Adjustment Policies for Trade-Sensitive Industries

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nic Council of Canada

1988

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Foreword

The postwar period has been marked by significant liberalization and expansion of world trade. This development has been greatly facilitated by the General Agreement on Tariffs and Trade, which has served as the instrument for liberalizing the rules governing international trade. Thus tariffs on manufactured trade fell, on average, from 40 per cent in 1947 to between 5 and 6 per cent in 1987. The growth and liberalization of trade have not been without problems, however. One of those problems has been the difficulty occasionally experienced by workers, firms, industries, regions, and/or governments in adjusting to increased openness to trade. That difficulty seems to have increased in the 1970s and 1980s, with the advent of less favourable economic performance in the industrialized world, strong new competitors among the newly industrialized countries, and the acceleration of technological change. Indeed, a leading trade commentator (John H. Jackson) suggested recently that "perhaps the most substantial and fundamental policy problem of international trade today is the question of adjustment." It is to that topic that we direct our attention in this report.

Earlier this year the Council released its own suggestions for appropriate policy toward industries experiencing difficulties because of the pressures from international competition, in the form of a Statement entitled *Managing Adjustment: Policies for Trade-Sensitive Indusries*. The Statement contained nine principles, in the form of recommendations, to guide governments in developing policies for trade-sensitive industries. They were supplemented by a number of suggestions for improvements in existing labour adjustment programs. Those recommendations and suggestions, which are reproduced here in Chapter 8, were in turn founded on a two-year research program on adjustment in Canada's manufacturing sector, the results of which are reported in this companion volume. The various background studies prepared for this project are being released as they are completed.

The Council's researchers have been able to quantify the changes that are taking place regularly in the labour market, linking, for the first time, the growth and decline of firms with what is happening to jobs. As a result, we now have complementary sets of data on the rates of job and worker turnover. The volume of change is impressive. At least 30 per cent of the jobs that existed in 1971 had disappeared by 1981 because of plant decline and closure, while the number of jobs gained as a result of plant expansion and openings was substantially higher. Furthermore, the indicators of job and worker turnover were just as high in the trade-sensitive industries – textiles, clothing, and knitting, in particular – as they were in manufacturing as a whole.

Despite this track record of mobility, there is a widespread belief that Canadian firms and their employees resist change. The surge in entrepreneurship that we are witnessing in Quebec, and the favourable reaction in that province to a bilateral trade accord, suggest that this resistance may sometimes be overestimated. But there are undoubtedly real fears that unfettered competitive pressures will lead to plant closures and long spells of unemployment. In some cases these fears are well founded, and that explains, in part, why governments are often called upon to intervene.

Over the past 15 years, governments have responded to such fears in part by adopting sectoral policies – special import measures, subsidies for modernization of plant and equipment, and policies designed to encourage labour adjustment – to support such manufacturing industries as shipbuilding, textiles, automobiles, pulp and paper, clothing, footwear, and others. The Council has examined several of these sectoral policies during the course of this study and, in general, has found them wanting.

We recognize, however, that governments cannot ignore the anxieties of Canadians about the process of adjustment. In this report, we set out a simple framework designed to help in understanding the reactions of firms and workers to adjustment pressures and the consequent calls for government action as well as presenting appropriate responses by government.

I would like to take this opportunity to thank the members of the Council's Advisory Committee on Firm Adjustment to Trade, and in particular its chairman, Graham Wilson. The committee met three times to discuss drafts of the findings summarized here and to review the recommendations. Individual members of the committee also gave generously of their time in consultations with the research team.

Judith Maxwell
Chairman

Adjustment Policies for Trade-Sensitive Industries

READER'S NOTE

The reader should note that various conventional symbols similar to those used by Statistics Canada have been used in the tables:

.. figures not available
... figures not appropriate or not applicable
-- amount too small to be expressed
- nil or zero
e estimated figures
x data confidential, to meet the secrecy requirements of the *Statistics Act*.

Details may not add up to totals because of rounding.

1 Change and Adjustment

To paraphrase Heraclitus, if there is one constant in economic life it is, paradoxically, change. While its speed, cause, and direction may vary over time, change never comes to a standstill, except perhaps in the immediate aftermath of a cataclysmic event such as a revolution or a world war. Not only does the nature of change vary over time, but so does an economy's ability or capacity to deal with, or adjust to, change by the reallocation of resources across occupations, regions, and industries. That ability will depend upon many factors, including the resourcefulness and confidence of the people, the competence of governments, the general state of the economy, and the prevailing social attitudes to change.

At a particular point in time, society may have the capacity to adjust easily and relatively painlessly to the challenges and opportunities that change brings in its wake. A successful capacity to adjust in the area of economic change is manifested in many ways:

- the adoption of new product and process innovations such as fibre optics, the assembly line, and the multidivisional organizational approach to running a large corporation;

- the introduction of new consumer products such as the zipper, the automobile, the VCR, and the Walkman headset;

- a willingness to discuss new ideas, such as deregulation and privatization, as well as to question – perhaps even to abandon – shibboleths, such as the retention of the tariff as a vital support to the survival of manufacturing industries; and

- the shift of resources from lower- to higher-value uses, such as the movement of labour off the farm into manufacturing and the switch from wartime to peacetime production in the period following the Second World War, and the movement of resources out of industries where Canada no longer has a comparative advantage into those where it does.

Such changes, it is frequently argued, are likely to lead to increases in the material well-being of society. Indeed, the ability of a society to maintain its material well-being in the modern world is synonymous with its capacity to adjust successfully to the many changes that occur.

Some of the increase in material well-being realized through successful adjustment to change is used by society to provide a social infrastructure – unemployment insurance and social assistance, for example – to protect those least able to cope with change and to ease its effects on them. In an important sense, then, it could be argued that the provision of a social infrastructure is a prerequisite for society to adapt successfully to change. This infrastructure socializes some of the more important risks associated with change, such as unemployment, by diffusing their burden. Much of the period since the conclusion of the Second World War has witnessed a successful adjustment to change and a consequent increase in society's well-being, some of which has been set aside to insure individuals against some of the more important adverse effects of change, irrespective of their origin.

On the other hand, at some points in time, society may lack the will, or the capacity, to adjust successfully to the challenges and opportunities of change. In such instances, attempts are made, not to encourage or facilitate change but, rather, to arrest, retard, redirect, or prevent it. Security and the status quo are preferred to the uncertainties and opportunities that change brings. That has often been a conscious decision of society:

- the introduction of supply-management marketing boards for eggs, milk, turkeys, and broilers slowed, if it did not stop, intraprovincial, interprovincial, and intercountry movements in the production of those commodities, in response to changing comparative advantage;

- regional investment incentives have attempted to encourage industries to locate in areas where they might not otherwise go, so that people would not have to move to find employment;

- the special unemployment insurance provisions for fishermen have been aimed at keeping these workers in the fishing industry at times when the economic forces of change might, in some cases, dictate that they leave it; and

• the protection granted industries suffering from the slings and arrows of international competition – such as textiles, clothing, footwear, and shipbuilding – has often attempted to maintain an industrial structure that the forces of international competition suggest is untenable in its present form.

All of these are examples of society consciously attempting to thwart the forces of change. Such policies have produced gains for certain industries, groups of individuals, and/or regions, but they have probably resulted in a lower overall level of material well-being for society as a whole.

The cumulative effect of frequent attempts to thwart the forces of change is that society will lose its resilience to deal successfully with change; its industrial, occupational, and regional structure will become ossified, while the arteries of the body politic will harden. Furthermore, if adjustment is postponed or prevented while the forces of change continue unabated, then the size and degree of the adjustment required will increase, as more and more industrial sectors, regions, and occupations try to remain insulated from those influences. The forces of change may eventually become so powerful that they cannot be stopped; wrenching adjustments may then have to take place in a very short period of time, causing hardship for workers, firms, and regions.[1] Acceptance of the necessity of change and the introduction of measures consistent with the demands that it imposes – even if that requires some slowing of the rate (but not a redirection) of the change – is likely to be a more appropriate policy.

Our characterization of society's approach to change as either encouraging it or preventing it is a little simplistic. Given the broad nature of change at any point in time, some changes will be encouraged by society while others will be arrested. Nevertheless, there is a growing body of opinion, in Canada and elsewhere, that sees many of the forces of change being retarded with the increasing politicization of economic life.[2] In other words, an ever-increasing proportion of the risks associated with change become socialized: change becomes more difficult to achieve, and when it does take place there may be overcompensation of those affected. Increasingly, non-market forces are being used to determine market outcomes. Furthermore, such interventions rarely use market imperfections as a rationale.[3] Thus it could be argued that well-being, in some overall sense, will be lower rather than higher because of those interventions. Hence it is important that public policy be designed to manage, or assist, the process of change more efficiently. An understanding and appreciation of the pressures of change and of the responses of workers, firms, and governments are thus required.

The Pressures

There are numerous pressures on firms and workers in Canada's manufacturing sector to adjust in order to maintain and improve its international market position. Over the past 20 years, these pressures have included:

• the rise of the newly industrialized countries (NICs) – which, in the current OECD definition, include South Korea, Hong Kong, Singapore, Taiwan, Brazil, and Mexico – which has posed a challenge to many of Canada's traditional industries – textiles, clothing, and footwear, in particular;

• the pace of technological change, which has forced Canadian firms to adopt newer technology in order to keep up with foreign rivals and has forced workers to retrain or otherwise acquire new skills;

• a fluctuating exchange rate, which has affected Canada's competitiveness vis-à-vis the major industrial countries, leading producers to make judgments as to the permanency of the change and to react accordingly;

• the deregulation of the railway, trucking, and airline industries in the United States in the late 1970s and early 1980s, which put pressure on Canada to deregulate so as not to place large users of transportation services at a competitive disadvantage relative to their U.S. counterparts;

• the decline in tariffs under the *Kennedy Round* (1966-70) and the *Tokyo Round* (1979-87) of the General Agreement on Tariffs and Trade (GATT), which has increased import competition for Canadian producers; at the same time, it has provided opportunities for the realization of scale economies resulting from greater access to foreign markets;

• the growth of the Japanese economy, which has posed a competitive challenge to Canadian producers of commodities – automobiles, ships, and electrical goods, in particular – where capital, high-wage skilled labour, and/or R&D are important inputs;

• the decline in transportation costs, combined with easier access to labour in Third World countries, which has provided opportunities for Canadian corporations to locate plants abroad or to subcontract operations to foreign firms; and

• the trebling of the world price of oil in 1973-74, its subsequent doubling in 1978-79, and, more recently, its substantial decline – changes that have placed considerable

pressure on Canadian producers to use more-flexible, fuel-efficient methods of production in order to compete internationally.

The tables in Appendix A illustrate several of these changes. Some of them – the growth of Japan, the rise of the NICs, technological innovation, and so on – are largely independent of the action of Canadians, while others, such as tariff reductions under the GATT, are the result of deliberate government policy. Furthermore, both types of changes may be interrelated. The liberalization of the world trading system has no doubt facilitated the access of goods from Japan and the NICs to Canadian markets. The net result of these and other pressures, such as the Canada-U.S. Auto Pact, on Canada's manufacturing sector can be seen in the rise of imports – from 21 per cent of domestic consumption in 1966 to 38.6 per cent in 1986. Over the same period, Canadian exports rose from 18.8 to 37.6 per cent of domestic shipments.[4]

The pressures on Canadian firms and workers to meet the challenge of international competition are likely to continue in the future. They will include:

- a continuing fall in tariffs and a greater openness of markets because of the changes currently being discussed under the *Uruguay Round* of the GATT negotiations, which is scheduled to be completed by 1991;

- the movement of NICs out of labour-intensive commodities into more skill- and capital-intensive products and their replacement by the "next-tier" NICs, such as the "ASEAN Four" (Association of South-East Asian Nations) – Malaysia, Thailand, the Philippines, and Indonesia – as well as China;

- the possibility that Japan will increasingly invest abroad (in automobiles, for example) rather than export and hence will continue to put pressure on Canadian firms and workers to adjust;

- the shortening of the product cycle, which will reduce the lead that advanced Western nations have over the NICs, thus increasing the pressure to adjust in order to preserve their positions; and

- the prospect of a Canada-U.S. Free-Trade Agreement, which has awakened many Canadians to the scope of the adjustment facing sectors of the economy that engage in international trade.

Canada is a small, open economy, and trade is the lifeblood of the nation.[5] Thus it is essential that this country be able to adjust successfully to these pressures in order to enhance its competitiveness. That imperative is at the core of the message that the Council wishes to deliver in this research report and in *Managing Adjustment*, a companion Statement of policy proposals that preceded it by a few months.

The Responses

Firms and individuals respond to the pressures of change by reallocating resources between and within firms, industries, occupations, and regions. This reallocation process occurs within a set of laws, institutions, regulations, and customs designed by society to manage the process of change. The policies that are developed in accordance with these laws and institutions can be divided into two broad groups: *framework policies*, which are of general application and economywide in scope; and *sector-specific policies*, which are targeted at individual industries. Most of the responses of firms and workers to the pressures for adjustment take place within the framework policies. In other words, when workers change jobs, retrain, or retire, and when firms are born, die, expand, contract, introduce new products, innovate, find market niches, or export, they do so within a set of rules that govern the economy, with little overt government influence over individual decisions.

In a small number of cases, however, the pressures for change and adjustment are deemed to be too great for the framework policies to cope with adequately. Government then steps in with policies designed to manage change in those particular sectors. In the parlance of this report, these are "trade-sensitive industries."[6]

Framework Policies

Framework policies can be either national or international in their setting. At the national level they include: unemployment insurance; worker training and mobility programs; rules and regulations governing management/labour relations, including collective bargaining; competition policy; laws governing business incorporation, bankruptcy, and access to credit; and, finally, macroeconomic policies aimed at such aggregate variables of economic performance as the growth and level of output, employment, and prices (including interest rates and exchange rates). At the international level, one of the most important framework policies is the General Agreement on Tariffs and Trade, which came into force on 1 January 1948 and has provided the setting for successive rounds of multilateral

tariff reductions, as well as a structure within which world trade takes place.

There is general agreement that governments in Canada play a very useful and necessary role in setting the rules of the market system and hence in contributing to the country's economic development. Framework policies do more, however, than just provide a stable economic, social, and political environment within which firms and employees make decisions in the face of the challenges and opportunities offered by the pressures to adjust. In some important respects, framework policies facilitate the movement of resources – labour and capital – from slower-growing to faster-growing industries. By providing an environment within which market processes can function efficiently and effectively, the framework policies let market signals indicate where returns are the highest and the lowest, and thus where resources should be directed. More specifically, the provision of training programs and unemployment insurance enables individuals to find and enter the growth areas more easily, while the provision of programs designed to disseminate information on new technology and marketing niches makes firms aware of new opportunities. In response to the pressures for change, these policies thus nudge the economy towards a new combination of output and employment at which overall economic activity is maximized.

That is not to say that the framework rules and their administration are incapable of improvement. Indeed, the Council has, over the years, issued a number of reports in which recommendations and suggestions were made as to how these framework policies could be improved. In a recent report on the tax system, for example, we recommended ways in which it could be made more neutral and efficient, thereby enabling firms and individuals to make decisions on the basis of market, not after-tax, considerations. In another report, we called for extensive deregulation in such disparate sectors as supply-managed agricultural products and airlines. On the question of R&D, we made a series of recommendations designed to increase the resources devoted to that activity and to increase the emphasis on adaptation and diffusion. Finally, we have, in a number of reports, supported further bilateral Canada-U.S. and multilateral trade liberalization.[7]

Sectoral Policies

It is true that framework policies do not always work. When they do work, they are often perceived as working too slowly or as yielding unacceptably harsh results. So, from time to time, governments have responded to the demands of different groups in society by intervening on a more ad hoc basis and targeting special programs at individual groups of workers, firms, or industries adversely affected by the pressures of change. In addition to the protectionist measures already noted, such interventions may take the form of special labour adjustment programs or bailouts of individual firms. These sectoral policies are usually justified on grounds of efficiency or equity, but political considerations also play a major role.

Rationales for Government Intervention — There would appear to be little justification for assisting firms on *efficiency* grounds, since financial markets generally appear to work well in Canada.[8] Individual investors and firms can generally diversify their investment portfolios and borrow against their assets to finance new investments. They are supported both by their own information networks and by financial intermediaries in obtaining data on the riskiness of national and international projects.

In contrast, workers cannot diversify their risks as easily as investors or firms: they operate in markets that are very local, not national or international; they have access to much less information concerning job opportunities, compared with the access of investors or firms to data on market and investment conditions; and they experience much more difficulty in obtaining loans in order to retrain, compared with firms that seek to borrow in order to finance new investment opportunities. In addition, training – particularly if it is to be of a general nature – may not be readily available, since individual firms have little incentive to train workers because they risk losing the full benefits of any training initiatives when other firms bid away the trained workers.

We conclude, therefore, that there are efficiency grounds for government intervention to provide information, job retraining, and support to workers who want, or are forced, to find employment elsewhere in response to changes in the economy – that is, workers who seek re-employment opportunities.[9] This case is likely to be particularly strong when a major plant shuts down in a local labour market, thereby having a big impact on employment opportunities. Externalities may be created, as those who are already unemployed find it much more difficult to find employment.[10] Such "congestion externalities" will strain the ability of local labour markets to adjust.

Equity is a difficult concept to define or to invoke unambiguously in efforts to support or justify particular sector-specific adjustment policies.[11] It is usually associated with the notions of "fairness," "justice," and "unbiased-ness." It is concerned with what people, or society, consider to be fitting or right. In the case of adjustment,

while the benefits of a change such as a lowering of trade barriers tend to be spread widely, the losses tend to fall disproportionately on a relatively small group. In Canada, the tendency for the victims of change to be concentrated in certain distressed regions and localities provides additional force to this rationale for government intervention. It can thus be argued that government has a moral obligation to ensure that the burden of adjustment will be shared by all members of society, since all are the ultimate beneficiaries.

Like the efficiency rationale, the equity-based rationale for adjustment assistance pertains mainly to workers; there is generally less sympathy for investors who incur a loss as a consequence of change. Investors are clearly in a better position to contend with risk because of the opportunities that capital markets provide for risk-pooling and risk-spreading.[12] Nonetheless, it can be argued that compensation is appropriate where the legitimately held claims and expectations of investors have been thwarted by unforeseen changes in public policy. There are clearly problems, however, in determining what are legitimately held claims and the degree to which change is unforeseen. For example, is Canada's continued policy of trade liberalization an unforeseen change? How does one distinguish between those who have anticipated the change and those who have not? Should only the latter be compensated? Partly because of such considerations, some argue that it is neither necessary nor appropriate to distinguish between the risks associated with changing market conditions and those which are caused by shifts in government policy.[13]

Finally, governments sometimes intervene mainly for *political* reasons, in response to the demands by firms, employees, and regions affected by the pressures of change for governmental action to retard adjustment by granting protection in one form or another. Clearly, elected representatives have to pay attention to these demands.[14] Hence, because of this political rationale for intervention, government may grant a degree of protection to workers and firms, even though there may be no efficiency or equity rationale for intervention. Frequently, such protection is of considerable duration, thus postponing the day when the firm will be forced to adjust.

A government decision to intervene in a particular sector in response to the pressures of international competition is often the result of a careful balancing of the efficiency, equity, and political rationales. The final outcome will depend, however, not only on the intrinsic merit of each rationale and on the vigour with which the proponents of each one argue their case in Cabinet, but also on a number of other factors, some of which have already been alluded to: the general state of the economy; the fiscal position of the government; the prevailing social attitudes to change; the economic ethos of the party in power; the precedent that the awarding of special assistance might set for other sectors; and the reactions of foreign governments and organizations.

It is clearly difficult for any government to start from scratch and design an optimal adjustment strategy. Yet, under ordinary circumstances, governments do have some measure of discretion in deciding whether to award sectoral assistance and on what terms.[15] In our review of the adjustment process and of adjustment policies, we shall attempt to provide guidelines for the use of this discretion.

Policy Instruments — Once government has decided to intervene at the sectoral level, it must choose the instruments with which the policy is to be implemented. From the point of view of their effects, the instruments available range between, at one end of the spectrum, "positive adjustment,"[16] which attempts to accommodate, facilitate, and promote adjustment along the path indicated by the competitive pressures and, at the other end, the "new protectionism,"[17] which arrests, thwarts, or retards the pressures from international competition (Figure 1-1).

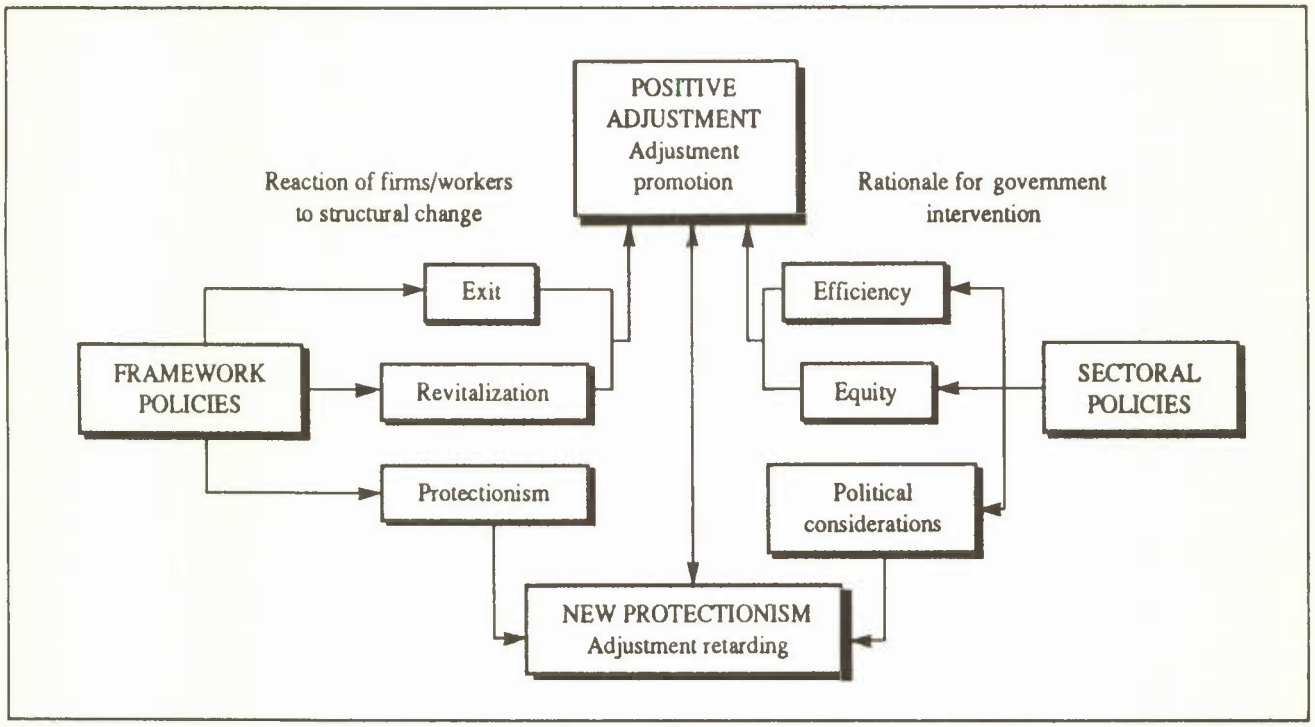
The efficiency and equity rationales for government intervention would suggest that labour-market adjustment policies be adopted to encourage re-employment and perhaps to provide income compensation to selected groups. If quantitative import restraints are to be used, efficiency and equity considerations suggest that they be imposed for a limited time only. These adjustment promotion measures are designed to complement the framework policies, which, by and large, are aimed at performing much the same set of functions at the economywide level. Taken together, these two sets of policies may be viewed as being at the "positive adjustment" end of the policy spectrum.

In contrast, government intervention based on political considerations is much more likely to retard adjustment. It acts as a disincentive for workers and firms to leave occupations, industries, or regions when the forces of change would suggest that they should do so. In these cases, less, rather than more, visible instruments of intervention are often employed; quantitative import restraints are used for longer, not shorter, periods; capital subsidies are used to revitalize industries that often have little chance of becoming internationally competitive; and little emphasis is placed on labour re-employment. This group of policies is at the "new protectionism" end of the policy spectrum.

Our discussion suggests that quite different policy outcomes are possible, depending on the rationale for

Figure 1-1

Responses to Competitive Trade Pressures



intervention, the policy objective chosen, and the instrument used. Efficiency and equity rationales will tend to promote adjustment, while political rationale will tend to retard it. Thus, when governments decide to intervene on a sectoral basis, there is likely to be tension between the efficiency and equity rationales, on the one hand, and the political rationale, on the other.

