international tender. Even when bids were put to international tender, Canadian bids were given a 10 per cent preference rating. On the whole, only about 20 per cent of total federal procurement was open to foreign suppliers. The incremental cost to the federal government of favouring Canadian suppliers over foreign suppliers has been estimated at an annual cost of $250 million, which is substantially less than the cost of federal direct subsidies or tax incentives to industry.

How the GATT Agreement on Government Procurement will affect federal procurement policy is still uncertain. The agreement excludes defence procurement and certain purchases by Crown corporations. Preliminary estimates indicate that the GATT stipulations will open a further 10 per cent of federal procurement to foreign suppliers. The agreement does not apply to provincial or local governments.

The available information on provincial procurement policy is quite fragmentary. While all provinces extend some degree of preference to local suppliers, only Newfoundland, Nova Scotia and British Columbia grant outright preference under all circumstances. It is not clear to what extent provincial government policies extend to Crown corporations and to provincially funded institutions such as hospitals. Ontario's procurement policies are perhaps the most subtle: for example, its Crown corporation, the Urban Transportation Development Corporation (UTDC) effectively dominates the available markets in Ontario, thanks, in part, to provincial government pressure on municipalities. Quebec's policy is perhaps the most comprehensive: it grants a general price preference to Quebec suppliers and, in certain circumstances, restricts bidding to those suppliers. In general, provincial procurement policies parallel those of the federal government.

Institutional-Regulatory Framework Policies: Competition Policy and Banking Policy

Two types of industrial policy are essentially institutional and regulatory: competition policy and banking policy.

While most observers agree that competition is essential to the proper functioning of a market economy, there is less agreement about the relationship between industrial structure and competition. Some analysts believe that in countries with small domestic markets, such as Canada, the extent of industrial concentration should not be a matter of concern, since only large firms can achieve the economies of scale and muster the financial resources necessary for effective competition with giant foreign companies.

Other analysts argue that a lack of competition from domestic sources, in industries not subject to foreign competition, could very well add to the costs and reduce the competitiveness of industries that are confronted by foreign competition at home or abroad.

There are two basic policy approaches to competition: that of "managed" competition, as practised in Japan and most European countries, and that of "maximum" competition, as practised – at least until recently – in the United States. One observer makes the following distinction between the two approaches:

> *Less obvious perhaps, is the notion of "managed competition" as compared to maximum competition. With the former, a company might be encouraged to give up marginal products or product lines to better concentrate on what it does best while other domestic firms in the same industry were also encouraged to make similar concessions. The result would be a narrower line for all firms, permitting a higher level of resource commitment behind each remaining product-market.*
>
> *"Managed competition" requires government to play a role in mediating decisions about who would give up what, and it or an industry association would monitor compliance ... The continued industrial restructuring in Japan is a case in which government policies combine with corporate strategy to ensure rapid adjustment for targeted industries. It contrasts sharply with American practice which assumes that the maximum degree of competition is best, even if that means five gas stations on a corner instead of four, with decisions to withdraw left to the competitors to be made in isolation.*[7]

The Japanese approach to cartels and mergers has been summed up in this way:

> *In 1953, Japan followed the German lead and amended [its legislation] to permit depression cartels, rationalization cartels and export cartels. Japan was less concerned with a restrictive definition of mergers and a focus on the domestic market structure than with international competitiveness and the exploitation of scale economies. Despite recent tightening of legislation, this attitude persists.*[8]

The American approach is fundamentally different. According to one observer, anti-monopoly law "lies at the heart of the American socio-political philosophy 'which believes in the decentralisation of power and ... the economic freedom and opportunity for new men, new ideas and new organisations to spearhead the forces of progress'."[9]

Canada's competition policy is largely embodied in the Combines Investigation Act, which is administered by the Bureau of Competition Policy of the Department of Consumer and Corporate Affairs. The Bureau investigates such prohibited practices as corporate mergers and monopolies that operate, or are likely to operate, to the "detriment" of the "interest of the public", conspiracies to restrain competition, and other activities that work against competition. The Bureau also monitors resale-price practices, trade discrimination and misleading advertising. Another agency, the

Restrictive Trade Practices Commission, has power to inquire into, and order the discontinuation of, certain potentially anti-competitive trade practices.

In a 1969 report, the Economic Council of Canada stressed the limitations of Canadian competition policy and law.[10] Over the last four decades, the Crown has successfully prosecuted only one monopoly case; no merger cases have been successfully prosecuted. Recent decisions of the Supreme Court of Canada have reputedly made it more difficult to secure indictments involving conspiracies to restrict competition by a variety of means. During the past 15 years, the federal government has made several unsuccessful attempts to revise and strengthen the Combines Investigations Act. A subsequent section of this chapter outlines this Commission's views on the direction that Canadian competition policy ought to take in the future.

In some countries, the banking system plays an important role in industrial policy. One analyst distinguishes between countries (Japan, West Germany and France) in which the banking system holds considerable equity in industrial corporations and countries (the United States, Britain and Canada) in which the banking system holds little or no industrial equity.[11]

Japanese industry is financed primarily by bank loans; only 20 per cent of total investment is held in equity or common shares. Large firms are organized into banking groups in association with one or another of the 13 largest commercial banks. Each banking group has a trading company that acts as a go-between, importing goods and services for sale in Japan and exporting the group's products. Credit is extended with relative ease to the banking group's affiliates. The bank can help nurse a troubled firm back to health by assuming management of the debtor's finances and imposing compromises on other creditors within the group. Ties between the bank and its corporate customers are increased by the bank's ability to invest in shares in non-financial companies, by cross-directorship, and by the temporary assignment of bank employees to the businesses of bank customers. The close affiliation between the banks and industrial companies provides a focal point around which the capital market can design reorganization plans. It is also reputed to serve as a means of reducing the cost of capital to industrial firms. One observer estimates that in recent years, the cost of capital to the Japanese electronics industry has averaged some 4 percentage points less than the cost of capital to that industry in the United States.[12]

West German banks play a major role in industrial investment. Government assistance to industry generally requires bank approval, and the banks themselves usually participate financially in subsidized projects. The interdependence between the banks and industry is enhanced by the presence of bank representatives on the boards of corporations and by extensive bank ownership of company shares. Moreover, almost 85 per cent of the shareholders in Germany deposit their shares with the "big three" banks, Deutsche, Dresdner, and Commerzbank, under trust agreements that assign their proxies to the banks. In 1980, the banks controlled 70 per cent of the shares of the 425 largest firms in Germany. This voting power gives the banks a strong role in crisis management. The banks also serve as an "early warning system", identifying problems in industry as they develop and taking the initiative to resolve them. The banks' role in the reconstruction of failing

industries or firms is facilitated by the fact that they face less pressure than does the government to protect employment or to satisfy interest groups.

France has a durable tradition of private bank involvement in the initiation and management of business, and the banks frequently serve as intermediaries in industrial reorganization. Private banks are often shareholders in firms, an arrangement that ensures their interest in helping these companies through times of crisis. For its part, the French government involves itself in both crisis management and business funding generally, through its own financial institutions, which account for 80 per cent of the funding of French industry. Specialized intermediaries under the *Direction du Trésor* (the Treasury), such as the *Crédit national*, the Economic and Social Development Fund, and the French Bank for Foreign Trade, have become the major actors in organizing the funds of new firms. The *Direction du Trésor* is also the agency responsible for implementing government financial instruments such as regional development grants.

Canada's Bank Act secures a capital market in which the banks hold little or no industrial equity. Like American and British banks, Canadian banks are not intimately involved in the management of firms to which they have loaned money.

Canadian governments are quite heavily involved in both direct lending and loan guarantees. The Federal Business Development Bank (FBDB), for example, lends to small and medium-sized businesses that are unable to obtain financing from other sources under reasonable terms and conditions. In March 1984, the FBDB's outstanding loans amounted to $1.7 billion. The federal government also provides loan guarantees through the Small Business Loans Act and the Industrial Regional Development Program. Finally, the Crown-owned Export Development Corporation (EDC) plays a vital role in supporting the export of a number of Canadian products. It provides insurance to Canadian firms against non-payment by foreign buyers, credit guarantees and direct financing. The EDC normally assumes 90 per cent of the commercial and political risks of insolvency or default, blockage of funds, war or rebellion, and cancellation of import licences or export permits. The EDC's total liability on insurance and guarantees outstanding at the end of 1983 amounted to $2.7 billion, while its loans receivable totalled more than $6 billion. Provincial governments also provide loans and loan guarantees in order to promote the growth of secondary manufacturing within their borders.

In 1980, the estimated total stock of loans, loan guarantees and loan insurance made available by government to the private sector came close to $50 billion.[13] However, 60 per cent of this total applied to the housing sector and 10 per cent to the resource sector. Furthermore, the actual value of the subsidy implicit in a $100 loan approximates only $10; that in a guarantee of a $100 loan approximates only $1. The federal government accounts for some 80 per cent of total government assistance in the form of loans and loan guarantees. While its assistance is theoretically geared to small firms, in total dollar-volume terms there appears to be a bias in favour of big firms. Loans and loan guarantees are more widely dispersed across industry sectors than are direct subsidies, and the poorer provinces appear to be favoured.

Firm-Specific Policies

Last, but hardly least, in our review of industrial policies are policies directed to specific firms. Firm-specific subsidies are used both to promote successful firms – that is, as part of a strategy of "picking winners" – and, somewhat more often perhaps, to bail out troubled firms or forestall prospective trouble. Two countries, France and Japan, are notable for directing support to specific firms in pursuit of a strategy of trying to pick winners. Two other countries, Britain and Sweden, have made extensive use of firm-specific assistance, primarily in order to prop up hard-pressed companies.

Britain's case illustrates the danger of providing substantial subsidies to firms confronted by the prospect of a continuously bleak future. The support of ailing industries and firms absorbs the lion's share of Britain's industrial assistance budget, creating a serious drag on the economy and severely impeding the adjustment process that must eventually take place in response to changing economic circumstances. While British government assistance to floundering firms appears to have been motivated primarily by employment considerations, it has also been triggered by trade, defence, technological and regional considerations. According to some observers, however, government-led rescues of the motor-vehicle and shipbuilding industries in the late 1970s failed to stem the tide of competing imports into the country; they merely forestalled inevitable plant closures and worker lay-offs.[14]

In France, a highly explicit targeting mechanism – the *Comité d'orientation pour le développement des industries stratégiques* – directs support to specific products, firms, and industries. The support devices include R&D contracts, procurement (purchase agreements), export financing and promotion, favoured treatment through the largely government-owned banking system, and subsidization. Some analysts conclude that French firm-specific assistance has been only modestly successful, owing to a choice of targets for prestige rather than economic reasons, an unwillingness to abandon failures, and the use of assistance to forestall adjustment.[15]

Japan maintains an explicit system of assistance to smaller businesses faced with trade-, technology- and environment-related adjustment problems or raw material shortages. On presentation of an acceptable adjustment plan, a firm becomes entitled to low-interest loans, guaranteed loans and tax incentives.

Japan assists larger enterprises in a number of ways. Historically, such assistance has involved import protection, but this protection is less rigorous now than it was in the past. Assistance to firms continues to involve procurement preferences, the sanctioning of specialization arrangements and joint research projects, the support (through forgivable loans) of research, and favourable tax treatment of investment. Unlike France, Japan sets its priorities on a collaborative basis: government is the senior, but not necessarily the dominant, partner. There is generally no question of choosing a national champion, as France has attempted to do. When mistakes occur, or when a good choice is undone by events, the Japanese show no hesitation about abandoning or severely curtailing the activity in question. Japan has retreated from ventures in a wide range of industries, including aluminum, petrochemicals, shipbuilding, cement, textiles, coal and steel. Finally, the

choice of investments is governed by "rate-of-return" criteria, rather than by prestige, political pressures or employment considerations. By rate-of-return criteria, we mean that investments are channelled into areas where, because of potential market growth and the protection from new entry afforded by the learning curve, sustained high profits are likely.

Governments in Canada are extensively involved in providing assistance to specific firms in distress. Firms in the aeronautics, shipbuilding and automobile industries have received substantial assistance; 25 shipbuilding companies have been granted almost $2 billion over the past ten years. Firms in the textile, shoe and furniture industries have also received direct-grant assistance or other forms of financial support, but the main form of assistance to these industries has been the maintenance of tariffs and quotas. While firms in distress have absorbed the lion's share of government assistance, support has also been given to firms at the forefront of new technology. Three notable successes to date are Spar Aerospace Ltd., CAE Electronics Ltd., and Pratt and Whitney Aircraft. Inevitably, however, some firms that have been supported as potential winners have turned out to be losers.

Overall Policy Orientation and Performance

The range of industrial policy instruments and the combinations in which various countries employ them defy ready summarization. Table 9-7 attempts no more than to indicate, very generally, the degree of emphasis that several countries have given to each of the major types of industrial policy. Certain points that emerge from the table are worth noting. For example, no country other than the United States is classified as having a "strong" competition policy. No country other than Japan has maintained stringent restrictions on foreign investment, and these restrictions Japan is currently relaxing. France, West Germany, Britain and Canada give a higher priority to regional development than do most other countries.

A qualitative assessment of the effects of the various policy choices on national performance points to the following conclusions.

Trade policy. Australia, France and Japan have employed protectionist strategies in the recent past. Australia's economic record has been rather weak over the past decade or so, while Japan has performed relatively strongly. France's performance has been mixed: strong initially, but weaker in recent years. Some observers argue that Japan's trade policies did much to protect infant industries from competition in the domestic market during their development phase and thus prepare them for entry into the international market. Britain, which has generally maintained a free-trade stance, has lost much of both its domestic and its export markets for manufactured goods during the post-Second World War period. West Germany, which has adopted trade policies similar to Britain's, has performed relatively well.

Foreign investment policy. Until recently, Japan has severely restricted foreign investment while maintaining very high levels of domestic savings and

TABLE 9-7 Mix of Industrial Policy Instruments of Selected Countries

	United States		Britain		Australia		Japan		France		Germany		Sweden		Canada	
	Emphasis		Emphasis		Emphasis		Emphasis		Emphasis		Emphasis		Emphasis		Emphasis	
	Strong	Weak	Strong	Weak	Strong	Weak	Strong	Weak	Strong	Weak	Strong	Weak	Strong	Weak	Strong	Weak
Competition policy	x			x		x(?)		x		x		x		x(?)		x
Labour-adjustment policies		x		x		x	x			x	x		x			x
Trade protection		x		x	x		x		x			x		x	x	
Regional development policies		x	x			x		x	x		x			x(?)	x	
Government R&D expenditures	x		x		x			x		x	x		x(?)		x	
Public ownership		x	x			x(?)		x	x			x		x		x
Firm-specific subsidies		x	x			x	x		x			x		x	x	
State influence on credit allocation		x		x		x	x		x			x	x			x
Social security policies		x		x		x		x	x		x		x			x
Foreign investment restrictions		x		x		x	x			x		x		x		x

Source: Marsha Chandler and Michael J. Trebilcock, "Comparative Survey of Industrial Policies in Selected OECD Countries", in *Economics of Industrial Policy and Strategy*, vol. 5, prepared for the Royal Commission on the Economic Union and Development Prospects for Canada (Toronto: University of Toronto Press, 1985).

capital investment. Other countries have been much more permissive in accepting foreign investment; some have performed well, some poorly.

Firm-specific policies. Many analysts point to Japan's apparently successful use of selective strategies to promote high-growth firms and industries. France's use of firm- and industry-specific policies has had very mixed results, including major failures in computers, electronics and aircraft manufacturing. West Germany, which has enjoyed a reasonably high rate of growth, has generally avoided selective support to firms or industries; instead, it has concentrated on promoting conditions conducive to market-led adjustment. In Britain, where growth has been low, the government has tended to use selective support to bail out ailing firms or industries, a policy that has often entailed nationalization. In some instances, the bail-outs have been for basic industries such as steel, autos and ship-building; in others, the assistance has gone to high-technology "industries of the future" such as aerospace, for such projects as those undertaken by Rolls-Royce and the development of the Concorde. Canada's use of selective intervention has been similar.

Research and development. The importance to economic growth of expenditures on R&D is hotly debated. The question of the appropriate public policy for a small country such as Canada, which cannot engage in large-scale technology races with larger economies, is even more controversial. The experience of other countries offers little clear guidance toward a resolution of this issue. Japan has one of the lowest levels of reported government expenditures on R&D among the major OECD countries, and it has spent significantly less, in total, on R&D as a proportion of economic output than has Britain. Making use of others' investments in technology through adoption or adaptation of their innovation clearly has some advantages over domestic investment in original research and development. Of course, such a practice would be counter-productive if all countries followed it.

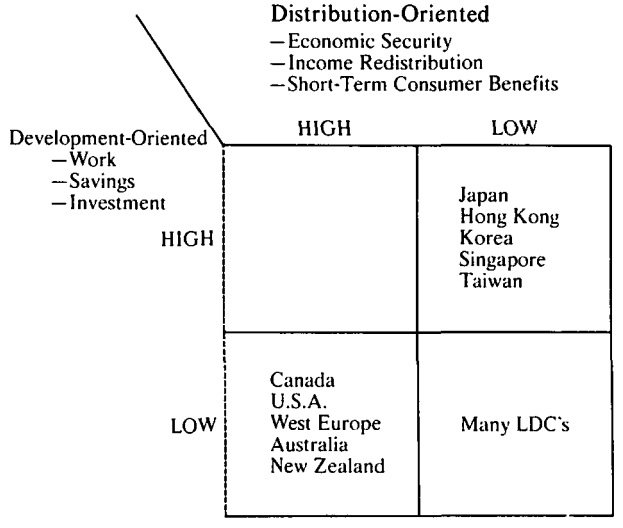
Competition policy. This is another variable that yields ambiguous results. The United States has traditionally maintained a vigorous anti-trust policy in order to foster domestic competition, while most European countries and Japan have a very weak anti-trust tradition. Indeed, the latter countries have adopted policies in many sectors that encourage mergers, consolidations and concentration.

It is evident that the relationships between these industrial policies and economic performance tend to be conflicting and contradictory. Japan's notably successful performance seems to reflect a variety of factors: the combined efforts of industry and government to enable the nation to catch up with more advanced industrial countries; a high level of capital investment and, in all probability, a unique policy-making system that appears to be very much in tune with the national temperament and ideally suited to achieving national aspirations. The utility of all of these factors may be reinforced by Japan's strategy of concentrating substantial resources on the development of

particular industries or sectors which it has singled out as prospective areas of strong growth.

Of course, national strategies alone do not account for the differences in national growth rates. Nor is economic growth the only possible basis for a comparison of national economic policies. One study distinguishes between national strategies that aim primarily at redistributing income and those that encourage work, savings and investment. The study concludes, as Figure 9-2 shows, that the advanced North American and Western European nations tend to be marked by high levels of income redistribution, low rates of savings and investment, and significant disincentives to work, while the reverse is true of countries in the Far East.[16]

FIGURE 9-2 Country Strategy



Source: Bruce R. Scott, "National Strategies: Key to International Competition", in *U.S. Competitiveness in the World Economy* (Boston: Harvard Business School Press, 1985), p. 127.

It does not necessarily follow that a high level of income redistribution results in low economic growth. Indeed, some economists have argued that up to a point, income redistribution can help to promote growth by reducing resistance to necessary economic change.[17] A study which relates national economic growth to a country's standing in the industrial hierarchy and to factors such as population growth, income transfers, and the growth of government, concludes that countries with relatively large income transfers tend to grow faster than those with relatively small income transfers.[18] The same study also found a correlation between the age of the political structures of various countries and their rate of economic growth: countries with more mature structures grow more slowly. It is a matter of debate, however, whether much weight should be attached to this conclusion.

Another approach to an international measure of economic performance is to compare not just policy instruments and their effects, but also the links

between political institutions *per se* and, therefore, the inherent structure of political representation. Studies on the political dimensions of general economic development policies, deficits and taxation, and labour-market policies suggest a strong association between the degree of sustained representation of labour in government and the degree of concrete policy commitment to training and job-creation programs. The more highly sustained the representation of labour, either indirectly or through political parties, the greater is the relative commitment to employment and employment-adjustment goals.[19]

None of these comparative studies reveals any single policy or any single variable that convincingly explains why some countries succeed in promoting economic development and others do not. Nor does a mix of economic and political factors alone provide an adequate basis of comparison. The list of possible factors is endless, and comparisons between apparently similar practices can be misleading. It is possible, for example, that Japan's commitment to a form of guaranteed employment should be viewed as a unique product of its culture, rather than as a product of its economic or industrial policy.

Whether this review of international industrial policies suggests a need for more (or more intelligent) intervention or for less intervention and a willingness to let market forces guide the economy is a question we shall address later. One thing, however, is clear: if we Canadians are to meet successfully the challenges confronting our industrial sector, future development must be more responsive to international competitive conditions than to internal political pressures to protect the *status quo*. Faced as we are with increasingly strong competition in domestic and international markets, it is in the interest of business, labour and government alike to bolster the ability of Canadian industry to meet and match that competition.

Canada's industrial policy record is mixed. Our overall economic performance since 1945, which has certainly been influenced to some degree by our industrial policies, has been good in some dimensions and poor in others. We have successfully reallocated output and employment among major sectors of the economy in response to changing economic circumstances, paralleling the performance of nations, such as Japan and West Germany, which have been held up as models of adaptability. Within the manufacturing sector, we have reallocated labour in the same direction as the "successful" countries, but not to as great an extent. Furthermore, our employment-growth record has been exceptionally strong. On the other hand, over the past ten years or so, our rate of productivity growth has been low relative to the rates in other industrial market economies. In addition, during the same period, the benefits we derive from our natural resource wealth have continued to wane in importance; the reasons for this decline include slow growth abroad, technological changes that reduced demand for certain commodities, and competition from less-developed countries. This trend, in turn, has placed a greater burden on productive investment in areas where international competition is already tough and is expected to become tougher still.

It has been all too easy to find grounds for criticizing a broad range of government initiatives in the area of industrial policy. The recently amended federal tax provisions that permitted the sale of R&D tax credits by one firm to another proved to be an idea that, however well motivated, was misapplied. Several new ventures which the federal government has backed as potential "winners" have turned out to be "losers", although there have also been some success stories. Efforts to bail out high-profile firms through loans, grants, equity infusions and outright take-overs have produced a few notable successes and some striking failures. Extensive government support, in the form of quotas and subsidies, of faltering industries such as textiles, shoes and shipbuilding has added to the costs of the economy, undermined its international competitiveness in other areas, and impeded the adjustment to changing economic circumstances that is essential if Canada is to maintain a healthy growth of output and incomes.

We Commissioners appreciate the difficulty of the position in which governments find themselves. To allow a company to fail or an industry to wither away without extending a helping hand exposes a government to criticism for ignoring the hardship experienced by the workers in that company or that industry and by the communities in which they live. Yet, as we have just indicated, when governments do extend aid in such circumstances, they become subject to criticism for impeding, often at considerable cost, an adjustment process that ultimately must be undertaken.

A balanced approach is in order, for there is neither an obvious standard of success nor broad consensus on how to achieve it. Indeed, the criteria of success vary from sector to sector. From a national perspective, success does not require the preservation of specific activities or industries, but individuals involved in failing industries may understandably hold a contrary view. What we must acknowledge is that all countries make mistakes in the exercise of industrial policy, for no country has perfected the ideal mix of policy instruments. Resource misallocation is an inevitable consequence of government support programs, just as resource misallocation is an inevitable consequence of private sector decisions. The challenge for Canada is to do at least as well as its major competitors in the exercise of industrial policy.

Notes

1. Much of the material in this section is drawn from Commission research. See Marsha Chandler and Michael J. Trebilcock, "Comparative Survey of Industrial Policies in Selected OECD Countries", in *Economics of Industrial Policy and Strategy*, vol. 5 (Toronto: University of Toronto Press, 1985).
2. Dorothy B. Christelow, "National Policies Toward Foreign Direct Investment", *Federal Reserve Bank of New York Quarterly Review* 4 (Winter 1979–1980), pp. 21–32.
3. William G. Ouchi, *The M-Form Society: How American Teamwork Can Recapture the Competitive Edge* (Reading, Mass: Addison-Wesley, 1984), pp. 116–17.
4. Canada, Senate, Standing Committee on National Finance, *Proceedings*, March 22, 1984, p. 9.

5. See Canada, Ministry of State for Science and Technology, Task Force on Federal Policies and Programs for Technology Development, *Report* (Ottawa: Minister of Supply and Services Canada, 1984) (D. Wright, Chairman); and Canada, Senate, Standing Committee on National Finance (C. William Doody, Chairman).
6. Marsha Chandler and Michael J. Trebilcock, "Comparative Survey of Industrial Policies in Selected OECD Countries", in *Economics of Industrial Policy and Strategy*, vol. 5, prepared for the Royal Commission on the Economic Union and Development Prospects for Canada (Toronto: University of Toronto Press, 1985).
7. Bruce R. Scott, "National Strategies: Key to International Competition", in *U.S. Competitiveness in the World Economy*, edited by Bruce R. Scott and George C. Lodge (Boston: Harvard Business School Press, 1985), pp. 105–6.
8. Chandler and Trebilcock, "Comparative Survey of Industrial Policies in Selected OECD Countries".
9. Martin Edomonds, "Market Ideology and Corporate Power: The United States", in *Industrial Crisis: A Comparative Study of the State and Industry*, edited by Kenneth Dyson and Stephen Wilks (Oxford: Martin Robertson, 1983), p. 71.
10. Economic Council of Canada, *Interim Report on Competition Policy* (Ottawa: Information Canada, 1969).
11. See John Zysman, *Governments, Markets and Growth: Financial Systems and the Politics of Industrial Change* (Ithaca: Cornell University Press, 1983).
12. Ouchi, *The M-Form Society.*
13. Economic Council of Canada, *Intervention and Efficiency: A Study of Government Credit and Credit Guarantees to the Private Sector* (Ottawa: Minister of Supply and Services Canada, 1982).
14. See Chandler and Trebilcock, "Comparative Survey of Industrial Policies in Selected OECD Countries".
15. See, for example, Scott, "National Strategies".
16. Scott, "National Strategies".
17. See, for example, Reuven Brenner and Léon Courville, "Industrial Strategy: Inferring What It Really Is", in *Economics of Industrial Policy and Strategy*, vol. 5, prepared for the Royal Commission on the Economic Union and Development Prospects for Canada (Toronto: University of Toronto Press, 1985).
18. John McCallum and André Blais, "Government, Special Interest Groups and Economic Growth", in *Responses to Economic Change*, vol. 27, prepared for the Royal Commission on the Economic Union and Development Prospects for Canada (Toronto: University of Toronto Press, 1985).
19. See G. Bruce Doern, "The Politics of Economic Policy: An Overview"; David A. Wolfe, "The Politics of the Deficit"; and Leon Muszynski, "The Politics of Labour Market Policy", in *The Politics of Economic Policy*, vol. 40, prepared for the Royal Commission on the Economic Union and Development Prospects for Canada (Toronto: University of Toronto Press, 1985).

Reorienting Canada's Industrial Policies

Commissioners believe that a reorientation of Canada's industrial policies is imperative if Canada is to avoid being out-performed by other industrialized nations or by newly industrializing nations (NICs). We define industrial policy broadly: that is, we include all government efforts to promote growth, productivity and the competitiveness of Canadian industries. While industrial policy must draw constantly from Canadian experience and the experience of Canada's major competitors, it must also adapt constantly to changing circumstances at home and abroad. At the same time, it must exhibit a reasonable degree of stability and predictability.

A Market-Oriented Framework For Industrial Policy

In considering the critical issue of industrial policy, we are mindful of the wide range of views expressed by Canadians to this Commission about the proper role for government in formulating and implementing such a policy for Canada. The fundamental questions are these: Should government confine itself to a rather passive role in facilitating industrial growth and development by the private sector? Or should it intervene actively and directly in private investment decisions, in order to encourage the development of companies or industries that it has singled out as potential winners and the phasing out of demonstrated losers? A research paper prepared for this Commission[1] sums up the arguments for and against the latter approach. It cites objections to a targeted industrial policy on the grounds of:

- The alleged difficulty of picking winners over losers
- The inherent discrimination involved in the process of government intervention in the private sector
- The erosion of the vital market function in the allocation of economic resources.

It argues for a targeted industrial policy on the grounds that:

- Governments have a reasonable probability of success in distinguishing between winners and losers.
- Selection must be made in order to fulfil regional employment objectives and obtain entry into specific markets.
- Necessary scale economies require that the development of a new product or process be undertaken by a single firm.

It is probably true that most Canadian economists have doubts about the ability of governments to pick potential winners and to help them gain a comparative advantage on the international stage. If all countries were to pursue this strategy, the benefits to each nation would, on average, simply match the costs of entering the game. Nevertheless, the study cited above concludes that Canadian governments should intervene aggressively to support firms singled out as potential winners; its rationale is that such help is necessary to overcome the impediments to private sector initiatives that result from Canada's regional diversity and the smallness of its domestic market.

Quite apart from the economic cases for and against a targeted industrial policy, the practical problems of implementation are considerable. The adoption of a targeted industrial policy requires government to establish selection criteria that will identify which sectors or firms should be supported, and which should be allowed to disappear or be deliberately phased out. While many attempts have been made to define selection criteria, no convincing formula has emerged. It is clear in retrospect that if some of the criteria suggested in the past by various government departments had been adopted, they would have led to an unreasonable proportion of bad investments. Picking winners is an extremely difficult business, particularly since enterprises that look promising today may be made obsolete by changing conditions tomorrow.

France and Japan are the two countries that have most explicitly and extensively adopted targeted industrial strategies. As we noted earlier, the French experience has been mixed at best; success has been especially elusive in areas, such as electronics, where international competition is intense. France's industrial targeting appears to have been blurred by considerations of prestige and by a desire to protect declining industries.

Japan's experience with targeted industrial strategies has also been mixed. A number of targeted sectors – the microchip industry, for one example – have experienced a high rate of success. Moreover, Japan has shown no reluctance to abandon losing industries, such as aluminum, petrochemicals and shipbuilding. It is by no means clear, however, how much the Japanese success story owes to the targeting of government support *per se*. It now seems evident that Japan's support for the steel industry was misdirected, in view of the changes in economic conditions that were taking place at the time. Where targeting has been successful, it is not evident that the benefits have exceeded the opportunity costs (that is, the costs of forgoing more lucrative investment opportunities) associated with the targeted support. Most observers conclude that Japan's success is the result of many factors, not the least of which is the quality of management of individual firms.

Experience with targeted industrial strategies provides many illustrations of the difficulties of picking "winners" and the inherent administrative complexity of implementing such strategies. A comprehensive study of alternative support strategies in the United States concludes that U.S. support for applied research of general application has been effective, while research directed more narrowly to the proprietary-commercial area has not. The study extends its conclusions to Europe's experience:

> *The lesson here is a general one . . . There are many other studied cases, most of these European, in which government has tried to identify and support particular products that it was hoped would ultimately prove to be commercial successes. While there are few successes, the batting average has been very low, except when the government in question has been willing to subsidize or require the procurement of the completed product as well as the R&D on it.*[2]

Some observers argue that the difficulty of picking "winners" arises from a lack of responsiveness and flexibility, and that the problem can be remedied by administrative changes. The view of this Commission is that the failures

observed over time are attributable to fundamental problems in the selection system, and that there is no quick administrative solution.

The determination of whether a given activity is a potential winner can also be a very slow business, not because of bureaucratic inefficiency, but because of the nature of the activity itself. The difficulty of targeting industrial policy support for proprietary technologies provides an illustration of this point. Generic technologies, such as those related to producing spring-wheat strains or dryland-cultivation techniques, provide benefits to a readily identifiable group of beneficiaries: for example, farmers who own wheat-growing land. On the other hand, the beneficiaries of the subsidization of a proprietary technology may be as few as one individual: the owner of the firm involved. The choice of generic R&D projects can be guided by sector representatives acting in concert with academics and other researchers. In contrast, it is very difficult to decide which proprietary technology to support on the basis of the agreement of informed, but objective, parties, for the informed parties are not disinterested. Consequently, the decision-making process is almost certain to be ponderous and slow.

In view of the practical difficulties of developing a targeted approach to industrial policy, this Commission does not recommend such an approach for Canada. Rapidly changing international and domestic circumstances demand a highly flexible and adaptive economic system; it is very doubtful whether governments can respond to such situations better than private enterprise can. The fact that many of the components of industrial policy are under provincial or federal-provincial jurisdiction is a further argument against attempting to pursue a closely orchestrated industrial policy.

There can be no argument about the need for closer consultation and co-ordination among governments, business, and labour. Part VI of this Report proposes a number of institutional changes designed to enhance the effectiveness of Canada's economic management. A targeted industrial policy, however, would require a much more intensive involvement of the government bureaucracy in making decisions about private investment than Commissioners are prepared to recommend.

In our judgement, Canada's approach to industrial policy should become more highly market-oriented than it is at present, rather than move toward still more intensive government intervention. Commissioners believe that more reliance should be placed on the ability of basic market forces to determine which industries and companies deserve to prosper. While there are several reasons why a strict hands-off approach is neither feasible nor desirable, governments have, in our view, intervened in the market-place too often and too extensively over the past several years.

Canadian governments should not, of course, close the book on the question of targeted industrial policies. While there is little evidence to suggest that targeted strategies are effective in Canada or elsewhere, we can all be sure that governments around the world will continue to experiment with policies to improve their trade prospects. As the international climate of competition becomes more intense, sometimes as a result of attempts at targeting by other countries, the pressures on Canada to experiment will grow. Such experi-

ments will be high-risk endeavours in a high-risk world. Until we have more confidence in the feasibility and suitability of a targeted approach to industrial policy, and until we have more knowledge of the adjustments likely to arise out of a more open trade environment with the United States, this Commission recommends that Canada place deep reliance on market forces in allocating Canada's human, capital, and natural resources.

In keeping with this emphasis on market mechanisms, Canada should develop a clearly defined framework for an industrial policy that would facilitate both private sector decision making and co-ordination of its decisions with government policies and programs. This framework should identify the objectives of industrial policy, the main factors to be taken into account in devising and implementing industrial policy, and the key initiatives to be undertaken in relation to each of these factors. It is to a consideration of such a framework that we now turn.

Productivity and Competitiveness as Strategic Objectives

In a small, open economy, industrial policy and trade policy are almost synonymous. Both should be anchored in a clearly defined set of objectives or goals. Conventionally, these goals are more or less as follows:

- A high growth rate in average real income
- Stability in real income over time and in all regions
- An opportunity for stable and "meaningful" employment for all citizens
- A reasonably equitable distribution of income.

While we Commissioners endorse this set of objectives, we recognize that it does not provide an operational framework for the implementation of an industrial policy. Thus, we would hope that the four goals outlined above would be furthered by the definition of a common strategic objective that would provide a consistent basis for the policies and programs of the 11 governments across Canada.

What should the common strategic objective be? We believe that it should be related to the fundamental purpose of industrial policy, the collective label given to government efforts to promote the growth, productivity and competitive performance of the Canadian economy. Concern for productivity and competitiveness has been a compelling theme in the hearings and submissions to this Commission, and we are convinced that their significant improvement must be the fundamental objective of our future industrial policy.

The recent resurgence of interest in industrial policy derives, in large part, from the relatively poor performance of the Canadian economy in recent years, particularly its low rate of productivity growth. This poor performance is especially troubling in light of the tough international competition facing Canadian manufacturing firms and some resource sectors, such as forestry and mining. Additional interest in industrial policy stems from deep concern about unemployment which, over the next decade, is expected to fall only slowly from its present high level. While this Commission is of the view that

high current rates of unemployment are largely a cyclical problem and, hence, are best resolved through the traditional tools of demand-management policy, complementary industrial and related adjustment policies could help to accelerate the creation of new jobs.

Fears that Canadians are losing out in international markets are fed by an international trading environment that has become increasingly competitive. These fears are also fostered by a growing resort to non-tariff barriers (NTBs), such as quotas and voluntary restraints on exports. This tendency is particularly dangerous to Canada because it is the only major industrialized country without guaranteed access to a market of 100 million people or more. Another source of concern is the success of the newly industrialized countries in building on their labour-cost advantage in the production of standardized products and, increasingly, of more sophisticated products, to become major competitors in the international market-place.

If Canadian industry is to survive and prosper, it must be able to compete effectively with foreign interests both at home and abroad. This means at least three things. In the first place, Canadian firms must look outward on the rest of the world. They must search out markets wherever they can find them. They must undertake research and development (R&D) in areas where Canada has a special edge, and seek out the technological advances being made abroad that we must adopt or adapt in order to remain competitive. Secondly, government must encourage competitiveness in the Canadian market-place, particularly among firms that are shielded from foreign competition, in order to limit the costs of Canadian companies that are competing with foreign firms at home and abroad. Governments must also avoid hampering the competitiveness of Canadian firms by burdening them with excessive taxes or undue regulatory requirements. Thirdly, both industry and government must recognize the many factors that could alter Canada's competitive position. These factors include changes in the exchange rate, which have consequences for the economy as a whole, and changes that affect the fortunes of particular firms or industries. Changes of either kind impose problems of adjustment for which solutions have to be found.

Commissioners are, of course, concerned about competitiveness, not for its own sake, but because it is essential to the growth and development of the Canadian economy: to the expansion of output, the increase of employment, and the rise of real incomes. The same considerations are the basis of our concern about productivity, that is, the efficiency with which Canada produces goods and services; this has an important bearing on the country's international competitiveness. A recent submission to a forum known as the Berkeley Roundtable on the International Economy described competitiveness this way:

> *A nation's competitiveness is the degree to which it can, under free and fair market conditions, produce goods and services that meet the test of international markets while simultaneously expanding the real incomes of its citizens. International competitiveness at the national level is based on superior productivity performance and the economy's ability to shift output to high productivity activities, which in turn can generate high levels of real wages.*

Competitiveness is associated with rising living standards, expanding employment opportunities, and the ability of a nation to maintain its international obligations. It is not just a measure of the nation's ability to sell abroad, and to maintain a trade equilibrium. The very poorest countries in the world are often able to do that quite well. Rather, it is the nation's ability to stay ahead technologically and commercially in those commodities and services likely to constitute a larger share of world consumption and value added in the future.[3]

In the broadest terms, then, competitiveness is simply effective resource use. An empirical approach to the measurement of competitiveness defined in this broad manner can be found in the European Management Forum's *Report on International Industrial Competitiveness*.[4] The report ranked Canada seventh of 22 countries in 1984, eleventh in 1983, and sixth in 1982. Areas in which Canada ranked relatively poorly in 1984 were innovative orientation, outward orientation, socio-political consensus and stability, economic dynamism, state interference and industrial efficiency. The last factor is deemed to depend on employee productivity and costs, price stability, investment rates, employee motivation and turnover, and corporate profits and taxation. While one might quarrel with the mixture of opinion and hard data on which these rankings are based, the report does remind us of the variety of influences that may bear on a nation's competitive position.

A narrower, more specific, measure of a nation's competitive position is its relative cost or unit-cost position. While it would be desirable to assess all of the costs related to production, costs related to labour are the easiest to compare internationally. Since labour costs account for such a large share of total production costs, this is not a major limitation. The competitive position of a country is significantly influenced by its relative labour costs. At the same time, it is necessary to bear in mind that what is important is the combined productivity of all the factors of production. A country that deploys its labour and its capital more efficiently than another country may have lower labour costs and yet sustain a higher wage rate. To account for the productivity factor, international cost comparisons are usually made in terms of unit-labour costs, that is, the cost of labour needed to produce a unit of output.

Since international trade is particularly competitive in the field of manufactured goods, and since trade in these goods is of growing importance, comparisons of manufacturing-unit labour costs among countries are especially pertinent. Unfortunately, the available comparisons do not show very consistent results for Canada.

One of the best-known measures of competitiveness in manufacturing is prepared by the International Monetary Fund (IMF); the Fund shows relative unit-labour costs in manufacturing activity as adjusted for exchange-rate changes and short-term cyclical variations in productivity performance. Table 9-8 provides the IMF indices for Canada and its two most important trading partners, the United States and Japan. According to this table, Canada's competitive position relative to the rest of the world deteriorated sharply – by almost 20 per cent, in fact – between 1980 and 1983. The position of the

United States deteriorated even more sharply, by 33 per cent. The considerable appreciation of the U.S. dollar and the related appreciation of the Canadian dollar against other currencies were the essential reasons for this deterioration. The table indicates that over a longer term – that is, since 1975 or even 1970 – Canada's relative position has not changed materially. The competitive position of the United States has followed a more volatile pattern. Moreover, the table indicates that Japan, too, has suffered a decline in its relative competitive position, albeit a modest one.

TABLE 9-8 Index[a] of Changing Competitive Position of the Manufacturing Sector: Selected Countries

Country	1983 Compared to 1970	1983 Compared to 1975	1983 Compared to 1980
Canada	98.0	98.6	118.4
United States	92.0	130.0	132.9
Japan	105.6	95.4	108.9

Source: International Monetary Fund, *International Financial Statistics January 1985* (Washington, D.C.: IMF, 1985).

a. Index relative to specified base year: less than 100 indicates an improvement in the competitive position; more than 100 indicates a deterioration in the competitive position.

While the IMF data indicate that Canada's competitive position deteriorated quite sharply in the early 1980s, an alternative measure of competitiveness, developed by Morgan Guaranty Trust and highly regarded, suggests that the decline was much less pronounced. Indeed, the Morgan Guaranty Trust index, which measures real effective exchange rates for non-food manufacturers, suggests that since 1975, Canada's competitive position has strengthened appreciably, by some 10 per cent. This finding is consistent with the fact that many Canadian firms and industries are successfully meeting foreign competition in both domestic and international markets. It is also consistent with the substantial increase in Canada's trade surplus since 1979.

Despite the continuing increase in Canada's overall commodity-trade surplus, there is still concern about Canada's international competitiveness, particularly in the manufacturing sector. This concern arises, in part, from certain comparisons of actual unit-labour costs in various countries, as compared to relative changes in such unit costs as those provided by the IMF and Morgan Guaranty Trust figures.

What are the absolute differences in unit-labour costs between Canada and other OECD countries? One submission to this Commission describes Canada as a very high-cost country.[5] According to Table 9-9, which summarizes the findings presented in this submission, unit-labour costs in Canada's manufacturing sector were almost 30 per cent above those in the United States in 1983. Canada has the second-highest unit-labour costs of the nine

TABLE 9-9 Labour Costs per Unit in Manufacturing, Selected Countries, 1983

United Kingdom	136.0
Canada	129.3
Italy	107.2
Belgium	106.3
United States[a]	100.0
Germany	92.3
France	86.5
Sweden	73.3
Japan	61.2

Source: Donald J. Daly, "Cost Competitiveness and Canada's Challenges and Choices", a Brief to the Royal Commission on the Economic Union and Development Prospects for Canada, July 1984, p. 3a.

Methods: These estimates incorporate the net effects of output per hour in real terms, total compensation per hour, and the 1983 exchange rates. This covers a major part of costs for GDP in manufacturing, and costs per unit for capital and depreciation can be approximated for some countries. The results are updates of the methods used in D.J. Daly, *Canada's Comparative Advantage* (Ottawa: Economic Council of Canada, 1979); A.D. Roy, "Labour Productivity in 1980: An International Comparison", *National Institute Economic Review* (August 1982), p. 35; updated by U.S. Bureau of Labor Statistics, *News*. "International Comparisons of Manufacturing Productivity and Labor Cost Trends, Preliminary Measures for 1983" (May 31, 1984).

a. United States = 100.0

countries listed in the table, and these costs are more than twice as high as Japan's. On the other hand, a calculation by Data Resources Inc., presented in Table 9-10, indicates that Canada is a higher-cost producer than Japan, France, Italy and Germany, but a lower-cost producer than the United States. Thus, one study shows that Canada's manufacturing unit-labour costs are higher than those of its major trading partner, the United States, while the other shows that they are not. By one measure, Canada's position appears to have deteriorated seriously since 1980. By another measure, Canada's position has actually improved, a conclusion that seems to tally with the recent growth of Canada's manufacturing export trade. Neither index takes resource exports into account, and therefore neither reflects the major problems that have appeared for our forestry and mining sectors. Both studies agree, however, that unit-labour costs are higher in Canada than they are in most of the other major OECD countries. There can be little doubt that Canada is a high-cost country, at least in comparison with Japan and insofar as the manufacturing sector as a whole is concerned. Nevertheless, we must be very careful in drawing conclusions from this last observation. High unit-labour costs may indicate success, in the form either of strong world demand for our products or of high-wage/employment alternatives outside the manufacturing sector. They may also indicate a past failure to keep wage settlements in line with productivity growth.

For a given firm or industry, failure to keep unit costs in line with those of foreign competitors will result in a declining share of both foreign and domestic markets. Sometimes a firm can remedy the problem by reducing

TABLE 9-10 Unit Labour-Costs Multiples of United States Levels

Country	1968	1975	1982
United States	1.00	1.00	1.00
Canada	0.90	1.03	0.94
France	0.60	0.85	0.63
United Kingdom	0.56	0.88	0.96
Germany	0.52	0.98	0.78
Italy	0.50	0.88	0.62
Japan	0.40	0.66	0.49

Source: Roger Brinner and Nigel Gault, "U.S. Manufacturing Costs and International Competition", *Data Resources Review* (October 1983), p. 1.13.

TABLE 9-11 Trade Balances in Manufacturing

	[(Exports – Imports)/(Exports+Imports)] x 100					
Industry	1966	1975	1980	1982	1983	Average 1966–82
Food & beverage	20.3	1.0	11.9	20.0	15.4	11.6
Rubber & plastics	−59.5	−63.7	−38.0	−11.0	−16.9	−42.4
Leather	−57.3	−74.9	−68.9	−68.9	−72.8	−69.4
Textiles	−73.8	−74.8	−59.4	−58.0	−64.8	−67.8
Knitting mills	−73.9	−93.7	−93.1	−92.9	−94.3	−91.1
Clothing	−41.2	−41.0	−35.3	−45.5	−55.1	−39.4
Wood	76.0	55.4	79.8	84.2	80.9	76.3
Furniture and fixtures	−42.2	−45.5	−9.2	11.1	11.0	−21.9
Paper and allied	88.9	82.0	86.6	83.4	81.0	85.1
Printing and publishing	−82.4	−73.8	−64.4	−64.8	−54.5	−70.3
Primary metals	40.9	35.3	35.4	42.3	35.0	37.6
Fabricated metals	−65.4	−52.4	−38.7	−34.7	−31.9	−45.4
Machinery	−56.9	−49.4	−47.7	−41.7	−41.8	−47.7
Transportation	−17.1	−11.7	−8.4	7.6	3.8	−4.7
Equipment electrical products	−47.0	−47.5	−39.7	−33.9	−37.2	−42.9
Non-metallic minerals	−49.0	−45.2	−33.0	−24.9	−26.3	−33.6
Petroleum and coal products	−84.6	18.2	42.0	39.5	34.8	22.6
Chemicals	−27.7	−36.6	−7.6	−7.0	−14.4	−18.5
Miscellaneous manufacturing	−49.6	−67.2	−57.7	−54.8	−54.5	−60.5

Source: Canada, Department of Regional Industrial Expansion, Economic Analysis and Strategic Planning, "Trade in Manufactured Products 1983" (Ottawa: The Department, 1984).

costs through such means as the rationalization of production, the introduction of state-of-the-art technologies, and the renegotiation of labour agreements. At other times, these measures will not be sufficient to provide a remedy, and the options for government are either to provide some degree of protection from foreign competition or to facilitate the orderly withdrawal of resources from the industry in question. If unit-cost comparisons are interpreted correctly, especially at the product or firm level, they can be an early-warning signal of adjustment problems ahead.

For the nation, failure to keep real unit costs in line with those of our major competitors will result in deteriorating trade balances and, ultimately, in a devaluation of the Canadian dollar and the decline in living standards that devaluation entails. Table 9-11 reports Canadian manufacturing trade balances (calculated as total exports minus total imports, divided by the sum of exports and imports) on an industry basis for the years 1966 to 1983. There is no general deterioration here. Indeed, in 14 of 19 industries, the trade balance was more favourable both in 1982 and in 1983 than it was over the 1966–82 period as a whole. The industries in which trade-balance data indicate a poor and deteriorating competitive position are leather, textiles, knitting mills and clothing. The problems which these industries face have been widely documented.

The trade balances of selected high-technology industries appear in Table 9-12. Most of the balances are negative and some, such as the balance for radio and television receivers, are close to the minimum value of -100, indicating that exports are very small relative to imports. The 1982 balance was more favourable than the 1966 – 82 mean in seven cases, less favourable in one (that is, office and store machinery, which includes computers), and about the same in one.

The trade-balance data appear to reflect a modest improvement, in recent years, in the competitive positions of most Canadian manufacturing industries. It is possible, however, that the data reflect the weak domestic demand – and the consequent weak demand for imports – in 1982 and 1983, rather than any underlying improvement in competitiveness. There is nothing inherently disturbing about a negative trade balance in any particular industry. If, however, the industries in which Canada has a negative balance constitute a growing fraction of our trade, our aggregate trade balance will deteriorate over time, raising the possibility of further depreciation of the Canadian dollar.

Another way to assess changes in national competitiveness is to measure changes in estimated national shares of world markets. An increase in a country's world-market share for a particular product implies an increase in its competitiveness in that product. To measure the size (in terms of sales) of the world market for a particular product is difficult, and so investigators employ a variety of market-share proxies. One proxy is the Canadian share of OECD exports as reported by the Department of Finance in its Economic Review. Canadian shares by broad product group are reported in Table 9-13. It is notable that the Canadian share of all exports declined by 1 percentage point over the period 1972–83. This decline appears to have been a consequence of the relative decline in Canadian exports of fuels and crude

TABLE 9-12 Trade Balances in Selected "High-Tech" Industries

	[(Exports – Imports)/(Exports + Imports)] x 100				
Industry	**1966**	**1975**	**1980**	**1982**	**Average 1966–1982**
Aircraft and parts	14.5	19.0	8.8	19.8	–10.2
Scientific and professional instruments	–39.1	–61.2	–56.6	–51.7	–56.6
Office and store machinery	–56.6	–39.6	–40.8	–48.0	–42.2
Household radio and television receivers	–39.3	–80.4	–77.4	–72.6	–73.2
Communications equipment	–43.1	–24.8	–25.2	–13.7	–25.3
Electrical industrial equipment	–57.7	–58.1	–46.9	–46.2	–53.9
Plastics	–74.1	–79.6	–49.5	–45.8	–62.7
Pharmaceuticals	–43.9	–56.4	–45.0	–41.1	–47.8
Industrial chemicals	–3.7	–8.8	20.8	18.9	9.6

Source: Donald D. McFetridge, "The Economics of Industrial Structure: An Overview", in *Canadian Industry in Transition*, vol. 2, prepared for the Royal Commission on the Economic Union and Development Prospects for Canada (Toronto: University of Toronto Press, 1985).

materials. The Canadian share of OECD-manufactured exports did not change.

Another market-share proxy consists of Canadian exports as a proportion of the exports of the world's three largest exporters, excluding Canada. According to this measure, the relationship between market share and competitiveness is as follows:

> *Relative market share is related to the ability to reduce costs and improve competitive position. Other factors that need to be taken into account are the relative maturity of the industry and the responsiveness of the industry to technology-based cost reduction. High relative share at the country level confers external economies to its firms because it facilitates development of technical infrastructure services such as professional associations and engineering consultants and managerial infrastructure such as international marketing services and strategic management capabilities.*[6]

Table 9-14 shows changes in the average relative market shares of various Canadian industries between the periods 1971–76 and 1976–81. The table appears to indicate a decline in competitiveness between the first period and the second, since Canada lost export share (relative to the largest three

TABLE 9-13 Share of OECD Exports, 1972–83[a]

Year	Canada	U.S.A.	Japan	EEC	Other OECD[b]	Total OECD Exports
			(per cent)			(billions of U.S. $)
Food, beverage and tobacco (SITC 1)						
1972	9	24	2	60	5	27.3
1973	7	31	2	56	4	42.2
1974	8	31	2	55	4	49.5
1975	7	30	1	57	4	55.7
1976	7	30	2	57	4	58.4
1977	7	25	1	62	4	62.8
1978	6	27	1	62	4	77.3
1979	6	27	1	63	4	92.7
1980	6	28	1	61	4	110.5
1981	7	30	2	58	4	112.4
1982	8	26	1	60	4	102.3
1983	9	27	1	59	4	99.1
Crude materials (SITC 2,4)						
1972	23	29	3	30	15	19.0
1973	20	32	3	30	15	28.6
1974	19	32	3	31	15	38.1
1975	19	32	3	31	15	33.2
1976	21	31	2	31	15	38.1
1977	20	33	2	31	13	43.0
1978	18	35	2	32	18	48.7
1979	19	35	2	31	13	64.0
1980	18	36	2	31	13	71.7
1981	19	36	2	30	13	64.0
1982	18	36	2	31	12	57.0
1983	19	35	2	32	12	57.2
Fuels (SITC 3)						
1972	19	17	1	60	3	9.1
1973	18	13	1	64	4	13.3
1974	21	14	1	60	4	24.8
1975	19	16	1	57	6	27.3
1976	18	14	0	60	8	9.1
1977	15	13	0	64	7	33.4
1978	13	10	1	66	10	37.9
1979	12	9	1	66	11	59.9
1980	11	10	1	64	14	83.4
1981	11	11	1	64	13	89.7
1982	11	14	0	61	13	89.9
1983	12	11	1	62	14	85.5

TABLE 9-13 (cont'd.)

Year	Canada	U.S.A.	Japan	EEC	Other OECD[b]	Total OECD exports
			(per cent)			(billions of U.S. $)
Machinery and transport equipment (SITC 7)						
1972	7	21	14	53	6	101.4
1973	6	21	14	53	6	133.5
1974	5	23	15	51	6	169.0
1975	5	23	14	52	7	199.2
1976	5	22	16	51	6	226.0
1977	5	20	17	52	6	256.4
1978	5	19	18	52	6	310.4
1979	5	20	16	54	6	355.9
1980	4	20	17	53	5	413.2
1981	5	23	20	47	5	421.8
1982	5	22	19	49	5	404.8
1983	6	21	21	47	5	397.4
Fabricated materials and manufactured goods (SITC 5, 6, 8, 9)						
1972	4	12	12	63	8	110.7
1973	4	12	11	65	8	151.9
1974	3	13	13	62	8	215.1
1975	3	13	12	63	8	214.0
1976	4	13	12	63	8	236.3
1977	3	13	12	64	8	271.8
1978	4	12	12	64	8	324.1
1979	3	14	11	64	8	408.1
1980	4	14	12	62	8	475.7
1981	4	15	14	59	8	444.4
1982	4	14	14	60	8	415.2
1983	4	14	14	60	8	409.8
Total						
1972	7	18	11	56	7	267.3
1973	7	19	10	57	7	369.6
1974	7	20	11	55	7	496.5
1975	6	20	11	56	8	529.5
1976	6	19	11	55	7	588.5
1977	6	18	12	57	7	668.0
1978	6	18	12	57	7	798.5
1979	6	18	11	58	7	980.7

TABLE 9-13 (cont'd.)