The Scope of Our Report

Our emphasis in this report, as indicated by its title, is on adjustment arising from change in the international trading environment, particularly in trade-sensitive sectors. We confine our attention almost exclusively to the manufacturing sector, because it is the most important of Canada's traded-goods sectors (Table 1-1). Indeed, manufactured imports and exports have increased their relative importance in Canada's trade since the Second World War. Moreover, the pressures for adjustment on the manufacturing sector are sufficiently different – in terms of economic structure, exposure to foreign competition, and treatment under the GATT -- from those of other sectors (such as services, trade, and agriculture) to merit separate attention.

The manufacturing sector makes an important contribution to the Canadian economy. It has accounted for approximately one-fifth of the country's output of goods and services in the postwar period, although its importance in terms of its share of the economy's employment and capital stock has declined (Chart 1-1). These divergent trends reflect the increase in productivity of the manufacturing sector, which has enabled resources to be released to other sectors of the economy. Nevertheless, in terms of either the number of workers or the volume of total output (particularly the latter), the Canadian manufacturing sector has increased in absolute size (Chart 1-2). Similar patterns have been observed in a number of other industrialized countries.[18]

In considering adjustment to the pressures of change in the manufacturing sector within the set of framework laws, we consider the reactions of firms, individuals, and governments. In Chapter 2 we design a structure for analysis that outlines the adjustment options open to firms and individuals, as well as their interaction with the governmental process. Three adjustment options are considered: exit, revitalization, and protectionism. The third leads to sector-specific policies that are discussed in later chapters. In Chapters 2 to 4 we consider selected aspects of how firms

Table 1-1

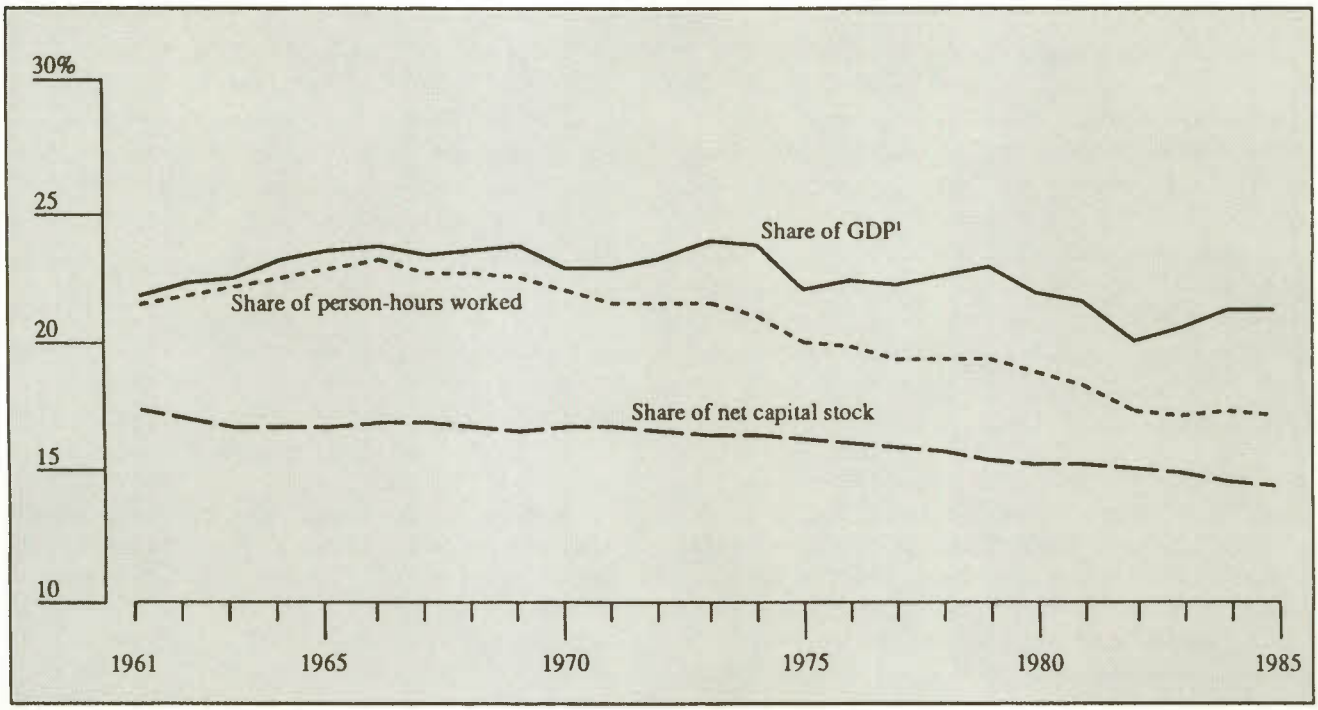
The Importance of Manufactured Imports and Exports[1] in Canada's Trade, Selected Years, 1950-85

	Proportion of total trade in goods and services accounted for by:				Manufactured goods as a proportion of all goods		Motor vehicles and parts as a proportion of manufactured goods	
	All goods		Manufactured goods					
	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports
	(Per cent)							
1950	70.7	75.6	45.1	54.9	65.7	72.6	12.7	1.9
1955	72.3	75.3	53.1	54.3	76.1	72.1	11.3	1.6
1960	68.1	76.9	50.5	51.8	77.5	67.3	13.7	2.1
1965	70.2	78.4	53.7	51.9	81.0	66.3	16.0	6.0
1970	69.6	79.5	57.2	59.2	85.2	74.5	27.1	26.8
1975	76.4	82.5	58.9	55.0	79.4	66.6	29.2	28.4
1980	74.2	83.7	56.1	61.2	78.3	73.2	25.1	19.4
1985	72.6	84.0	62.0	65.0	88.2	77.4	34.6	36.0

1 Based on current-dollar values of imports and exports.
SOURCE Economic Council of Canada, CANDIDE database, based on data from Statistics Canada.

Chart 1-1

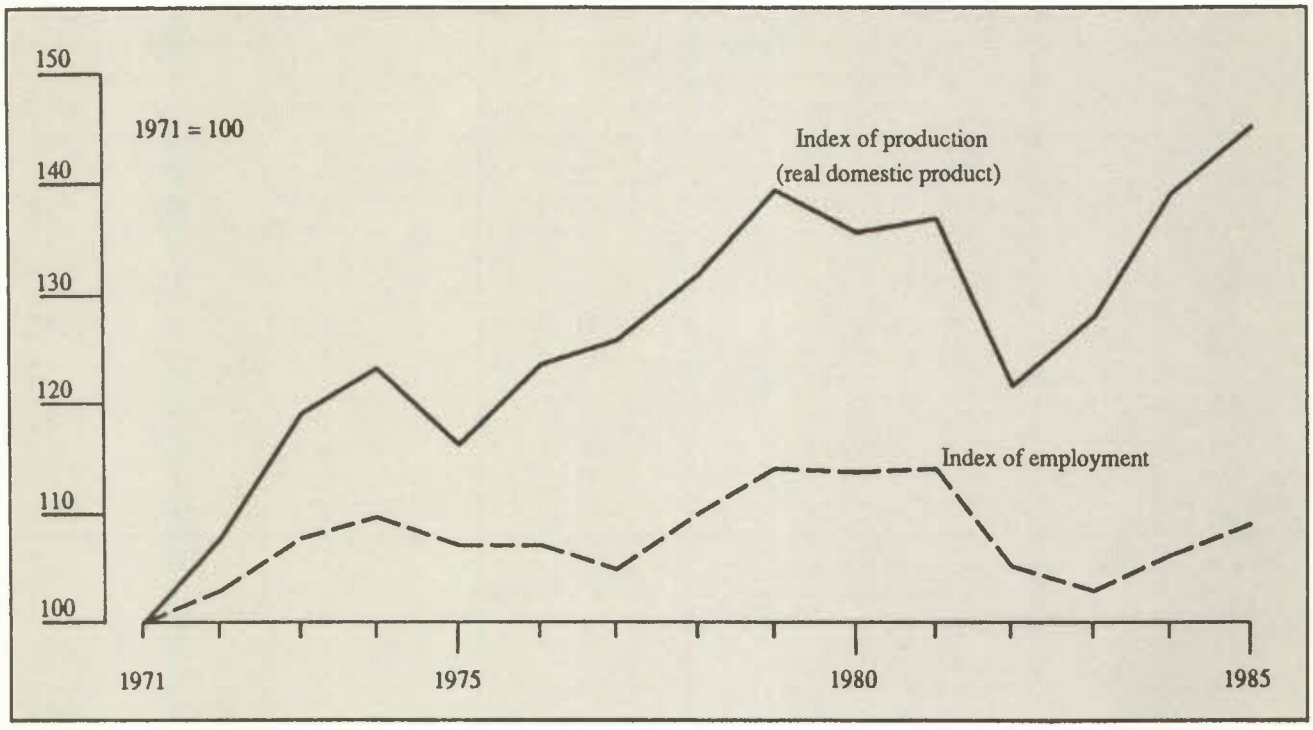
Relative Importance of the Manufacturing Sector in the Canadian Economy, 1961-85



1 In 1971 dollars.
SOURCE Based on data from Statistics Canada.

Chart 1-2

Production[1] and Employment[2] in the Canadian Manufacturing Sector, 1971-85



1 Real domestic product is measured in 1971 dollars.
2 The number of employees is defined as the combined total of production and non production workers.
SOURCE Based on data from Statistics Canada.

and workers have adjusted over the past 10 to 20 years in Canada's manufacturing sector. We address a number of broad questions: What adjustment mechanisms are there? How do they work? What is the magnitude of the continuing adjustment process as firms expand, contract, move into new industries or close plants, and as workers are laid off, quit, or leave their employers for other reasons? How important are the pressures of international competition in accounting for employment changes? What factors determine the location decisions of multinational enterprises? How quickly do those who suffer a job loss find new employment?

In Chapters 5, 6, and 7, we examine the major instruments of government intervention that have been used on a sectoral basis to assist trade-sensitive industries: quantitative restraints on imports; firm and industry subsidies; and labour adjustment policies. Chapter 2 serves as a background to those three later chapters in that it looks at government intervention in the context of firm and worker adjustment options, in addition to defining some of the terms used in those chapters. Much of the discussion about the major instruments is based on an examination of a small number of industries that have been the beneficiaries of tailor-made, sector-specific adjustment programs: textiles, clothing, and footwear; shipbuilding; automobiles; and pulp and paper. A theme of much of our discussion is the tension between the different rationales for government intervention and the need to design policies and principles that will reconcile these differing perspectives on the adjustment problem.

Our conclusions and principles as to how best to manage the adjustment process in trade-sensitive sectors are presented in Chapter 8. We believe that now is a propitious time for the presentation of these principles, for several reasons:

1 Many of the adjustment policies aimed at trade-sensitive industries are of recent vintage. Our analysis, as well as that of others, suggests that, by and large, these policies have had a low payoff. Hence, now is the appropriate time to consider alternative policies.

2 Many of the sector-specific policies aimed at trade-sensitive industries and their workers are administered by different departments and agencies of government. In this

report, by considering all of these policies together, we hope to enhance the understanding of policy interrelationships and thus to provide the basis for better policies.

3 The number of industries considered trade-sensitive (as indicated by sector-specific adjustment programs) has increased over time. Adjustment policy has thus become a much more important issue. If the forces of change are prevented from operating, they may eventually become so powerful that wrenching adjustments will be necessary. Our document points out this possibility, so that thoughtful Canadians may start the policy reform process now.

4 The Canadian government is taking part in the *Uruguay Round* of multilateral trade negotiations under the GATT. One of the principal objectives of this round of the GATT is to "bring about further liberalization and expansion of world trade to the benefit of all countries, especially less-developed contracting parties, including the improvement of access to markets by the reduction and elimination of tariffs, quantitative restrictions and other non-tariff measures and obstacles."[19] We believe that the information we present on the adjustment process and the policy proposals that we put forward for trade-sensitive industries will make it easier to reduce and/or eliminate quantitative restrictions and other non-tariff barriers, thus enabling Canada to meet one of the stated objectives of the *Uruguay Round.*

5 Canada is in the midst of a debate on the possible impact of the Canada-U.S. Free-Trade Agreement, and on the appropriate adjustment policies its implementation will require. Our report provides a set of principles that can, we believe, make a useful contribution to this debate.

The principles presented in Chapter 8 are based on the lessons that we have learned from a number of detailed case studies of government sectoral intervention and from an analysis of the adjustment process in the Canadian manufacturing sector.

2 The Task of Adjustment

At any point in time, the resources of Canada's economy are employed in the production of a wide variety of goods and services, ranging from automobiles to coats, from restaurant meals to iron ore mining, and from public transportation to medical advice and treatment. The importance of this activity can be measured by the volume of production of these goods and services (outputs) and by the combination of resources used in the production process (inputs). In broad terms, adjustment to changes in demand and supply consists of reallocating these outputs and inputs.

In this chapter, we define adjustment and some of the factors that condition the pace and ease of adjustment; relate the influence of market characteristics to the opportunities and constraints that firms and employees face in adjusting to change; and discuss two adjustment mechanisms – intraindustry and interindustry trade.

What Is Adjustment?

Adjustment can be characterized as the reallocation of the economy's resources from one production use to another in response to a foreign competitor offering (or expected to offer), either in Canada or in other markets, a good that is lower-priced or of better quality than a similar good offered by Canadian producers.[1] Such reallocation may take the form of a contraction of domestic production of the good in which Canada has become less competitive and the transfer of labour and capital to other industries where they are in greater demand; or it may focus on the revitalization of the domestic industry by the introduction of new production methods, new products, and/or new worker skills to meet the increased international competition. In an economic sense, adjustment can thus be defined as the set of decisions – private and public – through which this reallocation is conducted.

Workers and firms usually decide to move from one industry to another, from one occupation to another, or from one locality to another in response to market signals. The essential mechanism involved is the emergence of a differential between the expected rewards of labour and capital in different uses. For example, the fall in the price of an internationally competitive good translates into a lower expected reward to the labour and capital employed in its production in Canada relative to that of other goods and services in the economy. If some of these other goods and services are close substitutes, their expected increased relative attractiveness, in terms of higher wages and returns to capital, may induce either an interindustry or an intraindustry reallocation of resources. Adjustment in response to these differential rewards is necessary if labour, capital, and other resources are to be employed where they generate the highest return and overall economic activity is maximized.

An adjustment problem occurs when resources – labour or capital – do not move easily from one use to another in response to market signals. This may reflect either a lack of perception of the need to adjust because of inadequate information or the presence of labour market imperfections, such as a lack of training facilities or excess labour supply in a local market. Long periods of unemployment may occur, and regions and single-industry towns may suffer prolonged recession, with ensuing declines in property values and other indicators of economic health. Thus there are grounds for government to nudge the economy toward the new equilibrium so that resources will not remain unemployed or underemployed, retarding the realization of the new constellation of labour, capital, and other resources that is associated with the higher level of national output. The ease or difficulty with which adaptation occurs will depend upon a number of factors that should be taken into account by governments when designing an appropriate adjustment policy.

The Specificity of Labour Skills and Capital Equipment

The reallocation of resources induced by a change in trade patterns or by any other structural change is unlikely to be either instantaneous or smooth if some of the resources employed in the production of a good that is becoming less competitive have very specialized uses or functions that are not easily transferred to other areas of economic activity. In all likelihood, such resources will be unable to find alternative employment without considerable transformation. For example, most equipment built to specification for particular tasks is incapable of being used for other purposes during

its useful life; its expected reward in other uses is close to zero. As a result, the only feasible transformation is either to sell the equipment or to write it off and build new equipment suitable for other tasks. In industries where a portion of the capital equipment is rented or where an international market exists for the equipment, the capital may have a value greater than zero, and its specific nature is less of a constraint on the ease of adjustment. In contrast, the specific skills and aptitudes embodied in workers, frequently tied to particular locations, effectively "depreciate" immediately if not used in their customary employment. The cognitive and learning capacities of people can survive a temporary loss of employment, however, and workers can qualify for other occupations through timely retraining.

Duration of Change

Our discussion so far has assumed that a price change or the appearance of a better-quality good is permanent rather than temporary. If change is expected to be temporary, then resources are unlikely either to move out of the sector facing increasing international competition or to be invested to improve the quality of existing products. If this expectation turns out to be incorrect and the change is actually permanent, adjustment will have been delayed. It will have to take place against a background of greater loss of markets (both domestic and international) and, consequently, of less room for manœuvre. Thus the adjustment process will be facilitated by the provision of information and the assurance that market signals – prices, returns to labour and capital, and so on – are clearly being sent to the various economic agents.

The provision of better information and the removal of barriers to a better reception of market signals will facilitate adjustment by improving the ability of people to distinguish between permanent and temporary change. It will not, however, prevent what, in hindsight, will be viewed as mistakes. At any point in time, different individuals are likely to have different expectations about the permanency of change. A corollary of this is that adjustment paths are likely to vary for each firm and each individual.

An example may serve to illustrate how different expectations about whether a change is permanent or not can influence individual behaviour and determine the impact of a policy. Under the federal government's Industry and Labour Adjustment Program (ILAP), introduced in 1981, assistance was offered to communities where "dislocation [is] of a permanent character as opposed to temporary," with particular attention to be "given to dislocations which reflect industry-wide structural adaptation." Hence it was deemed necessary to determine that "the dislocation is not likely to reverse itself, in a reasonable period of time, as a result of improvement in the relevant economic conditions."

Several communities heavily dependent on the automobile industry received assistance under ILAP, including wage subsidies, direct job training, and so on. If auto workers had agreed with the views of government, they would have shifted to other industries and occupations in view of what appeared to be a permanent decline in their employment prospects in the automobile industry. The workers expected to be recalled, however, and so did not participate to any great extent in the ILAP retraining programs. They turned out to be right: employment in the industry climbed rapidly after the 1982 recession, which had been the main cause of the decline in auto sales. Had the auto workers felt the change was permanent, then costly retraining would have been undertaken needlessly.

In contrast, the use of the ILAP retraining and job mobility programs was much more extensive in the case of shipbuilding, which in 1982 suffered a large decline in employment that has not been reversed to date. In this instance, the expectations of the individual workers and the government as to the permanency of the decline coincided. Any retraining or any move to another area would therefore have been an appropriate response to the 1982 decline in employment in shipbuilding.

Anticipated vs. Unanticipated Change

The reaction of workers and firms to loss of competitiveness will depend not only on whether the change is perceived to be permanent or temporary and on the specificity of some job skills and equipment, but also on the extent to which such change has been anticipated for some time. If individuals and firms expect employment prospects to decline in a particular occupation or industry over the next five to 10 years, then workers can act before the event by seeking alternative employment. If change occurs overnight, however, the ability of workers and firms to react is much more constrained and the task of adjustment is much more difficult and costly. It is for this reason that tariff reductions under the GATT have been phased in over periods of up to eight years; that the proposed Canada-U.S. Free-Trade Agreement envisages tariff reductions being phased in over a 10-year period; and that the federal government, in its 1984 footwear reference to the Canadian Import Tribunal, allowed up to three years for the phasing-out of global quotas. Thus the duration and ease of adjustment are usually directly linked to whether or not change is anticipated.

Trade vs. Other Changes

Our discussion so far has characterized the adjustment process in terms of the decisions following from a change in the relative price of a good from foreign suppliers vis-à-vis domestic producers, resulting in either a reallocation of resources away from, or a revitalization of, the import-competing sector to meet the import competition. In the real world, however, there are a large number of changes taking place simultaneously, including changes in domestic and foreign demand, productivity, and technology. All of these factors lead, potentially at least, to resources being reallocated within and across industries, occupations, and regions. Studies undertaken by the Council and elsewhere have attempted to isolate the relative importance of each of these factors in accounting for changes in industry employment.[2] These "decomposition" studies suggest that change in domestic demand is by far the most important cause of employment change, followed by productivity and the net impact of trade (the export effect less the import effect), both of which rank second an equal number of times in the manufacturing sector.[3] This inference holds, even in some of the most import-sensitive sectors of the Canadian economy.[4]

One of the difficulties with decomposition analysis is that it does not make allowance for any interaction between the various factors causing change in industry employment.[5] Each is treated separately. Some examples will illustrate the difficulty. An increase in imports will lead to greater competition, spurring domestic firms to be more productive – by introducing new technology, for example. That increased productivity will result in lower prices and increased domestic demand – the revitalization option. The change in industry employment that would, in decomposition analysis, be assigned to productivity and domestic demand should, in this instance at least, be attributed to import competition. Alternatively, a decline in demand may affect productivity through the practice of labour hoarding. Because of the cost of hiring and firing, firms may be inclined to retain employees during a downswing; as a result, the decline in output will be greater than the drop in employment. In the longer run, a decline in demand may affect productivity through a slowing in the rate of investment, in innovation, and in the utilization of economies of scale. In decomposition analysis, then, the employment effects assigned to productivity should, at least in part, be assigned to demand.

An alternative approach, which overcomes some of the problems of decomposition analysis, is to specify carefully all of the structural factors that are likely to influence the level of industry employment. Econometric techniques are then used to estimate the actual relationship between structural factors – such as output, wages, the price of capital, energy, and raw materials – and the level of industry employment. In order to estimate the impact of each of the structural factors on industry employment, alternative plausible scenarios are developed as to the path of the structural factors. For example, it might be assumed that import prices remained constant instead of falling, or that productivity improvements did not take place. The impact of each of these assumptions can then be used to simulate the path of industry employment. Applying this approach to the U.S. steel industry, Grossman wrote that "the deviation of the actual path of employment from the simulated path provides an estimate of the number of jobs lost (or gained) in the industry due to the fact that the . . . variable took on its historical values, rather than the assumed alternatives."[6] As a result of this exercise, it is then possible to compare the relative importance of each structural factor under a number of possible scenarios.

The advantage of the econometric approach is that a number of different factors can be considered. A good illustration is provided by Grossman's study of the U.S. steel industry. The import variable was broken down into a tariff and an exchange-rate change. In decomposition analysis, such attribution is much more difficult to achieve, so that a change in imports may represent a change in comparative advantage, a decline in tariffs, and/or an exchange-rate fluctuation. The policy implications are likely to be quite different, depending on the cause of the increase in imports. The disadvantage of the econometric approach is that it requires a considerable amount of reliable, detailed data.

On the basis of the small number of econometric studies conducted to date, the general conclusions accord with those of the decomposition studies: factors other than changing levels of imports typically appear to be as important, if not more so, in determining the change in the level of employment.[7] This has potentially important implications for the appropriate policy towards industries adversely affected by the pressure of international competition. If such pressure is only one among many causes and if it is of relatively minor importance, this suggests that the appropriate instrument with which to address the industry's difficulties may not be trade protection.

Conclusion

Our discussion of anticipated vs. unanticipated change, the duration of change, the difficulty of isolating trade from other changes, and the specificity of labour skills and capital

equipment raises public-policy issues relevant to adjustment. The findings are relevant to our examination in Chapter 1 of the rationale for government intervention in a sector-specific context. The discussion of the specificity of labour skills and capital equipment suggests that labour can usefully be retrained while capital cannot be transformed for other uses; that where change is expected and, in particular, where it is introduced gradually – as opposed to being sudden and unexpected – the market may be able to deal adequately with the adjustment; and that given the difficulty of forecasting change, the provision of information by government and other sources could facilitate adjustment. The discussion also points out the difficulty of isolating the effect of trade from other changes. Finally, if it is typically difficult to estimate whether a change is permanent or temporary, this counsels in favour of governments being careful in their decision as to whether – and, if so, how – to intervene, especially if the costs of erroneous intervention are high.[8]

Adjustment Options

As mentioned earlier, a firm faced with problems brought on by increased international competition and with the need to adapt has a number of options it can select from: exit; revitalization; and protection.

Exit

If a firm perceives a permanent decline in demand for its products and a consequent adverse impact on its profitability, it can adapt by leaving – or "exiting" from – the industry. It has two possible choices within the exit option: to divest itself of the plant and equipment; or to run down its machinery and equipment gradually. In the latter instance, workers will be laid off and will search for work in other industries and occupations – an endeavour in which they may or may not be successful. Where international competition is sudden and unexpected, the firm may actually go bankrupt – a rather painful method of exit.[9] If, on the other hand, the exit process is orderly, the firm may find alternative uses for its resources in other industries, particularly if it already has a diversified output. The exit process will then be less painful.

Revitalization

The next option can be characterized by the term "industry revitalization" – the restoration of the industry's international competitiveness. The first choice within this category is for the firm faced with increased international competition to meet the challenge by designing better products and by improving the organization of production and sales in such a way that costs will be lower and quality will be higher. Under this option, the firm will increase its productivity; in order to stay in business, it will keep offering the same product, or line of products, with a better quality/price combination. International competition forces the firm to devote extra resources to achieve a higher rate of investment expenditures in research, modernization of capital equipment, marketing, retraining of labour, and/or improved sales effectiveness.

The second revitalization route is an extension of the first one. The firm can lower its costs by reducing the rewards to those who provide inputs: wage rates may be reduced; investors may accept lower returns; and managers may accept reduced remuneration. The feasibility of this route depends on the extent to which people are willing to continue participating in the firm with lower rewards and on the extent to which higher rewards to the resources in question are available in other uses. If the industry has received extensive protection that has resulted in higher wages than are needed to attract the necessary quantity of labour and in higher returns than are necessary to attract capital, then the second revitalization route may be feasible.

Under the third revitalization choice – "differentiation" or finding a market niche – the firm specializes in some of its existing product lines and/or the development of new product lines. As a result of this "horizontal" specialization, the domestic firm becomes more internationally competitive in certain product lines. Foreign producers can thus sell their product lines in Canada and other markets more easily, and the Canadian firm also becomes more competitive in the world market in the particular product lines in which it has decided to specialize. As a result, two-way trade in similar commodities increases. The ability of the firm to maintain or even increase its sales revenues in this context will depend on its capacity to find a more specific clientele for its output within a wider market that includes other countries besides Canada. The net result of this method of meeting import competition is an increased interpenetration of markets between countries.

Trade changes that force adjustment on businesses and on the economy can also, at the same time, make the first and third revitalization choices (sometimes referred to as rationalization) more feasible. Multilateral and bilateral tariff reductions, as well as falling transportation costs, allow freer movement of goods among countries. A direct effect of this is to relax some of the constraints faced by a business on the location of its production facilities, on the extent of its vertical integration, and on the range of suppliers from which it can buy semiprocessed goods and materials. In

order to minimize its costs, the business can choose from a wider range of opportunities. In some instances, the firm may locate some operations abroad. At the same time, the opening of export markets enables those firms which have niches to penetrate wider markets more easily and hence realize scale economies.

Protection

The third and final option is for the firm, usually with the support of labour, to seek protection from the competition of imports. This option – often referred to by economists as "voice"[10] – can take a variety of forms, including quantitative restraints, tariffs, subsidies, and outright prohibition on the importing of some foreign goods. The effect of such policies is to restore or maintain the relative price of the imported good so that the domestic import-competing industry does not have to adjust by selecting either of the exit or revitalization options mentioned above. Frequently, such protection is of considerable duration, thus postponing the moment when the firm must adjust.

Conclusion

The adjustment options are closely related to our discussion of framework and sector-specific policies in Chapter 1. The exit and revitalization options occur in response to adjustment pressures as part of the functioning of the market system, which the framework policies are intended to maintain in good working order. The protection option, however, is an attempt to moderate the workings of the market system through the introduction of sector-specific policies. As will be seen later on, these policies, especially the imposition of quantitative restraints, typically provide "breathing space" during which firms and labour *can* adjust to the changing realities of international competition. During this breathing spell, some firms and workers may leave the industry; revitalization may occur; or only minimal change may take place because workers and firms assume that protection will continue. To the extent that firms and workers leave the industry or revitalize and that protection is removed, then the sector-specific policy is consistent with the positive-adjustment approach to dealing with the pressures arising from international competition. On the other hand, if protection is extended rather than phased out, and if firms and workers make only minimal changes, then the policy approaches the new-protectionist end of the spectrum.

Matching Options and Market Characteristics

There are a large number of characteristics of the market, such as the degree of scale economies or product differentiation, that influence a firm in deciding which adjustment option to select when faced with import competition. In some instances, it may be very difficult to discover a link between a market characteristic and its influence on each of the options. In other cases, the connection may be ambiguous. Hence we must be careful in drawing any strong conclusions about a link between market characteristics and firm options for adjustment to import competition. Our discussion, which is summarized in Figure 2-1, is thus meant to be illustrative rather than exhaustive.

As stated earlier, the greater the specificity of labour skills and machinery and equipment, the more difficult it will be for labour or capital to move to other occupations/uses or to other industries. Efforts made to seek protection by the owners of specific inputs are likely to have much support from the electorate because of the hardships and limited opportunities for individuals and firms.[11] These same limited opportunities will also provide incentives for firms to seek to reduce factor rewards and/or to offer a better price/quality choice to consumers where skills are specific. On the other hand, if labour skills and equipment are easily transferable, exit or finding a market niche may be the favoured adjustment options.

Products vary in the degree to which they can be differentiated. Some products are standard, with little difference between various manufacturers or brands – milk, sugar, and caustic soda, for example. Other products can vary in a number of different ways, such as colour, styling, size, reliability, after-sales service, and so on. In such cases, advertising (and R&D) expenditures are important market characteristics that enable producers to differentiate their products in the eyes of consumers (Table 2-1). When the product is a standard-technology item, with little or no product differentiation, the domestic producers are much more likely to exit and/or seek protection; the lower price of the foreign competitor's good leaves the domestic firm with very little alternative, except perhaps to reduce the rewards to labour and capital. By contrast, in the case of highly differentiated products, the domestic firm has the option of achieving a better quality/price trade-off and/or finding a market niche.

There are substantial scale economies to be realized in some industries (Table 2-1).[12] To the extent that increased international competition offers a greater possibility of interpenetration of markets between countries because of a mutual reduction in trade barriers, then the possibility of scale economies gives some firms an incentive to find market niches and thus realize those scale economies. This is likely to lead to increased productivity. For example, it has been estimated that approximately one-third of the

Figure 2-1

Adjustment Options and Market Characteristics[1]

	Adjustment options				
		Revitalization			
	Exit	Better quality/price combination	New market niche	Reduced factor rewards	Protection
Market characteristics:					
Equipment					
For specific use	–	√	–	√	√
Easily transferable	√	–	√	–	–
Degree of product differentiation					
Very low	√	–	–	√	√
High	–	√	√	–	–
Degree of scale economies					
Zero	√	–	–	–	√
Considerable	–	√	√	–	–
Separability of stages of production					
Yes	–	√	√	√	–
No	√	–	–	–	√

1 A check (√) mark indicates a positive association between the market characteristic and the adjustment option. See the text for definitions of the terms used in this figure.

Canada-U.S. productivity differences in manufacturing can be accounted for by the lack of achievement of scale economies in Canada, partly because of the smaller Canadian plant sizes.[13] Alternatively, a firm might try to achieve scale economies in order to offer a better quality/price package to consumers. If there are no benefits to larger scale production, then exit, protection, or reduced factor rewards are the more likely outcomes.

Product differentiation and scale economies are often associated with markets characterized or dominated by a small number of relatively large producers – a situation referred to as "oligopoly." In such situations, the advent of import competition may lead the industry to call for protection, because the small number of producers is able to organize effectively and lobby government. Consequently, our inferences in Figure 2-1 concerning the match between the protectionist adjustment option, on the one hand, and the product differentiation and scale-economy market characteristics, on the other, needs to be tempered by the nature of the market structure.[14]

The manufacture of a good entails several stages of production from the raw material to the finished good. In some instances, these separate stages can be carried out in separate locations, sometimes within the same firm, sometimes at arm's length but under contract (see Table 2-1 for a crude index of vertical integration). If the stages of production can be separated, then the domestic producer may locate certain stages abroad – in order to take advantage of the availability of cheap unskilled labour, for example.[15] Such a strategy of vertical specialization and dis-integration means that the industry could achieve some or all of the options under industry revitalization. If, however, production cannot be so reorganized, then exit or protection are much more likely.

In our discussion, we have examined the impact of market characteristics on firm-adjustment strategies or options. We have not considered how firm characteristics – such as size, ownership (multinational vs. domestic), single-product or multi-product output, union presence or absence, and so on – will influence those options.

Table 2-1

Industry Characteristics of the Manufacturing Sector, by Major Industry Group, Canada, 1970, 1979, and 1981

	Relative plant scale, 1979[1]	Relative productivity, 1979[2]	Returns to scale, 1970+1979, average[3]	Canadian control, 1981[4]	Advertising intensity[5]	Vertical integration, 1979[6]
				(Per cent)		
Two-digit industry group:						
Food and beverages	0.57	0.58	1.27	0.3	0.0221	0.36
Tobacco products[7]	1.00	0.60	1.31	73.2	0.0289	0.32
Rubber and plastic products	..	..	1.13	40.0	0.0070	0.45
Leather	0.86	0.66	1.10	84.7	0.0065	0.44
Textiles	0.58	0.71	1.11	52.7	0.0068	0.45
Knitting mills	0.31	0.75	1.05	86.4	0.0097	0.47
Clothing	0.80	0.65	1.04	86.6	0.0088	0.55
Wood	1.00	0.65	1.26	79.9	0.0046	0.44
Furniture and fixtures	0.20	0.55	1.14	82.4	0.0075	0.50
Paper and allied products	1.05	0.73	1.22	69.4	0.0059	0.39
Printing and publishing	0.56	0.82	1.20	90.3	0.0084	0.64
Primary metals	0.86	0.88	1.15	84.3	0.0021	0.34
Metal fabricating	0.97	0.80	1.14	64.9	0.0055	0.47
Machinery	0.47	0.78	1.06	46.4	0.0079	0.42
Transportation equipment	0.77	0.67	1.13	19.6	0.0046	0.42
Electrical products	0.42	0.90	1.13	42.5	0.0117	0.45
Nonmetallic mineral products	1.32	0.86	1.29	44.8	0.0045	0.52
Petroleum and coal products	0.98	..	1.25	20.8	0.0084	0.22
Chemical and chemical products	0.76	0.83	1.24	26.7	0.0330	0.43
Miscellaneous manufacturing	0.45	0.79	1.06	51.2	0.0209	0.50

1 Relative plant scale is defined as the ratio of the mean size of larger plants in Canada to that of larger plants in the corresponding U.S. industry. "Larger" in this context refers to the average size of the smallest number of plants accounting for the top 50 per cent of industry employment. The industry groups shown here are at the two-digit level of aggregation. For each two-digit industry group, relative plant scale is measured as the unweighted average of the constituent four-digit industries. Of the 167 four-digit industries, only 125 were used to estimate relative plant scale. The Canadian data were for 1979, while the U.S. data pertained to the census year 1977 but were converted to a 1979 basis, using the 1977 exchange rates and then an index for Canadian gross output prices. As a result, relative plant scale in 1979 is likely to be biased upward.

2 For each two-digit industry group, the Canada/U.S. productivity ratio is the average of the constituent four-digit industries. Relative productivity was measured for 107 of the 167 four-digit industries.

3 The concept of returns to scale refers to the relationship between changes in inputs and the consequent change in output. If all inputs increase by x per cent and the output increases by the same proportion, then there are constant returns to scale (=1.0). If the output increases by a proportion greater than x per cent, then there are increasing returns to scale (>1.0). If the output increases by less than x per cent, then there are decreasing returns to scale (<1.0).

4 Measured as the proportion of manufacturing shipments from Canadian-controlled firms.

5 Measured as the ratio of advertising expenditures to industry sales. This was calculated for each of the 167 four-digit industries. The simple unweighted mean across all of the four-digit industries within a major group is shown here.

6 Measured as the ratio of value added to industry shipments. This was calculated for each of the 167 four-digit industries. The simple unweighted mean across all of the four-digit industries within a major group is shown here.

7 For this group, the separate estimates for 1970 and 1979 differ substantially.

SOURCE John R. Baldwin and Paul K. Gorecki, *The Role of Scale in Canada-U.S. Productivity Differences in the Manufacturing Sector, 1970-1979* (Toronto: University of Toronto Press, 1986), pp. 56-58, 76, and 137; Statistics Canada, *Domestic and Foreign Control of Manufacturing, Mining and Logging Establishments in Canada, 1981*, No. 31-401, p. 12; John R. Baldwin and Paul K. Gorecki, with J. McVey and J. Crysdale, "Trade, tariffs and relative plant scale in Canadian manufacturing industries, 1970-1979," Economic Council of Canada, Discussion Paper 232, Ottawa, May 1983, p. 20; and special tabulations provided by Business Microdata Integration and Analysis, Statistics Canada.

A multinational firm may be in a much better position to relocate production to a NIC than a small, single-product, Canadian-owned firm. As a consequence, we are likely to see a variety of firm-adjustment options being selected within an industry to respond to the same import threat, as a number of fascinating case studies have shown.[16] The net result of our discussion of matching options with market characteristics is that the link is not always easy to find. Under those circumstances, predicting the strategy that a specific firm will adopt in response to changing international competitiveness is likely to be difficult, thus complicating policy formulation and administration. Indeed, the natural desire of policy makers to impose some uniformity on the adjustment response of firms could thwart the experimentation inherent in the multiplicity of responses that mark the adjustment process.

What Kind of Adjustment?

Discussions of the need to adapt to changing international competition are frequently couched in terms of inter- vs. intraindustry adjustment.[17] The distinction is as follows:

- "interindustry trade" usually refers to the exchange of different or dissimilar goods between two countries. Adjustment takes place *between* industries. For example, Canada may trade coal and fish products with Japan for automobiles and musical instruments. Adjustment to changing comparative advantage thus takes the form of expansion or contraction of industries rather than reorganization within industries;

- "intraindustry trade" usually refers to the exchange of similar or differentiated products that are close substitutes. For example, under the Canada-U.S. Auto Pact, firms have rationalized their production so that certain models produced for the North American market are made in Canada, while others are made in the United States. Thus adjustment takes place *within* the industry, as firms and establishments specialize.

Interindustry trade is usually based on differences between countries in their endowments, such as natural resources, skilled or unskilled labour, and access to capital. Intraindustry trade seems to be more important in countries that are at similar stages of economic development. At an individual industry level, however, trade between two countries can be characterized as both intra- and interindustry. As will be seen, trade between Canada and the United States in transportation equipment can be characterized as intraindustry, while trade in paper and allied products is largely interindustry.

The distinction between intra- and interindustry is of interest because of its link to the nature of adjustment problems and to options for individuals and firms. Interindustry adjustment can be linked to the exit and protection options; intraindustry adjustment, to the revitalization options. The task of adjustment is thus likely to be easier, and the problems less severe, if the dominant form of adjustment is intra- rather than interindustry.[18]

Industries in which the NICs account for a significant percentage of Canada's imports are typically those in which inter- rather than intraindustry trade is the dominant adaptive mechanism (Appendix Table A-3). This reflects the difference in factor endowments between Canada and the NICs, specifically the availability of relatively inexpensive and unskilled labour in the NICs compared with Canada. Exit and/or protection are the most likely strategies that will be followed by firms and workers in those instances. In the case of textiles, clothing, and footwear, high levels of protection – including tariffs, subsidies, and quantitative restraints – have been applied, thus indicating that protection, rather than exit, was the predominant form of response to competition from the NICs in those industries.

In the 1980s, Japanese imports achieved some importance in a small number of industries (Appendix Table A-3). In contrast to the reaction to imports from the NICs, the form of trade-adjustment mechanism adopted by these industries in Canada is much more mixed (Table 2-2). In the case of transportation equipment, intraindustry trade is of considerable significance; it is much less so in miscellaneous manufacturing, with electrical products occupying an intermediate position. These data may mask the nature of the adjustment mechanism, however, because they are at relatively high levels of aggregation; in the case of transportation equipment, trade with the United States largely determines the value of the index of intraindustry trade. When we use a finer level of industry aggregation, we find that the dominant form of adjustment to imports from Japan is frequently of an interindustry nature (Table 2-3). Given our earlier discussion, we would expect the adjustment of firms and labour to take the form of exit and/or protection. The evidence indicates a mixture of the two, with protection being granted in some instances (in the cases of colour television sets and automobiles, for example) and exit taking place in others.[19]

The United States is Canada's dominant trading partner. In some instances, trade between the two countries is largely

Table 2-2

Significance of Imports, Exports, and Intraindustry Trade in the Manufacturing Sector, by Major Industry Group, Canada, 1971, 1978, and 1982[1]

	Comparative advantage[2]			Imports as a proportion of domestic disappearance[3]			Exports as a proportion of domestic production[4]			Index of intraindustry trade[5]		
	1971	1978	1982	1971	1978	1982	1971	1978	1982	1971	1978	1982
Two-digit industry group:												
Food and beverages	0.709	0.662	0.777	0.183	0.229	0.205	0.117	0.135	0.145	0.446	0.461	0.437
Tobacco products	0.575	0.495	0.514	0.017	0.021	0.031	0.007	0.007	0.011	0.575	0.495	0.514
Rubber and plastic products	0.307	0.532	0.851	0.190	0.248	0.227	0.041	0.116	0.197	0.307	0.532	0.851
Leather	0.315	0.305	0.287	0.250	0.356	0.362	0.064	0.090	0.089	0.315	0.303	0.287
Textiles	0.272	0.267	0.375	0.274	0.336	0.322	0.057	0.082	0.121	0.270	0.265	0.370
Knitting mills	0.116	0.074	0.070	0.323	0.341	0.333	0.028	0.019	0.017	0.116	0.074	0.070
Clothing	0.637	0.327	0.275	0.104	0.153	0.175	0.044	0.031	0.038	0.595	0.293	0.231
Wood	1.438	1.540	1.623	0.106	0.186	0.183	0.389	0.510	0.546	0.547	0.414	0.348
Furniture and fixtures	0.863	0.490	0.825	0.064	0.148	0.118	0.052	0.056	0.095	0.782	0.408	0.612
Paper and allied products	1.319	1.297	1.319	0.089	0.130	0.129	0.426	0.440	0.454	0.246	0.259	0.285
Printing and publishing	0.211	0.299	0.336	0.268	0.204	0.212	0.032	0.040	0.045	0.211	0.299	0.336
Primary metals	1.099	1.245	1.285	0.352	0.296	0.296	0.380	0.403	0.430	0.721	0.727	0.666
Metal fabricating	0.507	0.562	0.575	0.224	0.291	0.288	0.095	0.143	0.145	0.480	0.548	0.554
Machinery	0.468	0.516	0.537	0.697	0.764	0.763	0.441	0.552	0.576	0.468	0.516	0.537
Transportation equipment	0.938	0.901	0.920	0.765	0.857	0.899	0.777	0.874	0.912	0.755	0.753	0.672
Electrical products	0.493	0.453	0.586	0.326	0.497	0.469	0.145	0.258	0.268	0.481	0.453	0.586
Nonmetallic mineral products	0.338	0.506	0.517	0.356	0.394	0.433	0.112	0.161	0.185	0.265	0.413	0.433
Petroleum and coal products	0.502	0.998	1.149	0.251	0.463	--	0.166	0.422	0.863	0.502	0.517	0.762
Chemical and chemical products	0.588	0.629	0.775	0.400	0.522	0.350	0.258	0.311	0.285	0.444	0.477	0.603
Miscellaneous manufacturing	0.372	0.334	0.420	0.568	0.623	0.707	0.266	0.299	0.483	0.372	0.334	0.417

1 For each major group, each of the four indices is the weighted average for the four-digit industries into which the industry is divided. The weights used are each industry's total imports in the year for which the variable was estimated. All 167 four-digit manufacturing industries were used.

2 Measured as: $\frac{\text{exports} - \text{imports}}{\text{exports} + \text{imports}} + 1$. The index will vary between 0 and 2; the greater the importance of exports relative to imports, the closer the index moves towards its upper limit.

3 Domestic disappearance = domestic production + imports – exports. If there are no imports, the index is equal to 0; if imports supply the entire demand of the Canadian market, the index is equal to 1.

4 If there are no exports, this index will equal 0; if all domestic production is exported, the index will equal 1.

5 Measured as: $\frac{(\text{exports} + \text{imports}) - (\text{absolute value [exports} - \text{imports]})}{\text{exports} + \text{imports}}$. This index will vary between 0 and 1. When the values of imports and exports are the same, the index is equal to 1; when trade consists of either only imports or exports, the index is equal to 0. The closer the value of the index to 1, the greater the importance of intraindustry trade.

SOURCE: Special tabulations provided by the International Trade Division of Statistics Canada.

Table 2-3

The Importance of Intraindustry Trade between Canada and Japan in Selected Import and Export Industries,[1] 1985

	Share of manufactured exports	Index of intraindustry trade[2]	
		Canada-Japan	Canada-United States
	(Per cent)		
Japanese exports to Canada:			
Motor vehicles	28.8	0.003	0.675
Household radio and television receivers	11.2	0.0002	0.715
Miscellaneous machinery and equipment	7.6	0.056	0.514
Motor vehicle parts and accessories	6.4	0.050	0.775
Canadian exports to Japan:			
Pulp and paper mills	22.1	0.012	0.153
Sawmills and planing mills	18.3	– –	0.145
Smelting and refining	11.2	0.006	0.186
Industrial chemicals (organic), not elsewhere specified	8.4	0.284	0.851

1 At the four-digit level of classification.
2 See Table 2-2, note 5, for the definition of the intraindustry trade index. The index of Canada-U.S. trade is presented for comparison purposes.
SOURCE Special tabulations provided by the International Trade Division of Statistics Canada.

intraindustry; in others, it is clearly interindustry. Transportation equipment is by far the most important sector of trade, and the dominant form of trade in that sector is intraindustry (Tables 2-2 and 2-3). In contrast, in the case of printing and publishing, trade is largely interindustry, with imports outweighing exports. Given the importance of trade with the United States and its pervasive impact on almost every industry, it is difficult to generalize as to which adjustment option dominates. Nevertheless, our discussion in Chapters 5 to 7 suggests that adjustment strategies involving protectionist appeals are not the dominant form of firm and labour adjustment in Canada-U.S. manufacturing trade.[20] This reflects a number of factors: the similarity between U.S. and Canadian wage levels, tastes, and stages of economic development. If Canadian workers are displaced because of U.S. competition, they are likely to find it easier to transfer their skills to other industries – certainly easier than the unskilled labour in those industries where the NICs have achieved high import penetration. Under these conditions, even if inter- rather than intraindustry trade is the dominant mechanism used by firms adjusting to increased Canada-U.S. trade, adjustment problems are unlikely to be as severe as those experienced with respect to Canada-NIC trade.[21]

* * *

In these two introductory chapters, we have set the stage for the remainder of the report. The next two chapters examine the adjustment process of firms and individuals in the manufacturing sector, while the subsequent three chapters confine themselves to adjustment in particular industries as seen through different lenses – quantitative restraints, firm and labour subsidies, and labour adjustment. These two sets of chapters are complementary. The overall picture enables one to gain a perspective on the adjustment process, while the industry-specific material casts light on the actual mechanics of adjustment. Both are necessary before we set forth, in the final chapter, a set of adjustment principles for trade-sensitive industries.

3 Adjustment and the Labour Market

When we analyse the need for adjustment in industries affected by changes in trade patterns, one of our main concerns is how adjustment is going to affect workers.[1] Indeed, as suggested in Chapter 1, the rationale for government intervention in the adjustment process is much stronger with respect to labour than with respect to capital. While public attention is often focused on the predicament of those workers who are laid off when a firm closes a plant or reduces its operations, the hiring of workers when a new plant opens or an existing one expands is seldom accorded the same treatment. Yet, as Chart 1-2 shows, employment in the manufacturing sector has increased over time, suggesting that the employment created by the opening and the expansion of plants is greater than the job loss resulting from plant closure and contraction. In view of the continuing pressures for change being exerted on Canadian industry, it is important to understand, and to measure, the extent to which turnover and mobility in the labour market are a normal part of the workings of the economy.

In dealing with the overall pattern of labour adjustment in the Canadian manufacturing sector, we first consider the degree of labour market turnover before turning to various aspects of labour mobility, such as the movement of workers between industries, regions, and occupations. We then focus on labour market turnover in trade-sensitive industries, to determine whether adjustment patterns are different in those industries than in manufacturing as a whole.