Year	Canada	U.S.A.	Japan	EEC	Other OECD[b]	Total OECD exports
			(per cent)			(billions of U.S. $)
1980	6	19	11	57	7	1 154.4
1981	6	20	13	53	7	1 132.4
1982	6	19	13	54	7	1 069.2
1983	6	19	14	53	7	1 049.0

Source: Canada, Finance Canada, *Economic Review, April 1984* (Ottawa: Minister of Supply and Services Canada, 1984), pp. 235–36.

Note: Balances may not be the sum of detail because of rounding.
SITC = Standard International Trade Classification.

a. 1983 figures are estimates based on partial data.
b. Excludes Australia, Ireland, New Zealand, Portugal, Spain, Switzerland, Turkey and Yugoslavia.

exporters) in most of the categories listed. The largest losses were in crude petroleum, non-ferrous ores, non-ferrous metals and motor vehicles. Gains occurred in three sectors: electric power, canned meats and coal.

Care must be taken in interpreting these results. They do not necessarily imply that in absolute terms, Canada's share of world output or exports has changed, but only that it has changed relative to the largest three exporters in each industry. They may imply that Canadian penetration of a given market has changed relative to penetration by one of the three largest exporters, or that countries historically served by Canada have grown more slowly than countries served by some or all of the three largest exporters. Nonetheless, Table 9-14 suggests that there has been some deterioration in Canada's competitive position. The analysts responsible for the foregoing assessment offer the following conclusion:

> *This analysis of the changes in the Canadian industrial portfolio leads one to conclude that the country's manufacturing industries face a difficult future. There is a heavy reliance on slow (and occasionally negative) growth industries. More importantly, even in these slow growth areas, Relative Market Share has deteriorated, indicating that the country's overall competitive position has weakened. Finally, the relative reduction of the proportion of the portfolio in the high growth/high share area of the matrix is a sign of serious structural weakness.*[7]

A nation with larger shares of rapidly growing markets might expect to see its currency appreciate in real terms and to experience the improvement in living standards that appreciation entails.

TABLE 9-14 Relative Market Shares of Canadian Industries

Industry	Relative Market Share[a]	
	Average 1976 – 81	% Change[b]
Commodity sector		
Non-ferrous ores	42.8	– 13.34
Meat, poultry & fish	13.8	1.03
Basic iron & steel	4.3	1.12
Lumber & wood materials	17.3	0.72
Pulp & paper	35.3	0.13
Coal & lignite	9.9	2.78
Iron ore & scrap	32.7	– 1.29
Non-ferrous metals	34.0	– 7.13
Petroleum derivatives	6.4	1.32
Sunset sector		
Heavy electrical equipment	2.0	– 0.64
Yarn & fabrics	1.2	– 0.60
Clothing	0.7	– 1.23
Leather products, furs	2.1	– 0.82
Confectionaries	3.0	0.42
Hosiery & knitwear	0.2	– 0.17
Foundry products	5.7	0.72
Iron & steel products	4.1	0.19
Hi-tech sector		
Light electrical equipment	2.0	– 0.85
Telecommunication product	5.5	– 1.58
Precision instruments	3.2	– 0.89
Chemicals	14.7	1.42
Aerospace	4.9	– 1.19
Pharmaceuticals	1.4	– 0.24
Computers & office equipment	5.8	– 0.48
Consumer electronics	0.9	– 0.39
Photographic equipment	1.4	0.26
Special & misc. machines	7.1	– 2.06
Transport equipment sector		
Commercial vehicles & railway equipment	16.5	1.26
Agricultural machinery	14.2	– 0.65
Motor vehicles (private)	14.4	– 8.74
Spare parts (motor vehicles)	17.2	– 2.33
Rubber products	0.2	1.54
Capital-intensive sector		
Cigarettes, tobacco products	0.4	– 0.03
Metal products	4.8	– 0.18
Paints & pigments	0.5	– 0.10
Fertilizers	22.7	0.27
Cement	8.2	– 0.89
Watches & clocks	0.9	– 0.38
Glass & glassware	3.4	– 0.47
Canned preserved fruits	3.8	– 0.71
Beverages (incl. alcoholic)	6.5	– 3.31
Ships & boats	1.4	0.31

TABLE 9-14 (cont'd.)

Industry	Relative Market Share[a] Average 1976–81	% Change[b]
Cosmetics & toiletries	1.3	−0.04
Plastics & synthetic fibers	2.7	0.31
Household appliances	1.0	−0.14
Other raw materials	37.7	0.15
Labour-intensive sector		
Clay & pottery products	1.8	0.26
Furniture & misc. wood products	6.4	−3.66
Plastic products	3.4	0.09
Electronic components	1.4	−1.57
Misc. leisure products	2.5	−0.07
Printed matter	3.7	−0.20
Carpets & misc. textiles	2.8	0.62
Miscellaneous	4.4	1.64
Energy sector		
Electric power	37.3	14.50
Coke, coal derivatives	1.4	−0.07
Crude petroleum	21.2–56.64	
Natural gas	39.9	−4.15
Renewable resources		
Canned preserved meat	12.6	3.37
Cereals	14.4	−2.53
Flour, other milled products	16.0	−0.67
Other agricultural products	5.9	−1.17
Dairy products, fats	3.6	0.07
Animal feeds	4.2	−1.85
Fuel wood, charcoal	46.8	−0.09
Raw materials from agriculture	26.1	1.24

Source: Joseph R. D'Cruz and James D. Fleck, "Improving the Competitiveness of the Canadian Industrial Portfolio", *Business Quarterly* 49 (Fall 1984), p. 74.

a. Relative Market Share shows Canada's share of world exports divided by the combined share of the three largest exporting countries for that industry, other than Canada.

b. % Change shows the difference between 1976–81 and 1971–76.

Thus market-share analysis can be useful, in conjunction with other types of analysis, as a tool for forecasting future trends. Such analysis has also been put to prescriptive uses. The authors of the analysis we have just mentioned and other economists argue that an "ideal portfolio" of exports would involve large shares of rapidly growing markets and small shares of slowly growing markets. Moreover, an economy that is properly adjusting to changing circumstances will, in their view, show increasing shares in faster-growth markets and declining shares in slower-growth markets: "What is disturbing is the lack of evidence of change in the composition of the Canadian portfolio.

Over time, a healthy economy should shift away from slow growth, mature industries and towards faster growing industries."[8] While these analysts conclude that Canada should pursue a targeted industrial policy to encourage growth of exports in areas of potential high growth, Commissioners are not persuaded, as we shall explain later, that this is a role governments can play effectively. We are convinced that the private sector will move, in time, into areas of growing opportunity, particularly if governments do not impede the adjustment process and provide a generally supportive environment.

Overall, then, recent analysis of Canada's competitive position suggests the following conclusions:

- Canadian unit costs in manufacturing appear to have stayed in line with the unit costs of our trading partners over the longer term. However, some deterioration in Canada's position may have occurred since 1980, largely as a result of the appreciation of our dollar relative to currencies other than the U.S. dollar.
- Canada's labour costs have generally been higher than labour costs in Japan and in much of Europe. Studies conflict in their conclusions about our cost position compared to that of the United States.
- Manufacturing trade balances expressed as a proportion of total trade were generally more positive (or less negative) in recent years (1982, 1983) than their long-term average. The exceptions are the balances for textiles, clothing and footwear. The pattern of improving, though still largely negative, trade balances also holds in high-technology industries.
- Canada's overall share of OECD exports declined slightly between 1972 and 1983. This decline was concentrated in crude materials and fuel exports.
- Canadian exports declined, relative to those of the three largest exporting countries, in most industries between the periods 1971–76 and 1976–81. The declines were largest in several of the raw-materials sectors.

These observations do not imply that declines in real income or adjustment problems of a catastrophic nature are on the horizon for Canada, but neither do they present a picture of an economy poised for dramatic income gains.

Productivity growth is the ultimate harbinger of things to come. The forecasts for the Canadian economy reviewed in Chapter 7 indicate that productivity growth will average between 1 and 1.5 per cent until the end of this century. This represents a substantial improvement over the 1973–81 period, but it is not guaranteed; in any event, we shall benefit if we can do better.

Commissioners have drawn attention in this Report to new sources of international competition, notably the newly industrializing countries of East Asia. We have also drawn attention to the rapidity with which technological innovation and the mass-production techniques of industrialized countries are being adopted globally. International trade competition is undoubtedly intensifying. We have already argued that Canada should not try to shelter itself from this competition; instead, we Canadians should actively seek a more liberalized trade environment and a more liberal trade arrangement with the United States.

If we are to meet these challenges successfully, the fundamental strategic objectives of industrial policy must be enhanced productivity growth and a stronger competitive position. Accomplishing these objectives means, in turn, strengthening the environment for the efficient allocation of resources and adjustment to new realities. It also means strengthening the basic factors in the economic processes of production and marketing.

A Macro-economic Framework to Support Industrial Development

Private enterprise is the dominant driving force behind our economic system. In order to function efficiently and effectively, however, it must be supported by macro-economic measures, including fiscal and monetary policies designed to promote steady growth of output and employment in a context of relative price stability.

While stable output, employment and prices must be maintained if the private sector is to function effectively, government has only a limited ability to ensure this stability. Canada is subject to external shocks that government can cushion, but that it cannot prevent. The Canadian economy's extreme vulnerability to the international business cycle was emphasized by the 1981–82 recession. Of all the OECD countries, Canada suffered the worst decline in output during that recession. Nor is Canada vulnerable only to swings in the business cycle. Changing commodity prices, exchange-rate fluctuations, the vagaries of weather conditions, and a host of other factors can have a very unsettling and costly impact on Canada's economy. The 1973 and 1979 hikes in world oil prices, imposed by members of the Organization of Petroleum Exporting Countries (OPEC), had and continue to have profound effects on this country. The inflation spiral and the productivity slow-down date from the onset of sharply higher world oil prices, although the price rise was by no means the sole source of these developments. U.S. monetary policy is an external factor that has major implications for interest rates in Canada, which in turn have major implications for the functioning of our economy.

Chapter 10 examines at length the various constraints on the exercise of macro-economic demand-management policy in Canada. The examination points out the limits on what may be achieved through monetary and fiscal policy in an economy as open as Canada's. It also argues that to be effective, demand management should be exercised within a medium- to long-term frame of reference.

While monetary and fiscal policy cannot provide a wholly stable domestic economic environment, they can, on occasion, add to the instability of the environment. For example, of the 19 federal budgets introduced between 1968 and 1984, all but five announced new housing programs or revised existing ones. Many of the programs were designed to stimulate the housing industry and, consequently, overall economic demand. Unfortunately, these programs often drove up new housing starts to an unsustainable level. Slumps in construction followed. Some years ago, the Economic Council of Canada concluded that greater stability in construction activity was important as a

means of promoting productivity growth in the industry.[9] A longer-term framework for government housing policy could help to provide the stability required to promote productivity growth and thus complement the objective of industrial policy.

Federal budgets and mini-budgets have appeared with increasing frequency over the past decade. At times they have put forward proposals that were sweeping in concept and complex in administrative detail. The 1980 federal budget, which introduced the National Energy Program (NEP), illustrates this point. The NEP precipitated a considerable outflow of direct-investment capital as Canadians acquired interests, previously held by foreigners, in the petroleum industry. Although interest rates were already high enough to cause serious problems, they were driven still higher by the heavy borrowing undertaken to finance these acquisitions. This was only one of the unsettling consequences of the sweeping changes introduced by the NEP.

The frequency of changes in the tax laws over the past several years may also serve to undermine measures designed to encourage capital investment. It is clear, at least, that the carry-over of proposed tax legislation from one session of Parliament to the next has created an uncertainty about the status of many of the proposed new measures that can only impede capital investment and innovation in the private sector.

The principle that flexibility and adaptability are essential in a rapidly changing world extends to the exercise of macro-economic policies. As much as possible, however, governments should try to provide consistency in the overall macro-economic and micro-economic framework; unnecessary changes should be avoided, and unavoidable changes should reflect a medium- to long-term perspective. By taking this approach, governments would facilitate both decision making in the private sector and consultation between the private sector and the public sector. The private sector, in turn, must be consistent in its proposals for government initiatives.

A Commitment to Freer Trade

Commissioners have already pointed out that commercial policy constitutes a critical part of industrial policy in a small open economy such as Canada's. Part II of this Report outlined our reasons for supporting continued efforts both to reduce multilateral trade barriers and to establish much freer trade – if not free trade – with the United States. We are saying, in short, that a key component of Canada's industrial policy should be a commitment to freer trade, which should be matched by a freer flow of capital investment than there has been over the past decade or so.

The question of whether to opt for free trade or for protectionism is undoubtedly the key issue to be resolved in forming an industrial policy. This issue is brought more sharply into focus by the growing use of import quotas, export subsidies, dumping duties and restrictive government-procurement policies. The post-war trend toward freer trade has been threatened in recent years by a tendency toward "managed" trade. Given the domination of a number of industries by oligopolistic multi-national corporations, this is a

tendency that can have a particularly adverse effect on a country such as Canada.

To the greatest extent possible, Canada should avoid engaging in negative defensive competition with other countries in an effort to promote particular exports. Such an approach might serve only to encourage capital investment in areas where Canada has no comparative advantage. Rather than engaging in expensive international contests that depend ultimately on the amount of subsidy each nation is prepared to provide to a given industry – a game in which all contestants are losers – we should continue to work with other nations to build on the remarkable trade-liberalization achievements of the post-Second World War period.

Because the process of revising the framework of multilateral trade is cumbersome, involving as it does so many countries, and because Canada's trade is overwhelmingly with the United States, Commissioners have argued that there would be great merit in making a special bilateral effort to achieve freer trade with our neighbour to the south. In our view, a commitment to freer trade – on a multilateral basis if possible, but at least with the United States – would provide the single most important incentive for private enterprise in Canada to become more efficient, more innovative and, hence, more competitive.

Canadian corporations vary as widely as corporations elsewhere in the world in their ability to anticipate and respond to change and opportunity. The best of these companies are probably as able as the best anywhere, and it is likely that the same comparison also holds true of the worst. Under the protection of tariffs, quotas and other forms of support, some Canadian managements have become complacent. As data to which we shall refer later indicate, many Canadian firms are less subject to competitive market forces than are their American counterparts. As a consequence, Canadian firms may be less prepared to abandon losing operations and more likely to turn to government when they are in trouble. Of course, many Canadian companies have broken out of this pattern, and many American firms exhibit some degree of inertia. In general, however, adjustment in Canada has tended to be slower than is desirable in terms of economic efficiency.

Increased competition from the world in general, and the United States in particular, would work powerfully to induce Canadians to allocate our human, capital and natural resources in ways that would improve the country's productivity. As Commissioners have already indicated, governments in Canada should not attempt to shield domestic industry from the forces of change and the reallocation of resources that change inevitably involves; instead, they should work with industry to help it to adapt to change as easily as possible. The institution by governments of measures to facilitate the adjustment process should constitute a major component of industrial policy.

If Canada is seen to vacillate on its commitment to freer trade relations, its ability to persuade other countries to move forward in this direction will be greatly diminished. Vacillation would also encourage domestic industry to seek shelter from the harsh discipline of international competition by pressing

government for various forms of assistance. The message from government should be consistent and fair: the primary objective of industrial policy and trade policy will be to enhance the ability of the Canadian economy to respond to competitive market forces.

Since Canada's industrial policy and trade stance are so closely intertwined, a commitment to freer trade must be accompanied by a commitment to "level the playing field". If we achieve a free-trade arrangement with the United States, Canadian firms must receive effective access to all markets. The Canadian tax structure must allow domestic industry to compete effectively with foreign firms, and the regulatory framework must not unduly impede the restructuring of industry that is a necessary part of the adjustment process. In other words, it would be even more important in an environment of free or freer trade with the United States than it is now for certain of our policies to be sufficiently similar to those of the U.S. government to enable us to be reasonably competitive. This does not mean that all aspects of our industrial policy would have to approximate that of the United States. It is instructive to recall that France and West Germany have very different approaches to industrial policy: France favours a targeted approach, while West German policy is more market oriented. That such different approaches to industrial policy are permissible within a common market should allay fears that Canada would be unable to pursue independent policies in a less binding trade association with the United States. It is necessary to distinguish those areas of policy, such as taxation, where a parallel approach is required for competitive reasons, from those areas where a different approach is required because of differences in the economic structures or the natures of the two countries.

A commitment to freer trade cannot, of course, ignore the realities of the efforts of other countries to promote their exports. A widespread form of promotion is the provision of export insurance and financing, often at subsidized rates. In general, governments play an increasingly active role in international business transactions. They often justify this activity by reference to the similar actions of other governments.

The Export Development Corporation (EDC), established by the federal government in 1969, is the principal Canadian government agency involved in export insurance and financing. The Canadian Wheat Board and other Crown corporations also extend credit to purchasers of Canadian exports. However, the key role in the financing of Canadian trade is played by the commercial banks. Ninety per cent of our export trade relies on short-term financing, an area dominated by commercial bank activity.

The Export Development Corporation, which finances about 5 per cent of exports, concentrates on medium- and long-term financing to maturity, granted at a fixed price. Commercial banks may compete with the EDC in offering medium-term financing and may co-operate with the EDC in offering long-term financing of various types. The EDC directs the bulk of its financing to the support of export sales to countries in Africa, Eastern Europe and South America.

There are clearly dangers in unrestrained competition among countries in subsidizing exports. Recognizing these dangers, the OECD countries have

agreed on minimum rates for export financing. In this Commission's view, Canada should continue to support efforts to further limit subsidy activity. Meanwhile, the realities of competition for export markets must be faced. If other countries subsidize the financing of their exports in markets where Canadians wish to sell, the Canadian government must consider similar action. It must be careful, however, to ensure that the amount of the subsidy is consistent with the benefits obtained. It is not desirable to subsidize the exports of Canadian products unable to meet competitive prices even in the absence of export subsidies by other countries.

While export subsidization may be a legitimate defensive action in some situations, other means of meeting competition should be considered. Is there scope, for instance, for a more efficient design of existing programs? A research paper prepared for this Commission argues that private institutions can undertake most of what is now done by the EDC.[10] According to this study, the EDC could leave short- and medium-term insurance to the private sector, while providing re-insurance and acting as an insurer of last resort for large or very risky projects.

A recent federal government consultation paper considers the possible results of increased involvement of the private sector in export finance and insurance.[11] It concludes that the cost of government subsidies to the private financial institutions would likely be greater than the implicit subsidy associated with the working capital extended to the EDC. However, the greater cost could be offset by the increased volume of exports that might accrue to Canadian exporters from the improved services offers by chartered banks.

One possibility, then, would be to channel all subsidies for export finance through private financial institutions. The role of the EDC would be to administer the subsidy mechanism, to monitor the benefits of the subsidies, and to continue to discharge some of its guarantee and insurance functions. While this possibility merits serious consideration, the difficulty of regulating the required subsidies poses tough political and administrative problems. Commissioners therefore recommend caution in moving toward "privatization" of the functions carried out by the EDC. While increased involvement of financial intermediaries would appear desirable, it must be noted that their involvement is already extensive. At issue are those cases in which market failure is likely, and in which national interests are not likely to be served by market forces. Government participation through the EDC and other such agencies would appear warranted; other countries have apparently reached this conclusion, since they have maintained similar agencies.

A Commitment to Strengthening Canada's Labour, Capital, Technology and Management Inputs

Measures for improving the training and adaptability of Canada's labour force are proposed elsewhere in this Report. Commissioners' recommendations include the institution of new means for financing post-secondary education; less emphasis on institutional training and more emphasis on on-the-job training; greater incentives for retraining and mobility; and greater

incentives, through gain sharing, for consultation between management and labour on wage levels and productivity initiatives. In Chapter 8, we have already addressed the questions of capital formation, technological progress, management and entrepreneurship. Since in that chapter we did not address these important elements of our economy in the framework of an industrial policy, it may be helpful to summarize briefly here our main conclusions with respect to them.

Capital Formation

While some recent studies have suggested that taxation of savings and investments may impede the growth of the capital stock, the portion of capital investment undertaken in Canada over the past few decades in relation to gross national product (GNP) has been reasonably satisfactory by OECD standards. Commissioners' studies indicate that the government should review the effect of the tax system on savings and investment, to see, in particular, whether it encourages unproductive forms of savings and investment, and to assess the adequacy of allowances for inflation. The reviewers should also consider the effects of shifting the basis of personal and corporate tax from net income to expenditures, as we shall explain more fully below.

Research and Development

A target level of expenditures on research and development (R&D) in relation to GNP would not, in Commissioners' view, be a particularly useful element of industrial policy. The effectiveness of R&D expenditures is much more important than their quantity. To increase the effectiveness of R&D, we have advocated that governments consider several steps. They should ensure that existing incentives are available to all businesses by refunding to taxpayers credits which the latter cannot claim, under present arrangements, if they lack taxable income. They should broaden the definition of R&D, even though the change might cause administrative problems, and reduce the rate of tax subsidy. They should ensure that adequate resources are devoted to obtaining information about foreign technological developments. Canada should maintain a network of contacts with experts in other countries and should establish a more frequent Canadian presence in new technological development. Governments should also increase the exposure of domestic industry to international competition.

Acquisition of Technology

New technologies are being shared more and more on a world-wide basis, and the originating country often has little lead time over other countries to exploit the benefits of its discoveries. Canada draws extensively from the world pool of new technologies, in part through foreign investment by multinationals. Within Canada, new technologies seem to spread more slowly among manufacturing industries than in other countries. One means of speeding up the process is to provide the spur of liberalized trade and

increased competition. In addition, minimizing barriers to the flow of direct investment would also encourage early Canadian adoption of new technology.

Public policy in the area of education, together with measures that encouraged the gathering and dissemination of information on new advances in technology, could also contribute to improved technological adaptation in Canada. Greater emphasis on science, engineering and business courses in post-secondary education may be necessary. Universities should be more active in undertaking R&D that has a commercial potential. The National Research Council's initiatives in gathering and disseminating information could provide a model to be followed by other similar organizations. In other countries, technology brokers, contract-research organizations, and "think tanks" have played a pivotal role in the acquisition of technology. Both Canada's private and public sectors should involve themselves more actively in these types of endeavours. The recent establishment of the Canadian Institute for Advanced Research is an example of private sector initiative, undertaken with public sector support, which will help Canada move to the forefront of technological innovation.

Management and Entrepreneurship

Increased international competition would make all the more compelling Canada's need to develop business management that can match the best in the world. In addition, it would itself act as a sharp stimulus to the improvement of the quality of Canadian management. While government can help to up-grade management by reorienting assistance to small business and increasing support to education in business administration, the responsibility for improvement rests principally with business itself.

Entrepreneurship plays a key part in developing our economy. While small business is a vital source of entrepreneurship, there are other sources, too, which require encouragement. Some tax changes might encourage venture-capital activity. Relaxing regulatory restrictions might increase equity investment by financial intermediaries in small and medium-sized firms; in addition, the federal government should change the tax system to encourage companies to issue equity capital (as opposed to debt) and investors to hold such shares.

Other adjustments respecting small business and entrepreneurship include review of the capital-gains tax (especially the deemed realization of capital gains when the proprietor of a family business dies), a greater degree of neutrality in the tax system, and greater awareness of the problems of access to government subsidies. In addition, governments should recognize that requirements imposed in connection with the administration of social benefit programs pose particular problems for small firms.

A Commitment to Framework Policies that Encourage Adaptation and the Efficient Allocation of Resources

We Commissioners have repeatedly urged that governments pursue an industrial policy that relies heavily on the responsiveness of the private sector

to market forces, rather than on active intervention by government in the market-place. Moreover, we strongly believe that this approach must be complemented by measures which will encourage the process of adjustment to new competitive forces in a way that is consistent with the efficient use of our scarce human, capital and natural resources.

Tax Policy[12]

The tax system is one of the most important determinants of economic growth over the longer term. When the Royal Commission on Taxation (the Carter Commission) reported in 1966, one of the foremost goals of policy analysts was the establishment of a tax system that was equitable in its treatment of different groups. While equity remains an important goal, tax specialists now stress the need for a system that is calculated to encourage economic efficiency. This shift in emphasis is partially explained by a growing awareness of the constraints imposed by Canada's exposure to large international capital flows, which can be strongly influenced by the tax system.

In designing tax measures, governments must consider their effect on both the allocation of resources and the distribution of income. This Commission has focused its attention on those features of the tax system that appear to detract unnecessarily from the long-run growth of gross national product (GNP), and on those income features that have little to do with distribution goals or that could be altered and still be consistent with such goals. To understand the issues involved, it is necessary to be aware of some very general relationships between the tax system and economic growth. Personal and corporate-income taxes that accrue from income derived from capital may reduce savings and investment and, hence, the capital stock; since the size of the capital stock is an important determinant of potential output, it follows that taxes of this kind can affect Canada's growth.

Tax measures that are biased against risky undertakings may cause investors to direct an undue share of resources toward mature stable industries. Taxes on wage income can influence the incentive to work, while payroll taxes, such as those that support Unemployment Insurance and pension funds, can induce firms to substitute capital for labour. Commodity taxes favour some commodities, and thus some lines of production, over others. Some taxes, such as those on alcohol and tobacco, may be deliberately used to discourage production and consumption. Finally, economic growth can be influenced by the relative complexity of the tax system.

Personal income taxes, including payroll taxes, drive a wedge between the value of output produced by a factor of production and the net return received by the owner. Consequently, less of the factor may be supplied than is desirable. Both the U.S. Treasury's *Blueprints for Basic Tax Reform*[13] of 1977 and the United Kingdom's *Meade Report*[14] of 1978 recommended adoption of a tax system based on consumer expenditures, referred to hereafter as a "consumption tax". A consumption tax, which would replace the existing personal and corporate income taxes, would be based on what one

removed from the "social pot" rather than on what one contributed in the form of income. Unlike existing levies on consumption, such as the retail sales tax, a consumption tax would not be imposed on individual items of purchase. It would be calculated on the basis of total income over the year, adjusted for the change in registered savings; the resulting figure would represent total consumption during the period.

Consumption taxation, unlike income taxation, does not distort savings. An income tax, by taxing the returns to saving, raises the "price" of future consumption relative to present consumption and thus favours the latter. Under a consumption tax, present and future consumption bear the same rate of tax. The consumption tax, therefore, does not influence the timing of consumption or the level of savings and investment. Replacement of the income tax by a consumption tax would also result in an increase in the labour supply and in the rate of return on investment. It would appear then, that to move from an income-based tax to a consumption-based tax could result in substantial efficiency gains and a major boost to GNP. One econometric calculation made in the United States has estimated that a switch to a consumption tax could lead to a sustained increase in GNP of as much as 10 per cent.[15] The gains in the more open Canadian economy would probably be smaller.

The consumption tax is often criticized on the grounds that because it would exempt capital income, it would be regressive. This argument overlooks the fact that the rate structure of a tax is independent of the base. The desired degree of progressivity can be achieved through a consumption tax—as it can be achieved through an income tax—by altering the rate structure. During the transition from an income-based tax to a consumption-based tax, some taxpayers would gain and some would lose; transition provisions could moderate this result, but it would remain a problem.