Labour Market Turnover

To provide a comprehensive understanding of the effects of structural and cyclical changes on labour market turnover, we adopt two complementary approaches in this report. The first focuses on *job* turnover – that is, the creation and destruction of jobs in manufacturing firms and establishments. The second examines *labour* (or worker) turnover, which measures the flows of workers into and out of jobs. This distinction between the turnover patterns of jobs and those of job holders is important because it gives us a clear view of the respective responses of labour demand (firms) and of labour supply (workers) to changes in market conditions.[2]

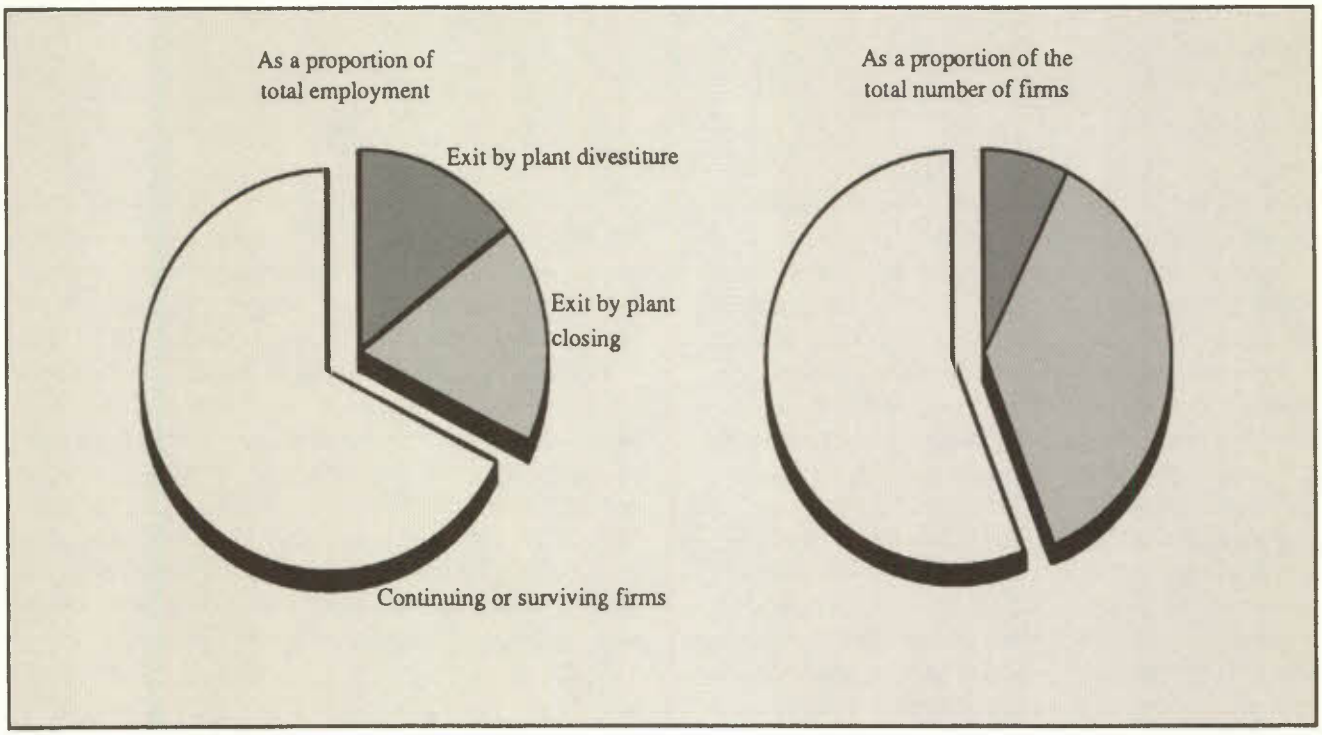
In this context, job turnover is viewed as being firm-initiated, in the sense that it reflects the changes in employment that result from the creation, expansion, contraction, or closing-down of firms. Large numbers of Canadian firms began or ceased operations during the decade 1970-79, with consequent implications for job destruction and creation. For example, on average, over one-third of the firms operating in a manufacturing industry in 1970 had left it by 1979 through plant closure, resulting in a loss of nearly 18 per cent of the jobs in the industry (Chart 3-1). On the other hand, on average, over one-quarter of the firms that were present in 1979 were new in the sense that they did not exist in 1970; these firms accounted for 17 per cent of the jobs in the industry in 1979 (Chart 3-2).

Labour turnover, on the other hand, occurs when workers enter a firm or leave it, or when they move between firms for various reasons – layoffs, pregnancy, return to school, quits, and so on. Obviously the figures for job and labour turnover overlap to a certain extent, particularly the figures for job loss on the firm side and for permanent layoffs on the worker side – two concepts that we shall discuss further below. But they are unlikely to match perfectly. For example, large numbers of workers may join and then leave a firm or establishment during a given period, but the actual number of jobs in the organization may remain unchanged. In that case, there will be significant labour turnover but no job turnover. Both types of job change need to be examined, because judgments based on job turnover alone will tend to underestimate the total amount of labour market turnover.

There are economic benefits and costs associated with the turnover process. Among the benefits are the efficiency gains that stem from the disappearance of unsuccessful firms and their replacement with more successful firms, as well as from the movement of firms out of declining into growing industries. Benefits are also associated with workers sorting themselves out in such a way that they find jobs that match their skills more closely. For workers, the financial cost of turnover consists of the income forgone during job search, the out-of-pocket expenses involved, and the cost of moving to a new location. For the owners of capital, the costs involve losses in the capital value of their holdings.

Chart 3-1

Exit of Firms from Manufacturing Industries, Canada, 1970-79[1]



1 The shares are based on average percentages for 141 Canadian manufacturing industries. The percentages were derived by comparing the status of firms in 1970 and 1979; firms that existed in 1970 but not in 1979 are viewed as exits, whereas firms that were present in both years are viewed as continuing firms. All percentages are based on 1979 figures for firms or employment.

SOURCE J. R. Baldwin and P. K. Gorecki, with J. McVey and J. Crysdale, "Entry and exit to the Canadian manufacturing sector: 1970-1979," Economic Council of Canada, Discussion Paper No. 225, Ottawa, 1983; and J. R. Baldwin and P. K. Gorecki, "Structural change and the adjustment process," a background paper prepared for the Economic Council of Canada, 1987.

Job Turnover

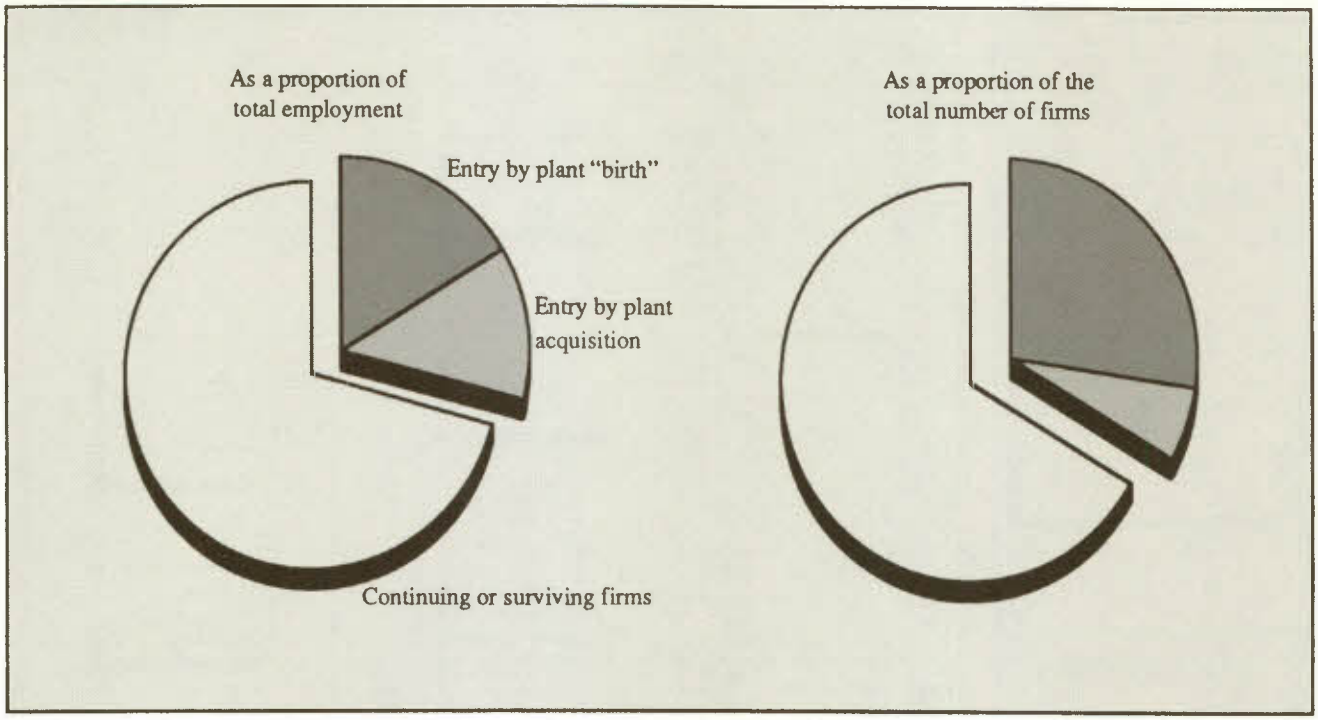
A considerable amount of the adjustment to change is continually taking place in the manufacturing sector. Labour is constantly being reallocated, as the fortunes of firms rise and fall within both growing and declining industries. Job creation and destruction are associated with the entry and exit of new production units, but job turnover will also occur when some producers contract, and others expand, their operations. Note, however, that the degree to which workers actually change employers when they are laid off will depend on whether the fluctuations in output are permanent or temporary and, in the latter case, on whether workers seek employment elsewhere.

Before drawing any conclusions, it is important to ensure that the right measures are being used. Job turnover may be measured by focusing on changes in employment at either the firm or the establishment (or plant) level. The two approaches yield different results. For example, while the merger of two firms will result in a single, larger company, it does not necessarily involve the creation or destruction of jobs but merely a change in the ownership of the units of production. In this instance, using aggregate figures would lead us to conclude that a given number of jobs had disappeared in the absorbed firm and that an identical number of jobs were created in the "new" firm, thus overestimating both the loss and the creation of jobs. Because of this potential overestimation of the actual job turnover, in this report we use establishment-based data, which reflect more accurately the amount of employment change that actually takes place.[3]

The time period considered may also affect the measurement of job turnover. For example, an establishment may create jobs in one year and terminate them the following year but show little net job turnover over a longer period. These short-run fluctuations in employment are mainly the result of cyclical factors and tend to offset one another from year to year. That explains why short-term estimates of job turnover tend to be higher than longer-run estimates, which better reflect the structural change within an industry.

Chart 3-2

Entry of Firms into Manufacturing Industries, Canada, 1970-79[1]



1 The shares are based on average percentages for 141 Canadian manufacturing industries. The percentages were derived by comparing the status of firms in 1970 and 1979; firms that existed in 1979 but not in 1970 are viewed as entrants, whereas firms that were present in both years are viewed as continuing firms. All percentages are based on 1979 figures for firms or employment.

SOURCE Baldwin and Gorecki, "Entry and exit," and "Structural change."

Longer-run figures may not, however, capture the actual amount of labour market turnover that stems from changes in producers' fortunes. Short-run fluctuations in output and employment will better measure that phenomenon if the workers who are laid off during temporary year-to-year declines in output move to other employers. We have therefore calculated the components of job change both on a yearly basis and for longer periods.

Short-Run Job Turnover — In order to measure short-run job turnover, manufacturing establishments were tracked each year over the period 1970-82; they were classified as new (entrants), closures (exits), or continuing but growing, declining, or constant, in terms of employment change. For each category, employment change was calculated.[4] This was then used to estimate the net, as well as gross, job turnover for continuing and new/exiting establishments. The process is illustrated in Figure 3-1.

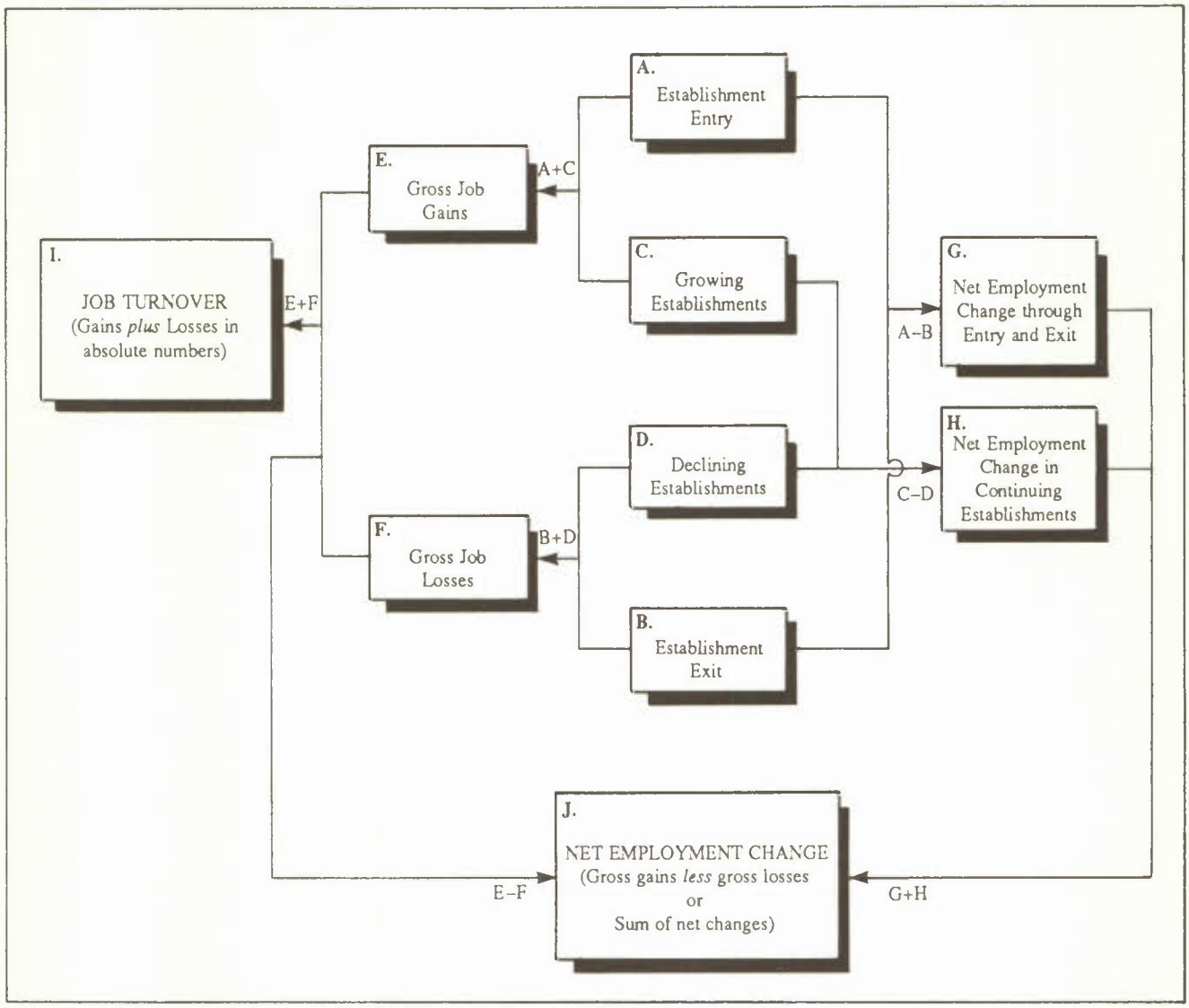
The results, shown in Table 3-1, indicate that the net changes are quite small. From this could be drawn the inference that there was little change in the underlying job-creation and -destruction process; net change, however, tells us little about that process. To learn more about the latter, reference must be made to gross changes, which are much larger than net changes. Most of the job turnover that does take place in the short run occurs in continuing establishments rather than in those which are created or which disappear (compare columns 3 and 4 of Table 3-1 with columns 7 and 8).

The implications of job turnover for the costs of adjustment vary, depending on whether it is associated with establishment entry and exit or with the expansion and contraction of continuing establishments. The exit of an establishment involves higher adjustment costs because a complete unit is closed down, while the contraction of existing units is likely to require a lesser degree of adaptation. Plant closure is more likely to affect workers with a wider range of ages and seniority status than is plant decline, especially if the latter involves relatively few individuals. When measured on an annual basis, most of the job loss comes from the continuing segment of an industry (Table 3-1, column 2 versus column 6). Between 1970 and 1981, the ratio of the number of exiting to declining establishments averaged 14 per cent annually, while the

Figure 3-1

The Process of Job Turnover

Employment Change in Absolute Terms by Type of Establishments



SOURCE OECD, *Employment Outlook* (Paris: OECD, 1987), Chart 4-1, p. 98.

employment-loss ratio averaged 29 per cent annually. The labour force of the average exiting establishment was 28 workers, whereas the average decrease in employment for a declining establishment was only 14 workers. In the short run, therefore, the costs of adjustment would appear to be spread mostly over many establishments, with each experiencing a small job loss rather than being due to the closure of whole plants.

Establishment exit and decline are manifestations of failure caused by ineptness or misfortune – because a new idea or new project did not meet expectations, for example. They may also reflect a movement of resources to industries offering better returns. The level of exit or decline which is generally unrelated to economic conditions – except in the worst of circumstances, such as the 1982 recession – can be regarded as the "natural" rate of decline, giving rise to the release of resources, which are thus made available for other uses. The release of resources entails a cost that is inherent – and unavoidable – in a market economy that rewards success and penalizes failure. One measure of this is the average annual job loss accounted for by establishments that leave the manufacturing sector. This natural rate, which showed very little variation over the period 1970-81, is

Table 3-1

Annual Job Turnover in Manufacturing Establishments, Canada, 1970-81[1]

	Continuing establishments				New and exiting establishments			
	Growing (1)	Declining (2)	Net change (3)	Gross change (4)	New (5)	Exiting (6)	Net change (7)	Gross change (8)
	(Per cent)							
1970-71	6.6	–6.8	–0.2	13.4	2.1	–1.8	0.3	3.9
1971-72	8.6	–4.7	3.9	13.3	1.8	–2.0	–0.2	3.8
1972-73	9.6	–4.3	5.3	13.9	1.8	–1.6	0.2	3.4
1973-74	7.8	–5.8	2.0	13.6	2.1	–1.8	0.3	3.9
1974-75	6.5	–9.8	–3.3	16.3	2.1	–1.9	0.2	4.0
1975-76	7.7	–7.1	0.6	14.8	1.1	–2.5	–1.4	3.6
1976-77	6.5	–7.0	–0.5	13.5	0.9	–2.1	–1.2	3.0
1977-78	8.3	–5.7	2.6	14.0	1.5	–1.9	–0.4	3.4
1978-79	8.8	–5.7	3.1	14.5	1.1	–1.4	–0.3	2.5
1979-80	6.6	–7.8	–1.2	14.4	1.8	–1.9	–0.1	3.7
1980-81	6.7	–6.6	0.1	13.3	1.3	–2.6	–1.3	3.9
Average, 1970-81	7.6	–6.5	1.1	14.1	1.6	–1.9	–0.3	3.6

1 All rates are calculated as percentages of the total base-year employment in manufacturing. Taking the period 1970-71 as an example, continuing establishments are those which existed in both years, whereas new establishments existed only in 1971 and exiting establishments existed only in 1970.

SOURCE Special tabulations provided by Business Microdata Integration and Analysis, Statistics Canada.

about 1.9 per cent per year (column 6, Table 3-1) – nearly 20 per cent over a decade.

Long-Run Job Turnover — Job turnover in continuing plants, rather than that associated with plant openings and closures, dominates the process of job creation and destruction in the short run. Whether it also does so in the longer run, as structural adjustment occurs, depends on two factors. The first is the extent to which the fortunes of continuing firms are reversed quite quickly. In other words, do firms typically grow or decline continuously or do they experience periods of both growth and decline? There is evidence to suggest that substantial reversals do occur.[5] Second, the nature of the entry and exit process will determine its cumulative impact over time. If exit only involves recent entrants, then exits will be the same, regardless of whether the reference points are 1970 and 1971 (the short run) or 1970 and 1981 (the longer run). If, on the other hand, exit involves not only recent entrants but also larger, well-established firms, then exits will be much more numerous over the long term than over the short term. The evidence shows that, while recent entrants have a higher failure rate than established plants, their average length of life is about 11 years.[6]

In order to compare the importance of long-run job turnover from entry and exit with that arising from growth and decline in the continuing segment of an industry, the rate of job turnover was calculated by looking at establishments over five- and 10-year periods. As Table 3-2 shows, gross job-gain and job-loss rates over these longer periods are about one-half what they are when measured on an annual basis. For example, the average annual gross job loss for the years 1970 to 1981 is 8.4 per cent (Table 3-1, column 6 plus column 2), while the annualized long-run gross job loss for the whole period 1971-81 is only 3.6 per cent (Table 3-2, column 3).

The difference between long- and short-term figures results from lower rates of change in the continuing segment. A large proportion of establishments that decline or grow in the short run will witness a reversal over the longer run. While the annualized rates of job turnover are lower in the longer run, there is still a substantial percentage of the initial-year employment affected. Gross job loss is 20 per cent for each of the two five-year periods and 31 per cent for the decade 1971-81.

While the continuing segment dominated job turnover in the short run, that was not the case in the longer run. Over

Table 3-2

Longer-Run Job Turnover in Manufacturing Establishments, Canada, 1971-81[1]

	Job-loss rates				Job-growth rates			
	Exiting establishments (1)	Declining continuous establishments (2)	Gross job loss (3)	Exit/gross job loss (4)	Entering establishments (5)	Growing continuous establishments (6)	Gross job gain (7)	Entry/gross job growth (8)
				(Per cent)				
Total change:								
1971-76	–10.3	–9.9	–20.2	50.8	9.2	16.5	25.7	35.9
1976-81	–9.9	–11.4	–21.3	46.6	10.3	15.1	25.4	40.5
1971-81	–18.7	–11.9	–30.6	61.2	19.2	21.1	40.3	47.6
Implicit annual compound rate of change:								
1971-76	–2.2	–2.1	–4.4	. . .	1.8	3.1	4.7	. . .
1976-81	–2.1	–2.4	–4.7	. . .	2.0	2.8	4.6	. . .
1971-81	–2.1	–1.3	–3.6	. . .	1.8	1.9	3.4	. . .

1 All rates are calculated as a percentage of the total base-year employment in manufacturing. The definitions of continuing, new, and exiting establishments are as in Table 3-1, except that the periods covered here are longer. The measurements of job turnover are based on comparisons of the initial and terminal years of each period. For example, a growing continuous establishment is one in which employment is greater in the terminal year than in the initial year.

SOURCE Special tabulations provided by Business Microdata Integration and Analysis, Statistics Canada.

each of the two five-year periods, exit became as important as decline in continuing establishments. Over the entire decade 1971-81, exit came close to being twice as important. Since exit is the dominant factor in the degree to which resources are released in the long run as the result of firm-related behaviour, it is the characteristics of the exit process that are most relevant to the adjustment process. In discussing the short run, we suggested that exit rates were relatively constant and could thus be viewed as largely unrelated to economic conditions. In earlier Council work, similar results were recorded for the long run.[7] We now turn to the implications of these results for the adjustment process.

Adjustment Processes — Our discussion of job turnover so far has focused mainly on the exit rather than the entry side. We have characterized exit rates in both the long run and the short run as relatively insensitive to economic conditions, except under very adverse conditions, such as the 1982 recession. By way of contrast, we have paid much less attention to entry rates. In order to understand the adjustment process, however, we need to consider both entry and exit.

The way in which firms enter or exit an industry in response to differential growth conditions has important implications for the cost of the adjustment process. An industry may adjust to the decline or growth of the demand for its products via one of two routes or via some combination of the two. Contraction could occur either through a rise in plant exit rates or through a decrease in plant "birth" rates. The first route would be very painful, from a social point of view, since it would force workers to leave their jobs and seek employment elsewhere. The second route, while also costly, seems intrinsically less so than that of plant closure. Thus it is important to know whether contraction will occur via increased exit rates or decreased birth rates.

In an earlier Council report, evidence was presented to suggest that, in the longer run, adaptation comes primarily on the entry, *as* opposed to the exit, side.[8] Entry and exit rates, expressed as a percentage of the number of firms and of industry sales in 1970, were calculated for 141 manufacturing industries over the entire period 1970-79; the industries were grouped into four categories: industries experiencing negative, slow, moderate, or fast real growth in sales. The results showed that entry rates increased with industry growth rates but that this was not the case with exit rates. While exit rates were higher for declining industries, they were relatively constant where positive industry growth occurred. These results suggest that in the long run, indus-

tries in which sales are declining adjust to lower levels of output in about equal parts through reduced entry and through increased exit, compared with a higher entry and a lower exit rate in growing industries; in addition, industries grow not so much through lower exit rates as through increased entry rates. These results are confirmed by the time-series estimates.

Labour Turnover

Labour turnover is measured by looking directly at the number of workers who leave their employers. These separations can be either temporary, if the worker returns to the same employer, or permanent. In the administrative data source used here, a two-year period is used to determine whether a layoff is permanent or temporary. "Worker separations" are divided into two different but related components – displacements and attritions. Data on the two components and on the total in the manufacturing sector for the period 1974-83 are presented in Table 3-3.

Displacements are firm-initiated and refer to those worker separations which result from layoffs caused by lack of work. Over the period 1974-83, the average annual number of permanent layoffs was equal to 10.4 per cent of the labour force in the manufacturing sector, while on average, the temporary-layoff rate was 11.4 per cent. Thus the annual permanent-layoff rate is at least as large as the average 8.4 per cent of jobs that disappear each year.[9] This means that the establishment-based job-loss rates that we have observed reflect firm behaviour that results in workers being laid off permanently rather than short-term reductions in employment after which workers return to the same employers.

Attritions, on the other hand, are worker-initiated, although they may sometimes be caused indirectly by the decline of a firm, if it leads workers to anticipate a layoff and thus leave their jobs. Attritions are divided into several categories for administrative purposes: labour dispute, return to school, illness or injury, quits, pregnancy, early retirement, and "other." On an annual basis, "quits" was the primary cause of attritions over the period 1974-83, accounting for, on average, about 40 per cent of all attritions.

Attritions are a component of worker turnover that is not captured by our establishment-based job-turnover measures nor by displacement estimates. While an establishment may reduce its work force by eliminating jobs, workers may

Table 3-3

Annual Labour Turnover Rates in the Manufacturing Sector, Canada, 1974-83[1]

	Displacements			Attritions		
	Return layoffs[2] (1)	Permanent layoffs (2)	Total (3)	Quits (4)	Others[3] (5)	All separations (6)
			(Per cent)			
1974	7.1	7.9	15.0	11.7	10.8	37.6
1975	11.8	11.3	23.1	10.1	11.5	44.7
1976	9.0	9.9	18.8	9.7	11.5	40.0
1977	10.2	9.8	20.0	8.0	11.2	39.1
1978	8.5	8.0	16.5	7.9	11.7	36.0
1979	8.2	8.3	16.5	9.8	14.0	40.4
1980	..	..	..	..	..	..
1981	14.4	10.0	24.4	8.3	12.8	45.6
1982	22.0	17.1	39.0	4.3	19.0	62.3
1983	13.0	12.4	25.4	4.2	12.3	41.8
Average, 1974-83	11.4	10.4	21.8	8.4	12.7	42.9

1 A percentage of employment, defined as all workers for whom an employer filed at least one T4s income tax return in a year and whose income is largely from work in a manufacturing industry.

2 Workers who returned to the same employer within two years.

3 Includes the following reasons for separation: labour dispute; return to school; illness/injury; pregnancy; and early retirement.

SOURCE Matthew Robertson, "Perspectives on labour adjustment in the Canadian economy," Employment and Immigration Canada, Ottawa, 1987, Tables A-24 to A-33.

also leave their employers voluntarily. By doing so, they contribute to the adjustment process. It is therefore important to measure the magnitude of the attrition phenomenon in order to have a more comprehensive view of the volume of labour market reallocation that the economy manages to absorb each year.

On average, the number of quits and other attritions in any given year is equal to 21 per cent of the labour force in manufacturing. Thus attritions account for a significant proportion of labour market turnover, and failure to take them into account severely underestimates the extent of that phenomenon. When the temporary component is removed, the permanent-attritions rate is, on average, 15 per cent.[10] Together, the numbers of permanent layoffs and permanent attritions are equal to 25 per cent of the labour force annually. This is much more than the 8.4 per cent gross annual job-loss rate based on establishment exit and decline.

In summary, the conclusion here is inescapable: a very large number of workers change jobs and employers in the manufacturing sector each year, either for personal reasons or because changing economic conditions encourage or force them to do so. Taken together with our finding that a substantial proportion of firms entered and exited a typical industry over the 1970s, this suggests considerable dynamism in the markets for both labour and capital, as well as continuing structural change in the economy.

Labour Market Mobility

To appreciate fully the degree of flexibility displayed by Canadian workers, we supplement the aggregate data on labour market turnover with information on worker mobility. A large turnover of workers does not necessarily mean that they adapt easily or even successfully. If workers who leave one employer move to another one in the same industry who is offering work in a closely related occupation, it may be difficult for them to adjust should that industry undergo a long-term decline in activity as a result of structural change in the economy. On the other hand, if workers move to other industries, occupations, or regions relatively frequently, we can expect adjustment to be less painful. The degree of labour mobility thus provides indirect evidence of the adaptability of the labour force.

Employer, Occupational, and Industry Mobility

In any given year, separations in the Canadian economy are equal to about 33 per cent of the labour force. About one-half of all the workers involved maintain a record of continuous employment but change employers, while the other half draws unemployment insurance.[11] Employer and occupational mobility rates have been calculated for a sample of those in the manufacturing sector who belong to the latter group (Table 3-4). It is evident from the table that:

- Employer mobility among the unemployed is high. On average, 65 per cent of the unemployed group under examination changed employers between 1978 and 1982 (column 1). Industries that are often regarded as highly susceptible to the effects of trade liberalization (leather, textiles, and clothing) all had higher-than-average employer mobility during that period.

- Occupational mobility is high, both for those who change employers and for those who come back to the same employer. On average, 56 per cent of those who change employer also change occupations (column 3), while 39 per cent of those who remain with the same employer do the same (column 4).

- The ratio of the occupational-change rate for those who change employers to those who stay with the same employer (column 5) measures the additional adaptability exhibited by, or forced upon, workers who change employers. On average, there is about 60 per cent more occupational change when the workers also change employers.

- The leather, clothing, and textile industries show higher-than-average occupational mobility rates for workers who change employers. These same three trade-sensitive industries are also above the mean with respect to workers who return to the same employer. On the other hand, the additional mobility forced on workers in these three industries by a change in employers is below the mean (column 5).

These data thus indicate substantial employer and occupational mobility.

Interindustry Movements of Workers

By itself, the evidence on the degree of movement between employers, occupations, and industries does not adequately reveal the extent of change, since it does not show whether workers who change jobs move only a short distance to other employers in the same industry or in closely related industries. The data on worker movement between several broadly defined sectors (Table 3-5) indicate that between 38 and 48 per cent of displaced workers stay in their own sector, with manufacturing being about

Table 3-4

Employer and Occupational Mobility of Workers in the Manufacturing Sector, by Major Industry Group, Canada, 1978-82[1]

	Workers who:		Workers who changed occupations and:		Additional occupational mobility of workers who changed employers[2]
	Changed employers (1)	Remained with the same employer (2)	Changed employers (3)	Remained with the same employer (4)	(5)
	(Per cent)				(Ratio)
Food and beverages	67.7	32.3	63.6	40.1	1.6
Tobacco products	60.0	40.0	..	..	..
Rubber and plastic products	77.1	22.9	63.1	32.0	2.0
Leather	71.1	28.9	50.0	61.5	0.8
Textiles	65.5	34.5	64.9	61.5	1.1
Knitting mills	74.3	25.7	65.4	55.6	1.2
Clothing	67.1	32.9	62.8	43.0	1.5
Wood	72.0	28.0	59.7	52.6	1.1
Furniture and fixtures	72.4	27.6	63.1	37.5	1.7
Paper and allied products	50.1	49.9	58.0	40.0	1.5
Printing and publishing	71.5	28.5	49.4	29.7	1.7
Primary metals	45.0	55.0	52.8	29.5	1.8
Metal fabricating	71.9	28.1	57.6	32.6	1.8
Machinery	58.1	41.9	54.6	40.7	1.3
Transportation equipment	35.8	64.2	60.1	62.9	1.0
Electrical products	63.8	36.2	52.0	27.9	1.9
Nonmetallic mineral products	67.8	32.2	58.7	38.3	1.6
Petroleum and coal products	64.0	36.0	25.0	16.7	1.5
Chemical and chemical products	68.4	31.6	50.8	12.9	3.9
Miscellaneous manufacturing	72.0	28.0	55.5	28.6	1.9
Average	64.8	35.2	56.2	39.1	1.6

1 Mobility is calculated by comparing the status in 1978 and 1982 of workers who claimed unemployment insurance benefits at least twice during the intervening period. The data are drawn from Employment and Immigration Canada's operational (longitudinal) data, based on a sample of 17,216 individuals.

2 These ratios are obtained by dividing column (3) by column (4). If the ratio is equal to 1, then the worker who changed employers showed no greater inclination to change occupations, compared with those who remained with the same employer. If the ratio is greater than 1, then changing employers resulted in a more frequent change in occupations; the converse applied if the ratio is less than 1.

SOURCE Alex Grey, "Aspects of labour flexibility in Canada: Patterns of regional, inter-firm, and occupational mobility," Labour Market Studies Division, Strategic Policy and Planning, Employment and Immigration Canada, Ottawa, January 1985, pp. 11 and 20; and revisions supplied by the author.

half-way in that range. Although over 70 per cent of jobs are in services, the proportion of workers in the goods-producing industries who move to services does not exceed 43 per cent, with the highest percentage occurring in the manufacturing sector. Thus, while workers do change industries, they generally move within the same sector, as broadly defined here: displaced workers in manufacturing largely remain within the goods-producing industries. Nevertheless, while four out of 10 displaced workers remain within manufacturing, four do move into services, and the rest to other goods-producing sectors, so that there is also a substantial amount of intersectoral movement.

Studies of specific industries provide more detail on the interindustry and intersectoral pattern of worker mobility in the manufacturing sector. In an early attempt to examine the impact of plant closures in three trade-sensitive industries – clothing, textiles, and electrical products – surveys were conducted of workers who had been laid off because of plant closures and cutbacks. The results indicated a

Table 3-5

Sectoral Destination of Displaced Workers, Canada, 1981-85[1]

	Sector of destination		
	Same as origin (1)	Any goods-producing industry (2)	Any service industry (3)
	(Per cent)		
Sector of origin:			
Goods-producing industries			
Primary	41.5	59.0	41.0
Construction	46.4	66.7	33.3
Manufacturing	43.8	57.0	43.0
Service industries			
Transportation	40.5	24.9	75.1
Trade	43.1	23.2	76.8
Consumer services	40.0	22.8	77.2
Finance and services to business	38.3	14.4	85.6
Public-sector services	48.3	18.8	82.2

1 The data came from a supplement to the Labour Force Survey conducted by Statistics Canada in January 1986 and cover the experience of workers who lost a full-time job between 1981 and 1984 and had not been recalled by the same employer by the end of 1985. The data refer only to workers who subsequently found full-time employment with another employer; quits and other attritions are therefore omitted.

SOURCE Garnett Picot and Ted Wannell, "Jobs loss and labour market adjustment in the Canadian economy," in Statistics Canada, *The Labour Force* (March 1987), No. 71-001, pp. 149-50; and unpublished data supplied by the authors.

substantial degree of interindustry relocation by workers.[12] The proportions of laid-off workers who subsequently found work in the same industry were only 10 per cent for textiles, 19 per cent for electrical products, and 37 per cent for clothing. The proportions of those who found work in other manufacturing industries were 39, 47, and 24 per cent respectively; in each case, the remainder went to services and other industries.

Recent studies of interindustry mobility using various administrative records of the federal government provide a more detailed view of the data. They look not only at the destination of workers but also at their origin. These studies have been conducted for the footwear, shipbuilding, steel, automotive, and electronics industries.[13] They all demonstrate considerable worker mobility across industries.

Regional Mobility

While employer, industry, and occupational mobility is high, interregional mobility is not – a fact that has two implications for adjustment policies. First, it means that workers in regions that have a diversified industrial base do not have to incur the same moving costs as those in regions where the industrial base is narrow. Second, it means that workers in the latter regions will have higher adjustment costs, either because they have to move further or because they are more likely to be forced to accept less desirable alternative employment.

Longitudinal data on workers with two unemployment spells were used to estimate the interregional mobility of workers.[14] Between 1978 and 1982, 12 per cent of such workers moved to another "region," as defined for the purposes of unemployment insurance (there are 46 such regions). Regional mobility has also been studied by tracking all non-return layoffs (workers who separated from their job and found a new one within two years) during the period 1974-81, using data on census metropolitan areas from the Employment and Immigration Canada longitudinal files. On average, 18 per cent of the permanently laid-off workers moved to a census area other than their own.

Mobility by Age Group

Concern is often expressed that older workers face particular difficulties in finding and holding jobs when structural change forces them to seek new employment. Thus discussion of the characteristics of worker turnover would not be complete without an examination of its distribution by different age groups (Table 3-6).

The two youngest age groups (17-24 and 25-34) account for a greater proportion of total separations – and of their major components – than of employment. By itself, that fact does not indicate that they are shouldering a disproportionate share of the adjustment burden. Young workers are more likely to be taking up their first job and, compared with older workers, less likely to have found one that suits their skills and preferences. New jobs vary by age class just as much as do quits, or quits plus permanent layoffs. Total separations do not decline quite as markedly across age classes as does the new-job category, because the "other" category (which includes pregnancy, illness, and strikes) is not spread across the various age groups in the same proportion as are new jobs. Nevertheless, young workers do not bear a disproportionate share of adjustment when the relevant criterion is the proportion of new jobs that they hold rather than their percentage of employment.

Table 3-6

Distribution of Total Employment, New Entrants, and Separations by Age Group and by Reason for Separating, Canada, Early 1980s

			Separations, 1984				
	Total employment, 1981 (1)	New job holders,[1] 1981 (2)	Total (3)	Layoffs (4)	Quits (5)	Quits plus permanent layoffs[2] (6)	Other (7)
				(Per cent)			
Age group:							
17-24	22.5	47.0	31.2	27.1	41.5	36.3	34.5
25-34	29.5	28.6	32.5	32.7	33.5	33.3	31.4
35-44	21.0	13.2	17.7	19.3	15.2	16.9	17.7
45-54	16.4	7.7	10.8	12.8	6.9	8.8	9.4
55-59	6.5	2.2	4.4	5.2	1.8	3.1	3.6
60-65[3]	4.1	1.3	3.4	2.9	1.1	1.6	3.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

1 Hasan and de Broucker estimated the proportions of new job holders in more detail than is available from published census employment data. Where necessary, the simple average of their proportions was used.

2 The permanent-layoff rate is from 1982, rather than 1984.

3 Age groups in columns (1) and (2) are for 60-64 rather than 60-65.

SOURCE Total-employment data from Statistics Canada, *Census of Canada, 1981*, No. 92-915, Table 1, and *The Labour Force*, No. 71-001, December 1981; data on new jobs derived from Abrar Hasan and Patrice de Broucker, *Unemployment, Employment, and Non-Participation in Canadian Labour Markets* (Ottawa: Economic Council of Canada, 1985), p. 49; data on separations from Robertson, "Perspectives on labour adjustment," pp. 15 and 34; and estimates by the Economic Council of Canada.

Younger workers not only contribute the most to labour turnover, but they also show the most mobility. Young workers are more likely to change employers after an unemployment spell.[15] They are more likely to change occupations, whether or not they also change employers. This suggests that older workers have developed both employer- and occupation-specific skills that contribute to decreased mobility.

The costs of adjustment borne by workers who move from one employer to another will depend on the manner in which the unemployment experience, the length of subsequent job tenure, and the income change associated with a job change vary across age groups. Data for each of these are available for layoffs – the separations category that probably best reflects the experience of workers who are forced to leave their employers as a result of structural change.

A high proportion of layoffs involve rather brief periods of unemployment. About 50 per cent of all layoffs over the period 1974-82 were followed by a jobless period of less than 14 weeks.[16] More than half of the workers on non-return or permanent layoff obtained new jobs within six months. In terms of age, the evidence suggests that older workers (55-64) on non-return layoff do not fare any worse than prime-age (25-54) or younger workers (17-24) in terms of the average duration of joblessness during the two years following the layoff.

Workers of different age groups also exhibit a similar pattern of job tenure after they obtain their next job. The data on the length of tenure for all workers in the "non-return layoff" category in 1978 showed that about 95 per cent of those who find another job stay in it for more than one year; 60 per cent stay for more than two years. The 17-24 and 25-54 age groups have broadly similar distributions, though the younger group has a slightly greater inclination to leave after less than three years. The greatest difference occurs in the 55-64 age group, where the percentage of those who hold a new job for less than one year is much higher. This suggests that older workers are often forced into a succession of casual or short-term jobs when they are permanently laid off.

The most striking differences between age groups occur in the subsequent earnings history of laid-off workers. The

data for the period 1974-83 show that, on average, 52.8 per cent of all workers who found a new job after being laid off experienced a gain in wages.[17] That proportion does fluctuate with economic conditions: in the recession of 1981-83, for example, it fell below 50 per cent. The percentage is slightly higher for the youngest age group (17-24). The relative position of succeeding age groups worsens progressively: the worst experience is that of the 61-65 age group, where only 28 per cent, on average, experience a wage gain. Thus our examination of the experience of older workers corroborates our hypotheses in Chapters 1 and 2 concerning skill specificity and the plight of older workers. It is a theme to which we shall return in Chapters 7 and 8.

Summary

The findings presented in this section demonstrate that Canadian workers show considerable mobility between employers, industries, and occupations when they separate from a job. The existence of mobility, it should be stressed, does not imply that such adjustment is costless for workers or, indeed, for employers. That has not been the theme developed here. Rather, the proposition that has been examined at length is that there is a relatively large amount of turnover associated with the changing fortunes of firms and with job search by workers. Nonetheless, adjustment problems are likely to be more acute in cases where the industrial base is narrow or where older workers are particularly affected.[18]

Turnover Rates in Trade-Sensitive Industries

The aggregate data for the manufacturing sector show that the amount of resources constantly being released and redeployed by the workings of the market economy is high. These findings, however, may not hold in certain sectors that are likely to be more affected than others by trade liberalization or by the removal of special protection or other forms of government assistance. Can we expect the adjustment process to be more difficult for them?

The problem of adjusting to the pressures of international competition is frequently discussed in the context of industries that must face strong competition from imports in their domestic markets. Two issues are germane to the analysis of adjustment costs for those industries: Has import competition forced unduly high exit rates on them? Are turnover rates in those industries particularly low, suggesting that they have a smaller "natural" margin available for adaptation?

Our answer to these questions was developed in two stages. First, manufacturing industries were divided into those with a high, and those with a low, import-penetration ratio, defined as the ratio of imports to domestic market sales. The average exit rates for the decade 1970-79, in terms of the number of establishments and the share of employment, as well as the average separation rates, were calculated for each of those two groups. As Table 3-7 shows, the differences in those rates between the two sets of industries are relatively minor. On the basis of this evidence, there is little to distinguish import-competing manufacturing industries from other industries in that sector.

In the second approach, we examined four specific industries widely regarded as trade-sensitive: leather, textiles, knitting mills, and clothing. Average annual exit and decline rates, as well as several other characteristics, were calculated (Table 3-8). The results show that exit, decline, and entry plus growth rates are slightly higher for each of those four industries than for the manufacturing sector generally, with one exception. Moreover, the minimum exit-plus-decline rate – used here as a proxy for the amount of "natural" turnover – is also generally higher in the four trade-sensitive industries. Thus it can be concluded that these industries tend to be characterized by more, not less, dynamism than the rest of the economy.

Finally, separation rates for the four trade-sensitive industries in 1978 were examined (Table 3-9). The total separation rate for each industry (except leather) is not significantly different from those for the economy or for the manufacturing sector as a whole. The permanent-layoff rate is usually a little lower – and the quit rate somewhat higher – than for the economy as a whole. Thus adjustment in these industries can rely more on the "voluntary attrition" component of separations than elsewhere. Hence, despite a wide array of factors that impact on individual industries – changes in technology, in tastes, in the level of demand, in the degree of special protection, and so on – there is considerable similarity in the degree of adaptability.

The Impact of Trade Liberalization

It is sometimes argued that severe job loss and dislocation will result from trade liberalization, and especially from the removal of the special protection granted to trade-sensitive industries. The Council's assessment of the proposed Canada-U.S. Free-Trade Agreement indicated that total employment changes (whether measured by using gross job loss, gross job gain, or net job change) would not be large in the context of the high degree of job and labour turnover that already exists in the manufacturing sector.[19] This conclu-

Table 3-7

Comparison of Establishment-Exit and Labour-Turnover Rates for Canadian Manufacturing Industries with High and Low Import Penetration, 1970s and Early 1980s

	Average for industries with import penetration[1]	
	Below the median	Above the median
	(Per cent)	
Exit rates,[2] 1970-79:		
Proportion of exiting establishments of:		
Exiting firms	29.3	28.4
Continuing firms	17.2	18.8
Proportion of employees in exiting establishments of:		
Exiting firms	4.2	4.4
Continuing firms	4.4	4.9
Separation rates,[3] 1974-82:		
Displacements (or layoffs)		
Temporary	8.6	10.2
Permanent	10.4	8.1
Attritions		
Quits	8.8	8.9
Other reasons	11.0	13.0
All separations	38.8	40.2

1 Import penetration is measured by the ratio of imports to domestic consumption.

2 Exiting firms (or establishments) are those which existed in 1970 but not in 1979. Continuing firms (and establishments) existed in both 1970 and 1979. The percentages are expressed on the 1970 base. The exit data are based on a classification that divides the manufacturing sector into 167 industries at the four-digit level.

3 Separations are expressed as a percentage of total employment. The data presented here are calculated as averages for the period 1974-82, excluding 1980. The separations data are based on the two-digit industry classification.

SOURCE Special tabulations provided by Business Microdata Integration and Analysis, Statistics Canada; and Labour Market Studies Division, Employment and Immigration Canada.

sion holds, whether turnover is measured over the long or the short run.

Turnover measures reflect changes in demand and supply, the entry and exit of plants and firms, as well as the creation and destruction of jobs. It is the exit, or job-loss, side that concerns many Canadians, however. In this instance, a more useful benchmark is just the job loss attributable to the decline or exit of establishments over the long term. Since the number of jobs lost is a measure of the net long-term effects of the different forces that have an impact on individual production units, it gives us a picture of the effects of the types of changes that take place in Canada's industrial structure.

In the long run, the termination of jobs is mainly attributable to the exit of firms, which is part of a self-selection phenomenon. Our results show that while numerous outside factors, from technological progress to changes in trade policy, have an impact on firms in any industry, the aggregate failure rate is relatively constant over time. In any group of firms, there will be a significant and constant proportion in any one year that cannot adjust successfully to the vicissitudes of the market and, consequently, will close their doors. In the manufacturing sector as a whole, some 18 per cent of the jobs that existed in 1970 had disappeared by 1979 as a result of this process. Within trade-sensitive industries (leather, textiles, and knitting mills, for example), the proportions are similar.

The fact that the exit process is relatively constant in the face of changing economic conditions means that a certain percentage of workers would normally be expected to leave an industry each year as firms contract or cease operations and their workers seek jobs elsewhere. That is the "natural" rate of exit. Of course, if the rate of decline brought on by trade liberalization is extremely rapid, there will be additional exits that might not otherwise have occurred. Proper adjustment would therefore require a phasing-in of tariff reductions or quota eliminations.

Our research also shows, however, that in the long run, industries in which sales are declining adjust to lower levels of output; about half of that adjustment occurs in the form of entry rates that are lower than those in growing industries, and about half through exit rates that are higher. In addition, industries that are expanding grow not so much through lower exit rates as through higher entry rates.

Part of the adaptation then occurs as workers who would normally lose their jobs because of the dynamics of firm decline move to other firms that are growing. Workers are not confined in their search for jobs to a narrow range of employers in the same industry: they transfer to other industries and occupations in a way that suggests substantial mobility. Sensible public policy in the area of adjustment assistance should facilitate, not hinder, this natural movement of workers who are being continually released from declining to growing industries.

Table 3-8

Employment Characteristics of Exiting and Declining Establishments in Four Trade-Sensitive Manufacturing Industries, Canada, 1970-81

	Leather	Textiles	Knitting mills	Clothing	All manufacturing[1]
			(Per cent)[2]		
Characteristics:					
Exit rate	2.8	2.0	2.8	3.7	1.9
Decline rate of continuing establishments that decline	7.1	6.7	7.8	7.9	6.4
Minimum annual exit plus decline rate	6.8	4.5	6.5	8.2	5.6
Entry rate plus growth rate of continuing establishments that grow	9.1	7.5	9.0	10.9	8.7
			(Number of persons)		
Average employment in exiting establishments	45.6	36.6	46.6	32.6	36.4
Average reduction in employment in declining establishments	13.2	15.7	16.6	11.3	17.2
Average employment in all establishments	78.5	93.4	88.3	56.3	112.7

1 For each characteristic, the averages for all manufacturing are calculated as the average of the characteristic across all of the major groups for all of the years. The figures in this table differ from the ones in Table 3-1 because in the latter, turnover rates are calculated for each year by summing both denominator and numerator across all manufacturing establishments.

2 Proportion of industry employment.

SOURCE Special tabulations provided by Business Microdata Integration and Analysis, Statistics Canada.