On balance, there appears to be merit in the concept of a consumption-based personal tax system. The present system's provision for Registered Retirement Savings Plans (RRSPs) and Registered Pension Plans (RPPs) has already moved it some distance in the direction of a personal consumption tax, and to ease or remove the present restrictions on RRSPs and RPPs would be a logical step in extending this process. Current restrictions exclude these funds from the benefit of the dividend tax credit, thus creating a significant incentive to hold debt rather than equity. This is an example of a tax disincentive to equity investment in Canada.

Certain features of the current personal income-tax system introduce distortions by unduly favouring particular types of savings. Thus, until the May 1985 budget measures, contributions to a Registered Home Ownership Savings Plan (RHOSP) were sheltered (up to a limit), and withdrawals remained untaxed if they were used to purchase housing. Other provisions of the present system that may be overly generous to capital income are the $1000 pension-income deduction and the Quebec Stock Savings Plan.

A feature of the existing corporate income-tax system that distorts resource allocation is its lack of indexation provisions for inflation. Although *ad hoc* adjustments such as accelerated capital-cost allowances help to offset the effects of inflation on the cost of capital, such adjustments are not sensitive to

the level of inflation. Inventories, in particular, have been severely hit by high effective tax rates during periods of rapid inflation. The simple remedy would be to index to the general price level the capital-cost allowance and the first-in/first-out cost of inventory. Alternatively, the problem relating to inventories could be solved by allowing the last-in/first-out approach to inventory accounting.

Because the corporate income-tax system does little to take into account the degree of risk associated with a given rate of return, it is, in effect, biased in favour of "safe" investments. Various measures have been introduced to compensate for this shortcoming, but their effect is selective. For resource industries, these measures include fast write-offs for exploration and development expenses. Other tax measures, such as the investment tax credit and accelerated capital-cost allowances, help to offset risk associated with R&D expenditures and investment in manufacturing. The current provisions of the capital gains tax are, however, biased against risk-taking; this bias is illustrated by the fact that capital gains are fully subject to tax, while limits are imposed on the amount of capital losses that may be claimed against other income.

In view of the extent to which the present corporate-tax system distorts investment, this Commission has concluded that governments, in consultation with business, should consider adoption of an alternative means of calculating the corporate-tax base. Fundamentally, the corporate-tax base is currently defined as accruing revenue less current costs plus the cost of depreciation and interest on debt: that is, the inherent rental cost of a firm's capital. The alternative Commissioners suggest for consideration is adoption of a cash-flow method of defining the tax base. According to this method, the tax base is defined as revenues less all input expenses on a cash-flow basis. Thus capital investment would be immediately deductible, but no deductions would be permitted for interest or depreciation. Achievement of the full benefits of this approach would require a provision for the refundability of "negative taxes": that is, the refundability of any excess of deductions over taxable income. Full refundability would ensure the neutrality of the tax, reduce discrimination against risky ventures, and make it easier for firms to finance investment.

Research carried out for this Commission indicates that other features of the existing tax system have further adverse economic effects. Resource taxes based on production rather than on earnings discourage output from high-cost sources. The federal sales tax on manufactured goods creates an incentive for retailers to undertake the production of the goods they sell, an arrangement which may not serve the best interests of the economy as a whole. Price regulation can be a form of taxation, and its effects are often as distortive as those of the tax system itself. Thus, for example, when provincial utilities sell electricity to consumers at prices below its real value, this effective transfer of resource rents to power users rather than to provincial treasuries benefits larger consumers at the expense of smaller ones, distorting the allocation of electricity. The same point applies to the federal government's policy, now being abandoned, of setting the price of domestic oil sold in the Canadian market below the prevailing world price.

In its broadest form, then, the tax system has a powerful influence on the allocation of resources in our society, and on the extent to which these resources are produced and consumed. This Commission considers it important that the disincentives inherent in the tax system be replaced with measures that will encourage the efficient allocation of productive resources and the adoption of new processes, products and services. In our view, such measures are necessary components of any industrial policy that will enable Canada to meet its strategic objectives. Tax measures, however, are extremely complex and sensitive, demanding a great deal of analysis and consultation before policy changes are formally presented in Parliament.

The Regulatory Framework

Varying kinds and degrees of regulation by government departments and agencies affect extensive sectors of the Canadian economy: financial institutions, investment dealers, transportation, communications, agriculture and energy, to name only a few. The exercise of such regulation has an important bearing on the allocation of economic resources. Regulatory requirements should, therefore, be as consistent as possible with what Commissioners consider ought to be the primary objective of Canadian industrial policy: fostering the growth of productivity and competitiveness.

Over a period of some years, complaints have been growing, in some quarters, that Canada is overregulated. Submissions to this Commission frequently repeated these complaints. These allegations beg certain questions: Is there more regulation in Canada than in most other countries? Has regulation increased at a faster pace in Canada than in other countries in recent years? Do the nature of Canada and our traditions and values suggest the need for a more extensive regulatory framework than that required by other countries, including the United States? The answers are important because excessive or misdirected regulation can constrain competition and restrict improvements in productivity.

Since so much of Canada's trade is with the United States, the most pertinent international comparison of our regulatory framework is with that of our major trade partner. A 1980 study represents the most thorough attempt to determine the extent and/or intensity of economic regulation in Canada compared with that in the United States.[16] The study concluded that the scope of federal regulatory activity in Canada is similar to that in the United States. It found dramatic differences, however, in the statutory restrictions placed on regulators, which are much greater in the United States than they are in Canada. Resources devoted to the enforcement of regulations at the federal level were proportionately higher in Canada both in 1970–71 and in 1977–78. The authors of this study concluded that the intensity of enforcement of regulations was about the same in the two countries. The rate of growth of federal regulatory activity during the 1970s was roughly the same in both countries, although employment growth among federal regulators was greater in the United States.

According to this 1980 report, as of the late 1970s, a moderately larger proportion of the gross domestic product (GDP) was generated in sectors

subject to price or entry controls in Canada than was so generated in the United States. Most of the difference was the result of the greater prominence in Canada of regulated sectors, such as transportation, rather than the result of a greater degree of regulation. An exception is the agricultural sector, which is more highly regulated by marketing boards in Canada than in the United States. A survey paper[17] prepared for this Commission estimated that in 1978, 31 per cent of Canadian GDP was subject to price, output or entry controls, and that this proportion had increased to 34 per cent by 1980.

There are other differences, too, between the Canadian and American situations. Canada often regulates largely state-owned industries, such as railways, airlines and telecommunications, while the U.S. Administration does not generally undertake this responsibility. Moreover, although Canadian regulation is at least as broad as that of our neighbour, there may be a difference in the burden it imposes. The types of programs that American business people find the most onerous – occupational health and safety, fair employment practices, and environmental protection – have tended to receive less emphasis in Canada.

Regulatory activities that are more extensive in Canada have usually involved specific industries, such as airline and railway transportation, and areas of agriculture under the control of marketing boards. Many observers have argued that a desire to increase profitability often motivates regulation of particular industries. In this respect, regulation in Canada may be less burdensome, from the point of view of those regulated, than it is in the United States.

Since publication of the 1980 study mentioned above, the regulatory picture has changed considerably: there has been a move toward deregulation in the United States and, to a much lesser extent, in Canada. A more recent study[18] calculated that the proportion of U.S. economic activity carried out under "effectively competitive conditions" rose from 56 per cent in 1958 to 77 per cent in 1980. The study attributed the increase in competition to the decreasing importance of scale economies in manufacturing, rising competition from imports, and anti-trust activity and deregulation. The author was unable to measure the contribution of the decline in scale economies to the increase in competition. He estimated by abstraction, however, that import competition accounted for 37 per cent, anti-trust for 40 per cent, and deregulation for 23 per cent of the remaining increase in competition between 1958 and 1980.

Since the mid-1970s, U.S. deregulation has affected the following industries: telephone equipment, railroad transportation, trucking, air transportation, long-distance telephone service, banking, and security and commodity brokers. The study just referred to concluded that U.S. anti-trust authorities spurred deregulation:

> *It was Antitrust Division pressure that led the Securities and Exchange Commission to abolish the fixing of stock-broker's fees in 1975. New competition in the telephone sector has partly been created by antitrust cases and pressure on the Federal Communication Commission. The deregulation of banking entry and pricing has also been advanced by a variety of antitrust actions.*[19]

Canadian officials have acted in a similar matter. As a result of the 1975 amendments to the Combines Investigation Act, the Director of Investigation and Research can appear before marketing boards and regulatory tribunals to represent the public's interest in competition. The Director's intervention has led to some deregulation. The Economic Council of Canada has argued that the regulatory process may not adequately recognize the public interest in free competition. The Director can, by intervening, help to remedy this shortcoming. The role of the Director in defending freedom of entry into the underwriting of unregistered securities is a case in point. To reduce regulation of some important sectors of the Canadian economy would strengthen competition, a development which Commissioners have strongly advocated.

Some limited deregulation has taken place in Canada over the last five or six years. In its announcement of its new air-transport policy, in May 1984, the federal government mentioned some of the problems created by ill-advised regulation of the private sector. The policy statement concerning the air-transport industry contended that past regulation had hindered the adoption of innovative provisions with respect to both services and pricing; reduced the flexibility of airline management in pursuing new market opportunities and in adjusting their operations to minimize cost; hampered the ability of airlines to respond quickly to changes in circumstances; through undue delays in regulatory decisions required airline management to devote excessive time and energy to essentially unproductive regulatory considerations; and because it is difficult to anticipate regulatory decisions, complicated airline planning.

To date, deregulation has brought liberalization of the terms on which airlines can offer discount fares, licence consolidations that allow airlines some flexibility in route structuring, and a greater willingness to approve additional trans-border services. While this development is not nearly as extensive as U.S. deregulation, it signals a considerable reduction of regulatory control of air transport.[20]

Regulatory control, or planning, goes beyond the enforcement of health, safety and environmental standards to effect decisions about who should offer what service, where, when and on what terms. Deregulation of U.S. airlines triggered rethinking of Canadian policy. In any case, the Canadian regulatory process was becoming too complex and too highly subject to political consideration. To limit regulation of the airline industry to issues of safety and quality will probably be economically beneficial. Deregulation in the United States has not caused, as some had feared, loss of service to small communities; it has resulted, instead, in service more appropriate to the size of the communities served.

Some deregulation has occurred also in Canadian telecommunications. Technological change has made competition on a number of fronts both feasible and desirable. In such areas, governments can no longer justify regulation on the grounds that it protects consumers against exploitation by a natural monopoly. Remaining regulation is now clearly intended to redistribute costs, and therefore income, among various groups of users of telecommunications services; to ensure Canadian sovereignty; and to further national unity.

Telecommunications regulation, for example, redistributes costs by permitting long-distance service to subsidize local telephone rates. The issues are complex, and Commissioners would not argue that the rates charged on these services should necessarily equal their respective costs. If they did, however, local-service rates might rise by as much as 70 per cent, and long-distance rates might decline by 50 to 70 per cent.[21]

While Commissioners will not pursue specific issues in telecommunications currently before regulatory authorities for decision, certain broad issues deserve consideration, as they involve regulation generally. Is there a better way to a transfer income than through cross-subsidization of one service by the users of another? Even if there is a better system, can our political institutions, including the regulatory agencies, see to its implementation? We shall return to these questions later in this chapter.

As we have seen, the federal government has already reduced regulation and infused increased competition into the telecommunications industry. It has allowed attachment of subscriber-owned single telephone lines, key systems and private branch exchanges to the Bell Canada and other telephone systems; permitted the interconnection of the equipment of other telecommunications systems (such as CNCP Telecommunications) with that of the Bell and other telephone systems; let radio-paging services interconnect with telephone systems; and approved the attachment of coaxial cable to telephone-company structures. As one study[22] has noted, however, not all recent regulatory decisions have supported competition. An example is the 1977 approval of an agreement between Telesat and the telephone companies that precluded any long-distance competition among them.

Some deregulation has also occurred in the financial system. The role of foreign banks in the Canadian economy has increased as a consequence of the most recent amendments to the Bank Act. The distinctions among banks, insurance companies, trust companies and investment dealers is becoming less clear day by day as each group begins to hold assets and issue liabilities that formerly represented the province of only one group. The Government of Quebec has announced that it intends to permit, to the extent that its jurisdiction allows, "full services" to financial institutions by 1985. Elsewhere banks are offering discount-brokerage services, brokers are offering "cash-management accounts", and credit unions are engaging in commercial lending.

The trend in the agricultural sector, however, has been in the opposite direction. In 1971, there were 97 federal and provincial agricultural marketing boards. By 1981 the total stood at 124. In 1962, marketing boards received 14 per cent of farm-cash receipts, while by 1983, the proportion had risen to 55 per cent.

The imposition of quality, safety and environmental standards is potentially of mutual benefit to producers and consumers. Realization of this benefit depends on how these standards are set and enforced. Studies conducted by the Economic Council of Canada have found that quality and safety standards have been effective in reducing serious accidents. Problems continue to exist, however, in that standards are often set without proper

consideration of compliance costs. A survey conducted by the Council and submissions to this Commission cited a number of examples of burdensome compliance costs. Stelco claimed that regulatory requirements raised the construction costs of its Nanticoke plant by about 11 per cent, and that its operating cost is 8 per cent higher than if "less stringent, but equally effective, environmental requirements had prevailed."[23] It argued that it could have avoided many of these costs without sacrificing environmental standards. Respondents to the Council's survey also reported incurring substantial costs through participating in regulatory proceedings.

Even more burdensome, perhaps, are both the uncertainty regarding specific application of often-vague regulatory provisions and the necessity for dealing with overlapping agencies and jurisdictions. Individuals appearing before this Commission claimed that these problems were of a continuing nature. Respecting regulatory uncertainty, one participant observed:

> *A major part of the problem with regulation is regulatory uncertainty. The unique circumstance of mining is that it is . . . highly capital intensive and when you get through the various regulations which you have with respect to staking claims and that sort of thing and you find a deposit you want to work at, the approvals process that one goes through in British Columbia will probably take two to three years and an expenditure of somewhere between $5 and $10 million to prove not a whole lot.*
>
> (Tex Enemark, Transcript, Vancouver, June 12, 1984 [vol. 8], pp. 1935–36.)

Another intervenor made this comment on overlapping jurisdictions:

> *We believe that performance generally will be most improved by less, not more, government presence in the market-place. Needed are fewer rigidities, a cut-back of counter-productive regulations, and the removal of such obstacles to commercial efficiency as overlapping plant inspections; interprovincial impediments to the mobility of goods and labour; and the restrictive supply management structures.* (George Weston Limited, Brief, September 24, 1984, p. 1.)

The Economic Council has found that the regulatory process was not, in general, among the more important problems facing the small-business community:

> *Rather, their principal headache seemed to be the paperwork associated with taxation, statistics, and customs and excise requirements. Most of their regulatory difficulties involved zoning, planning, building codes, transportation, and labour standards. Their greatest frustrations with regulations were evident when many regulatory jurisdictions intersected, as in the case of land use and construction.*[24]

Many participants in this Commission's hearings, however, believed that regulation constitutes a continuing burden on small business:

> *Business[es], especially (but not only) small businesses, are burdened with non-productive government regulations. An easing of regulations will be beneficial to all Canadians.* (Canada Jaycees, Brief, July 20, 1984, p. 3.)

Participants in this Commission's symposium on small business mentioned the disproportionate burden that regulations, notably those on relations with employees, place on small business:

> *Another problem that we find onerous to small business is the over-regulation . . . In the Province of Ontario where we have the Employment Standards Act and the Human Rights Commission – all of these things don't present too much of a burden to the large business, but they [reduce] . . . the flexibility of a small business.* (Russell Beach, Beach Industries Limited, at Royal Commission, Small Business Seminar, Transcript, October 15, 1984, pp. 79–80.)

For smaller businesses, then, the regulatory framework appears to hamper growth and job creation.

While a great deal of regulation concerns our collective interest in safe products, a safe work place, and a healthy environment, much of it oversees the transfer of income from one segment of society to another. This activity involves provision of services at less than cost to some users and at more than cost to others, and/or monitoring the returns to the producer(s) involved and establishing limits on their charges as means of restricting profits to a "reasonable" level. As Commissioners have stated above, effecting these income transfers often requires a detailed regulatory intervention by government, which we have referred to as "regulatory planning" or "control".

Two survey papers[25] report the size of some income transfers resulting from regulation. There are transfers from one group of consumers to another in the telecommunications, airline, railway and trucking industries. The expense of undertaking these transfers includes the cost of the regulatory process itself; the consumption forgone on purchases deterred by regulated prices higher than they would have been under competitive conditions; the additional production cost incurred as a consequence of substituting less efficient for more efficient producers and techniques; and the costs of seeking and defending beneficial regulatory provisions.

Would society benefit from reduced regulation? One school of thought says that regulatory transfers are not visible to those who must pay for them. Making them more explicit – by including them in the tax-expenditure process, for example – would increase their "political cost" and correspondingly reduce their popularity. In some cases, then, governments would cease to permit transfers that were feasible only by regulation. Society might benefit from this outcome.

Transfers might continue in some areas, by cheaper (if politically more difficult) means such as the tax system:

> *Recognizing that risk adds to the direct costs of redistributing income through regulation leads to a better appreciation of the merit in the economists' dictum that a direct cash subsidy paid out of general tax revenue is a more efficient instrument for redistributing income than is direct regulation.*[26]

One of the research studies prepared for this Commission[27] sounds a proper note of caution. It argues that we often do not know whether a practice of a particular industry is part of a cross-subsidization scheme. Prices are generally the same, for instance, for small and extra-large shirts. Does this

represent a cross-subsidy from small to large persons? Or does it reflect the fact that price differentiation would be more bother than it would be worth? Furthermore, even when we identify cross-subsidization, we are not sure of its ultimate beneficiaries. Local telephone rates are higher for businesses than for residences. It is difficult to judge who ultimately benefits from this differential. It is not easy, then, to make regulatory transfers more explicit and more politically visible. Nevertheless, some movement in this direction appears desirable.

In conclusion, regulation involves complex issues. The first fundamental is to determine who should make the regulations, and how they should be made. Given the requirement that the regulator be disinterested, government is the obvious choice. More pressing issues of current concern relate to the regulatory process itself. Commissioners have identified a number of shortcomings and have put forward a number of proposals for correcting them. The problems raised include: an excessive degree of regulation in certain areas, compounded by the existence of conflicting and overlapping regulations; the granting to the regulators excessive discretion, which adds to uncertainty; insufficient consultation on proposed changes in regulatory provisions; and the obscurity surrounding the transfer of costs (income) often inherent in certain regulatory requirements. As a means of reducing or eliminating these problems, Commissioners suggest reform of the regulatory process in several areas.

Suggested Reforms

Sunset Provisions. Commissioners propose a "sunset clause" for major regulatory activities undertaken by federal departments and agencies. The primary purpose would be to require Parliament periodically (perhaps every ten years) to consider whether a particular regulatory function should be continued. If Parliament approves continuation, it could revise the governing legislation to take account of changing conditions and circumstances, as is required every ten years in the case of the Bank Act.

Reducing Regulatory Discretion. Governments usually establish regulatory bodies to undertake functions that require the exercise of judgement. As a consequence, they must give regulators some discretion in carrying out their mandate. Governments may, however, give regulatory authorities too much discretion and thus add unnecessarily to the uncertainty surrounding the process. Commissioners suggest review of the existing mandates of regulatory bodies to determine whether Parliament could more precisely define the responsibilities of the regulator and more accurately describe their routine procedures and proceedings.

Increasing Consultation. Within recent years, public authorities have increasingly recognized their obligation to consult those affected directly and indirectly by the establishment of new regulatory processes or changes in existing ones. This obligation should apply to proposed regulatory provisions

made by the government itself and those of a more detailed nature proposed by regulatory bodies. The federal government could give new momentum to the process by requiring the government and/or the regulatory body concerned to consult with the public and other special-interest groups, as appropriate, on proposed changes in regulatory requirements or procedures. Parliament should oversee this consultation process.

Overseeing Regulatory Redistribution of Incomes. Through the exercise of their authority, as Commissioners noted earlier, many regulatory bodies sanction or require redistribution of costs and, thus, of incomes, often through cross-subsidization among various users of a particular service. Each case needs examination on its own merits. Such transfers, however, are often hidden or obscure. Without full knowledge of the extent of such redistribution, it is, of course, impossible to consider whether the redistribution is warranted. To make such assessment possible, we suggest that Parliament require regulatory bodies, or perhaps the Director of Investigation and Research, to report regularly to Parliament and the public on the full extent of all redistribution of costs and income sanctioned by regulatory provisions.

Competition Policy

It has often been argued that markets in Canada tend to be less competitive than those in other countries, particularly the United States. Many Canadian industries are characterized by relatively few producers and relatively little variation in market shares over time. Moreover, most analysts agree that Canadian competition policy is ineffective in preventing the concentration of economic activity.

In the 1970s, it became fashionable in North America to diversify, and a number of large conglomerates were formed. These mergers were financed in a variety of ways, but eventually, sizeable amounts of stock came into the hands of institutional and small investors. Thus the conglomerates were forced to face the discipline of the stock market. In Canada, much of the take-over activity was facilitated by heavy reliance on debt instruments, and the only check on the concentration of power was the obligation to make payments to the banks. Substantial pools of private capital were also involved, accompanied by debt financing from the banks, and the acquisition of control of very substantial assets.

A study, undertaken for this Commission, of the concentration of economic activity in Canada reached the following conclusions:[28]

- Aggregate concentration (that is, the share of corporate assets controlled by the largest 25, 50 or 100 enterprises) has risen since 1968 and, especially, since 1975. The proportion of the assets of the largest 100 enterprises that is accounted for by Canadian or government-owned firms has also risen.
- Concentration increased in most of the major sectors over the period 1975–80 as Table 9-15 shows. Underlying these sectoral changes was a wide variety of changes in concentration ratios of industries within particular

sectors, including mineral fuels (+8.3 percentage points), department stores (+12.2 percentage points), and water transportation (−17.1 percentage points). There was little substantial change within the manufacturing sector.

- The pattern that has evolved in Canada is one of declining concentration in industries that were formerly highly concentrated and increasing concentration in industries that were not. This pattern was particularly evident between 1970 and 1980.
- Individual Canadian industries tend to be more highly concentrated than their counterparts in the United States. That is, the proportion of shipments or sales accounted for by the largest four producers is much higher in most Canadian industries. In total, nearly four-fifths of U.S. economic activity is essentially competitive. The estimate for Canada is substantially lower, amounting to only two-fifths of economic activity as measured by GNP.

The question is: What are we to make of this evidence? Let us begin with the problem of increasing aggregate concentration.

Economists generally assess the consequences of industry concentration within the context of a particular sector. Estimates of aggregate concentration are simply measures of the size of the largest enterprises in a given sector of industry in relation to the size of the sector, but not in relation to the size of a particular market. The fact that an enterprise is large does not

TABLE 9-15 Change in Four Firm Concentration Ratio,[a] 1975–1980

Industry	Change
Agriculture, forestry, and fishing	−0.5
Mining[b]	−1.1
Manufacturing	+0.4
Construction	−3.0
Wholesale trade	−4.1
Retail trade	+5.1
Transportation, communications, and utilities	+7.8
Finance	+4.4
Services	+7.6

Source: R.S. Khemani, "Extent and Evolution of Competition in the Canadian Economy", in *Canadian Industry in Transition*, vol. 2, prepared for the Royal Commission on the Economic Union and Development Prospects for Canada (Toronto: University of Toronto Press, 1985).

a. Change in % shipments accounted for by the largest four enterprises (including government enterprises) 1975 to 1980.

b. Indicates 1976 data.

necessarily imply adverse economic consequences; on the contrary, large enterprises are usually expected to benefit from economies of scale. The report of the Royal Commission on Corporate Concentration offers these conclusions:

> *Our study of conglomerate corporations revealed that their diversification has probably not increased concentration within industries and may even have increased competition. There are some indications that conglomerate diversification has decreased the overall efficiency of the firms involved, as measured by return on assets, and that investors in highly diversified firms have received lower-than-average returns. In theory, diversified firms have a greater ability than other firms to engage in a variety of anticompetitive practices (predatory pricing, cross-product subsidization, tied selling, etc.) but we have found only a few instances in which they have exercised this power. We conclude that the proposed competition law can deal with these problems adequately. Similarly, we see no need for special legislation affecting conglomerate mergers.*[29]

Increases in producers' concentration in a particular market can be harmful, but only under a restricted set of circumstances. The number of domestic producers in an industry will not affect competition if the industry is exposed to international competition, or if there are minimal barriers to the entry of new competitors. Even if new entry is difficult and there is little or no international competition, the consequences are not inevitably harmful. If additional producer concentration results in the creation of larger, more efficient plants or in a more rationalized distribution of output within and among plants, then the benefits to the economy of lower-cost production will generally outweigh the costs arising from the increase in monopoly power.

A study done for this Commission finds that increases in lengths of production runs, which are often the result of rationalization, are generally associated with increases in producer concentration.[30] Thus, if our domestic producers are taking advantage of the economies of large-scale production, we should expect them to be large relative to the Canadian market. Moreover, as the rationalization of production proceeds, a number of Canadian industries may become even more concentrated, which would not be an undesirable development.

The importance of liberalized trade as a guarantee of competition cannot be stressed too often. Given the discipline of international market prices, Canada can obtain the benefits of scale and of rationalization economies without suffering any increases in domestic monopoly power. This point is emphasized in a recent Economic Council of Canada study[31] that compares the concentration of domestic *production* with the concentration of domestic *sales*, including sales of imports. When this import-adjusted measure of concentration is used, Canadian concentration levels are much closer to the levels prevailing in the United States. In addition, because trade increased during the 1970s, import-adjusted concentration in Canadian manufacturing actually fell by about 10 per cent during the decade.

Let us turn now to the more general assessment in this Commission's study[32] that the proportion of GNP produced under effectively competitive

conditions is much lower in Canada than it is in the United States. This type of calculation is very difficult to make accurately; other investigators might reach different conclusions. Nevertheless, the estimates contained in the study – that four-fifths of the U.S. economy is competitive, as opposed to only two-fifths of the Canadian economy – do suggest that the difference between the two proportions is significant whatever its precise dimensions.

The study attributes much of this difference to the greater prominence of government-enforced price, output and entry restrictions in this country. For example, it estimates that 86 per cent of the U.S. agricultural sector is effectively competitive, while the corresponding figure for Canadian agriculture is only 53 per cent. The reason for the difference is that Canada makes much greater use of supply-restricting marketing boards than does the United States.[33]

This finding has two implications. First, the power to increase effective competition in the agriculture sector lies almost wholly within the hands of the provinces and the federal government. Governments could do away with supply-management boards or revise their mandates in order to provide greater room for competition, perhaps by raising the limits of permissible supply, by facilitating the entry of new producers, or by allowing for a greater degree of international competition in the domestic market. This point could be applied to many other sectors. The perceived lack of competition in Canada is the result, in many instances, not of an absence of traditional U.S.-style anti-trust laws, but of restrictions on competition put in place by governments themselves.

Secondly, it is important to note that while the United States makes less use of marketing boards than does Canada, our neighbour seeks to achieve many of the same objectives through various price-support systems and other forms of subsidization. It is not difficult to show that while both systems of augmenting farm incomes entail economic costs, marketing boards are often less wasteful than the U.S. price-support methods. The important point here is that competition is a means, not an end: there may be instances in which the restriction of competition is socially beneficial or at least preferable to the available options.

Calculations aimed at measuring the degree of competition by reference to the degree of domestic concentration in any given industry can also be highly misleading. In a study undertaken for this Commission,[34] the mining and petroleum industry in the United States is judged, on this basis, to be 96 per cent effectively competitive, while the comparable figure for Canada is only 7 per cent. The study attributes some of this difference to the controls on Canadian crude oil and natural gas prices. It attributes the balance to the high level of concentration in the Canadian sector. It is difficult to believe, however, that a comparison of domestic sectors provides a true picture of the relative amounts of competition in the two countries. The fact of the matter is that the Canadian sector is extensively exposed to foreign competition at home and abroad.