If exit rates are relatively constant and entry rates are variable, then it is the birth process that essentially determines whether a region will have a growing economy. This suggests that industrial strategy should not try to prevent the inevitable deaths of firms but, instead, should encourage the birth of new firms – a process that is heavily dominated by small firms. Industrial strategy, if it is to have a salutary impact on regional growth, should focus on those elements which facilitate the entry and growth of smaller firms.

The data on which we base our conclusions concerning labour market turnover and mobility do not take full account of the 1982 recession, the worst in Canada's postwar economic history. Much of the work that we have conducted is predicated upon a normal rate of plant exit and consequent job loss by employees. When times get tough, we see a substantial rise in the exit rate and in the resulting job loss. This may reduce mobility, and it certainly causes considerable hardship and pain to those workers who are laid off. There has been a recovery from the 1982 recession, however, in both manufacturing and the economy as a whole. Furthermore, the evidence available suggests that the patterns and level of job change have now returned to the pre-1982 situation.

We believe, therefore, that our evidence on labour market turnover and the conclusions that we draw from it are relevant for policy making in the latter part of the 1980s and in the 1990s. Our confidence reflects the fact that the labour-market adjustment patterns that we have observed can, to a large extent, be found elsewhere – in the nonmanufacturing sectors of the Canadian economy and in other countries, including the United States, the United Kingdom, West Germany, Sweden, and Japan. This is a persuasive result. Although these countries differ with respect to many factors – institutional settings, the pressures for change and the capacity to deal with them, unemployment levels, time periods, and the importance of different sectors of the

Table 3-9

Separation Rates[1] in Four Trade-Sensitive Manufacturing Industries, Canada, 1978

	Displacements[2]	Attritions		
		Quits	Others	Total
	(Per cent)			
Leather	3.9	7.8	7.0	18.7
Textiles	5.9	8.2	9.2	23.3
Knitting mills	5.6	11.6	10.8	28.0
Clothing	5.8	8.9	11.1	25.8
Average, all manufacturing industries	6.6	8.0	10.5	25.1
Average, all sectors of the economy	8.2	7.3	9.6	25.1

1 Calculated as a percentage of employment.
2 Permanent layoffs.
SOURCE Robertson, "Perspectives on labour adjustment," Table A-29.

economy – the patterns of job change display more similarities than differences. Our results are general enough, we believe, to be of relevance in drawing lessons for Canada in the near-to-medium term.

Conclusion

The research results summarized here demonstrate that the Canadian economy can, and does, adjust to changing economic conditions.

The Canadian labour market is undergoing constant change. We find that in a typical year 8 per cent of the jobs in the manufacturing sector disappear because plants cease or contract operations, while there is an increase of 9 per cent in the number of new jobs because other plants have started or expanded operations. Worker behaviour adds another important dimension to labour market turnover. The number of worker-initiated moves – excluding temporary ones – is equal, in a typical year, to 15 per cent of the labour force in the manufacturing sector. The labour-market turnover experience in trade-sensitive industries is no exception. Furthermore, studies of worker mobility in individual industries suggest that the constant change is associated with considerable mobility between industries and occupations, although older workers or those living in communities with a narrow industrial base may experience particular adjustment problems.

We realize that we have no measure of the hardships associated with job change and job loss, but our findings do give us a context within which to prepare for expected structural changes.

4 The Behaviour of the Multinationals

In our discussion of the adjustment process which takes place through firm- and worker-initiated changes in employment (Chapter 3), no attempt was made to take into account whether firm-initiated changes were made by a foreign-owned corporation or a Canadian-owned firm. Yet the foreign-owned firm may respond to the pressures for change differently than its Canadian counterpart, with different implications for the speed of adjustment, the choice of adjustment options (particularly with respect to exit, as opposed to revitalization) and – an issue that we have not touched upon in this report – the quality of employment. These are important issues for Canadians, given the significance of foreign ownership in the manufacturing sector as a whole (Chart 4-1) and in the different regions of the country (Chart 4-2).

One of the main reasons that foreign-owned firms – multinational corporations, in particular – may respond differently to the forces of change is that they already have a worldwide range of investment options from which to choose when deciding where to shift or expand their operations. This has given rise to a number of concerns: that multinational enterprises (MNEs) may be more inclined to shift production to countries with lower-cost inputs (including lower wages); that MNEs may be more prone to close down their plants in Canada than are domestically owned firms; that Canada is largely absent from the high-growth R&D industries where MNEs often play an important role; and that as tariff barriers fall, MNEs with plants in Canada will relocate in the United States rather than rationalize their Canadian operations. It is on those issues that we focus attention in this chapter.[1]

Multinationals and the Adjustment Problem

It is often suggested that the Canadian affiliates of multinational enterprises tend to adjust to changes in technology, international competition, or trade policy in ways that are less favourable to the domestic economy than are the responses of Canadian-owned firms. That concern is, in part, a restatement of the belief that host economies seldom benefit from foreign investment. It is reinforced by the fear that with increased pressure from international competition and trade policy liberalization, the days of the so-called "foreign branch plant" are numbered and Canada could experience a mass exodus of "tariff factories" – i.e., of those foreign-owned plants which were set up under the shelter of tariff protection.[2]

The proponents of this view affirm that in the absence of barriers to trade, some forms of production may not be economically feasible in Canada. They fear that even where production is viable, however, multinationals will shift production to developing countries or centralize it in their home country rather than make the required investments in Canada.

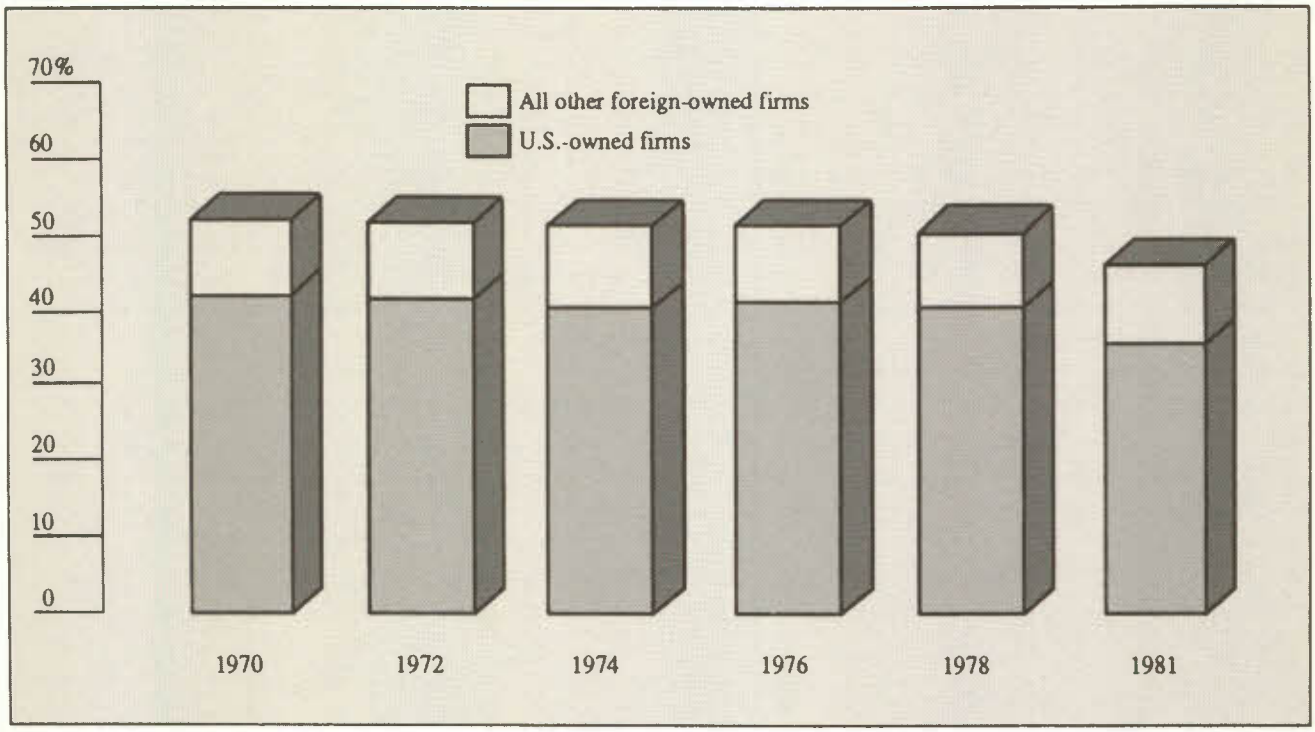
The question is thus whether multinationals are more inclined than domestic firms to shift production abroad or to cease operating when faced with adjustment problems. It is not an easy question to answer, because multinationals are not strictly comparable to firms whose activities are confined to Canada. Not only do the two groups face different adjustment requirements and constraints, but they may even operate in different segments of the market. Thus it is somewhat idle to suggest that domestic adjustment problems would be ameliorated if local ownership were substituted for foreign ownership. In many (if not all) cases, the underlying characteristics of the market – technology, transportation and labour costs, the quality of labour, and so on – dictate both the nature of the adjustment problem and the ownership characteristics.

The decision by a multinational enterprise to operate in a local economy is governed by two basic factors: the economic viability of local production; and the viability of multinational ownership of local production.

The economic viability of local production depends on domestic input prices (for labour, raw materials, energy, and capital, in particular) and on market size, transportation costs, and trade barriers. An increase in the relative cost of domestic production is likely to result in the substitution of foreign for domestic supplies over the longer term, and both foreign- and Canadian-owned firms will have an incentive to make this substitution.

Chart 4-1

Foreign Ownership[1] in the Canadian Manufacturing Sector, 1970-81



1 Measured by the shipments of foreign-owned firms as a proportion of the shipments of all manufacturing firms in Canada.
SOURCE Based on data from Statistics Canada.

With respect to the viability of multinational ownership of local production, it should be noted that from an economic point of view, the essential purpose of the multinational is to facilitate the international transfer of intangible, "firm-specific" assets, which include technology, reputation, and experience. The technology may be protected from imitation by a patent or by secrecy; reputation, by a trademark; and experience, by the unique organizational and business culture of the enterprise. If these assets become less important in the production process or if their transfer by arm's-length means (e.g., by licensing agreements) becomes feasible, the benefits of multinational ownership are reduced. The exit of a multinational under these circumstances does not imply that domestic production is no longer profitable in itself but only that it is more profitable for a local owner than for the multinational.

The key point here is that the essential focus of the multinational is (or should be) on the provision of certain intangible, firm-specific assets required as inputs for local production. If a continuing stream of these inputs is no longer required or if they can be acquired efficiently by other means, such as licensing, there is no longer any particular advantage in multinational ownership. This does not reflect a lack of loyalty to, or interest in, the local economy but merely a focus by the multinational on its basic economic function.

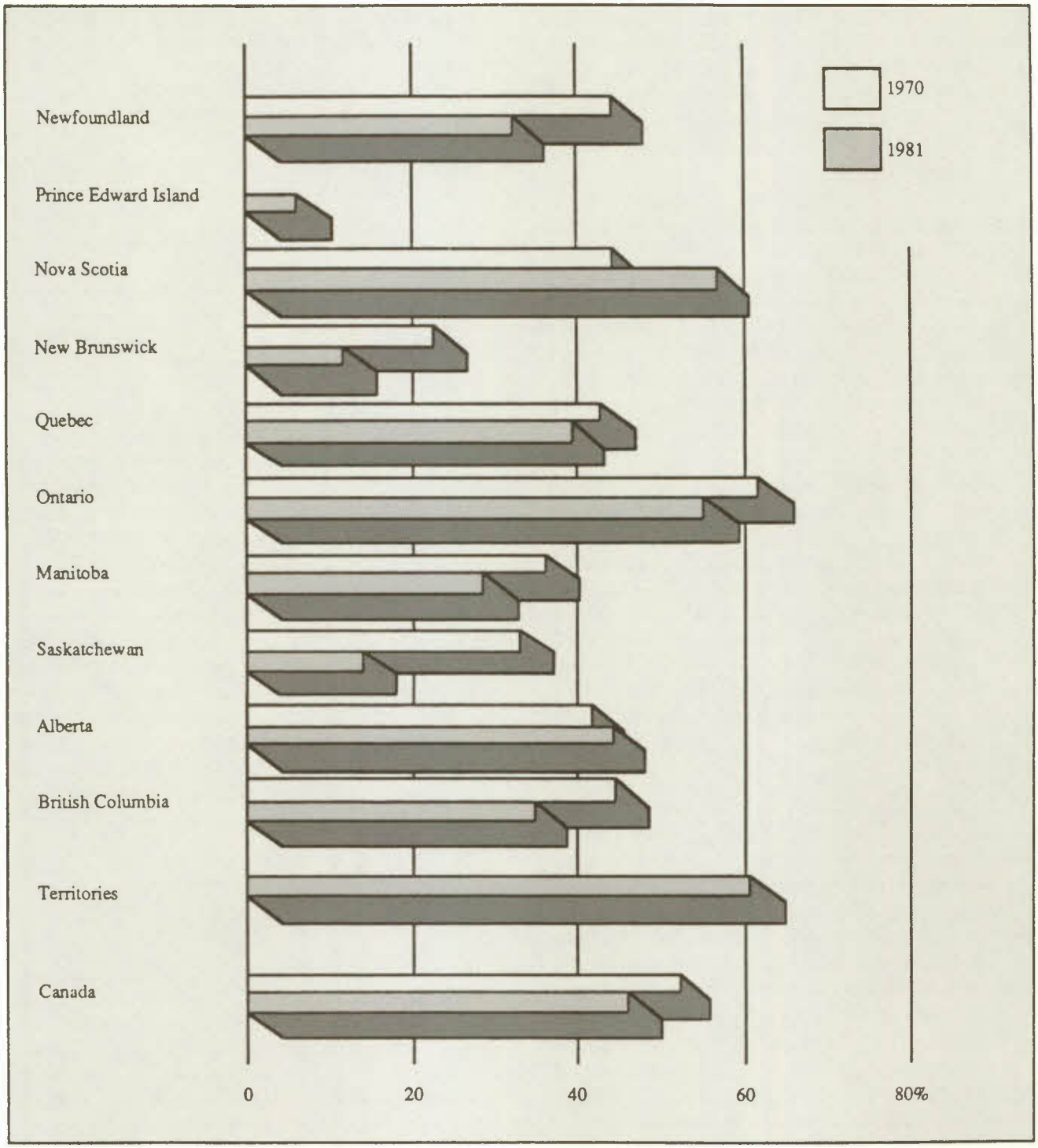
In the rest of this chapter, we examine the evidence regarding the response of Canadian affiliates of multinationals to changes in trade patterns. That evidence does not support the proposition that multinationals are especially inclined to withdraw from the local economy when faced with economic adversity. It suggests that the Canadian affiliates that appear to have done best, in terms of their share of the worldwide exports and employment of all affiliates, are found in the industries in which world trade has grown the fastest.

"Offshore" Production

The business press has documented and lamented the movement of production activities by U.S. (and Canadian) firms to the Far East and Latin America. A special report in *Business Week* argued that

Chart 4-2

Shipments by Foreign-Owned Firms[1] in the Canadian Manufacturing Sector, by Province or Territory,[2] 1970 and 1981



1 As a proportion of total shipments in manufacturing.
2 Data are not available for Prince Edward Island and the Territories in 1970, for reasons of confidentiality.
SOURCE Based on data from Statistics Canada.

> in industry after industry, manufacturers are closing up shop or curtailing their operations and becoming marketing organizations for other producers, mostly foreign. . . .

The result is the evolution of a new kind of company: manufacturers that do little or no manufacturing and are increasingly becoming service-oriented. They may perform a host of profit-making functions – from design to distribution – but lack their own production base. In contrast to traditional manufacturers they are hollow corporations.[3]

Under what circumstances do corporations shift part of their production operations from high-cost to low-cost countries? What role do multinational enterprises play in this process? Our answers to these questions focus on the determinants of interindustry differences in the proportion of value-adding activity performed abroad, in an attempt to determine whether, given the characteristics of the industry involved, multinational enterprises are more inclined than domestic firms to transfer production to lower-cost countries.

A recent study conducted in the United States found that imports by U.S. manufacturing firms under tariff items 807 and 806.3 (which allow U.S. producers to ship goods abroad for processing and to pay U.S. duty only on the foreign value-added when the goods are reimported as finished products) tend to be higher, relative to domestic shipments, in industries facing greater competition from imports and in which production is characterized by a relatively high proportion of female and unskilled workers, low product-transportation costs, low capital/labour ratios, intermediate R&D intensities, and a greater incidence of unionization and strike activity.[4]

Thus the shift of production to foreign countries tends to be advantageous when the production process involves low-wage, low-capital-intensity elements that can be performed separately and when the transportation costs of intermediate products are low. The study found that once such circumstances are taken into account, the incidence of production abroad is not affected by the presence of multinationals in an industry.

A more recent study deals with the responsiveness of imports in Australian manufacturing industries to changes in the relative prices of domestic and imported goods.[5] The author found that the responsiveness of imports to *short-run* fluctuations in the relative price of imports was *lower* in industries where multinationals are relatively important; the reverse was true – i.e., the response was *greater* – in the case of *long-run* changes in the relative price of imports. With respect to the long-run changes, the study concluded that

> this finding is consistent with the argument that because multinationals are able to internalise foreign trade and shifts in sourcing, and their subsidiaries offer an established conduit for import supply, their presence increases the sensitivity of physical sales of imports to the relative opportunity costs of import and domestic production.

Multinationals were found to be less responsive, however, to short-run price fluctuations:

> . . . multinationals will adjust their positions only when they believe the change [in relative prices] will be sustained over a period sufficient to make investment in internal adjustment worthwhile. Where adjustment through external markets dominates, meanwhile, import share tends to be more subject to short-lived cycles of surge and recession.

Thus the evidence suggests that MNEs are likely to be a source of stability in production in the face of short-run fluctuations in import prices (caused by exchange-rate movements, for example). On the other hand, MNEs respond much more than domestic firms to longer-run structural changes in comparative advantage, as reflected by changes in relative import prices. In other words, it would appear that the MNE is in a good position to make the distinction between changes that are permanent (or structural) and those which are temporary (or cyclical). Finally, one may ask whether it is the multinationals themselves that cause differences in import sensitivity or whether they are merely present in differing degrees in industries characterized by different underlying modes of import adjustment. On the basis of the available evidence, it appears that multinationals are as much a manifestation of the potential for shifting to lower-cost locations as a cause of it.

Footloose Production

Related to the proposition that multinationals are more inclined to shift production from high- to low-cost locations is the argument that they move production between either low-cost or high-cost countries in response to short-term changes in local wages, exchange rates, material prices, labour market conditions, or the political climate. This is known as the "capital on wheels" hypothesis.

A formal study of shifts in the location of semiconductor production in Latin American and Far Eastern countries by U.S. multinationals finds that they react quickly to changes in domestic price levels and exchange rates but that the

actual amount of production activity that is shifted is small.[6] Case studies have shown that production in foreign countries by U.S. firms is at least as stable as either production by local firms in those countries or U.S. domestic production in the same industry.[7] Apparently, foreign-based sources are not used merely as "peak load" suppliers, and the relative stability of "offshore" production is common both to industries in which these suppliers are affiliates of U.S. firms and to industries in which they are arm's-length contractors.

The evidence also supports the conclusion that multinational enterprises are, if anything, less inclined than domestic enterprises to relocate productive activity in response to short-term changes in relative production costs in the host economy. The question remains, however, why MNEs find it appropriate to respond only modestly to such changes. It may be that the cost of changing the production "mandates" of individual national affiliates (i.e., their assigned role in the multinational's overall strategy) would be quite high. Alternatively, it may be costly to maintain excess capacity in a number of countries in order to reallocate production to whatever country happens to offer the lowest costs at any given moment.[8] In contrast, participants in each market may react more quickly than the MNE to some of the pressures for change exhibited in national differences in cost, because participants in a decentralized market exchange, while they do not escape the cost of excess capacity, may fail to take it into account. As a consequence, decentralized markets may "overrespond" to changes in relative national production costs. In that sense, the MNE is a more efficient method of resource allocation.

Exit and Plant Closures in Canada

The evidence in the preceding sections is that, given the characteristics of the industries in which they operate, multinational enterprises are probably less footloose, if anything, than other firms. Further evidence on this matter can be adduced from a number of studies on entry and exit in Canadian manufacturing industries.

A recent study published by the Economic Council distinguishes between firms that leave an industry by closing their plant and those which leave by selling it (divestiture).[9] The authors find that over the period 1970-79, foreign-owned firms were much more likely than domestic firms to exit through divestiture. While there may be industry characteristics that explain this finding, the latter is consistent with the results obtained by other investigators, which show that the sale or liquidation of Canadian affiliates by U.S. multinationals in Canada did not occur because the affiliates were commercial failures but because they were marginal or peripheral to the parent's principal lines of business.[10] When a domestic firm leaves an industry, on the other hand, it is more likely to be because the market will no longer support its operation. On the entry side, the authors found that foreign firms are much more likely than domestic firms to enter an industry by acquiring an existing plant than by building a new one.

The greater inclination of multinationals to purchase existing plants rather than build new ones does not imply that they are more likely than domestic firms to exit when faced with adjustment pressures arising from international competition or technical change. Rather, it implies that, as suggested earlier in this chapter, the viability of domestic production and the advantages of multinational ownership are determined by different sets of factors. As a consequence, multinationals may buy from local producers at one stage in their evolution and sell out at another.

The response of foreign and domestic firms to industry conditions was also examined by the authors of the Economic Council study. They concluded that interindustry differences in plant closures by exiting foreign firms are unrelated to domestic growth and profitability. Indeed, among foreign firms, the industry closure rate is virtually random. In contrast, plant closure by domestic firms increases as the growth rate in domestic production falls.

Taken as a whole, the statistical analysis conducted by the authors of the Council study implies that both the exit and the entry decisions of foreign-owned manufacturing firms in Canada tend to be more or less unrelated to current domestic market conditions; that is not true of Canadian-owned firms, however. Similar results are reported in other studies.[11] This does not mean, of course, that it is impossible to explain why MNEs open or close their Canadian plants. The results reported here concern the influence of domestic conditions on those corporate decisions, but there are other factors influencing the latter – most notably, the range of the investment opportunities to which they have access worldwide.

The apparent reluctance of multinationals to abandon Canadian affiliates in the face of deteriorating domestic market conditions has also been observed in the context of interview studies. One study of 15 matching pairs of foreign- and Canadian-owned manufacturing firms concluded that

> even though the interviews were conducted in early 1982, when there was excess capacity in Canadian subsidiaries as

> well as U.S. affiliates [i.e., parent companies], there had been no attempt to close the subsidiaries on the grounds either that their mission was no longer appropriate or that their capacity was excess to the needs of the parent corporations. This result certainly does not support the contention that subsidiaries are closed in Canada when they have problems, or when employment in U.S. affiliates is threatened. In the sample of firms, it was the Canadian-controlled firms that were considering leaving Canada in search of locations with lower costs and more stable environments.[12]

The weight of the evidence from all the studies cited above is that multinationals are, if anything, less inclined than domestic firms to leave domestic industries faced with adjustment problems.[13]

Trade-Based Rationalization of Production in Canada

An increase in international specialization will bring with it changes in the domestic organization of production. Domestic specialization may be horizontal or vertical, or both. Under horizontal specialization, the firm devotes its domestic production facilities to a select group of products with the balance of the product line that it sells supplied from affiliated or unaffiliated firms at home and/or abroad. Under vertical specialization, the firm concentrates on a particular stage of production with its requirements for components, raw materials and/or finished goods supplied from either abroad and/or Canada. Extreme cases of vertical specialization are the "hollow corporation," which sells and services but does not produce domestically, and the "hewer of wood" corporation, which specializes in the primary-product phase of production.

Trade-based specialization implies increases in both imports and exports relative to domestic value-added (provided that specialization is not in the first or last stages of production). It may also imply an increase in plant scale, and it does imply an increase in batch sizes or lengths of production runs. The gains from rationalization depend on the economies of plant scale and production-run lengths. These, in turn, depend, in part, on the magnitude of the firm's plant, product, and stage-specific fixed costs. The relative importance of fixed or overhead costs depends on the technology of production and the relative prices of overhead inputs.

Production technologies – and hence the importance of fixed costs – vary from industry to industry, and they also evolve over time. Some commentators, for example, argue that the advent of computer-assisted manufacturing has lowered product- or stage-specific fixed (start-up) costs, thus reducing the economies associated with large batch sizes. The efficiency to be derived from rationalization, either domestic or trade-based, thus varies across industries and countries, as well as over time. Fundamentally, then, rationalization involves the minimization of costs subject to the prevailing technologies and input prices. While it is possible to measure whether foreign and domestic firms in a given industry have specialized at the same rate, it is dangerous to infer that either group has pursued an inappropriate course of action unless differences in their respective characteristics are taken fully into account.