If Canadian producers actually have some monopoly power, they may well exercise much of it in international markets, and this situation may be beneficial, on balance, to Canadians. The potash industry in Saskatchewan

provides an example that illustrates this possibility. The introduction of a pro-rationing scheme and the subsequent consolidation of the industry under the leadership of the government-owned Potash Corporation of Saskatchewan may have resulted in higher returns on export sales than would have been realized in the absence of these measures. In this context, restrictions on competition benefit the economy, since they result in higher profits for Canadian producers and, perhaps, higher royalty incomes for Canadian governments.

In general, the issue is not whether governments should be more diligent in the pursuit of traditional anti-merger, anti-cartel policies. Governments often restrict competition; indeed, they are likely to be actively involved in any significant and enduring restriction of competition. Once this likelihood is recognized, we can ask the essential questions that follow:

- Which restrictions on competition are functional and should be preserved?
- What is the most effective method of eliminating the remaining restrictions on competition?

There are certain obvious functional restrictions on competition that should be maintained. No one would advocate allowing unrestricted entry into the Atlantic and Pacific fisheries, for example. Nor would anyone advocate completely free entry into some professions, although debate would arise about what the entry requirements should be and who should set them. Restrictions on competition in export markets might also be generally beneficial, even if they carried over, to some extent, into the domestic market. In most cases, however, suppression of competition is in the interest of only a particular group, and not in the interest of the economy as a whole. The question, then, becomes how best to promote, maintain or re-establish competition. The two most important means of promoting competition are:

- Trade liberalization
- Elimination of the regulatory restrictions on price, output and entry that apply to certain industries.

In those sectors of the economy whose goods and services flow freely across national borders, international competition is usually all that is required to ensure that domestic markets are competitive. In these sectors, there is little need for public policy to restrict mergers of domestic companies, concentration within particular domestic industries, or co-operative arrangements among domestic suppliers. Even a well-conceived and effectively administered competition policy is a poor substitute for exposure of domestic industry to the winds of global competition.

Competition policy in many market economies has come to reflect the thesis that the economic benefits of efficient large-scale production will often more than offset the economic costs associated with the increase in market power that is usually inherent in the development of economies of scale. In a small economy, increases in the scale of output are certain to produce net economic benefits when they occur in sectors that are subject to open international competition. It is hard to over-emphasize the central role of

freer trade as a force for increased domestic competition. In Canada, the number of combines cases in which removal of trade barriers would have eliminated alleged anti-competitive activities is legion.

The second important condition for greater domestic competition is the elimination of regulatory restrictions on prices, output and entry. Where these restrictions are removed, the possibility of competition from new entrants serves to discipline market participants. Recent theoretical work in industrial organization testifies to the power of potential competition to ensure both competitive pricing and efficient production, even in markets in which there are only a few firms. In Canada, the financial, transportation and professional-service sectors are obvious candidates for partial deregulation of this sort.

Let us now consider competition policy in relation to those areas of the economy that are not subject to direct competition from abroad, either because of their inherent nature (such as construction), or because foreign competition would conflict with other public objectives (such as the protection of communications media for cultural and social reasons). Competition-policy issues also arise where barriers to the entry of potential competitors into an industry (other than the barriers imposed by regulation) are exceptionally high.

Competition policy has traditionally focused on mergers that could be considered to have adverse economic consequences. The present Combines Investigation Act, for example, makes it a criminal offence to engage in a merger "whereby competition . . . is or is likely to be lessened to the detriment or against the interest of the public, whether consumers, producers or others."[35] While this provision, like similar restrictions that applied in earlier years, has proved to be almost totally ineffectual, there is a growing body of opinion that the whole thrust of the policy is misdirected. Since the Economic Council of Canada issued its report on competition policy in 1969,[36] the view has developed that questions relating to mergers should be removed from the sphere of criminal law and be considered on their economic merits by an administrative tribunal as a matter of civil law.

Successive proposals put forward during the 1970s to implement this new approach encountered stiff opposition from the business community, which objected to the extent of the proposed law's application, the discretionary power it would give to the members of the tribunal, the uncertainty it would produce, and other matters as well. Amendments put before Parliament in mid-1984, which were never enacted, would have sought to reduce uncertainty by providing for the courts to adjudicate merger cases on the basis of a fairly simple set of criteria that would have left little or no room for exercising judgement about the economic costs and benefits of a proposed merger.

When the reform measures were first proposed, a number of observers assumed that it would not be difficult for a competent tribunal to distinguish between mergers that would serve the public interest by increasing the efficiency of the economy – a benefit that would outweigh the possible cost of reduced competition in the market-place, which might in any case be avoided

by other means, such as tariff reductions – and mergers that would serve only the interests of the participating parties. Over time, however, most observers have come to a better appreciation of the problems involved in developing adequate criteria for determining which mergers should be approved and which rejected.

Horizontal mergers, involving firms that already serve essentially the same market, should be the easiest to evaluate. In all likelihood, the great majority of horizontal mergers considered by an administrative tribunal would be approved with little difficulty if competition could be maintained by the inflow of goods or services from abroad. Even in industries where international competition was non-existent and the barriers to entry of potential domestic competitors were high, mergers would probably be approved if they seemed certain to increase economic efficiency significantly.

None of the legislative amendments put forward over the past several years proposes that conglomerate mergers – that is, mergers which involve companies operating in unrelated markets – should be subject to review either by the courts or by an administrative tribunal. Vertical mergers, which involve firms that operate in different sectors of an integrated supply chain (the merger of a food processing company with a major food retailer, for example), would almost certainly be subject to review, but adequate criteria for determining which of these mergers are in the public interest have never, to our knowledge, been developed. The basic problem is that market power can be defined only in relation to a particular market, but vertical mergers involve creating an entity that operates across several markets. Thus it is difficult to determine whether or not vertical integration by a firm occupying a dominant market position will be economically beneficial.

The reform proposals put forward over the past several years have also sought to remove the provisions of the Combines Act that treat monopolistic behaviour detrimental to the public interest as a criminal offence. Again, earlier proposals provided for such cases to be considered by an administrative tribunal, while the amendments put forward in 1984 would have referred such issues to the courts for consideration as a matter of civil law.

We Commissioners have already emphasized our conviction that whenever possible, Canada should rely on international trade to ensure the maintenance of dynamic competition in the domestic market-place. Canada should also seek to expand significantly the boundaries of competition in industries where that boundary is now restricted by regulation. In other areas of the economy, however, policy instruments should be available that will maintain as much competition among domestic suppliers of goods and services as is practical in economic terms. To achieve this objective would both serve the interests of consumers and place competitive restraints on the costs of inputs required by Canadian companies engaged in competition with foreign firms, at home and abroad.

In our judgement, the vast majority of corporate mergers that are concluded in response to the dynamics of the market-place should not be of concern from the perspective of public policy, particularly not where the inflow of trade from abroad can be relied on to maintain a healthy degree of competition. At the same time, however, a modern nation with an open

market economy should have available to it, under civil law, the means to prohibit horizontal or vertical mergers that are contrary to the public interest. By the same token, we believe that means should also be available for dealing on a civil-law basis with flagrant abuses of monopolistic power. Such an abuse might occur, for example, where a firm that occupies a dominant position in the market-place sells a product at an exceptionally low price in an effort to drive an emerging competitor out of business.

Observers who accept the need for reform in the regulation of mergers and monopolistic behaviour are generally divided into two groups: those who believe that these matters should be subject to consideration by an administrative tribunal with a right of appeal to the courts only on matters of law, jurisdiction and natural justice, and those who believe that the same matters should be adjudicated by the courts alone. Those who favour the intervention of an administrative tribunal, such as the present Restrictive Trade Practices Commission, argue that only a body of this kind could exercise the economic judgement required to determine whether a particular instance of corporate behaviour was detrimental to the public interest. Those who oppose adjudication by such a tribunal and favour the use of the courts do so precisely because of the freedom the former approach would provide for the exercise of discretion. Such an approach, they contend, would lend itself to arbitrariness and uncertainty.

As Commissioners indicated earlier, we are well aware of the difficulty of developing criteria for determining whether or not certain types of mergers serve the public interest. We also recognize the difficulty of distinguishing between corporate behaviour that is abusive and predatory in its intent and effect, and behaviour that is innocent in intent and in keeping with acceptable competitive practices. Because it is so difficult to make such distinctions, we conclude that it would be better to call on an administrative tribunal to exercise its best economic judgement in the resolution of merger and monopoly cases than to fall back on adjudication by the courts, which are quite unequipped to exercise economic judgement.

We must also emphasize our view that the proposed administrative tribunal should review mergers, alleged monopolistic behaviour, and related matters such as specialization agreements aimed at industrial rationalization only if they appear to offer a serious threat to competition in the domestic market. While the tribunal must be able to exercise its judgement on the basis of the circumstances surrounding each case brought before it, the law and the regulations under which the tribunal is created should carefully define the tribunal's mandate and provide clear guidelines on the manner in which it is to carry out its proceedings.

A study undertaken for this Commission[37] analyses certain types of restrictions on competition that may be imposed along the vertical chain of supply, including territorial restrictions on sales, exclusive dealing and tied-selling provisions, and resale-price maintenance. Since 1975, the first three forms of restriction have been subject to review by the Restrictive Trade Practices Commission, which has various remedies at its command if it concludes that such practices substantially reduce competition in the market-place. In 1951, Parliament made it illegal for manufacturers or wholesalers to

require a retailer to sell a product at a minimum price, although both groups were left free to "suggest" a resale price. Enforcement of this ban against resale-price maintenance has been a major activity of combines authorities over the past three decades. The study undertaken for this Commission contends that there are circumstances in which resale-price maintenance could, in fact, provide significant economic benefits. While Commissioners are not in a position to reach any conclusion on this issue, we do recommend a review of the provision making it illegal in any circumstances to require compliance with resale prices. It might be determined that resale-price maintenance should be illegal only when its detrimental effects on competition demonstrably outweigh its benefits. Alternatively, resale-price maintenance could be made a matter for review by an administrative tribunal, just as exclusive dealing and tied selling are now reviewed by the Restrictive Trade Practices Commission.

For some years, the laws against conspiracies to restrict competition through such means as price-fixing and market-sharing arrangements operated reasonably effectively in achieving their limited purpose. However, recent decisions of the Supreme Court of Canada appear to have undermined the effectiveness of those provisions by increasing the burden on the Crown to prove the intent of the alleged conspirators and the adverse economic effect of their action. In our view, it is important that the law should be amended as necessary to remove these impediments to the Crown.

We agree with the conclusion of the Royal Commission on Corporate Concentration that mergers and acquisitions involving major conglomerates should be dealt with on an individual basis by the federal government and Parliament. As that Commission pointed out in its 1978 report, the decision to prevent a merger is essentially political in nature:

> *The attempted Power-Argus merger was important, not because of its potential effect on competition within industries (which we think would have been minor) but because the prominence of the parties in the economy made their actions significant to the public. Transactions this spectacular will always demand inquiry. We think that conglomerate mergers of this kind should first be analyzed under the competition law, but if (as in Power-Argus) there are no significant competitive implications, or none that could not be dealt with under the competition law, there may still be overriding reasons of public policy that will compel intervention by the state. We do not think it is possible to establish in advance legislative criteria by which unique cases like a Power-Argus merger can be assessed. If the state intervenes to prevent or dissolve a merger like Power-Argus, the decision to do so must be a political one, to be taken by government and Parliament in the light of the circumstances as they see them at the time.*[38]

In essence, the approach taken here leaves the central role of ensuring competitive behaviour to be controlled by the international market-place and the threat of entry of competing interests. It minimizes government manipulation of the structure of domestic industry. While this approach is not in line with the U.S. tradition, it is in keeping with past Canadian practice, certain more recent trends in the United States, and actual practice in most

other industrialized countries. Another study[39] made for this Commission suggests that while most industrial countries have affirmed their support for an effective competition policy, they have not practised what they have preached. Quite simply, while such countries have broadly similar competition provisions on the statute books, vigorous enforcement is the exception rather than the rule.

One factor in this lack of enforcement in most industrial countries – a factor that will cause problems for even a limited competition policy in Canada – is the use of the so-called "strategic" or "targeting" approach to industrial policy, in which governments support domestic firms engaged in high-growth, high-barrier-to-entry activities, in the hope of obtaining a world-wide trade advantage. A major study prepared for this Commission notes that in a small country, targeting is almost certain to guarantee control of the domestic market for the chosen firm.[40] The essence of the targeting approach is early entry and quick movement up the learning curve. The latter achievement is facilitated by the guarantee of a domestic-market base, which provides a context in which to build up volume and expert assistance. Thus, pursuit of this strategy means that a government will not only acquiesce in mergers and specialization agreements, but also actively prevent the erosion of the domestic market base of the chosen firm: that is, it intervenes to deter potential entrants. Competition, in short, would be suppressed.

An example of the tension existing between competition policy and the new industrial strategy is provided by the Bell Canada/Northern Telecom/Bell Northern Research vertical integration case, on which the Restrictive Trade Practices Commission recently reported.[41] Competition-policy issues of a traditional nature were involved. A regulated monopoly, Bell Canada, owns a significant proportion of a telecommunications-equipment manufacturer, Northern Telecom, and both own Bell-Northern Research. The regulated monopoly might pay its captive supplier excessive prices and include these in its rate base.

Vertical links that extend to the final point of sale can be defended on the grounds of increased efficiency and, hence, lower costs. There are further efficiency gains to be made from taking advantage of new technologies developed within associated corporate entities. The central issue in the debate, however, was whether Northern Telecom could have achieved its considerable success in export markets if it had not enjoyed guaranteed access for its products to the substantial Bell Canada market.

The opponents in the debate were the Bureau of Competition Policy, which argued that competing suppliers should have unrestricted access to the Bell Canada market, and the Department of Communications, which maintained that the connection between Bell and Northern Telecom was desirable, since it sustained Canadian jobs in the telecommunications industry and promoted Canada's "technological sovereignty". The Department of Communications argued that all of Northern Telecom's European and Far Eastern competitors had some form of preferential access to their domestic telecommunications utilities; consequently, Northern Telecom could not have achieved its considerable success in export markets if it had not enjoyed guaranteed access to the substantial Bell Canada market. The Restrictive Trade Practices

Commission (RTPC) found that Northern Telecom's preferential access to Bell Canada had not resulted in the latter's paying higher prices for equipment. The connection between the two companies, therefore, did not impose excessive costs on domestic users of their telecommunications services. This may have been true of the Bell-Northern relationship; in general, however, a firm that is guaranteed a domestic-market base would be expected to exploit it. Knowing this, should governments initiate, support, acquiesce in, or oppose market-guaranteeing measures?

The link between the uranium cartel, potash pro-rationing and preferential access to Bell Canada should be recognized. All the arrangements have involved restrictions on competition in which a government has been involved. Each may or may not be nationally beneficial. The question is whether domestic-market guarantees or other restrictions on domestic competition should be extended throughout the manufacturing sector (especially the technology-intensive segment) as an element of industrial policy.

One factor to be considered is the possibility that this strategy may be practical only if it can be hidden, since otherwise it invites retaliation. More fundamental is the question concerning the merits of targeting. In most cases, domestic-market guarantees involve significant economic costs. While such costs might be considered justified if they were more than offset by higher-than-usual profits subsequently earnable abroad, the prospects for such an outcome must be regarded as small.

While the Bell-Northern link may have contributed to the emergence of Northern as a major player in world markets – and may have done so without imposing costs on Bell Canada's customers – this fact does not imply that public policy should set out to duplicate this situation elsewhere. Commissioners' conclusion is that unless there are strongly compelling reasons, domestic competition should not be suppressed in order to achieve industrial strategy purposes.

Our assessment of the major competition-policy issues leads us to conclude that the role of the Director of Investigation and Research under the Combines Investigation Act should be recast. In future, the occupant of this office should be less concerned with mergers, monopolies and vertical restrictions imposed along the supply chain and more concerned with reform of the fundamental conditions that determine the state of competition in the Canadian economy. Such reform would involve opposition to demands for continued or increased tariff, quota or equivalent protection. It would involve efforts to dismantle regulatory restrictions on entry and output, including those imposed by professional associations and marketing boards. Finally, it would involve opposition to attempts to "guarantee" to a single producer access to the Canadian market or to a provincial market. While it is true that the Director has pursued these goals since the mid-1970s, Commissioners are suggesting that this activity be greatly intensified. Competition policy should also seek to ensure that the treatment of foreign investment in Canada is consistent with the maintenance of strong competition. Greater freedom of access to the Canadian market for foreign investment interests should help to increase the degree of competition in the Canadian economy.

The serious efforts made between 1971 and 1975 to reform Canada's competition law ran afoul of what one observer has described as a "swift, massive and overwhelmingly adverse" reaction from the business community.[42] It is in the ultimate interests of all Canadians to try again to reform Canada's outmoded competition policy. In pursuit of this goal, it will be important to retain an existing feature of the Combines Investigation Act: the provisions allowing Canadian firms to co-operate in export markets, provided they do not reduce domestic competition. It will also be important to overcome a shortcoming in the present legislation: the apparent exemption of self-regulated professions (such as law and medicine) from the provisions of the act if their conduct is pursuant to authority delegated to them by provincial legislation.

In order better to formulate and administer appropriate competition policy, the government should consider requiring all large corporations and corporate groups – public and private, foreign-owned and Canadian-owned – to make available to the public information relevant to their operations. Given the relatively small size of Canada's domestic market, a high degree of concentration is necessary in certain industries if Canadian participants in these industries are to compete effectively against foreign enterprises at home and abroad. Yet a high degree of concentration may be considerably less acceptable in domestic industries that are largely sheltered from competition with foreign firms. Lack of domestic competition might make the goods and services produced by such industries excessively costly to Canadian firms which must buy from them. Consequently, these firms might find that their ability to compete against foreign firms is reduced. Given this situation, it is clearly important that Canadian competition policy be capable of responding to a variety of conditions and circumstances. The availability of extensive information concerning the functioning of all large-scale enterprises is a prerequisite for exercising a properly balanced competition policy.

Crown Corporations and Privatization

There have been a number of major acquisitions by such Crown corporations as the Potash Corporation of Saskatchewan and Petro-Canada. Share purchases by the Canada Development Corporation (CDC) and government-pension/fund managers such as the *Caisse de dépôt et placements du Québec* have created several new mixed enterprises. The limited data available indicate that government-equity holdings in all mixed enterprises constituted 7.5 per cent of the equity capital in Canada in 1981: a fivefold increase over 1972.

While government ownership of industry has increased in Canada, it is still not large either by European standards or by comparison with governments' industrial holdings in developing countries such as Brazil, Mexico or India. There are countries with much less government ownership than Canada: most notably Japan and the United States. There is little movement generally, however, away from government ownership, except in the United Kingdom. As is evident from Table 9-16, the British government has sold parts or all of

a large number of state entreprises to the private sector. To date, it has "privatized" or scheduled for "privatization" approximately 10 per cent of government-enterprise assets.[43]

TABLE 9-16 The British Privatization Effort

The Privatization Program

Year	Up for Sale	Amount (£M)
1979–80	5 per cent of BP	276
	25 per cent of ICL	37
	Shares in Suez Finance Company and miscellaneous	57
1980–81	50 per cent of Ferranti	55
	100 per cent of Fairey	22
	North Sea oil licences	195
	51 per cent of British Aerospace	43
	Miscellaneous and small NEB	91
1981–82	24 per cent of British Sugar	44
	50 per cent of Cable and Wireless	182
	100 per cent of Amersham International	64
	100 per cent of National Freight Consortium	5
	Miscellaneous plus Crown Agent and Forestry Commission land and property sales	199
1982–83	51 per cent of Britoil (first cash call)	334
	49 per cent of Associated British Ports	46
	BR hotels	35
	Sale of oil licences, oil stockpiles and miscellaneous	73
1983–84	Second cash call for Britoil	293
	7 per cent of BP	565
	25 per cent of Cable and Wireless	260
	Miscellaneous	132
Summer 1984	100 per cent of BR Sealink	66
	100 per cent of Jaguar	297
Autumn 1984	50 per cent of British Telecom (Payable 1984 – 86)	3 900
Scheduled for privatization before 1988		
	British Telecom (November 1984)	
	British Airways (1985)	
	British Airports Authority	
	British Steel (profitable parts)	
Approved in principle		
	Rolls Royce	
	British Leyland (esp. Land Rover, Unipart)	
	British Shipbuilders (Naval warship yards)	
	National Bus Company	
	Royal Ordinance Factories	

Source: Speech made by Professor Michael Littlechild to a Conference on Weaving a New Industrial Policy, sponsored by the Institute for Research on Public Policy, Toronto, February 1985.

In the light of the British example, we might ask whether Canada should follow suit. The unfavourable financial results experienced by a number of Canadian government enterprises add force to this question, as does the general perception that many Crown corporations are not sufficiently accountable to the government. Furthermore, privatization, deregulation and competititon are related issues. We might note in passing that privatization can be more difficult to arrange than nationalization.

To determine whether a government enterprise should be privatized, we should first consider whether the enterprise serves as an effective instrument of public policy. In some instances, the answer will be obvious. The purpose of the Cape Breton Development Corporation (Devco) is to promote employment in the area through support to coal mining and other forms of industrial development. In other cases, the public-policy function may be less obvious; indeed, it may no longer exist. If a government enterprise is no longer serving a goal of public policy, then we might legitimately ask why it should not be privatized. In part at least, the answer is likely to depend on one's ideological view of whether government should be involved in a business enterprise except to serve a purpose of public policy. Commissioners are inclined to believe that the majority of Canadians would agree that government should not be involved except for pressing reasons of public policy.

Do the interests of public policy continue to justify the federal government's total or partial ownership of such corporations as Air Canada, Canadian National Railways, Teleglobe, Eldorado Nuclear and the CDC? If we put ideology aside, the primary issue is whether privatization of such corporations would increase their efficiency. The available evidence suggests that private ownership of such corporations will probably not result in increased efficiency in most instances. Rather, it appears that by itself, privatization would produce little or no improvement in productivity.

However, private ownership of such enterprises could be salutary in other ways. A case in point involves the deregulation of the airline industry, which many consider cannot proceed very effectively without a significant change in the status of Air Canada. This change might involve the privatization of the airline to make it subject to the discipline of the capital markets and the removal of existing restrictions on competition from other companies, particularly CP Air.

A government enterprise may operate at a distinct and fundamental disadvantage in relation to its privately owned competitors. In these circumstances, privatization would increase efficiency and profitability. One such field might consist of high-technology, market-oriented industries in which public accountability and the resulting bureaucratic rigidity are incompatible with prompt and flexible responses to changing conditions and circumstances. The commercial aircraft business, in which the federal government is deeply involved through de Havilland and Canadair, may be a case in point.

Finally, privatization might increase the efficiency of government itself. Many observers think that government has become so large, so complex and so centralized that regardless of structural reforms, elected officials cannot manage it. While decentralization may provide at least a partial remedy, it

may be incompatible with the accountability requirements of public ownership. A former senior public servant has put the dilemma this way:

> *Besides the difficulty of making public enterprise compatible with international trading and financial policies, there are also real difficulties in making it compatible with our form of democratic government.*
>
> *While this situation has a host of manifestations, its roots lie in four problems: the problem of confict of interest, the problem of accountability, the problem of form and the problem of size.*
>
> *The first problem stems from the fact that the more Ministers and high officals are responsible for actually running an enterprise in business, the more they tend to be in confict of interest with the other duties of their offices. In making decisions on behalf of the enterprise, they are drawn to act either according to the norms of their official functions, which are not the norms of business, or according to the norms of business, which are not the norms required of them in their official functions. Either way they have powers and information not available to business.*
>
> *This problem, compounded by the constraints on the time of Ministers and high officials, plus the fact that they are rarely trained in business much less in the actual enterprise involved, inevitably encourages the delegation of the enterprise to its administrators in a more or less autonomous manner. The result is the second problem, the problem of accountability.*
>
> *The natural inclination of Parliament is to insist upon, and the natural inclination of those managing the enterprise is to assume, the greatest possible autonomy. At the same time, Parliamentarians set, the managers of public enterprise pay lip-service to, and Ministers and officials accept impossibly incongruous levels of responsibility. Government without responsibility risks tyranny; business without a clear chain-of-command risks bankruptcy; and this lack of accountability in public enterprise risks both.*[44]

Thus, while privatization may or may not lead to more efficient operations at the firm or market level, it might result in simpler and more efficient government.

Many Crown corporations have obvious public policy functions. They may, for example, provide employment in depressed regions and services such as transportation facilities, electricity or telecommunications, to various groups, at subsidized prices. Their public policy purpose, such as strengthening national unity, may be more abstract. These functions lead to another question: Could we achieve these public policy goals by other means? The federal government could provide jobs or investment in depressed regions, for example, by subsidizing private firms.

This is an instance where people often confuse means and ends. While the operation of Crown corporations provides one means of meeting the goals of public policy, it is rarely the only means. Where there are other ways to achieve the objective, this consideration may not significantly deter privatization. The privatization of Canadair and/or de Havilland, for example, would not necessarily put an end to the federal government's "presence" in the commercial aircraft industry. That government could provide subsidies for research and development or employment and

investment tax credits to the privatized companies. The question should always be: Can public policy goals be more effectively realized by means other than government ownership?

If a government enterprise no longer has a public policy function, or if other means are available to carry out its function, the federal government, in Commissioners' view, should at least consider privatization. This brings us to the question of how to transfer the government's interest to the private sector. To whom should the government sell a Crown corporation? As a general rule, it should not sell a Crown corporation to the corporation's largest competitor, particularly in industries with limited competition and difficult entry for other would-be competitors. The government might resolve this latter problem by reducing regulatory impediments to new entrants; potential competition might then allow the sale of a Crown corporation to one of its existing competitors.

There is also considerable concern in some quarters that foreign buyers might obtain control of a Crown corporation that is being offered for private ownership. In Commissioners' opinion, it would be an error to exclude foreigners from bidding for shares in such firms. In many cases, such a course would exclude firms that could use the assets of the corporation to best advantage and/or exclude all bidders but existing competitors.

Should the government offer for sale all or only part of its interest in a given corporation? The government might well get a better price if it sells its entire interest – though perhaps it should do so in stages. If it retains effective control, purchasers will know that the government can use the corporation for public policy purposes, perhaps at the expense of profits, and will discount their offer accordingly.

The creation of mixed enterprises from private enterprises causes similar problems. The purchase prices of shares will reflect the possibility of a government buy-in and subsequent use of the firm for public policy purposes. In effect, the possibility that any firm might be the target of a government buy-in raises the cost of equity capital for all firms. For this reason, there is great merit in a policy, such as that followed by the Alberta Heritage Fund, of restricting share purchases by government holding companies and pension-fund managers to 10 per cent of the equity in any company. This restriction would assuage fears of a government's purchasing controlling interest in hitherto private enterprises.

As this consideration suggests, the primary problem is not so much the creation of more mixed enterprises by partial privatization as it is the potential creation, in future, of more mixed enterprises by partial nationalization. Indeed, recent Canadian experience suggests that the first item on the agenda is not starting the process of privatization, but stopping the process of nationalization. Some governments have bailed out privately owned companies that have run into trouble by assuming government ownership. Analysis and experience may suggest that complete or partial ownership by government provides a better means of rescuing such companies than loan guarantees or outright subsidies, but this solution begs the question of whether governments should bail out such companies at all.

Thus, the main issue is not what type of firms Canada should sell, but what type of firms it should stop buying. If governments continue to intervene to "Canadianize", to provide or maintain high-tech jobs or jobs in depressed regions, or to provide subsidized services of various kinds, we shall probably see much more, rather than less, government ownership. The value of these forms of intervention is very much open to question. Reducing the incidence of such examples of intervention would be the first and most important step in controlling the growth of government and mixed enterprise.

To re-examine the role of Crown corporations and the value of mixed public/private ownership of enterprises is a logical extension of reforming competition policy and the regulatory framework. Commissioners' emphasis on increased competition to improve Canada's productivity requires a much broader basis for competition policy, one that addresses all impediments to competition. Concerns about merger corporations and conglomerates have received undue attention, although these must continue to be addressed if, indeed, foreign competition does not act as a check to domestic concentration. Commissioners have noted that the regulatory framework is a frequent impediment to enhanced competition within Canada; for this and other reasons, we have suggested that deregulation – especially of regulatory planning – would be desirable. This undertaking would be useful, however, only if accompanied by some privatization of Crown corporations. It makes little sense to argue for extensive deregulation of the air transportation industry when Air Canada so dominates that industry. Governments should avoid continued nationalization of private assets, particularly in cases designed to bail out firms or industries in trouble. Other means should be examined to assist the transfer of resources to more productive uses.

Foreign Investment and the National Interest

Historically, opportunities for investment in Canada have usually called for more funds than Canadians could make available from their savings. Consequently, Canada has imported large amounts of foreign capital directly, in the form of foreign debt and equity capital (that is, through direct foreign investment). We have, in effect, also imported capital in the form of reinvested earnings by foreign-owned firms already established in our country. Both federal and provincial governments have encouraged capital inflows, as these funds allow the Canadian economy to achieve levels of industrial development not otherwise possible. At the same time, foreign investment has produced high levels of foreign ownership and control of certain sectors of the Canadian economy.

In the decades ahead, foreign capital and the new ideas and techniques that often accompany it can contribute to the growth and prosperity of our national and regional economies. Foreign investment, however, does require us to share control over our economic future with non-Canadians, who may sometimes hold values and aspirations that differ from our own. Moreover, the multi-national nature of most foreign-controlled enterprises makes such firms susceptible to the policy directives of foreign governments, which may be detrimental to Canadian interests. During the past two decades, many

Canadians have expressed heightened concern over the relatively high levels of foreign ownership in our manufacturing and resource industries, and both federal and provincial governments have responded with regulations and other policies designed either to limit foreign control or to mitigate its adverse consequences.[45]

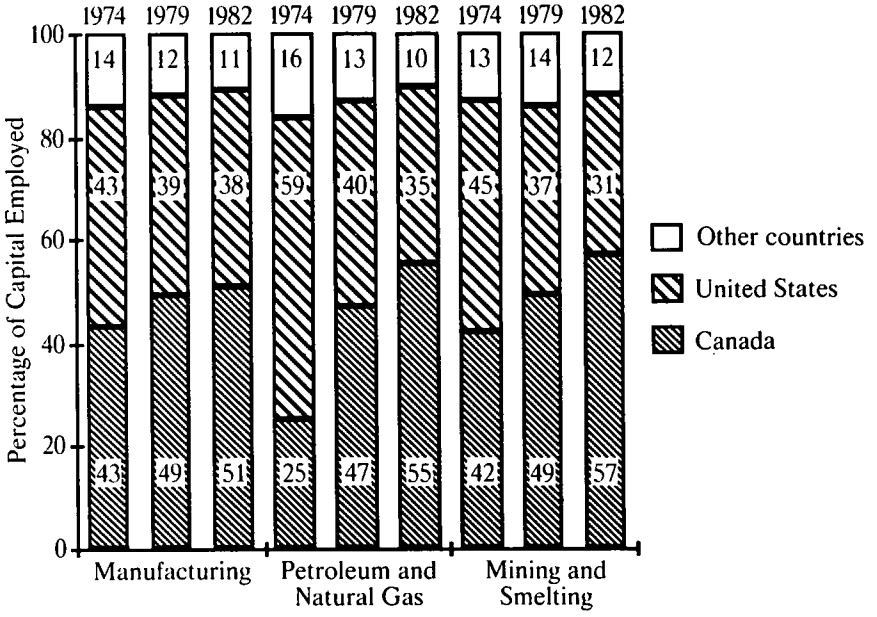
Foreign Investment Issues

While data on developments in the recent past provide an uncertain guide to the future, Commissioners would venture a number of observations about the prospective flows and the stock of foreign investment capital. First, the inward movement of foreign direct investment has decreased from the heights reached in the early 1960s. In fact, Canada's share of global direct foreign investment has fallen from 16 per cent in the early 1960s to 3 per cent in the late 1970s and then to a negative figure in the early 1980s. The National Energy Program alone resulted in an outflow of direct foreign investment of about $6 billion as a result of the purchase of foreign-owned companies by Canadian interests.[46]

An analysis limited to transnational capital flows, however, overlooks retained earnings as a source of new investment. Such reinvestment of profits by foreign-controlled enterprises has a cumulative effect on the stock of foreign investment. But to the extent that those firms retain such profits in Canada and reinvest them, they do not appear in data on the balance of payments. Thus, while the net flows of direct investment into Canada may have slowed and, in recent years, even turned negative, the stock of foreign investment in Canada has continued to rise. Foreign control of capital in Canadian industry remains high by international standards, even though, as Figure 9-3 shows, there were considerable declines in levels of foreign holdings in many domestic industries during the 1970s. In 1982, foreign companies held 49 per cent control in Canadian manufacturing, 45 per cent in petroleum and natural gas, 43 per cent in mining and smelting, and 26 per cent in all other industries, excluding agriculture and finance. Firms controlled in the United States own most of these large foreign holdings, and now account for about 80 per cent of the foreign direct investment in Canada.

Few other economies, apart from those of Australia, Belgium and Ireland, have as much as 40 per cent of their manufacturing capital in companies owned by non-residents; Italy, France, West Germany and the United Kingdom have economies that are between 20 per cent and 30 per cent foreign owned; Sweden and Norway are at or over 10 per cent by this measure; while the United States and Japan are approximately 5 per cent foreign owned. Moreover, Canada's intra-firm trade increased steadily during the 1970s: Canadian-based firms that own, or are owned by, foreign-based firms currently account for more than one-half of imports from the United States in a wide range of industries. Thus, while inward flows of foreign capital have been decreasing, Canada's stock of foreign investment remains high when compared with that of other developed nations, with the result that foreign multi-nationals are likely to continue to play an important role in Canada's economy.

FIGURE 9-3 Distribution of Control in Canadian Non-Financial Industry



Source: Statistics Canada, *Canada's International Investment Position 1979 and 1982*, Cat. No. 67-202 (Ottawa: Minister of Supply and Services Canada, 1984), p. 32.

As we saw earlier, outward flows of capital have significantly exceeded inward flows on a balance-of-payments basis over the past decade. The stock of Canadian direct investments abroad as a proportion of the stock of foreign direct investment in Canada rose from 25 per cent in 1974 to 54 per cent in 1983. If this trend continues, Canada will soon become a significant exporter of capital, although it will likely remain a net importer. As a result of its favourable current-account position of the last few years, Canada has been a moderate net exporter of capital from a balance-of-payments perspective. This would not be so, however, if we included in the balance reinvested earnings of foreign-owned subsidiaries. This trend toward increasing Canadian investment abroad suggests that our policy toward inward investment must take into account our national interest in securing equitable reciprocal treatment for Canadians investing abroad.

An appraisal of existing policies affecting foreign-controlled firms must take account of the advantages and disadvantages of foreign direct investment. Most general studies of the economic effects of foreign investment conclude that the benefits from inward capital flows are substantial and are likely to increase in the future. The benefits of foreign investment extend beyond the obvious advantages of access to foreign capital at highly competitive rates, as a supplement to domestic savings. Canadian

governments gain considerable revenue by taxing gains attributable to foreign investment: between 1.5 per cent and 2.5 per cent of gross national product.[47]

Even more important, foreign investment is a major source of valuable technology, managerial "know-how" and entrepreneurship. Since innovative products, practices and concepts will be the key to Canada's economic success, our policies toward foreign-controlled enterprises must avoid restrictions that impede the importation of these elements. In particular, equity ownership of an enterprise may give foreign innovators more incentive to apply fully their ideas and processes, and to enhance the quality of their products. If innovators have to license the use of their concepts to domestic firms that they do not control, either the licence fees will be much higher, or foreign innovators will take their ideas to other countries where they can pursue them on more advantageous terms.

Those who favour the regulation of foreign investment in Canada complain, first, that many foreign parent companies establish Canadian subsidiaries as branch plants meant exclusively to serve the domestic market. They contend that this intention leads to truncated industrial enterprises that are contrary to Canada's national interest because they cannot try to break out of our own relatively small market by developing a dynamic market for exports abroad. Some analysts have asserted that Canadian subsidiaries of foreign parent firms import more, export less, and conduct fewer managerial and research activities in Canada than comparable Canadian-controlled businesses. In short, those favouring regulation of foreign-controlled firms have maintained that regulation would increase the dynamism, the technological progressiveness, and the export capacity of Canadian industry.

In fact, however, little evidence links extensive foreign control and deficiencies in Canada's industrial performance. For example, while domestically controlled manufacturing firms may spend more on research and development than their foreign-controlled counterparts, the latter tend to have higher productivity. Foreign-controlled firms tend to import more goods than domestic firms, perhaps because suitable "inputs", or components, are not available from Canadian sources of supply or because Canadian inputs are not competitive with imports in price or quality. Thus there may be more logical explanations for Canada's truncated industrial structure than foreign ownership. The National Policy of 1879 and the continuing use of protection since then, the relatively small size of the domestic market, and the tariff and non-tariff barriers created by our major trading partners have all contributed significantly to our current industrial problems. Moreover, both foreign and domestic investors appear to have responded in similar ways to the conditions and circumstances prevailing at home and abroad.

A second argument for regulating foreign-controlled firms arises from the difficulties that national governments sometimes encounter when they seek to influence the behaviour of foreign multi-national enterprises. Firms that conduct the majority of their business activities outside Canada are likely to be more responsive to the general policies or specific directives of foreign governments than are firms based in Canada. Moreover, Canadian-controlled businesses may be more receptive than foreign-owned firms to public-policy initiatives to strengthen cultural autonomy and preserve national security.

American tax and regulatory policies affect the business decisions of U.S.-owned multi-nationals operating in Canada. During the past two decades, many foreign – usually U.S.-owned – multi-nationals in Canada have had to choose between the competing policy demands of two national governments. Disputes have involved trade restrictions imposed by the U.S. government on the trade of U.S.-owned subsidiaries in Canada for national security reasons; the attempted extraterritorial application of U.S. anti-trust and other regulatory laws; and American tax laws that encourage multi-nationals to repatriate their foreign-source income and to expand their production in the United States, rather than increase the size of their operations in this country. While it is easy to exaggerate the economic significance of these bilateral conflicts, their relative frequency and their potential for causing serious friction in Canada-U.S. relations suggest the need to establish regulatory machinery to manage these disputes in future.

A third argument for regulation of foreign investment is that foreign multi-nationals often restrict the authority of their Canadian subsidiaries to export or to experiment with innovative techniques. There is little authoritative evidence to support this claim. To the extent that the claim is valid, the national orientation of parent-company managers or the short-sightedness and inertia of large and complex corporate bureaucracies may be to blame. It is, of course, difficult to determine the motives of management in such situations. For example, there is some hearsay evidence that foreign-controlled firms in the manufacturing and natural resource sectors tend to favour established suppliers located in their home countries over Canadian firms offering goods of comparable quality at competitive prices. Similarly, the managers of a multi-national parent firm may resist proposals for providing its Canadian subsidiary with a world product mandate (a mandate to produce particular products as the sole corporate source of supply for world markets) merely because they stand to gain by maintaining control over all aspects of the firm's management. In the light of these potential conflicts of interest, some form of government regulation would seem reasonable.

This Commission believes that the same tax and regulatory policies applicable to domestic firms should generally govern foreign-controlled firms, except in sectors where cultural or national-security interests predominate. This principle of national treatment or non-discrimination is emerging as a customary rule of public international law, and Canada has recognized it through its formal assent, in 1976, to the Organization for Economic Co-operation and Development's Declaration on International Investment and Multinational Enterprises. The OECD convention recognizes that a commitment to equal treatment for foreign and domestic investors is fully consistent with the maintenance of selective regulatory instruments to deal with situations where foreign-controlled firms take major business decisions averse to national interests. Moreover, the convention authorizes the prior screening of foreign investors and the imposition of special conditions, such as performance undertakings by a foreign-controlled firm taking over an existing firm or setting up a new business. The Foreign Investment Review Act, which the federal government has replaced by the Investment Canada Act, sharply

reducing government intervention in foreign investment, is broadly congruent with the selective case-by-case approach to regulatory intervention endorsed by the OECD convention.

The provisions of the General Agreement on Tariffs and Trade (GATT) also constrain Canada. In the early 1980s, the United States raised objections to local procurement requirements and export-performance requirements that Canada's Foreign Investment Review Agency (FIRA) was asking foreign investors to meet. The U.S. Administration believed that these rules were contrary to the national-treatment provision of the GATT: that is to say, the Canadian government did not make the same requirements of Canadian firms investing in Canada. The GATT formed a panel to assist the two countries to resolve the dispute; it found that the "local content" undertakings secured by FIRA during the course of its negotiations with foreign investors violated Canada's GATT undertaking not to discriminate against imported products. Canada agreed to modify its administrative practices to comply with the panel's ruling, which the United States accepted as a resolution of the dispute.

Policies Affecting Foreign Investors

In testimony before this Commission, in May 1984, one intervenor succinctly described some of the main issues confronting Canada with respect to foreign investment:

> *In view of the direction that international trade is taking [and of] its importance, Canadians are exposed more and more to foreign influence, and most of them are ready to see a number of foreign firms enter [Canada] to make a contribution here. It is certain that how these firms are treated must depend on what they do, not who they are, and that they must definitely not be favoured by import incentives that are not granted to our own domestic business concerns. We must keep [our doors] open, and that requires important changes in certain of our present philosophies, both provincial and federal.*
>
> (Guy St-Pierre, Transcript, Montreal, May 31, 1984 [vol. 2], pp. 351–52.)

Two types of regulation are currently employed to control foreign direct investment. First, the government completely or partly closes certain key sectors of the Canadian economy to foreign-controlled firms or allows them to enter and do business on terms less advantageous than those accorded to domestically controlled firms. Secondly, in 1973, Parliament passed the Foreign Investment Review Act, which the government replaced with the Investment Canada Act in 1985. Currently, foreign-controlled firms seeking to take over a Canadian firm, above a threshold level, or to establish a new business in Canada, must obtain prior approval from the federal Cabinet. A brief review of these two types of policies should provide a basis for considering the appropriate design for future regulations aimed at foreign-owned enterprises.

Both federal and provincial laws designate key economic sectors and formally reserve them for firms controlled by Canadian residents. We have

seen several of the reasons for regulation. There is a widely perceived need to safeguard our cultural and political autonomy: hence reservation of broadcasting and newspaper publishing for Canadians. Only Canadian-controlled firms may harvest or exploit some types of natural resources. For example, foreign-controlled firms are not eligible to receive commercial fishing licences or leases, or licences to engage in uranium mining. Canadians are to obtain the maximum possible benefit from the exploitation of scarce resources that all citizens own. It is difficult, also, to enforce compliance with detailed regulations governing Canadian operations by resource firms based in foreign countries. Difficulties in ensuring compliance with consumer protection and other regulations or more broadly conceived views of the national interest have led to federal and/or provincial legislation restricting foreign investment in such areas as transportation, communications, insurance and trust operations.

Key-sector regulations also require foreign-owned firms operating in certain industries to compete with domestic firms under special conditions or restrictions. Federal banking law limits the share of the Canadian market that foreign-owned banks may hold. Federal energy laws enacted as part of the National Energy Program of 1980 provided Canadian-controlled energy companies with more favourable regulatory treatment in exploration grants than that accorded their foreign-owned rivals. The government defended its discriminatory treatment of foreign-based banks and petroleum companies on the grounds that exceptional national interests justified retaining Canadian control over the development of these key sectors. To some extent, these restrictions are transitional measures: Parliament has progressively liberalized the market-share limits applicable to banking in recent years. In addition, Ottawa intended the differential incentive measures in the energy sector to encourage foreign-based firms, which had traditionally controlled over 80 per cent of our domestic oil and gas industry, to increase their levels of Canadian equity ownership. In early 1985, the government announced the phasing out of these discriminatory exploration grants.

Closing a sector or type of activity to foreign investors or buying out or eliminating controlling interests in foreign-owned firms is the strongest form of regulatory action that a country can take. Such action depends on the assumption that the potential costs of foreign control clearly outweigh the potential benefits. In other words, this approach recognizes no trade-off between the advantages of domestic ownership and the economic gains that might accrue from the operation of foreign-owned enterprises. A strictly preventive approach to foreign investment might also provide unjustified protection to domestically owned firms and reduce those firms' incentives to improve their competitive performance. Because of these disadvantages, the government should close sectors only to defend compelling national interests. Some existing controls on service and natural resource industries may not meet such a standard. The government will probably review these measures, in any event, as bilateral and multilateral negotiations to liberalize trade in services will almost inevitably confront their use.

The Foreign Investment Review Act established a prior-screening procedure for foreign-controlled firms. Under this legislation, expert staff

review all major foreign investments which involve an effective controlling interest. A detailed cost-benefit analysis of the proposed investment determines whether the establishment of the enterprise would confer "significant benefits" on Canada in the light of five rather vague statutory criteria, which identify such factors as job creation, technological innovation and export performance. The staff often negotiates with foreign investors to secure performance pledges designed to make the firm's proposed activities more beneficial to Canadians. These undertakings outline the business objectives of foreign investors and often include specific commitments concerning their likely purchases of goods and services from domestic suppliers, their anticipated export sales, and other probable benefits to Canada deriving from their investment. The staff does not exercise any official decision-making authority, but its recommendations have been highly influential in Cabinet decisions on applications. Since 1973, when the act establishing FIRA became law, the Cabinet has rejected only about 7 per cent of the foreign-investment proposals reviewed by FIRA, but critics have noted that this does not take account of the unknown number of discouraged investors who never applied.

On the strength of submissions that Commissioners received, of testimony put forward during our public hearings, and of analysis provided by our own research program, we believe that the FIRA process has increased the sensitivity of foreign investors to Canadian social values and economic goals. (For reasons explained below, we support some of the modifications in the present system set forth in the proposed Investment Canada Act.) FIRA's formal review procedure has encouraged pragmatic dialogue between public officials and foreign investors, and has given clear advance notice of Canada's standards of good corporate citizenship.

Commissioners believe, also, that recent public debates about FIRA have tended to exaggerate its coercive or restrictive effect. This misconstruction is primarily attributable to the strict ban on public disclosure of concrete information concerning FIRA applications, including the reasons for the Cabinet's disposition of these cases. Although the government has periodically issued policy guidelines governing FIRA applications, these statements of general principle have been a poor substitute for disclosure of the Cabinet's reasons for particular decisions, including those that led to FIRA recommendations. While the secrecy of the existing process may strengthen the bargaining position of FIRA staff in negotiating with foreign investors, it also risks discouraging desirable foreign firms from applying for approval of potentially productive enterprises.

Commissioners believe, moreover, that the government's failure to disclose the reasons for its past decisions has undermined political accountability in the FIRA process, and that reforms to clarify that process would also improve the quality of public debate on foreign-investment policies. There must, of course, be reasonable limits on disclosure to protect the proprietary interests and commercial secrets of FIRA applicants. These problems, however, arise in many fields of economic regulation, and Canadian regulatory agencies have evolved sophisticated procedures to protect the confidentiality of legitimate interests. As a means of overcoming or minimizing some of these problems,

we recommend the creation of a quasi-judicial administrative tribunal to replace the existing Foreign Investment Review Agency and to assume the decision-making tasks currently assigned to the minister responsible for the agency and to the Cabinet. The main advantage of the proposed tribunal would be its ability to employ public hearings and to provide written reasons for government action.

In December 1984, the Canadian government tabled draft legislation in the form of Bill C-15 that proposed several significant changes in the existing process. First, foreign investments aimed at creating new businesses in Canada will no longer be subject to regulation, except when their operations may adversely affect certain Canadian cultural activities. Secondly, there will be reviews of foreign take-overs of existing Canadian firms, but applicants will no longer have to prove that their proposed investment will result in "significant benefits" to Canada. Proof of "net benefit" to Canadian economic development will be sufficient to secure approval for take-overs. Thirdly, a new agency known as Investment Canada will replace FIRA. Fourthly, Bill C-15 would make reviews applicable only to direct take-overs of firms with assets in excess of $5 million. (Under the existing legislation, all foreign direct investments involving businesses with assets of $250 000 or more are subject to regulatory scrutiny.) There would also be review of indirect acquisitions involving investments of $150 million or more. Commissioners endorse the government's proposals for scaling down the scope of regulation and lightening the burden on foreign investors of demonstrating that their business projects will be beneficial to Canadians. In view of the intense global competition to acquire new investment and new technology – and of Canada's comparatively poor performance in attracting direct foreign investment during the past decade – these proposed changes constitute a move in the right direction.

Just as Commissioners pointed earlier to the need for a more transparent decision-making procedure, we consider that the principal drawback to Bill C-15 is that it moves the final decision on foreign take-overs from the Cabinet to a single minister. At least, when the decision is subject to approval by the Cabinet as a whole, other departments have an opportunity to scrutinize the proposal, and the central agencies of government also have a chance to raise issues of public policy. While the Cabinet is too busy to examine all proposed take-overs, to assign exclusive decision-making powers to a single minister creates a substantial risk of arbitrary action.

We Commissioners base our preference for a quasi-judicial tribunal to review foreign investment primarily on the need for public proceedings and full public disclosure. Non-government intervenors should have a chance to argue the issues in public. Moreover, the tribunal should publish a report that sets out the economic, or other, policy reasons for its actions. In the past, the government claimed that the secrecy surrounding foreign-investment applications prevented disclosure of valuable proprietary information to existing or future business rivals. While we recognize the need for restricting access to sensitive information, these protective measures can be compatible with public proceedings and a general presumption in favour of full

disclosure. Existing regulatory bodies, such as the Anti-Dumping Tribunal, encounter similar problems and have formulated procedures to protect legitimate commercial interests.

In addition, the foreign-investment agency should develop rules of procedure to avoid undue delay in the screening procedures. Perhaps it could usefully adopt a procedure whereby a case would automatically receive approval if the tribunal had not passed judgement within a specified period or had not notified the applicant of a need for delay.

In reviewing future foreign take-overs of Canadian-owned firms, the new agency, Investment Canada, should emphasize the likely consequences of the merger for the cost efficiency and technological progressiveness of the domestic industry. FIRA cases have too often neglected the vitality or intensity of competitive rivalry among both foreign and domestic firms in the many Canadian industries with relatively high levels of foreign participation. The review agency should consider whether a large multi-national may be attempting, through a firm that it controls, to secure an "undue" or excessive position of ownership in the domestic industry. The courts responsible for interpreting the Combines Investigation Act have found it difficult to decide the precise meaning of undue concentration or lessening of competition. Unconstrained by the limitations of criminal law, our proposed quasi-judicial tribunal would possess the requisite specialized knowledge to assess the probable impact of the foreign take-over on competition and other relevant aspects of industrial performance.

Since Commissioners recommend that the new administering authority analyse the competitive and technological conditions surrounding proposed foreign take-overs, it is desirable to raise the threshold for reviewability above the $5 million in assets proposed in Bill C-15. We propose a threshold of $50 million in assets. This modification would focus scarce enforcement resources on the larger and more critical take-overs. We endorse the government's proposal under Bill C-15 not to scrutinize new investments by foreign owners: the anti-competitive effect of these investments on the domestic industry is likely to be much smaller because, unlike take-overs, they increase the number of independent rivals competing in the market. Nevertheless, the government should monitor the effect of this exemption on competition in the Canadian economy generally.

In the future, the take-over/review process should exert a positive influence over the post-entry performance of foreign-controlled firms in Canada. One means of doing so would be through the reporting requirement that Commissioners propose for Canadian directors. Since review precedes actual entry by the foreign investor, its accuracy and effectiveness depend on forecasts and speculative assumptions concerning future economic conditions. Undertakings concerning future performance are invariably conditional on the accuracy of such forecasts and assumptions, and these economic uncertainties limit the reviewing agency's ability to insist on strict compliance. Moreover, the review process does not directly address the adverse consequences of foreign-government policies and informal directives aimed at Canadian subsidiaries or affiliates of multi-national enterprises. While the

Combines Investigation Act provides the federal Cabinet with broad powers to counter foreign policies and directives averse to Canadian interests, there has been no systematic monitoring or investigative effort.

Commissioners believe that the government should invest more resources in the collection and analysis of information that would permit the making of more accurate comparisons between the overall performances of foreign-controlled and domestic firms. The government should also impose standardized reporting requirements on all large firms, both foreign and domestic. We recommend that the directors of all major corporations, both domestic and foreign, be responsible for assessing and reporting on their firms' adherence to a formal code of conduct promulgated by the Cabinet. The federal government has set out a number of codes of conduct in the past, and these should serve as useful models. The 1976 OECD Declaration and its allied conventions recognized the legitimacy of general performance standards regarding, among other matters, technology transfer, export sales and the acquisition of goods and services from domestically owned suppliers.

Most major corporations in Canada now publish extensive annual and quarterly returns relating to their financial status and business activities, pursuant to company and securities laws. Commissioners recommend that in addition to fulfilling existing reporting obligations, all large Canadian and foreign-controlled firms (that is, those with assets of $50 million or more) be required to disclose annually information relevant to the proposed code of conduct, such as R&D expenditures, purchases from affiliated firms, and exports to affiliates and to unrelated buyers. These annual returns should focus on a limited number of quantifiable measures sufficiently standardized to permit comparisons among groups of firms. An amendment to the Corporations and Labour Unions Returns Act would seem the most appropriate strategy for implementing the proposed reporting scheme.

The Canada Business Corporations Act requires that a majority of directors of a Canadian corporation be "resident Canadians", and most provincial company acts incorporate a similar requirement.[48] These federal and provincial company laws do not, however, impose any particular duties or requirements on Canadian directors to ensure that a Canadian, as compared to a foreign, viewpoint affects corporate decision making. Yet surely, Canadian directors should seek to reflect in corporate decisions their beliefs concerning the ambitions and interests of our national community. Commissioners believe that it would be desirable to amend existing company laws to make clear provision obliging Canadian directors to ensure that Canadian interests receive serious and sustained consideration in the making of all important corporate decisions. Legislation should require Canadian directors to file an annual report, which would accompany the informational return just described, setting out their corporation's efforts to promote the performance objectives identified in the proposed general code of conduct. Such a reporting obligation would permit public scrutiny of the extent to which directors have discharged their responsibility to reflect Canadian interests.

Adjustment Policies

As Commissioners have already emphasized, measures to assist Canadians to adjust to the relentless ongoing changes under way in our economy should form an important component of Canadian industrial policy. These changes – massive during the present century – are a vital and unavoidable part of the economy's dynamic response to innovative and traditional forces that have produced substantial growth in our output, employment and standard of living. New industries thrive and grow, and growing competition at home and abroad, as well as pressures created by technological change, drive out older industries or force them to change. Alternatively, an industry may continue to prosper, but technological advances may drastically reduce the numbers of workers it employs, as has happened in agriculture. For the people involved, the process of change can be extremely painful, and thus they may vehemently resist it. Indeed, change is a process that inevitably generates considerable uncertainties which, in turn, have economically adverse effects. There is, therefore, ample justification, on both economic and social grounds, for the institution of policies aimed at facilitating adjustment and easing the hardship of transformation for those who are involved.