The Economic Council has conducted two detailed studies of the relationship between changes in trade policy and the organization of domestic production.[14] The authors examined the effect of changes in Canadian tariffs on the scale (relative to U.S. plants) and the degree of product specialization of Canadian manufacturing plants over the period 1970-79. They concluded, first, that the relative plant scale of foreign- and Canadian-owned firms does not differ in response to trade liberalization. The scale of both foreign- and Canadian-owned plants located in Canada tends to increase, relative to those located in the United States, as the size of the Canadian market increases and as the Canadian trade balance improves; conversely, the relative scale of Canadian plants tends to decrease, when import penetration of the Canadian market increases. A second finding of the studies is that, with regard to product-line (horizontal) specialization, a decrease in effective tariff protection was associated with an increase in the average length of production runs over the period 1974-79; again, the country of ownership made no difference.

Another investigation examined the differences in degrees of specialization between medium-sized foreign- and Canadian-owned firms in four product groups: auto parts, mostly after-market; electrical/electronic products, excluding those which are defence-related; chemical and plastic products; and machinery, equipment, and miscellaneous products. It found that of the 15 Canadian-owned firms surveyed in 1982, nine were specialized or were specializing.[15] Of the 15 matching foreign-owned firms – i.e., firms that belonged to the same industry and also had fewer than 400 employees – five were specialized or were specializing. The remainder were either leaving the industry or not changing their operations. The authors concluded from their analysis that

> the subsidiaries are still predominantly import competers ... [they] had slower growth in their exports in the latter part of the 1970s than firms in the Canadian sector of control, and were slower to increase scale and specialization in response

to the changing trade environment than their counterparts in the Canadian sector.[16]

The authors advanced several explanations for their finding that affiliates had adapted relatively slowly to changes in the trade environment. A first explanation was that the subsidiaries were more specialized and export-oriented initially than Canadian firms and thus had less adapting to do.[17] A second possible reason was that the management of the subsidiaries found it relatively difficult to take the required entrepreneurial initiative. Specifically, it was apparently hard to convince the management of the parent corporation to change strategies and especially to allow affiliates to specialize.

The reluctance of parent corporations to allow affiliates to specialize, especially in the form of worldwide product mandates, is understandable in the light of the "sourcing" strategies of multinationals in the context of footloose production (see above). If multinationals are to exploit through direct foreign investment the cost-saving opportunities offered by international differences in price and exchange-rate movements, they must maintain diversified sources of supply, even if doing so means sacrificing economies of scale in individual affiliates.

In the most recent study of product-line specialization in Canada, the author found that of 254 survey respondents engaged in exporting over the period 1979-83, 14 per cent reported they had narrowed the range of products typically manufactured in their Canadian plants, while 43 per cent had broadened it.[18] Small firms and major exporters were the least likely to have specialized. Foreign- and Canadian-owned firms apparently behaved in virtually identical fashion, but the study did not indicate whether, given size and other characteristics, the country of ownership made a difference.

In conclusion, the weight of the evidence provided by all of the studies cited above is that, as far as plant-scale and product-line rationalization is concerned, foreign- and Canadian-owned firms have responded to increased foreign competition in much the same fashion. In making this type of comparison, it is important to bear in mind: 1) that the appropriate change in production arrangements depends crucially on technology and factor costs, which may vary from firm to firm in addition to varying across industries and countries; and 2) that the efficiency of an affiliate cannot be evaluated in purely domestic terms. In other words, the mere observation of differences in adjustment patterns does not necessarily have any implications either for the overall adaptability of the national economy or for domestic economic policy.

The Locational Decisions of U.S. Multinationals

The importance of U.S. multinationals in the market economies of the world is substantial (Table 4-1). Over the period 1966-83, for example, they consistently accounted for about 18 per cent of the exports of market economies and one-fifth of those of developed market economies. Although they may or may not be representative of multinationals as a group, U.S. multinationals continue to be a major factor in world trade in general and in the higher-growth industries in particular. Their behaviour is of obvious importance to Canada's manufacturing sector, where in 1980 they represented just under 80 per cent of the shipments of all foreign firms in Canada (see also Chart 4-1).

There are a number of alternative measures of the relative importance of Canadian majority affiliates in U.S. multinational enterprises. Three are used here – the respective proportions of "system exports," employment, and plant and equipment investment accounted for by Canadian majority affiliates. The term "system" encompasses the U.S. parent company plus all majority affiliates – that is, those in which the parent corporation owns (directly or indirectly) at least 50 per cent of the equity. (In the discussion that follows, majority affiliates are usually referred to simply as "affiliates.")

The share of Canadian affiliates in system exports in various manufacturing industries is reported in Table 4-2. While the years for which calculations are made are determined by the availability of the requisite data, the period 1966-77 coincides roughly with the period of trade liberalization in Europe and with the expansion of U.S. firms beyond their traditional areas of investment (i.e., Canada, Britain, and Latin America).[19] By 1977 these processes were largely completed.

Table 4-2 shows that between 1966 and 1977 the share of Canadian affiliates in system exports fell in all but two industries – primary and fabricated metals, and transportation equipment; in the latter case, the outcome was a consequence of the Canada-U.S. Auto Pact (see also Table 1-1). Between 1977 and 1984, the share of Canadian affiliates rose in three industries (chemicals, nonelectrical machinery, and transportation equipment), declined in three (food, metals, and "other" manufacturing), and remained virtually unchanged in one (electrical equipment). The "other" manufacturing group includes lumber and paper products, textiles and apparel, rubber products, nonmetallic mineral products (clay, glass, etc.), and scientific instruments.

Table 4-1

Share of U.S. Multinational Firms[1] in the Exports of Market Economies, by Industry, Selected Years, 1966-83

	All market economies				Developed market economies			
	1966	1977	1982	1983	1966	1977	1982	1983
	(Per cent)							
Food and kindred products	7.8	7.5	8.1	9.3	9.5	10.3	10.3	12.0
Chemical and allied products	22.8	22.9	25.4	24.6	22.8	23.6	26.6	25.6
Primary and fabricated metals	8.4	7.9	7.9	6.4	9.2	8.3	8.9	7.7
Machinery	25.4	23.0	23.4	20.8	25.4	22.2	22.8	20.7
Nonelectrical machinery	..	23.7	22.7	20.6	..	23.3	22.8	20.6
Electric and electronic equipment	..	22.0	24.5	21.5	..	20.3	22.8	20.9
Transportation equipment	35.9	31.4	28.2	32.4	36.1	31.9	29.2	33.8
Other manufacturing	10.9	10.8	10.3	9.8	11.8	12.6	12.4	11.9
All manufacturing	17.8	17.6	17.7	17.7	19.2	19.1	19.4	19.5

1 U.S. parent corporations plus all majority affiliates.

SOURCE Robert E. Lipsey and Irving Kravis, "The competitiveness and comparative advantage of U.S. multinationals, 1957-83," Working Paper 2051, National Bureau for Economic Research, Cambridge, Mass., October 1986; U.S. Department of Commerce, *U.S. Direct Investment Abroad: Revised 1983 Estimates* (Washington, D.C.: U.S. Government Printing Office, 1986); and special tabulations by the International Trade Division of Statistics Canada.

Table 4-2

Share of Canadian Majority Affiliates in System Exports[1] of U.S. Multinationals, by Industry, Selected Years, 1966-84

	1966	1977	1982	1983	1984
			(Per cent)		
Food and kindred products	9.8	5.2	1.7	1.7	1.4
Chemical and allied products	6.6	2.3	x	3.4	3.5
Primary and fabricated metals	3.1	11.5	5.1	7.5	9.2
Machinery	3.9	2.9	x	3.2	3.9
Nonelectrical machinery	..	2.9	x	3.7	3.9
Electric and electronic equipment	..	2.7	2.5	2.6	2.6
Transportation equipment	15.2	20.5	23.5	26.4	28.9
Other manufacturing	18.4	12.8	9.1	9.3	9.8
All manufacturing	10.4	10.6	9.4	11.1	12.2

1 Combined exports of the parent corporation and all majority affiliates.

SOURCE Donald G. McFetridge, *Trade Liberalization and the Multinationals*, Economic Council of Canada (forthcoming).

The story is similar when one calculates the share of Canadian affiliates in the exports of majority affiliates in developed countries (a measure that excludes the exports of U.S. parent corporations and of majority affiliates in developing countries). As Table 4-3 shows, the Canadian share of electric and electronic equipment exports of developed-country affiliates rose between 1977 and 1984, whereas as Table 4-2 shows the Canadian share of system exports in that industry had declined somewhat during that period. The implication is that while the exports of Canadian affiliates in the electrical industry grew faster than those of other developed-country affiliates, they increased more slowly than the exports of either U.S. parent companies or developing-country affiliates, or both.

Table 4-3

Share of Canadian Majority Affiliates in the Exports of Developed-Country Majority Affiliates of U.S. Multinationals, by Industry, Selected Years, 1966-84

	1966	1977	1982	1983	1984
			(Per cent)		
Food and kindred products	32.0	13.4	3.5	4.1	3.8
Chemical and allied products	21.9	5.3	x	6.6	6.9
Primary and fabricated metals	16.5	33.7	16.6	19.8	22.8
Machinery	10.6	7.6	x	9.3	10.2
Nonelectrical machinery	..	6.6	x	7.7	9.0
Electric and electronic equipment	..	10.0	13.1	14.6	14.9
Transportation equipment	39.6	47.3	51.9	56.6	65.0
Other manufacturing	47.8	29.8	19.9	21.1	21.9
All manufacturing	29.1	25.9	22.8	25.9	29.6

SOURCE McFetridge, *Trade Liberalization.*

A look at the change in the employment share of Canadian affiliates is also revealing. Figures for the period 1977-84 are reported in Table 4-4, which covers manufacturing as well as nonmanufacturing industries. Unlike export shares, the measurement of employment shares is not directly affected by variations in exchange rates and in national price levels. The table shows that for all industries taken together, the Canadian share of employment in the North American (Canadian plus U.S. parent) operations of U.S. multinationals fell by 13 per cent. As for the Canadian share of system employment (which is dominated by parent-company employment), it declined by 11 per cent.

Given that the behaviour of Canadian and U.S. employment shares may be influenced by cyclical factors, interindustry differences in the rate of change of those shares over time take on added importance. When ranked by sector, the changes in the Canadian share of system employment between 1977 and 1984 are as follows:

	(Per cent)
Retail trade	51
Manufacturing	–14
Wholesale trade	–18
Petroleum	–20
Mining	–24
Finance, insurance, and real estate	–28
Transportation, communications, and utilities	–49
Services	–53

The largest decreases in the proportion of system employment accounted for by Canadian affiliates occurred in the primary – petroleum and mining – and service sectors. The details of one such change – in the "finance (excluding banking), insurance, and real estate" group – are instructive (Table 4-5). In this case, Canadian employment fell in absolute terms by almost 11 per cent, while employment in U.S. parent companies and all other majority affiliates grew by 24 per cent. The result was a decrease of 28 per cent in the Canadian share of system employment and of 38 per cent in the Canadian share of majority-affiliate employment. This may have been a consequence of the growth of the Eurocurrency market, a loosening of financial regulation in Europe, or the maintenance of tight regulatory restrictions (especially on foreign-owned firms) in Canada.

Statistical analysis of the determinants of interindustry differences in the change in the Canadian-affiliate share of the North American employment of U.S. multinationals shows that trade liberalization has had a salutary effect on Canadian employment.[20] Specifically, the decline in the Canadian share was smaller (or the increase in the share was greater) in the industries in which Canadian trade barriers underwent the greatest reduction.[21] The decline in the Canadian share was the larger (or the increase was the smaller), the greater was the Canadian disadvantage in unit labour costs relative to those in the United States at the beginning of the period. In other words, increasing the openness of trade tends to slow or reverse the decline in the Canadian share of North American employment that would otherwise result from a Canadian unit-cost disadvantage vis-à-vis the United States.

The Canadian share of affiliate employment in developed countries rose by 3 per cent overall over the period 1977-84, but remained virtually unchanged in the

Table 4-4

Change in the Employment Share of Canadian Majority Affiliates of U.S. Multinationals, by Industry, 1977-84

	Canadian share of		
	North American employment	System employment[1]	Developed-country affiliate employment
	(1977 = 100)		
All industries	87	89	103
Manufacturing	85	86	101
Food and kindred products	65	66	74
Grain mill and bakery products	56	55	58
Beverages	74	74	80
Other food	66	69	79
Chemical and allied products	101	105	112
Industrial chemicals and synthetics	116	117	112
Drugs	115	121	123
Soap, cleaners, and toilet goods	98	105	131
Primary and fabricated metals	116	110	83
Primary metals	152	147	88
Fabricated metal products	80	79	84
Machinery, except electrical	86	90	113
Farm and garden machinery	..	..	..
Construction and related machinery	145	148	170
Office and computing machines	59	65	..
Other machinery except electrical	101	100	109
Electric and electronic equipment	52	59	101
Household appliances	41	42	..
Radio, television, and communication equipment	..	..	..
Electronic components and accessories	..	..	..
Other electric and electronic equipment	128	131	..
Transportation equipment	125	129	144
Motor vehicles and equipment	..	..	..
Other transportation equipment	..	..	..
Other manufacturing	69	69	78
Tobacco products	..	..	..
Textiles and apparel	68	69	86
Lumber, wood, furniture	67	67	84
Paper and allied products	73	67	47
Printing and publishing	112	114	..
Rubber products	..	..	..
Miscellaneous plastic products	188	153	119
Glass products	..	..	..
Stone, clay, and other nonmetallic mineral products	43	44	61
Instruments and related products	53	54	59
Wholesale trade	69	82	99
Durable goods	60	82	102
Nondurable goods	94	94	92
Retail trade	145	151	157
Finance, insurance, and real estate	73	72	65
Mining	78	76	107

Table 4-4 (concl.)

	Canadian share of		
	North American employment	System employment[1]	Developed-country affiliate employment
	(1977 = 100)		
Petroleum	78	80	105
Oil and gas extraction	64	62	72
Crude petroleum and gas	156	75	57
Oil and gas field services	56	77	122
Petroleum and coal products	96	93	103
Transportation, communications, and utilities	51	51	81
Services	47	47	67
Number of observations	42	42	38

1 Combined employment of the parent corporation and all majority affiliates.
SOURCE McFetridge, *Trade Liberalization.*

manufacturing sector (see Table 4-4). Within the manufacturing sector, the change in the employment share ranged from increases of 70 per cent in construction and related machinery and 44 per cent in transportation equipment, to declines of 39 per cent in stone, clay, and other nonmetallic mineral products, 41 per cent in scientific instruments, and 53 per cent in paper products.

The data on export and employment shares suggest that Canada became more important as a production location for U.S. multinationals in some industries and less important in others. Do these two groups of industries have salient characteristics? Table 4-6 provides part of the answer. It shows that the industries in which the Canadian shares of exports and employment have increased tend to grow faster and to display greater R&D intensity. The figures also indicate that the reverse is true of industries in which the Canadian shares of exports and employment have declined. Specifically, the three industries in which the proportion of U.S. multinational activity accounted for by Canadian affiliates clearly declined over the period 1977-84 – food and kindred products, primary and fabricated metals, and "other" manufacturing – recorded three of the four lowest growth rates in world (market economy) exports between 1977 and 1982, as well as the lowest R&D intensities (in U.S. parent companies).

There is additional evidence that increased trade is associated with Canada becoming more, rather than less, attractive as a production location. Statistical analysis of interindustry differences in the change in the proportion of employment in Canadian majority affiliates shows that over the period 1977-84, the change tended to be larger (more positive), the greater the increases in the export intensity of affiliates worldwide, in the number of affiliates worldwide, and in the proportion of duty-free Canadian imports. The change in the Canadian share tended to be smaller (more negative) the greater the difference in unit labour costs between Canadian affiliates and those in less-developed countries in 1977 and the greater the proportion of worldwide intracorporate trade, involving affiliate exports to related parties (parent companies and other affiliates).[22] Taken together, these results imply that increased trade, system growth, and Canadian trade liberalization all work to enhance, rather than diminish, the advantages of locating production in Canada.

The finding that Canadian production has become less attractive to U.S. multinationals in the food, metal, and other manufacturing industries does not necessarily imply that Canadian locations are less appealing to all firms. As was suggested earlier in this chapter (see the discussion on "Multinationals and the adjustment problem"), it is multinational ownership itself that may have become less attractive. Alternatively, ownership by U.S. – as opposed to European or Japanese – multinationals may have become less attractive.

If the attractiveness of Canadian production itself had declined, then the overall Canadian share of world exports

Table 4-5

Employment Shares, Affiliates of U.S. Multinationals in the Finance,[1] Insurance, and Real Estate Sector, 1977 and 1984

	1977		1984	
	Number of employees	Share	Number of employees	Share
	(Thousands)	(Per cent)	(Thousands)	(Per cent)
Multinational affiliates in:				
All countries				
Including U.S. parent companies	880	100.0	1,082	100.0
Excluding U.S. parent companies	63	7.1	90	8.3
Canada	31	3.6	28	2.6
United Kingdom	9	1.0	27	2.4

1 Excluding banking.
SOURCE McFetridge, *Trade Liberalization.*

Table 4-6

Indicators of the Relative Importance of Canadian Majority Affiliates of U.S. Multinationals, by Industry, 1977-84

	Change in the proportion of Canadian-affiliate share of:			Average annual growth rate of world exports,[2] 1977-82	Ratio of U.S. parent R&D employment to total system employment, 1977
	Developed-country affiliate employment	System exports[1]	Developed-country affiliate exports		
			(Per cent)		
Food and kindred products	–26.1	–73.1	–71.6	6.8	0.9
Chemical and allied products	11.9	52.2	30.2	10.9	4.7
Primary and fabricated metals	–16.5	–20.0	–32.3	7.9	1.0
Nonelectrical machinery	13.0	34.5	18.4	9.5	4.3
Electric and electronic equipment	1.2	–3.7	125.8	10.7	4.0
Transportation equipment	43.9	41.0	37.4	8.7	4.4
Other manufacturing	–21.5	–21.9	–26.5	8.8	1.8
All manufacturing	0.5	15.1	14.3	9.0	3.0

1 Combined exports of the parent corporation and all majority affiliates.
2 Measured in U.S. dollars.
SOURCE McFetridge, *Trade Liberalization.*

Table 4-7

Canada's Share of the Exports of Developed Countries, by Industry, Selected Years, 1966-83

	1966	1977	1982	1983
		(Per cent)		
Food and kindred products	4.2	2.6	3.2	3.4
Chemical and allied products	3.2	2.6	3.0	3.2
Primary and fabricated metals	6.9	4.3	4.6	5.0
Machinery	2.7	2.0	2.5	2.6
Nonelectrical machinery	2.4	2.3	2.8	2.9
Electric and electronic equipment	3.1	1.4	2.0	2.1
Transportation equipment	6.8	8.8	8.9	10.7
Other manufacturing	3.9	5.7	3.8	4.2
All manufacturing	4.5	4.6	4.3	4.9

SOURCE McFetridge, *Trade Liberalization.*

should have declined. As Table 4-7 shows, Canadian shares of world exports did not decrease in either the food and kindred products or primary and fabricated metals industries over the period 1977-83. The implication is that it is U.S. ownership of Canadian production facilities, rather than Canadian production in itself, that became less attractive during that period. The Canadian share of developed-country exports fell in the "other" manufacturing group (textiles, apparel, lumber, paper, and so on). This drop was commensurate with the decline in the share of system exports experienced by Canadian affiliates in those industries. The implication is that in those cases, Canada lost some of its appeal as a production location.

One cannot but feel a certain amount of unease with conclusions drawn from 1983 and 1984 data, especially if one considers that exchange rates have changed so much since then. More recent comparisons of the proportion of majority-affiliate capital investment occurring in Canada can be made (Table 4-8). Not only are these proportions influenced by exchange-rate movements, but they are also highly cyclical. Taken at face value, the investment data are at least broadly supportive of the conclusions reached above, except in the case of two industries – namely, metals and transportation equipment. In those industries, investment shares are moving in the opposite direction to employment and export shares. We would be inclined to place greater weight on the latter.

Conclusion

The analysis in this chapter has focused on whether the ownership of Canadian firms has an influence on their response to the pressures for change. The pressures included the impact of tariff reductions and the differences in national cost levels; the possible responses, exit and revitalization – two options discussed in Chapter 2. The evidence examined pertains not only to Canada but also to the United States and Australia. We also considered, however, the share and determinants of the activities of U.S. multinationals in Canada in relation to their activities worldwide, in North America, and in developed countries. This analysis leads to several important conclusions.

First, contrary to public perception (and given the industries in which they operate), multinationals do not tend to be any more inclined to shift production to low-cost foreign locations, and may be even less footloose, than other firms. Indeed, with respect to the response of firms to short-term fluctuations in the prices of import-competing goods caused by such factors as variations in exchange rates, we find that MNEs are likely to be a source of stability in domestic employment. On the other hand, MNEs respond much more than domestic firms to longer-run structural changes or to changes in comparative advantage, as reflected in import prices relative to domestic prices. In other words, it would appear that MNEs are in a particularly good

Table 4-8

Canadian Share of Capital Expenditures of Majority Affiliates of U.S. Multinationals, by Industry, Selected Years, 1977-86

	Canadian share of:					
	All majority-affiliate capital expenditures			All developed-country majority-affiliate capital expenditures		
	1977	1982	1986	1977	1982	1986
	(Per cent)					
Food and kindred products	21.1	18.1	18.3	29.3	25.0	23.5
Chemical and allied products	19.4	14.8	19.4	24.5	18.4	23.7
Primary and fabricated metals	30.6	17.2	33.8	37.1	30.0	41.7
Nonelectrical machinery	9.2	9.6	13.1	9.9	10.5	14.4
Electric and electronic equipment	14.2	10.8	12.1	18.6	17.0	17.5
Transportation equipment	33.2	16.0	27.3	37.0	20.6	34.3
Other manufacturing	33.7	19.0	27.6	41.4	24.5	33.4

SOURCE Based on J. Lowe, "Capital expenditures by majority-owned foreign affiliates of U.S. companies, 1986," *Survey of Current Business* 66, no. 3 (March 1986); U.S. Department of Commerce, *U.S. Direct Investment Abroad, 1977* (Washington, D.C.: U.S. Government Printing Office, April 1981); and U.S. Department of Commerce, *U.S. Direct Investment Abroad, 1982* (Washington, D.C.: U.S. Government Printing Office, December 1985).

position to make the distinction, introduced in Chapter 2, between changes that are permanent (structural) and those which are temporary (cyclical).

Second, multinationals do not appear to be more inclined than domestic firms to close or sell plants when faced with declining domestic demand. Thus the picture that is frequently painted of foreign-owned branch plants being ready to leave Canada as soon as conditions take a turn for the worse is not borne out by the evidence.

Third – although there is some disagreement on the matter – foreign-owned firms in Canada appear to have rationalized their production facilities in response to trade liberalization and market growth in much the same manner as Canadian firms. Thus the rationalization option for adjustment has been selected by both foreign and domestic firms in response to the pressures for change.

Fourth, the affiliates of U.S. multinationals in Canada have grown (in terms of exports and employment) relative to those in other developed countries in industries with high trade growth. Often, these are R&D-intensive industries, which are perceived by some to provide the high-quality jobs that Canadians desire. At the same time, Canadian affiliates of U.S.-owned firms have become less important in industries where trade grows more slowly. The clearest example is that of the food and beverage industry – although in that case it is U.S. ownership of Canadian production, rather than Canadian production *per se*, that appears to have become less attractive, since Canada's share of developed-country exports increased rather than decreased. In the case of the "other" manufacturing group, which is dominated by the wood and paper products industries, the export and employment shares of Canadian affiliates of U.S. multinationals have declined relative to those of affiliates in other developed countries. Combined with the decline of Canada's share of developed-country exports in that group, this development reflects a decline in the attractiveness of Canada as a production location for those industries.

Fifth, while employment in Canadian majority affiliates in many industries has tended to decrease relative to that in the U.S. parent corporations, the decline tends to be smaller in those industries in which Canadian trade barriers have been reduced the most. Thus, at least on the basis of recent experience, trade liberalization appears to have been associated with the retention, rather than the flight, of U.S.-owned firms in Canada – again, a result that is not altogether consistent with public perception.