Throughout most of 1984 and into early 1985, Britain was embroiled in a bitter and violent strike by coal miners over proposals put forward by the government-owned National Coal Board to close down 20 uneconomic pits and terminate 20 000 jobs. The steel riots in Paris in early 1979 over proposals to phase out steel production and related jobs in regions with obsolete plants precipitated a similar reaction to the prospects of economic change. Both events are in some ways reminiscent of Britain's early-nineteenth-century Luddite movement, which violently protested against unemployment caused by the introduction of new machinery in the textile industry. The similarity of worker concerns over the span of almost two centuries is striking.

From a purely economic perspective, the case for government involvement in the adjustment process is tightly circumscribed. The interests of the economy as a whole are best served by the rapid shift of capital, human and other resources out of areas that provide relatively low value in terms of output of goods and services, into new areas of higher value. In the absence of constraints, this process proceeds in accordance with the dictates of market forces as part of a never-ending pursuit of maximum profits and incomes. It is a process involving a form of economic Darwinism – the survival of the fittest – in which the market-place rewards or penalizes investment and other decisions.

In line with this concept is the view that private-sector participants, who have a strong vested interest in the outcome of the process, are far more likely than governments to identify and respond properly to market developments. Therefore an economist who accepts this point of view can say little in favour of government intervention to alleviate the consequence of private risk taking by the owners of financial or physical capital.

In the case of labour (that is, human resources), the economic and social perspective on adjustment is rather different. The operation of market forces, for example, might result in unduly low expenditures for general education and training. Companies cannot be sure that such expenditures will yield adequate returns in the form of qualified new employees, and individuals not only lack the means to finance their own education or training, but also find it difficult to borrow (without government assistance) against prospective future earnings.

Clearly government must ensure the availability of general education and training. For similar reasons, government could help workers to adjust to change by providing financial support for retraining and relocation. This, of course, is quite a different matter from governments' helping to sustain unproductive enterprises simply to maintain existing employment. To sustain unproductive enterprises only impedes adjustments that must eventually be made.

By helping workers to adjust to change, government might help to reduce resistance to the process of change itself. It might also be argued that society has a social and ethical obligation to share the burden of adjustment. This sharing may require more than merely retraining and/or relocating displaced workers; it may require compensating them for some of the private costs of adjustment, such as the loss of investment in a home.

The political perspective on this matter is quite different in Canada from what it is in many other countries. Regional or local concentrations of firms and workers in hard-pressed industrial sectors often generate strong political pressure on government to intervene in order to sustain the firm or firms involved and to maintain the jobs of the workers they employ. Such intervention frequently retards, rather than facilitates, the process of changes, but since the full cost of impeding the process of adjustment is often not readily apparent, it does not generate much opposition. Trade-protective measures, such as tariffs and quotas, have the political virtue of appeasing both management and labour, while the costs of such protection are spread widely throughout the economy over time.

Where these instruments are not available, political pressures will often compel governments to provide various forms of subsidies to specific firms in order to sustain output and employment. These subsidies also have the political virtues of appeasing investors and workers simultaneously. While the costs are more visible than trade-protection measures, they often can be partially disguised by such off-budget devices as loan guarantees or loans at below-market interest rates. By contrast, government expenditures for labour-adjustment programs, such as retraining, early retirement, severance payments and mobility allowances, entail highly visible costs, as well as a potentially high-cost political acknowledgement that a particular sector cannot or will not be shielded from the adverse effects of market forces.

The political process in this country, therefore, is likely to lead to the adoption of policies that in many respects are quite different from the approach that would be suggested by economic and social considerations alone. Instead of easing the costs of labour adjustment, governments are likely to favour policies that postpone or retard the adjustment process, with

concomitant reductions in national income and adverse effects on job creation over time. The effect of these policies has formerly been clearly evident in Canada, in the textile, clothing, footwear, shipbuilding and Nova Scotia coal-mining industries; all of these industries now face adjustment problems that are almost as large as, if not larger than, they have been at any time in the past, despite massive assistance through trade protection and firm subsidies.

The nature and seriousness of the policy dilemma is well illustrated by the textile industry. For 1979 alone, the cost to the economy per job saved by the protection through tariffs and quotas of the Canadian textile and clothing industry was estimated to be $34 500,[49] while in the same year, the average income of Canadian textile workers was $10 000. This suggests that if protection were removed and all Canadian textile workers lost their jobs as a result – an unlikely outcome – the money saved each year would be sufficient to provide income to those workers, amounting to two or even three times their real 1979 earnings for the remainder of the years they were of working age, and still offer some additional savings to benefit Canadian textile consumers in the form of lower prices.[50]

Canadians are confronted with the challenge of devising policies that will facilitate, rather than retard, rapid economic adjustment, while at the same time providing generous assistance to the individuals most affected by change. Economic and ethical considerations require this conjunction of policies. The experience of Japan and West Germany in the post-war period suggests that a strong commitment to rapid adjustment is vital to a healthy economy, while the post-war experience of Britain suggests that the lack of such a commitment is a recipe for serious economic stagnation. The Japanese and West German experiences also suggest the importance of well-conceived adjustment policies to ease the costs of change, particularly for labour. Can we confer on our own political institutions the capacity to generate a similar mixture of policies?

The government must give a high priority to the development and implementation of public policies that will facilitate rapid adjustment. On both social and economic grounds, there are compelling reasons why government should adopt measures that will ease the problems of transition and cover a reasonable share of the costs of adjustment for those workers and their families who are caught up in the process of change. The institution of such policies and programs should, in turn, help to reduce governments' resistance to change.

Governments should not be diverted from adopting effective adjustment measures by the argument that in a recession they cannot be afforded, and that in times of economic growth they are unnecessary. Even in times of high unemployment, growing industries are often impeded by a lack of workers with particular skills. For example, a recent survey of 4012 establishments in Canada discovered that approximately half of the 1354 respondents reported hiring difficulties during 1977 to 1979, and 43 per cent anticipated shortages during the following five years. Conversely, in periods of rapid economic growth and low unemployment, there may still be some declining industries. Workers in such industries may have trouble finding new jobs either because

they lack the necessary skills or because of their reluctance to move to another area.

Policy makers must determine whether a particular sector is undergoing only a short-term slump, or whether it is in a long-term decline as a result of underlying economic forces. To determine which sectors of the economy will disappear (or be completely transformed, as has occurred in the agriculture sector over the last half century) is no easier than to forecast the sources of others. Canada's shipbuilding industry, for example, has been confronted by serious difficulties over a period of many years. Does it lack comparative international advantages, or are advantages in certain areas being obscured because of subsidies provided by foreign governments to their own shipbuilding industries? Conceivably, our shipbuilders could meet international competition in certain select areas if other nations would also abandon the granting of trade-distorting subsidies.

In the Cape Breton coal mining industry, the widely-accepted judgement at the end of the 1960s was that the industry was not viable and should be phased out. Following the sharp increase in world oil prices initiated by the Organization of Petroleum Exporting Countries (OPEC) beginning in 1973, coal prices began to rise substantially, and the coal industry has now expanded. Although coal prices have subsequently declined somewhat from their previous peak, it is difficult to predict the future of the industry in view of continuing uncertainty about the price and supply of Middle East oil, and of more guarded predictions about the prospects for nuclear power.

While the domestic textile industry has long been troubled, Canadian exports to the United States have grown significantly in recent years, and the introduction of technological advances that substitute capital for labour suggest that at least some elements of this industry are, or could become, internationally competitive. Within recent years, both the Canadian automobile and farm-machinery/manufacturing industries have faced severe economic difficulties, as have those in the United States, with which our industries are closely associated. In both countries, the farm-implement industry continues to face a severe slump. Is the problem confronting that industry cyclical in nature? Or is it indicative of a long-term structural decline? As a result of substantial cost-cutting economies, the introduction of models more closely suited to market demand, the economic upturn, and the imposition of quotas on Japanese vehicle imports, the Canadian and U.S. auto industries have experienced a strong recovery. Has the automotive industry recovered, or will it again encounter severe difficulties if protective quotas imposed on the import of Japanese vehicles are lifted? Is the recent lifting of U.S. quotas on Japanese vehicle imports sufficient to jeopardize the Canadian auto industry?

Difficult as these questions are for private sector decision makers intimately acquainted with an industry's problems and potential, they are even more difficult for public sector policy makers, who usually lack this detailed knowledge, and who are often confronted by representations from those involved that obscure the realities of the situation. Governments should exercise caution in implementing adjustment policies designed to have long-run structural effects. The goal should be to develop policies that minimize

the risk of major systematic errors in judgement. Flexibility, adaptability and reversibility are more easily attainable if decentralized judgements by those affected by an industry's future prospects dominate centralized public sector judgements. The provision of adjustment assistance to displaced workers, for example, leaves each individual free to determine what course to follow in seeking other employment opportunities.

Earlier in this section, we suggested that political forces would tend to invert policy requirements that appear to be dictated by economic and, to a lesser extent, social or ethical considerations. Political forces will tend to favour, in descending order, trade protection to preserve output and employment, individual subsidies to firms to enable them to maintain output and employment, and subsidies to labour to facilitate its mobility. Governments must find policy options that reduce the degree of conflict between policies dictated by good politics and those dictated by good economics and proper social concerns. We shall examine these policy options below.

Trade Policy

When important sectors of the economy face severe import pressures, benign acceptance by government is an unrealistic response. Affected workers and firms may demand various forms of relief: resort to unilateral escape clauses provided in international agreements, imposition of anti-dumping duties, or pressures on particular exporting countries to establish "voluntary" export quotas. Many countries have resorted to protection in recent years, a move that runs counter to the best interests of all nations. One means of restricting protectionism might be an international agreement tightly restricting such actions. The agreement could require that if a government imposes protection, it would have also to institute an adjustment strategy aimed at reducing capacity in the affected sector or at increasing its efficiency through restructuring.

To make institutional changes domestically could also prove beneficial. Governments could make information widely available about the expected costs and benefits of proposed protective measures. The Canadian Tariff Board, for example, could investigate and hold public hearings on proposed restrictions. In its report, the board could estimate the expected costs and benefits, express a judgement on the measures proposed, and recommend other means of assistance that might involve an alternative to trade protection. The government would, of course, be free to accept, reject or modify such recommendations, but the information provided, the submissions made during hearings, and the views of a responsible tribunal would provide an extensive base for judging the course of action adopted by political authorities. The agency charged with this responsibility should have a broad economic focus, as does the Tariff Board, not a specialized mission concerned with particular interests, such as the Textile and Clothing Board. The U.S. International Trade Commission and the Australian Industry Assistance Commission perform functions similar to those proposed.

To offset pressures from producers for protection, it might be desirable to provide financial assistance to consumer-interest groups. It might also be

desirable to alter the political dynamics that lead to adoption of policies that are opposed to the long-term economic interests of the nation. New laws governing the financing of political campaigns, for example, could reduce the dependence of political parties on contributions from producer interests, perhaps through providing electoral subsidies.

While the federal government will continue to protect particular sectors against the severe competition of foreign imports, at least for limited periods, we should consider what form this protection should take. To establish long-term quotas on imports from abroad is undesirable, as such quotas virtually guarantee domestic producers a share of the market, whether or not they take any steps to increase their competitiveness. A better course would be to establish a constant tariff duty. The costs of foreign competitors will probably decline, enabling a growing proportion of their product to surmount the tariff barrier. The result will be an orderly contraction in the market share of the domestic industry if that industry is unable to keep pace. An alternative would be gradually to reduce the amount of the tariff, as is the usual practice in implementing international trade-agreement reductions.

Firm Subsidies

If trade-protection measures were more constrained legally and politically, governments might attempt to preserve industry output and employment against stiff foreign competition by granting subsidies to specific firms. Such subsidies, however, tend to block or retard adjustment. Subsidies entail most of the same economic costs as a tariff because they often have a similar effect. In a well-functioning capital system, few shortcomings in the market—sometimes referred to as "market failure"—justify subsidies to declining sectors. Government assistance to modernize may be necessary to make an industry or firm internationally competitive, but an obsolete plant is often the result, rather than the cause, of loss of international competitiveness.[51] Firms able to cover only variable costs must allow their fixed assets to run down, thus reducing their long-term capacity to remain efficient producers. If new fixed assets could produce an adequate return, the capital market would presumably provide the necessary funds. If the government proposes assistance to help a firm achieve long-run competitiveness and profitability, the public should be sceptical, for such assistance is normally dictated by a negative assessment on the part of the private capital market of the viability of the investment target.

Even the effectiveness of industrial subsidies in maintaining jobs is open to some question. To establish such a case, it is necessary to assume that a given number of jobs in a certain firm are of an incremental nature and, therefore, would not be maintained in the absence of a subsidy. Even if this is so, a subsidy to a specific firm will not serve to maintain employment unless its jobs are incremental in nature with respect to the industry as a whole. This would be so if no subsidy were paid to a failing firm, and if other companies in the industry failed to increase output and employment sufficiently to take up the slack caused by such a failure. Even in a situation where jobs are of an

incremental nature both in a specific firm and in the industry as a whole, the question that remains is whether they are incremental in the case of the economy as a whole. In other words, if no subsidy were paid, would there be a net reduction in the total number of jobs in the country? Subsidies use resources that might help to create a greater number of more productive jobs elsewhere in the economy. Subsidies to troubled firms in declining sectors often preserve the most marginal and least competitive companies; thus they work against the efficient restructuring of the economy and the creation of new, more enduring jobs.

If political pressures nevertheless dictate that subsidies will be granted to firms in declining sectors, to assist the strongest, not the weakest, firms would seem a superior strategy. Governments could assume some of the costs associated with mergers, consolidations and orderly reduction of physical capacity. Recent bail-outs of failing firms in Canada have overlooked such opportunities. Three farm-machinery companies in financial distress (Massey-Ferguson, Cooperative Implements, White Farm) have received substantial aid from the federal government, although firms and the industry as a whole have serious excess productive capacity. There appears to have been no attempt to facilitate mergers or otherwise rationalize production. A major trucking firm (Maislin Trucking) was bailed out (although it ultimately failed), despite excess capacity in the industry and possibilities of merger with other long-haul carriers with similar route networks. The bail-out of the Atlantic fish-processing companies, while industry wide in focus, still result in the maintenance of many inefficient branch processing plants.

If some firm-directed subsidies are politically unavoidable, they should take a form that minimizes the prospects of recurrent demands for assistance. Governments should attach conditions to the assistance, including orderly contraction of productive capacity or rationalization.

One danger inherent in this proposed approach is that the governments may make an erroneous judgement about the future of an industry. Conditional assistance could induce major structural changes predicated on erroneous projections of how the market will evolve, either because of poor judgement or on account of an unforeseeable change in circumstances at home or abroad. Perhaps governments could reduce this danger by leaving with the industry in question the initiative for making restructuring proposals, rather than imposing a centrally conceived blueprint solution. Moreover, as British and, to a lesser extent, French experience indicates, to induce mergers and consolidations courts the danger of assembling elaborate corporate umbrellas that mask the perpetuation of inefficient multi-branch operations. Orderly contraction and the reinforcement of points of strength in the industry should become the primary object of policy. The use of a buffer body, such as the Canadian Industrial Renewal Board, to implement policies marked by this industry-wide focus may enable political leaders to "distance" themselves from political interests demanding other forms of subsidy.

A further policy refinement would be to discourage the use of low-subsidy instruments that have little or no visibility. A tighter GATT Non-Tariff Barrier Code on Government Procurement could, for instance, require costing

of off-budget subsidies such as loan guarantees and the provision of loans at below-market interest rates. Inclusion of these costs in government-expenditure budgets and spending envelopes at the time that the assistance is provided would increase visibility and accountability.

Labour-Adjustment Policies

If the government accomplished these policy changes, political attention would shift to the adjustment costs faced by labour, which is where both economic and social analysis suggest placing the focus. Part V of this Report addresses in depth the key issues respecting labour-adjustment policies. The suggested reforms emphasize help to labour-force participants seeking jobs. Commissioners consider on-the-job training more beneficial than institutional training. Furthermore, suggested reforms to the Unemployment Insurance (UI) system would encourage workers to seek out remunerative and stable jobs as compared to those in which they are constantly subject to lay-offs.

An alternative approach that Commissioners have considered corresponds to the West German and Japanese systems of conditional unemployment-insurance benefits. After a period of unconditional benefits lasting, say, 16 weeks, the government could require a recipient to participate in a retraining program in order to continue to qualify for benefit payments. The assumption is that after a period of time, an unsuccessful job search indicates a need for different or up-graded skills. A significant portion of UI expenditures, therefore, would underwrite the costs of job retraining. Conditional unemployment-insurance benefits also minimize open-ended support to a labour-force participant. As with firm-specific subsidies, it is important that the recipient adopt some course of action that minimizes the prospects of recurrent demands for support.

Notwithstanding these supposed advantages, Commissioners prefer maintenance of an unconditional approach to unemployment insurance. This approach, in our view, is more consistent with reliance on individual judgement about future employment options or retraining. Our proposed reforms would encourage labour-force participants to be more active in exercising such judgements. Improved retraining and mobility programs would complement this approach.

To improve existing retraining and mobility policies, Commissioners put forward several suggestions. The federal government should require all larger employers to register job vacancies with Canada Employment Centres. This would help to overcome the serious problems arising from the lack of adequate information about such vacancies across the country, which, in turn, impairs the ability of the centres to fill vacancies with individuals who are unemployed or about to be laid off. The provision of more detailed data on specific occupations and systematic medium-term forecasts of prospective skill shortages would facilitate better matching of present or future unemployed persons with institutional or on-the-job retraining programs geared to meet their needs.

Government should remedy several shortcomings in present institutional training programs. These programs are often of too short duration to provide

significant higher-skills training; too few places are available for qualified and interested candidates; living allowances for trainees are inadequate, and student loans are not applicable to such programs; and federal-provincial financing arrangements give a largely exclusive right of participation in these programs to provincial educational institutions and generally exclude private sector training institutions, thus precluding more diversified judgements about future employment opportunities. Part V also recommends that more emphasis be placed on on-the-job training.

To facilitate the mobility of the labour force, governments should increase the assistance provided to workers who must move to jobs in new locations; this aid now covers only a part of direct costs. In addition, the Government of Canada should use part of the Unemployment Insurance savings generated by proposals outlined in Part V to assist adjustment by broadening early-retirement schemes for older workers (perhaps those between the ages of 60 and 65) as the French have done. At present, this approach eases adjustments in the textile, clothing, footwear and tanning industries. Moreover, federal and provincial governments should consider increasing the portability of private pension plans through requiring early vesting of employer contributions as a further means of increasing labour mobility. Governments might also require major employers to provide time for employees to participate in programs of skills up-grading. Commissioners elaborate on this proposal in Part V.

We Commissioners propose the adoption of these policies in the hope that they will facilitate the redeployment of labour from declining to expanding sectors of the economy, by easing the transition costs of individual workers involved in such shifts. In this respect, the effect of these policies is quite different from general UI programs or programs designed to provide extended unemployment benefits to specific sectors, such as the Canada Textile Adjustment program or the U.S. Trade Adjustment Assistance program. Indeed, many of these latter programs appear to retard, rather than promote, adjustment. The proposals that we recommend here would integrate social policy with economic policy much more fully; Japanese, West German, Scandinavian and, to a lesser extent, French experience suggests that such integration is pivotal to effective employment adjustment.

An important problem that we have not yet dealt with involves the costs to the many Canadians who are directly or indirectly dependent on declining industries in depressed communities. These costs are both financial and psychic, ranging from depreciation in the resale value of a home and increased taxes for municipal and other services to residents who remain behind, to the loss of social amenities. Given the complex politics of intervention, governments often use trade protection or subsidies to avoid facing up to such problems. They might best reconcile political and economic considerations by assisting those communities with the highest adjustment costs; the political costs of failing to intervene there are also likely to be high. Governments should generously subsidize any large-scale exit from a community of workers and their families. This assistance might include generous severance packages for older workers and compensation for the depreciation in the resale value of houses, for loss of social amenities and,

through assistance to municipalities, for higher per capita public service costs for those remaining behind in the community.

To concentrate resources on inducing people to leave severely distressed communities can help to limit budgetary expenditures. The Industrial and Labour Adjustment Program, recently terminated, had some of these features. This program designated twelve communities as distressed. However, it was temporary and modestly financed, and it focused excessively on providing financial assistance to firms to remain or to relocate in designated communities. Adjustment assistance to individuals overly stressed creation of temporary jobs in the designated communities. In short, the program appeared to embrace and confuse cyclical and structural concerns. Nonetheless, it suggests productive new policy directions.

A revised community/industry-adjustment program should be made a permanent feature of Canada's industrial policy. Adopting structural adjustment policies only in recessions, when resources are limited, is likely to be much less effective and more costly than adjustment policies directed to declining sectors in a generally more buoyant economic environment. Japanese legislation relating to structurally depressed industries exemplifies a longer-term perspective on adjustment in declining sectors.

In community/industry-adjustment programs, government must judge whether communities or sectors are in long-term decline. If, for example, three years ago, the federal and Ontario governments had designated the automobile industry and communities such as Windsor as distressed, and had induced a major exodus of labour, it is clear, with the benefit of hindsight, that they would have been making a serious mistake. This example suggests the wisdom of using extreme caution in applying radical policies to facilitate a major exodus from supposedly declining communities on the basis of short-term evidence of industrial difficulties.

Transportation, Communications Services and Other Infrastructure Support Services

Canada's vast continental land mass and sparse population has made transportation and communication facilities a political and social necessity, as well as a fundamental part of our economic foundation. Transportation and communication have increasingly become necessary complements of each other in some areas and competitors in others. Efficient inventory control in the manufacturing sector depends on both these sectors. Communication systems also vitally affect modern capital markets, enabling investment capital to move swiftly within the global village.

The transportation and communication infrastructure are both important industries in themselves and also vital to production in all other industries. This infrastructure also determines the extent to which we Canadians communicate with one another, and the way in which we define ourselves as a nation. Canadians in more remote locations are concerned with how southern or urban Canada manages its transportation and communication needs. Those who live in remote areas view these links as vital to their economy and their very definition of being Canadian.

Atlantic Canada has received heavy subsidization for many components of its transportation system. The long debate over the Crow's Nest Pass Freight rate (the Crow Rate) has historically underlined the importance of transportation to Western Canada. Central Canada's concerns include the upgrading of the St. Lawrence Seaway and the effect of U.S. deregulation on trucking and railway industries. While the East-West transportation and communications infrastructures have always been vital, they have – as has the Canadian economy as a whole – been in constant tension with the continental pull both of geography and of the economic strength of the U.S. economy. Approximately 40 per cent of the oil and gas Canadians consume flows through pipelines that pass through the United States. The St. Lawrence Seaway and the Great Lakes system are a shared marine asset. Significant portions of the business of Canadian railways, trucking companies and airlines are continental. The cross-border flow of tourists, and, hence, many large and small local economies, depend on the quality of several modes of transportation. Trade between Canada and the United States amounted to $150 billion in 1984.

Transportation and communications issues are likely to be even more challenging in the future than they have been in the past. Several issues confront policy makers, including the need to respond to the deregulation of transportation in the United States in the rail, air and trucking sectors; the need to develop technologically sophisticated and environmentally safe transportation systems for frontier and offshore oil and gas development; the need to modernize the Western rail and grain-handling systems; the need to respect individual choice while maintaining our national identity, which may be threatened by increased access to American television programming through the use of satellite dishes and other technologies; and the need to deal with the potential growth of interlocking ownership among transportation and communications enterprises, including Crown and mixed public and private enterprises.

While it is essential for Canada to maintain a competitive and efficient transportation and communications system, Commissioners believe that policies governing these facilities must take account of a wide variety of economic and social goals. Basic changes to the system or new large-scale investments inevitably and necessarily raise major political considerations. Controversies over the building of the Canadian Pacific Railway (CPR), the formation of The Canadian National Railway (CNR), the Trans-Canada Pipeline, the St. Lawrence Seaway, the Alaska Highway Natural Gas Pipeline, the Crow rate, and airline deregulation testify to these realities.

The 1967 National Transportation Act is indicative of present dilemmas. At its most basic level, the legislation supports the principle of "intermodal competition". Transport Canada and the Canadian Transport Commission, however, have been primarily concerned, at least until recently, with ensuring that the national transportation system responds to the government's economic objectives of wide-ranging growth, stabilization and income redistribution. Since the 1970s, government policy has increasingly reflected the view that the national transportation system has matured, that intermodal competition exists, and, therefore, that it is possible to meet the needs of the

economy without such a high level of government intervention across the entire system.[52] Policy is directed towards maintaining a complex network of "managed markets", as they involve a number of transportation sectors. The same can be said of the overall policy approach to telecommunications and broadcasting.

A study undertaken for this Commission compares intergovernmental regulatory trends in three sectors: airlines, telecommunications, and securities and financial markets.[53] Government regulation in these sectors has evolved from a form of policing to a promotional function, and subsequently to a planning format. The former policing function involved a narrower focus, similar to basic public-utility regulation, while the latter planning format involved decisions aimed at meeting a wider range of goals, including regional and social goals. The former was passive and adjudicative, while the latter required more activity. This active role was a product of a variety of pressures on both the federal and the provincial governments. The provinces have been involved in a threefold sense: as regulators themselves, as representatives of interests in these sectors, and as the owners of their own transportation and communications enterprises. Given the rapidly changing technology in these areas, combined with some of the realities of recent U.S. deregulation measures, this Commission's study suggests that selective deregulation measures be adopted in this country. This does not necessarily suggest that all aspects of these operations should be governed by market forces, but rather that selective reductions should be made in regulation. Commissioners support this general approach.

Our earlier reviews of the regulatory framework referred to the need for selective deregulation in a number of areas because of such factors as the rate of technological change (especially in telecommunications), U.S. deregulation measures (especially in transportation), and the need to enhance competitive forces in the Canadian economy. Our consideration of competition policy suggested that the concern should not be corporate concentration *per se*, but rather public and private actions that tend to restrict competition. Increases in corporate concentration in Canada's transportation and communications sectors have been significant, but whether they have been made at the expense of competition is more questionable.

Our earlier analysis of the role of Crown corporations and mixed enterprise is also relevant, since it is the combined presence of extensive regulations plus public enterprise that distinguishes the Canadian public-policy approach to transportation from that of the United States. Thus, deregulation of air transportation may make only limited sense unless it is accompanied by the sale of Air Canada. Over recent decades, both levels of government have used Crown corporations extensively in the transportation and communications sectors.

Let us consider, also, the role of mixed enterprises such as Telesat Canada. The ownership structure of Telesat Canada is such that this institution has become a vehicle for slowing down, or at least managing, the introduction of new technology potentially useful to its member shareholding firms, but at the same time, threatening to existing land-based telephone systems, many of

which are owned by provincial governments that hold shares in Telesat Canada. The 1977 Cabinet decision to allow Telesat Canada to join the TransCanada Telephone System (TCTS), which informally regulated transcontinental rates, further complicates the interlocking public-private/ownership structures. Whatever may be claimed about its role in stabilizing technology, TCTS cannot be said to have aided competition.

A related issue concerns the degree to which a Crown corporation, such as Canada Post, will be allowed to compete and transform itself into a full-fledged communications company. We usually think of Canada Post in terms of its historic labour-relations and deficit problems, but its future viability is inextricably linked to its competitive capabilities. Business critics want its deficit eliminated, but object to its competing in private sector services. At the same time, Canada Post is losing business to competitors, which helps to account for its deficit.

In a very different vein, Commissioners wish to consider key concerns about the future of the Canadian Broascasting Corporation (CBC) in the communications industry. While we Canadians think of the CBC as a cultural enterprise, it is also the key to what a growing telecommunications industry can become. Requiring the CBC to compete in order to obtain revenue is perhaps not the way to proceed. The best policy might be to subsidize the CBC fully so that it need not compete for advertising dollars, thus leaving it free to foster both culture and the arts industry.

Another factor which Commissioners wish to note about policy trends is that federal spending on transportation and communications as a percentage of total federal expenditure, after a short burst of increases in the early 1970s, has steadily declined from 7.3 per cent in 1974[54] to 5.3 per cent in 1982. The expenditures arising from the Crow agreement will result in some increased investment, but the data show that prior to this decision, support for railway infrastructure had been shrinking. Provincial expenditure data show a similar pattern of overall decline in all provinces except Alberta.

Declines in the share of spending are not necessarily causes for concern in themselves. Juxtaposed with probable capital-infrastructure needs over the next two decades, however, the relative decline in public investment becomes a serious problem that must be reversed. In 1981, Transport Canada indicated that the task of replacing aging capital stock in the transportation sector (including pipelines, but excluding passenger-railway facilities) would require more than $90 billion in total public and private sector investment.[55] This figure does not include potential federal transportation investments in energy-resource projects, such as those in the Beaufort Sea, off the Newfoundland shore, and in the Arctic.

These expenditure requirements, apart from the sheer size of the investment involved, illustrate how key transportation decisions must be linked to mega-project resource developments and to the regulatory framework and federal-provincial/overlapping-approval processes. Transportation investments associated with resource developments involve long lead times, as do the resource projects themselves; thus, long-term market stability is important. Resource markets, however, are unstable. Almost invariably,

resource mega-projects involve both the federal government and the provinces. The complex consortia of firms involved in a large-scale resource undertaking usually ask governments to provide substantial subsidies or at least to share a significant proportion of the risks involved. Commissioners urge federal and provincial governments to try to achieve the greatest possible co-ordination of the approvals processes governing major new projects. We are also well aware, however, that extensive time may be required to work out risk-sharing arrangements between governments and private sector participants as they apply both to the proposed resource developments and to the provision of associated new transportation facilities.

As we have indicated, the estimated levels of future investment required in transportation do not include those applicable to passenger-rail facilities. While recent attention has focused on the "on again, off again" status of a number of Via Rail's passenger services, there are serious long-term/investment decisions to be made that have major economic and political ramifications. Economically, the best receptor for enhanced passenger-rail service is in the Quebec-Windsor corridor. To provide this service would require a massive government investment to construct the track bed required for high-speed trains to compete effectively with other modes of transport. Much of this very large investment would favour Central Canada, a fact that, of course, displeases other parts of the country. Until these political conflicts of interest are resolved, rail service will probably be based on half-measures that result in poor service and further deficits.

Commissioners consider that there is a need for an increased level of government and private investment in the transportation and communications fields over the next two decades. We see a strong role for Crown corporations continuing in this sector as a whole, but we suggest that privatization might make sense in selected areas. At the same time, we are also concerned about the degree of regulation that persists in certain areas of transportation and communications.

The U.S. move toward deregulation of a number of transportation industries may leave Canada with no practical choice but to follow suit, at least in some measure. In their cross-border business, for example, Canadian railways already face the effects of this deregulation because U.S. railways can make agreements or contracts on a bilateral basis with shippers, without having to register or table their rates before U.S. regulators. Since Canadian railways could be harmed by this competition, selective deregulation should be allowed in Canada for this kind of cross-border traffic. The deregulation of U.S. trucking also affects the Canadian trucking industry. The Economic Council of Canada's study of the Canadian trucking industry[56] argued that considerable deregulation in Canada would be desirable and feasible. We believe that a gradual movement towards partial deregulation of trucking is sensible, keeping in mind the differences in the nature of the Canadian market. Commissioners see a general need for governments to favour a more market-oriented approach in the transportation and communications sector than is currently the practice.

Intervention Guidelines for Industrial Development

Markets are the primary means for allocating resources in the Canadian economy. While Canadian markets do not correspond to the perfect markets usually described in textbooks, many are highly efficient. In most circumstances, it is unrealistic to expect governments to out-perform the market in determining the proper allocation of resources through direct intervention aimed at influencing the activity of any particular sector or firm. Nevertheless, there are certain limited cases in which reasonable economic grounds may exist for considering such intervention. Commissioners have discussed how a well-designed adjustment policy can help the market to transfer labour and capital out of declining sectors and into expanding sectors with a minimum of disruption. We now consider the circumstances in which a more direct form of government intervention can help to promote economic development.

In its broadest terms, government intervention may be warranted in situations in which there exists what economists often refer to as a "market failure". Such failure arises when costs or benefits to third parties are not fully reflected in market transactions. Public goods and services often provide tangible and intangible benefits difficult to price in the market or to charge to those who use them. Defence provides what is regarded as a public good, and certain kinds of knowledge and information could fall into the same category. A case can be made, for example, for government subsidization of research and development through tax assistance, grants and other means. This research may lead to the creation of knowledge that will add to the public good, through the development, for instance, of a new strain of wheat that will significantly increase the crop yields of Canadian farmers.

Government intervention may be required in situations where the technology is such that large-scale operations produce substantial economies. In the more extreme cases, this factor may lead inevitably to the creation of what are often considered to be natural monopolies, particularly where utilities such as telephone and electrical power services are involved. Simply because their monopoly position carries with it substantial economic power, such utilities are almost universally subject to public regulation and/or operated by government-owned corporations. Many transportation facilities are also provided or subsidized by governments. Unfortunately, in many instances, these subsidies have been established at levels substantially in excess of those required to promote the development of an efficient transportation system. The St. Lawrence Seaway is a good example of a transportation project that because of its high fixed costs, could never have been undertaken except by government.

Some economists have argued that private-sector companies are unduly averse to assuming risks, and that as a result they are biased against involvement in large risky projects in which capital investment will be recovered, at best, only over a long period of time. The private sector's discount rate for a high-risk project may include an exceptionally high premium to cover the risk. While a private company or companies might conclude that the resulting discount rate or expected return was unacceptably

low, a government might conclude that it was justified to assume some (or all) of the risks involved, because of the high social benefits the project would yield in relation to its prospective costs. This, at least in part, appears to have been the reasoning behind the support governments have provided to certain mega-projects over the past decade or so.

Another reason for government intervention is to assist "infant industries". Governments hope that with a modicum of support, such industries will become self-sustaining and thus create jobs and income. For this type of approach to be successful, long-term gains must exceed initial short-term losses. A great disappointment has been the failure of many infant industries to grow up. This history leads Commissioners to be sceptical about government support of infant industries.

Governments have also cited the small size of the Canadian market in relation to minimum efficient plant size in justifying intervention to rationalize the structure of production. The problem of sub-optimal scale plants which produce only for the domestic market is caused by the tariff. Ironically, therefore, government intervention is required in this sort of situation to undo the effects of its earlier intervention.

There are some industrial policies that do not deal with specific market failures, but do have an economic rationale. The government defends as necessary certain policies to assist industries to compete internationally or to protect domestic industries from foreign competition in order to match the assistance provided by other countries to their own domestic industries. Commissioners believe, however, that a better approach to this problem would be for the government to continue to work to minimize trade-distorting practices. Only if such an approach were to fail, and only if the counter-subsidies appeared to have the potential of inducing the "other side" to desist from its interventionist policy, should our government contemplate intervention.

Many national governments are inclined to support domestic industry, particularly in the manufacturing sector. This inclination no doubt reflects the degree to which manufacturing industries are exposed to international competition. Canadian tax incentives for manufacturing and processing, such as the lower tax rate and capital-consumption/ allowance rate on a two-year basis, as well as the emphasis on manufacturing in most federal government, industrial assistance programs, can be justified in terms of the support other countries give to their manufacturing sectors. Nevertheless, it is Commissioners' conviction that all countries would probably be better off with a more neutral tax and expenditure system.

Small business is another sector that has been favoured by the government. Arguments in favour of such support usually cite the entrepreneurial dynamism of the sector and the benefits to be derived in the form of increased growth in output and employment.

The promotion of regional development is another important goal of government policy. As a general rule, regional development is not designed to compensate for any of the traditional causes of market failure. Instead, it is based on a broader national objective that all areas should share in the benefits of growth in output and employment, and hence, that industrial

activity should be spread more equally across the country. The investment tax credit is regionally differentiated to encourage investment in high-unemployment regions of the country. The Industrial and Regional Development Program (IRDP), the federal government's main industrial grants program, is structured to provide greater incentives in high-unemployment regions. However, regionally differentiated tax and expenditure programs can retard overall economic growth and distort the pattern of development.

Objectives other than improving economic efficiency are often the motivating force behind industrial policies. Redistribution of income from one group to another is frequently a prime consideration. As a general rule, industrial policies are not a good means of achieving this objective. Nevertheless, because producers' groups can benefit substantially from many policies, whereas the losses tend to be diffused much more generally among the public, there can be considerable political pressure for industrial policies to be directed towards the redistribution of incomes.

While market failures can result in inefficiencies that may warrant government intervention, the political process itself also has failings that must be taken into account. A government's preoccupation with income redistribution, for example, may cause it to overlook or ignore other measures that could correct the existing failure in the operation of the market-place. The underlying situation may, therefore, be made worse by government intervention intended to improve it. This paradox should give pause to those who call for interventionist solutions for every failing in the market, however minor. It is only in the case of very serious market failings that intervention is likely to be at all helpful.

Since government will inevitably intervene to promote economic development, it is useful to have some criteria for determining where intervention is warranted. The first criterion is that an intervention should be considered only if it is likely to improve the allocation of resources and, hence, real growth; it is necessary that projected benefits exceed projected costs by a significant margin. While cost-benefit analysis is not a precise science, it does offer a variety of useful techniques for evaluating specific industrial policies and programs. The application of this and other evaluation methodologies by the program-evaluation divisions of departments and agencies, with the assistance of the Comptroller General's office, should be important in identifying, and subsequently discontinuing, those programs that are not producing net benefits.

For those interventions which, in addition to improving the allocation of resources, also have non-economic objectives, it is necessary to have a second criterion: that a non-economic objective should be achieved at the least cost. The same evaluation tools mentioned above can be used to analyse the relative effectiveness of programs in accomplishing given objectives.

The government should not allow intervention expenditures to become open ended. Instead, it should establish a strict budgetary limit to serve as a fence around the expenditure of public funds. All too often, an expenditure commitment to support a particular sector, industry or firm has been permitted to escalate far beyond original budget levels.

It is very important that all industrial policies and programs be subject to the closest possible government scrutiny. The presumption must be that in the great majority of cases, the market is the best-available mechanism for resource allocation. The burden of proof must be on those who propose intervention. The economy will be more dynamic and its development prospects better if greater emphasis is placed on the market, and less on government intervention, as the engine of development.

If the case for intervention proves to be compelling, then it is also important that the government choose the most appropriate instrument. Commissioners strongly believe that the instrument which is most consistent with a market-oriented approach should be selected. For this reason, we prefer tax incentives to selective grant programs and both to direct regulation. Tax incentives are more generally available than grants and do not involve the exercise of administrative discretion. They tend, therefore, to have a less distortionary effect on the market-place than do grants. Both tax incentives and grants leave the final production and pricing decisions in private hands, whereas regulation transfers some of the more important of these decisions to government and its agents.

A Commitment to a Strengthened Economic Union

A key component of this Commission's mandate is to make recommendations to secure and strengthen the Canadian economic union. Part VI of this Report addresses this aspiration and advances extensive recommendations. At this juncture, Commissioners simply wish to point out the importance of a strong economic union for the implementation of effective industrial policies. Indeed, a strong economic union and effective industrial policies are interdependent. Given the division of power and authority between the federal and provincial governments in this area, it is not possible for effective industrial support to be provided unless the policies and programs of the two orders of government are reasonably harmonious and mutually reinforcing. It is most unlikely that the economic union will be strong if there is regional disaffection with Canada's industrial policies. Moreover, it is unlikely that Canada's industrial policies will lead to improved productivity growth and competitiveness if the domestic market is hampered by restrictions on the interprovincial mobility of resources. The Canadian Chamber of Commerce made this observation on domestic barriers to trade, investment and the movement of people:

> *We are concerned that existing institutions and policies have reduced the flexibility of the Canadian economy and its abliity to change. This has been done over the years by erecting barriers to the movement of a) labour, b) capital and c) by government policies that inhibit the rationalization of some of our industries.* (Canadian Chamber of Commerce, Brief, October 6, 1983, p. 55.)

These developments threaten to segment Canada's already small domestic market and, in the process, reduce economic efficiency and our ability to meet international competition.

Commissioners have stressed that a more market-oriented approach to industrial policy should guide the allocation of Canada's human, capital and

natural resources. While a case can be made for provincial governments to compete among themselves for the location of these resources, to maximize their social benefits once a plant is established, government should not protect its output further, through procurement, for example. In addition, governments should avoid engaging in what might be called "negative sum competition"; this procedure might develop, for instance, in the course of bidding for new investment, especially foreign investment. Intergovernmental consultation and co-ordination are necessary prerequisites for strengthening the economic union and devising effective industrial policies.

Conclusions

Submissions to this Commission have demonstrated the considerable divergence of views held in Canada with respect to industrial policy. The business community generally favours a government "hands-off" approach, while social and labour groups express fear that such a course would result in measures that favour economic growth at the expense of the full-employment objective. Correctly fashioned, however, industrial policy need not involve a trade-off between economic growth and employment. Indeed, Commissioners are of the view that a well-thought-out, consistent framework for industrial policy will result in the economic growth and employment objectives being complementary and mutually reinforcing.

If these objectives have been contradictory in the past, a point which is debatable, the contradiction arose as a result of the undue attention government paid to protecting declining industries and retarding the adjustment of the economy to changing conditions. Far too little attention has been given to putting in place incentives that would contribute to the creation of a flexible and adaptative economy in which human, capital and natural resources are constantly being directed to uses that provide goods and services of progressively increasing value.

While there may have been a time in Canada's past when strong demand for our products abroad and protection for markets at home allowed us the luxury of condoning some misallocation of our economic resources, changes in our present and prospective circumstances now require us to make every effort to improve our productivity and our international competitiveness. The challenges posed by other major industrial countries, such as the United States and the nations of Europe, as well as Japan and the newly industrializing countries, require that we reorient our industrial policies. Commissioners have recommended that Canada pursue the development of a more liberalized trade environment, particularly with the United States. While we believe that such an approach would offer Canada potentially substantial economic benefits, the institution of industrial policies that will enable us to reap these benefits is of vital importance.

There is no panacea for improving the amalgam of instruments that compose industrial policy because so many aspects of our society are involved. Nor is there any facet of international experience that would suggest a grand solution. This Commission has carefully considered the possibility of pursuing a highly-targeted approach to industrial policy under which governments, in

co-operation with the private sector, would try to distinguish between industrial "winners" and "losers". We are convinced, however, that problems involved in detailed government efforts to anticipate market forces, administrative complexities, the high risks of failure – particularly in an era of general government restraint – and other considerations weigh against such an approach at this time. This reality is and will remain strong until Canadians gain some experience with the adjustments required by a more liberal trade environment with the United States. Commissioners believe, instead, that the policies Canada establishes to foster industrial growth and development should be governed much more strongly by the dictates of the market-place than they are now.

To argue for a more highly market-oriented approach is not to argue for the continuation of *ad hoc* policies or the implementation of no policies at all. Canada needs a clear and consistent industrial policy to guide the private sector in its investment decisions and to facilitate consultation and co-ordination among governments. Of utmost importance is the adoption of a strategic objective, or set of objectives, that will make possible the charting of a steady industrial policy course. In light of emerging trade and technology developments, Commissioners recommend that industrial policy be firmly directed toward improving Canada's productivity and internationally competitive position.

This achievement, in turn, requires reorienting many major policies and programs, both at the federal and at provincial levels. Foremost among these requirements is that concerted efforts be made to achieve a steadier framework for private decision making and investment policy. Private sector decisions are complicated enough, without those who make them having to contend with gyrations in the relevant government policies. In addition, governments should recognize that more open trade and investment policies will also unleash new forces in the market-place that will further the need to allocate our human, capital and natural resources as efficiently as possible. The opportunities associated with a more closely integrated international environment, together with the demands which tough competition will place on domestic industry, can be expected to do much to remedy Canada's poor productivity performance of the past dozen years.

While tougher international competition will be strong medicine, it is not the only remedy. Governments across Canada must pay close attention to the development of the human and capital resources that our industries need to compete effectively with other countries. Part V of this Report elaborates on the training and educational skills that our labour force will need to ensure that Canada keeps pace with, if not ahead in, the technological "race". In this part of our Report, Commissioners have highlighted two dimensions of our economy that are particularly vital: first-class management and a strong entrepreneurial spirit. Both dimensions require "shots in the arm" because both have been found wanting in some critical ways. Capital formation has, until recently, been relatively strong in Canada, but even here, tax reforms and other measures could help to encourage the private sector to take a more dynamic, risk-oriented approach. Domestic research and development must be more effectively directed to commercial applications, and foreign

technological developments should be more rapidly and aggressively adopted or adapted. Both moves will require the institution of a more sophisticated information "network" among Canada's managers and researchers and foreign experts than exists at present.

The whole framework of government policies that so strongly influences decision making in the private sector should be reconsidered with a view to encouraging the pursuit of excellence, the efficient allocation of resources, and the institution of innovative new processes, products and systems. The tax system, for example, has a fundamental bearing on decisions about working and leisure, and about consuming, saving and investing. Competition policy, the monitoring of foreign investment, the regulatory framework, and the scale and scope of Crown-corporation operations also have major implications for private-sector decisions. All these factors have features that Commissioners believe require reform in order to enhance Canada's productivity and competitive performance. Our transportation and communications sectors also require strengthening, for in a country as immense as Canada, they provide the infrastructure that is essential to securing and strengthening the economic union. In addition, governments across Canada must help to secure the economic union by minimizing those policies and programs that impede the free movement of labour, capital, and goods and services across the country.

Industrial policy requires adjustment mechanisms that facilitate the transfer of resources from low-valued use to high-valued use. Flexibility and adaptability in a rapidly changing world should be self-evident requisites for Canada, as we depend heavily on international trade. Commissioners urge that adjustment policy become a central component of industrial policy: declining industries should not be shored-up, but rather rationalized or phased out as circumstances require; assistance should be directed to re-employing the resources of declining industries, especially labour resources, in more productive industrial enterprises.

These components of industrial policy hold the potential for greatly improving Canada's productivity and competitive record. Commissioners are confident that these factors, in turn, will contribute to increases in our Canadian output, employment and real incomes.

Notes

1. Richard G. Harris, *Trade, Industrial Policy and International Competition*, vol. 13 (Toronto: University of Toronto Press, 1985).
2. Richard R. Nelson, "Government Stimulus of Technological Progress: Lessons from American History", in *Government and Technological Progress: A Cross-Industry Analysis*, edited by Richard R. Nelson (New York: Pergamon, 1982), p. 469.
3. Stephen Cohen, David J. Teece, Laura Tyson, and John Zysman, "Competitiveness", Berkeley Roundtable on the International Economy working paper (Berkeley: University of California, 1984), p. 3.
4. European Management Forum, *Report on International Industrial Competitiveness* (Geneva: EMF Foundation, 1984).
5. Donald J. Daly, Brief, November 8, 1983.

6. Joseph R. D'Cruz and James D. Fleck, "Improving the Competitiveness of the Canadian Industrial Portfolio", *Business Quarterly* 49 (Fall 1984), p. 78.
7. Joseph R. D'Cruz and James D. Fleck, *Canada Can Compete! Strategic Management of the Canadian Industrial Portfolio* (Montreal: Institute for Research on Public Policy, 1985), p. 68.
8. D'Cruz and Fleck, "Improving the Competitiveness of the Canadian Industrial Portfolio", p. 79.
9. See Economic Council of Canada, *Toward More Stable Growth in Construction*, report of the Study on Cyclical Instability in Construction (Ottawa: Information Canada, 1974).
10. André Raynauld, "Insuring and Financing Exports in Canada", in *Domestic Policies and the International Economic Environment*, vol. 12 (Toronto: University of Toronto Press, 1985).
11. Canada, Finance Canada and External Affairs Canada, "Export Financing", Consultation Paper (Ottawa, 1985).
12. The review that follows draws from a survey paper prepared for this Commission by Robin W. Boadway and Neil Bruce, "Theoretical Issues in Tax Reform", in *Approaches to Economic Well-Being*, vol. 26 (Toronto: University of Toronto Press, 1985), and from the results of a conference on tax policy held by this Commission, as well as other material prepared by R.W. Boadway.
13. United States, Department of the Treasury, *Blueprints for Basic Tax Reform* (Washington, D.C.: U.S. Government Printing Office, 1977).
14. Institute for Fiscal Studies, *The Structure and Reform of Direct Taxation* (London: George Allen and Unwin, 1978) (J.E. Meade, Committee Chairman).
15. L.H. Summers, "Capital, Taxation and Accumulation in a Life Cycle Growth Model", *American Economic Review* 71 (September 1981): 533 – 44.
16. W.T. Stanbury and Fred Thompson, "The Scope and Coverage of Regulation in Canada and the United States: Implications for the Demand for Reform", in *Government Regulation: Scope, Growth, Process*, edited by W.T. Stanbury (Montreal: Institute for Research on Public Policy, 1980).
17. R.S. Khemani, "Extent and Evolution of Competition in the Canadian Economy", in *Canadian Industry in Transition*, vol. 2 (Toronto: University of Toronto Press, 1985).
18. William G. Shepherd, "Causes of Increased Competition in the U.S. Economy, 1939 – 1980", *Review of Economics and Statistics* 64 (November 1982): 613–27.
19. *Ibid.*, p. 623.
20. See Richard Schultz and Alan Alexandroff, *Economic Regulation and the Federal System*, vol. 42, prepared for the Royal Commission on the Economic Union and Development Prospects for Canada (Toronto: University of Toronto Press, 1985).
21. Another study that attempts to derive "ideal" prices for local and long-distance services under the assumption that some income redistribution via telephone pricing is desirable suggests that local service should be 19 per cent higher in price and long-distance service 50 per cent lower. See J.A. Breslaw and J. Barry Smith, "Efficiency, Equity and Regulation: An Optimal Pricing Model of Bell Canada", *Canadian Journal of Economics* 40 (November 1982): 634 – 48.
22. Stanbury and Thompson, "The Scope and Coverage of Regulation in Canada and the United States".
23. Economic Council of Canada, *Reforming Regulation* (Ottawa: Minister of Supply and Services Canada, 1981), p. 124.
24. *Ibid.*, p. 127.

25. See W.T. Stanbury and George Lermer, "Regulation and the Redistribution of Income and Wealth", *Canadian Public Administration* 26 (Fall 1983): 378–401; and Keith Acheson, "Economic Regulation in Canada: A Survey", in *Canadian Industrial Policy in Action*, vol. 4, prepared for the Royal Commission on the Economic Union and Development Prospects for Canada (Toronto: University of Toronto Press, 1985).
26. Stanbury and Lermer, "Regulation and the Redistribution of Income and Wealth", p. 401.
27. Acheson, "Economic Regulation in Canada".
28. See Khemani, "Extent and Evolution of Competition in the Canadian Economy".
29. Canada, Royal Commission on Corporate Concentration, *Report* (Ottawa: Minister of Supply and Services Canada, 1978), p. 407.
30. John R. Baldwin and Paul K. Gorecki, *The Role of Scale in Canada-U.S. Productivity Differences*, vol. 6 (Toronto: University of Toronto Press, 1985).
31. J.R. Baldwin, P.K. Gorecki and J.S. McVey, "Imports, Secondary Output, Price-Cost Margins and Measures of Concentration: Evidence for Canada", Discussion Paper 263 (Ottawa: Economic Council of Canada, 1984).
32. Khemani, "Extent and Evolution of Competition in the Canadian Economy".
33. Actually, of the 54 per cent of Canadian farm cash receipts handled by marketing boards, only 24 per cent is handled by supply-management boards. The balance is handled by boards that do not limit output.
34. Khemani, "Extent and Evolution of Competition in the Canadian Economy". See also Shepherd, "Causes of Increased Competition in the U.S. Economy".
35. Combines Investigation Act, s. 2.
36. Economic Council of Canada, *Interim Report on Competition Policy* (Ottawa: Information Canada, 1969).
37. F. Mathewson and R. Winter, *Competition Policy and Vertical Exchange*, vol. 7 (Toronto: University of Toronto Press, 1985).
38. Royal Commission on Corporate Concentration, *Report*, p. 407.
39. Marsha Chandler and Michael J. Trebilcock, "Comparative Survey of Industrial Policies in Selected OECD Countries", in *Economics of Industrial Policy and Strategy*, vol. 5 (Toronto: University of Toronto Press, 1985).
40. Harris, *Trade, Industrial Policy and International Competition.*
41. See Restrictive Trade Practices Commission, *Telecommunications in Canada*, Part III, *The Impact of Vertical Integration on the Equipment Industry* (Ottawa, 1983).
42. Irving Brecher, *Canada's Competition Policy Revisited: Some New Thoughts on an Old Story* (Montreal: Institute for Research on Public Policy, 1982), p. 17.
43. This figure is the receipts from privatization (see Table 9-16) divided by the book value of government enterprise capital which Littlechild puts at £80 billion.
44. Michael Pitfield, "The Limits of Public Enterprise", address to the Couchiching Conference, Orillia, Ontario, August 11, 1984, pp. 4–5.
45. See A.E. Safarian, "Government Control of Foreign Business Investment", in *Domestic Policies and the International Economic Environment*, vol. 12, prepared for the Royal Commission on the Economic Union and Development Prospects for Canada (Toronto: University of Toronto Press, 1985).
46. Canada, Finance Canada, *Economic Review, April 1982* (Ottawa: Minister of Supply and Services Canada, 1982), p. 80.
47. See Glenn P. Jenkins, "Taxes and Tariffs and the Evaluation of the Benefit from Foreign Investment", *Canadian Journal of Economics* 12 (August 1979): 410–25.

48. Section 100(3).
49. Glenn Jenkins, *Costs and Consequences of the New Protectionism* (Ottawa: North-South Institute, 1980).
50. William G. Watson, *A Primer on the Economics of Industrial Policy* (Toronto: Ontario Economic Council, 1983).
51. Richard G. Harris, Frank D. Lewis, and Douglas D. Purvis, "Economic Adjustment and Public Policy in Canada" (Kingston: Queen's University, 1982).
52. John W. Langford, "Transport Canada and the Transport Ministry: The Attempt to Retreat to Basics", in *How Ottawa Spends Your Tax Dollars: National Policy and Economic Development, 1982*, edited by G. Bruce Doern (Toronto: James Lorimer, 1982).
53. Schultz and Alexandroff, *Economic Regulation and the Federal System.*
54. Allan M. Maslove, Michael J. Prince, and G. Bruce Doern, *Federal and Provincial Budgeting*, vol. 41, prepared for the Royal Commission on the Economic Union and Development Prospects for Canada (Toronto: University of Toronto Press, 1985).
55. Langford, "Transport Canada and the Transport Ministry", p. 163.
56. Economic Council, *Reforming Regulation.*