The evidence also suggests that Canadian and foreign-owned firms often respond to the pressures for change in much the same way. Where differences do arise, however, the presence of foreign-owned firms appears to enhance, rather than diminish, the ability of the Canadian manufac-

turing sector to adjust to the pressures for change. Finally, the Canadian affiliates of U.S. firms tend to be gaining employment relative to other developed-country affiliates in those R&D-intensive industries where many would claim Canada's comparative advantage does – or at least should – reside. The major implication of our results is that a separate adjustment policy based on the country of ownership of a firm does not appear to be warranted.

5 Special Import Measures as an Adjustment Policy

Special import measures – by which, in this chapter, we mean quantitative limitations on the volume of specified goods that can be imported into Canada from all countries (global quotas) or from selected countries (bilateral restraints or "voluntary" export restraints) – can be used to provide a "breathing space" during which an industry under pressure from import competition can make the changes necessary to adjust to the new situation. A sudden surge in imports can wreak havoc on domestic producers, with adverse consequences for both labour and capital. When temporary quotas are introduced, the industry is given time to respond. An import surge may signify that Canada has lost its comparative advantage in a particular industry. When that is the case, some firms and their workers may choose to seek opportunities elsewhere, while other firms may decide that their best course of action is to rationalize and revitalize their operations in order to take on the new competition. The breathing space afforded by the temporary import restraints provides an opportunity for firms and workers to consider their options and take the appropriate action. From this perspective, the quotas should facilitate gradual adjustment, both by staving off sudden, socially harmful consequences (increased unemployment, in particular) and by giving firms and individuals time to adjust.

In this chapter we consider the use and impact of special import measures, paying particular attention to whether or not such measures have provided a temporary breathing space that facilitated adjustment or, instead, became transformed into more or less permanent restrictions on imports, thus retarding rather than promoting adjustment. Three important instances where different sorts of quantitative restraints on imports have been granted are considered: global quotas on footwear imports; bilateral restraints on textile and clothing imports; and voluntary export restraints on automobiles.

The Legislative Framework

In order to understand the operation of the various kinds of quantitative restraints, we must understand the legislative and institutional framework within which special import measures are adopted.

Global Quotas

The key provision of the General Agreement on Tariffs and Trade (GATT) that deals with the ability of governments to aid firms or industries in trouble because of import competition, unrelated to foreign subsidies or dumping, is Article XIX, sometimes referred to as the "escape clause" or the "safeguard provision."[1] This article (reproduced in Appendix B) has generally been taken to mean that if "serious injury" is threatened or actually caused to domestic producers, then the affected country can raise tariffs, impose quantitative restrictions, or take other appropriate action. Serious injury arises from an increase in imports, usually referred to as a "surge."[2] Any emergency action taken under Article XIX is clearly intended to be of limited duration – "for such time as may be necessary to prevent or remedy such injury."

Under Article XIX of the General Agreement, measures adopted by the country whose industry is experiencing serious injury must be applied on a nondiscriminatory basis. In other words, if tariffs are raised, they must apply to all imports of a particular commodity; if quantitative restrictions are applied, they must include imports from all sources – hence the use of the term "global quotas." Furthermore, the exporting country may ask for compensation from the importing country – the reduction of tariffs on other goods, for example. This reflects the fact that, in accordance with GATT rules, member countries have made a series of balanced concessions during the successive rounds of trade liberalization. The use of Article XIX disturbs that balance. Compensation has been rather rare; however, in Canada's case, at least, it was given to OECD exporters (such as the United States and the European Economic Community) but not to the newly industrialized countries nor to the less developed countries. Often, the NICs and the LDCs have not offered balanced concessions but have instead received special and differential treatment under the General Agreement. These constraints on the use of Article XIX are designed to be consistent with the "most favoured nation" (MFN) principle of the General Agreement, to raise the cost that users of Article XIX must pay, and to provide a stable and transparent trading regime.

Canada's rights and obligations under Article XIX of the General Agreement have resulted in legislation that allows the imposition of two types of restraints on imports: temporary surtaxes and quantitative restrictions. Under Section 8 of the Customs Tariff (cited in Appendix B), the Governor in Council may impose a surtax on imports for a maximum of 180 days, following a report and recommendation by the Minister of Finance.[3] For an extension beyond that period, a finding of serious injury by either the Canadian Import Tribunal (CIT – an independent, quasi-judicial tribunal) or by the Textile and Clothing Board (TCB – an independent body) is required and it must be approved by both Houses of Parliament. Such an extension may result in the surtax lasting up to three years.[4] The Governor in Council may only impose the surtax pursuant to a report by the Minister of Finance, the CIT, or the TCB that the goods in question are being imported into Canada "under such conditions as to cause or threaten serious injury to Canadian producers of like or directly competitive products." This language, of course, follows Article XIX of the General Agreement. Surtaxes have been used only a few times in the manufacturing sector in the recent past: for bicycles in 1977; for textured polyester filament yarn in 1976; and for men's and boys' work, dress, and sports shirts in 1970.[5]

Quantitative restrictions can be introduced by an order of the Governor in Council under the *Export and Import Permits Act* when a report of the TCB or the CIT finds that "goods of any kind are being imported or are likely to be imported into Canada at such prices, in such quantities and under such conditions as to cause or threaten serious injury to the production in Canada of like or directly competitive goods" (see Appendix B).[6] This wording follows that of Article XIX of the General Agreement. The order of the Governor in Council may last up to three years, although it may be renewed. The requirement that quotas can only be imposed after a finding of serious injury by the TCB or CIT provides an open forum before which the determination of serious injury has to be made, usually followed by the publication of a written report containing recommendations.

Under the *Special Import Measures Act*,[7] the Governor in Council may request the CIT to inquire into, and report in relation to, "the importation of goods into Canada that may cause or threaten injury to, or that may retard the establishment of, the production of any goods in Canada" (see Appendix B). This request is usually prepared by the Department of Finance in consultation with other government departments, since the CIT reports to Parliament through the Minister of State for Finance. This broad provision for referring matters to the tribunal has been used on five occasions: once for the mushroom industry (in 1973) and four times in the case of the footwear industry (in 1971, 1977, 1980, and 1984). In each case, the Terms of Reference of the enabling Order in Council specified the scope of the inquiry and the matters to be investigated. Although the legislation does not refer to serious injury (only injury) in all of the references to date "the injury into which the Tribunal was requested to inquire was 'serious injury'",[8] – reflecting the fact that the statute authorizing global quotas, the *Export and Import Permits Act*, refers to serious injury.

Bilateral Restraints

In the case of quantitative restraints on imports, the Multifibre Arrangement (MFA) is the major exception, within GATT, to the MFN principle of non-discrimination. It is an exception because it sets a framework within which bilateral restraints can be negotiated for textile and clothing products – typically between an OECD importer and a low-wage exporter. Originally introduced in 1974 (MFA I) the arrangement has been renewed on a number of occasions – 1977 (MFA II), 1981 (MFA III), and 1986 (MFA IV); it is currently slated to expire in 1991. The MFA succeeded the Short and Long Term Arrangements on International Trade in Cotton Textiles which dated from the early 1960s. In 1987 Canada had bilateral restraint agreements with 25 countries, covering various types of textile and clothing products.[9]

The MFA (and its predecessor arrangements) replaces the concept of "serious injury" with that of "market disruption." The factors used to determine such disruption include a substantial increase in imports at a price lower than that of the domestic product. The MFA lists a number of factors to be considered when reaching a decision as to the existence of market disruption. These include profits, employment, the volume of disruptive and other imports, production, capacity utilization, productivity, and so on. As will be seen, some of these same factors are considered in determining serious injury by the Canadian Import Tribunal pursuant to Canada's obligations under Article XIX. The latter, however, considers imports from all sources, while a finding of market disruption under the MFA may pertain to imports from individual countries. Another difference is that when Article XIX is invoked, compensation may be payable to the exporting countries affected; there is no such requirement under the MFA.

When the MFA was introduced in 1974, it was seen as an alternative to global quotas. In particular, members were to refrain from taking action outside the MFA before exhausting its relief measures. While Canada has generally followed this procedure, on a number of occasions it has

imposed global quotas; and it has done so more extensively than other signatories to the MFA.[10] In particular, between 1976 and 1978 Canada imposed an exceptionally wide-ranging global quota on clothing products. As a result, Canada, "as one of the leading proponents and beneficiaries of the rule of law in international trade . . . lost some credibility, and confidence in Canadian negotiators was eroded."[11] The imposition of such quotas meant that a number of agreements under the MFA had to be abrogated by Canada. In the 1980s, however, the federal government rejected "the unilateral approach of imposing global quotas."[12]

There is no explicit mention of the MFA in the *Export and Import Permits Act*. However, the MFA is covered by a section of that act which permits import controls if they are pursuant to the implementation of "an intergovernmental arrangement or commitment."[13] The only Canadian legislative requirement under that section is that within 15 days of the Governor in Council issuing an order limiting imports, "a statement of the effect or a summary of the arrangement or commitment . . . be laid before Parliament." As noted above, however, the MFA contains certain provisions that must be met before bilateral restraints can be negotiated. In practice, therefore, bilateral restraints for textiles and clothing are usually negotiated after a report of the TCB. This use of the TCB in this fact-finding role was an explicit part of the federal government's 1970 textile policy.

The *Textile and Clothing Board Act*, which created the TCB in 1971, contained certain criteria to be used when considering the appropriate use of special import measures with respect to textiles and clothing – the only industries covered by its mandate (see Appendix B). These criteria included not only Canada's international trading arrangements but also a number of any relevant manpower and regional considerations, the effects of special measures on consumers, as well as

> the principle that special measures of protection are not to be implemented for the purpose of encouraging the maintenance of lines of production that have no prospects of becoming competitive with foreign goods in the market in Canada if the only protection to be provided is that provided at any time by rates of duties of customs.

Thus, in considering whether special measures were to be introduced, the TCB could use a somewhat broader set of criteria than those laid down in the MFA. In part, this reflects the fact that the act predated the MFA. Because no amendments were made to the act upon Canada's signing of the MFA, however, instead of using the MFA term "market disruption," both the reports of the board and the relevant legislation refer to "serious injury." Furthermore, as noted above in our discussion of global quotas, the legislation also allowed the TCB to make recommendations and allowed the government to impose global quotas in accordance with Article XIX. Thus there was a certain ambiguity in Canada being a signatory to the MFA while retaining legislation that referred to "serious injury."

A TCB inquiry can be undertaken at the request of a producer, of the Minister of Regional Industrial Expansion, who is the minister responsible for the board, or on the board's own initiative. In addition to reports on specific commodities, the TCB may also conduct more-general inquiries into the textile and clothing industries, either on its own initiative or on that of the minister. As a result of the increased product and country coverage in successive renewals of the MFA, the inquiries and reports of the TCB became more general in nature, rather than being confined to specific products from specific exporting countries. For example, the general inquiries undertaken in 1981 and 1985 into the textile and clothing industry fall into this category. They both appear to have been timed to coincide with the end of restraint agreements under MFA II and MFA III, respectively.

Voluntary Export Restraints

A number of countries have imposed quantitative restraints (outside the GATT framework) on imports from particular countries, in breach of the MFN principle of the General Agreement. Canada negotiated voluntary export restraints (VERs) and similar arrangements in the late 1950s and early 1960s with respect to the importation of nontextile, low-cost consumer products such as stainless steel flatware. In the 1980s, such quantitative restrictions have applied to automobiles from Japan and South Korea.

There is no Canadian legislative framework within which decisions are made concerning quotas that fall outside Article XIX of the General Agreement or outside the Multifibre Arrangement. No reports are required to establish serious injury or market disruption. Indeed, the use of VERs may reflect a feeling that it might be difficult to sustain a finding of serious injury. No periodic review is required. No information need be laid before either Parliament or the public.

New Developments

In February 1988, Bill C-110 was tabled in the House of Commons, proposing a number of changes to the

framework described above with respect to global quotas and bilateral restraints. Under this proposal, the responsibilities of the Canadian Import Tribunal, the Textile and Clothing Board, and the Tariff Board are to be assumed by a new tribunal – the Canadian International Trade Tribunal. Substantial changes are also being made to the process of inquiry into possible serious injury as well as to the criteria to be used to determine such injury (outside the area of textiles and clothing). Specifically, under the existing legislation only the Governor in Council can initiate such an inquiry whereas, under the proposed legislation, all Canadian producers can petition the new tribunal directly, provided that certain conditions are met (that the complainants represent the majority of domestic production, for example).

Many factors can account for an industry experiencing adverse economic performance – imports, recession, technology changes, high interest rates, intra-industry competition, and so on. In determining serious injury, the proposed legislation states that imports must be the principal cause of serious injury, defined as being no less important than any other cause. Given the U.S. experience with similarly worded legislation, however, this requirement may lead to problems in determining what is a cause and how finely nonimport causes should be subdivided so as to render imports the principal cause.[14] The government retains the right to refer matters to the tribunal (as it did in the case of the footwear industry) and to direct the new tribunal to take into account associated issues such as the public interest (e.g., competition policy matters, prices, and so on) or the relative merits of various policy alternatives, when making a report regarding serious injury in a case undertaken as a result of complaints from the industry.

Global Quotas: The Case of Footwear

Canada, like several other developed countries (including the United States, France, and the United Kingdom), introduced quantitative restraints on footwear imports in the late 1970s, despite the presence of high tariffs (see Appendix Table A-1). This policy resulted from a series of inquiries by the Anti-dumping Tribunal, whose findings were accepted and implemented by government. In the mid-1980s, however, it was decided to phase out those quotas – a move presaged, to a considerable extent, by the terms of reference given to the tribunal (see Appendix C for the terms of reference of the inquiries, and Figure 5-1 for the findings and quota dates).

The Role of Imports

The mandate of the Anti-dumping Tribunal (renamed the Canadian Import Tribunal in 1984) was to examine the evidence in order to determine the role and importance of imports in relation to the "serious injury" test. Taiwan, South Korea, and Italy were the most significant footwear exporters to Canada in the 1970s and 1980s. Imports from Taiwan and South Korea were able to penetrate the Canadian market successfully because the production of footwear is a labour-intensive activity and because the machinery is easily available. The low wages found in the NICs make footwear an ideal product for them to export. Their exports tend to be in the low-price segment of the market. In contrast, Italian shoes were targeted at the higher-priced section of the market.

Neither the GATT nor the Canadian legislation under which the Governor in Council directed the tribunal to undertake the footwear inquiries provides an operational definition of "serious injury." The tribunal decided to follow a two-stage procedure: 1) to examine indicators of the economic health of the industry, such as profitability and price trends, employment, plant closures, and the level and market share of domestic production and of imports; and 2) a causation test, to satisfy the requirement that, in order for serious injury to exist, "it would be necessary to establish a *causal* relationship between the imports or potential imports and the performance or likely performance of Canadian producers as measured by the above indicators."[15] [Emphasis in original]

In 1973, the tribunal concluded that footwear imports were not causing serious injury to domestic producers and that no causal relationship could be satisfactorily established between imports and any of the indicators mentioned above. The tribunal determined that low-cost imports were filling a void that was not being met by domestic producers.

The tribunal's 1977 report arrived at very different conclusions. In the opinion of the tribunal, footwear imports were indeed causing, or threatening to cause, serious injury to Canadian producers. They were no longer simply filling a void but were "seriously affecting production at the higher end of the low price range and the lower end of the medium price range."[16] Using the same indicators as the 1973 report, imports were assessed as causing serious injury to the domestic footwear industry. For example, from 1971 to 1976, the apparent consumption increased by 9 million pairs. Imports captured all of this increase and expanded by a further 3 million pairs "at the expense of domestic shipments."[17] The government responded to this finding by imposing a global quota on footwear, effective 1 December

Figure 5-1

The Serious Injury Findings of the Anti-Dumping Tribunal (Later the Canadian Import Tribunal) on Footwear and the Imposition of Global Quotas, 1973-85

	Tribunal's finding				Quota enforced[1]	
	1973	1977	1981	1985	From	To
	Serious injury					
Footwear category:						
Men's and boys'	No	Yes	Yes	No	1 December 1977	1 December 1985
Women's and girls'	No	Yes	Yes	Yes	1 December 1977	1 December 1988[2]
Children's and infants'	No	Yes	Yes	No	1 December 1977	1 December 1985
Slippers and house footwear	No	Yes	Yes	No	1 December 1977	1 December 1985
Special-purpose footwear	No	Yes	Yes	No	1 December 1977	1 December 1985
Skates	...	...	...	No	–	

1 Quotas on leather footwear were removed from 30 November 1981 to 9 July 1982. The global quotas were expanded to include canvas footwear after 1 December 1981. Footwear whose main component was rubber is not included.
2 Quotas on women's and girls' footwear are being phased out over the period 1985-88.
SOURCE The footwear reports of the Anti-dumping and Canadian Import Tribunals and various government announcements concerning footwear policy.

1977. The quota did not cover rubber or canvas footwear. Quota allocations were based upon an importer's past purchases. In 1977, all importers were allocated 64 per cent of their previous year's imports; this quota was raised to 80 per cent in 1978.

In its third report on the footwear industry (1981), the Anti-dumping Tribunal reached slightly different conclusions than in its 1977 report. Canadian industry was found to be competitive with that of developed countries (e.g., Italy, Spain, and so on); but the situation remained unchanged with respect to developing countries with low wages. The tribunal believed that imports from those countries could cause serious injury if the quotas were removed. In view of these findings, the government proceeded to remove quotas on imports of leather footwear (which came mainly from Europe) on 1 December 1981 but extended them for non-leather footwear (including, for the first time, canvas shoes). An attempt by Canada to negotiate a VER with South Korea and Taiwan was unsuccessful. These countries felt that the "Canadian market [was not] of sufficient importance to lead them to enter into an agreement with Canada to restrict imports."[18] Quotas were reimposed on imports of leather footwear in July 1982 on the grounds that the import surge experienced earlier that year – 19 per cent in the first four months of 1982, compared with a 2-per-cent increase for all footwear imports – "are coming from low-wage sources that had been designated as injurious sources by the . . . Tribunal, as well as developed country suppliers."[19]

The tribunal's 1985 report found that except for women's and girls' footwear, the Canadian footwear industry would be able to compete without special protection. The tribunal found that the Canadian footwear industry had restructured itself sufficiently and was now able to compete effectively; in other words, successful adjustment had taken place. Following this finding, the government abolished all footwear quotas, effective 1 December 1985, except those on women's and girls' footwear (which accounted for nearly 50 per cent of the industry's sales), which were to be phased out over the period 1985-88. Among the reasons given for the elimination of quotas were previous threats of retaliation by the European Community and Canada's decision to forgo duties on certain goods in order to stave off such an outcome.[20]

Rationale and Objective

The principal objective of the imposition of global quotas on footwear imports was to provide a temporary breathing space for the Canadian industry to restructure. In the 1980 and 1984 terms of reference for the inquiries referred to the Anti-dumping Tribunal, particular emphasis was laid on the extent of the restructuring that had taken place and on the degree to which the industry had improved its competitive position against imports.

Evaluation

A number of criteria can be used to evaluate global quotas on footwear. They include:

- the extent and cause of any industry restructuring;
- the effectiveness of the quotas in limiting imports;
- the degree of product upgrading;
- the duration of the quotas;
- the beneficiaries of higher prices; and
- the employment effects.

While the first criterion pertains directly to the goal of restructuring, the others explore more fully the effectiveness, impact, and cost of quotas. They are not only likely to be important in determining whether quotas do, in fact, provide a breathing space, but they also furnish a much fuller picture of global quotas. As the same set of criteria will be used later in this chapter to evaluate the bilateral restraints applying to textiles and clothing as well as the voluntary export restraints on automobiles, a more general discussion of each criterion in the context of our evaluation of global quotas on footwear is warranted.

Restructuring — This can take a number of different forms. The footwear industry may, for example, revitalize itself and thus enhance its competitive position against imports by improving the existing technology, increasing productivity, or rationalizing product lines (as we saw in Chapter 2). An industry may restructure without import restrictions, simply by reacting to market forces. Alternatively, restructuring could take place if certain firms and certain workers were to leave the industry. The surge of imports may signal that Canada has lost its competitive advantage in at least some sectors of the industry, making exit – industry downsizing – an appropriate option.

Exit was not an important part of the restructuring of the footwear industry when quotas were in place. While it is difficult to discern a trend because of the pronounced cyclicality of the industry, in the seven years after the imposition of quotas (1978-84) the annual average level of both employment and output, measured by the number of pairs of shoes, boots, and so on, declined slightly – 3 to 6 per cent – compared to the period 1971-77. However, when output is measured using real domestic product, there is a 10-per-cent increase in output (Table 5-1). These differing trends are consistent with the modernization and re-equipment as well as product-line rationalization described below.

When the trend in employment is examined for a longer period, we see a gradual decline since the early 1960s – from 21,854 in 1961 to 17,605 in 1971 – while output showed no such gradual decline, with pairage even increasing during the 1960s. The evidence (reviewed below) concerning the degree to which quotas raised output – and hence employment – above what they would have been otherwise, suggests that the effect of quotas was to slow down, if not reverse, the gradual exit of labour from the footwear industry.

When protection was first granted in 1977, global quotas were supposed to facilitate and encourage modernization in the footwear industry. The official announcement of the imposition of quotas stated that "because of the limited term of the restraints, Canadian producers are expected to make improvements to strengthen their competitive position so that they will be able to better cope with imports under normal levels of tariff relief."[21] This did not occur, however, and in 1981 the tribunal concluded that no major restructuring had taken place since 1977. At the same time, the tribunal did find that from 1974 to 1977 – a period without quota protection – the footwear industry "entered upon a major re-equipment and modernization phase, and at the same time changed its patterns of output."[22]

In 1985, the Canadian Import Tribunal discovered that the industry had indeed restructured in the early 1980s and had rationalized its product lines to concentrate on areas in which it could compete effectively (except in women's and girls' footwear). Moreover, the cause of that change was not directly related to global quotas. In the words of the tribunal,

> one is led inescapably to the conclusion that the competitive pressures represented by increased imports have been the major spur to restructuring and increased efficiency in recent years. Quotas have again served to limit the loss of market share which probably would have occurred in the case of the most vulnerable producers, but their contribution as an inducement to restructuring and modernization appears again to have been of much lesser degree.[23]

Thus, while quotas provided a breathing space, it would be naive to assume that the forces of competition were held

Table 5-1

Employment, Output, and Trade[1] in the Footwear[2] Industry, Canada, 1971-87

	Output		Employment[5]	Trade		
	Real domestic product[3]	Number pairs[4]	Industry employment	Exports as a proportion of domestic production	Imports as a proportion of domestic disappearance	Imports pairage
	(1971 = 100)		(Thousands)	(Per cent)		(Millions)
1971	100.0	100.0	17.6	3.9	22.2	41.3
1972	97.5	98.4	17.0	3.7	23.6	43.8
1973	99.2	97.6	16.8	4.6	23.0	39.7
1974	101.2	107.8	16.4	3.4	25.9	41.9
1975	100.1	92.7	16.9	5.2	28.4	36.8
1976	107.3	97.1	16.5	5.9	31.8	47.7
1977	97.7	84.5	14.5	7.9	36.1	46.2
1978	109.4	96.5	15.2	8.6	32.9	44.6
1979	117.4	100.2	16.2	6.9	29.7	41.4
1980	108.9	93.8	15.5	5.9	31.6	43.2
1981	116.6	96.2	16.5	5.0	33.1	52.0
1982	101.1	81.4	14.4	7.9	36.1	47.8
1983	108.9	86.7	15.1	6.8	37.1	50.9
1984	120.8	100.7	15.6	4.3	36.7	52.9
1985	..	98.2	14.9	..	..	52.7
1986	..	95.3	13.5	..	..	70.2
1987	..	86.0	13.3	..	..	78.0

1 For a fuller definition of trade indices, see notes 3 and 4 of Table 2-2 of this report. The trade measures are defined in value, not pairage terms.

2 All of the columns except those referring to output or imports measured in pairage use the 1970 Standard Industrial Classification definition, shoe factories (SIC 174). Output, measured in terms of pairage, includes skates and rubber footwear, not included in 174. In 1980 to 1984 such items varied, annually, between 10 and 11 per cent of this more inclusive pairage output measure. The pairage import numbers refer to much the same items as SIC 174, but would appear to include skates.

3 Measured in 1971 dollars.

4 In 1971 the number of pairs was 45.1 million.

5 Employment for 1971 to 1985 is measured using the Census of Manufactures, while for 1986 and 1987 (based on January-November), the Survey of Employment Payrolls and Hours (SEPH) is used. In years (1983 and 1984) for which estimates using both sources are available, there are considerable differences. In particular SEPH shows a decline between 1983 and 1984 (17.1 thousand to 13.7) and an increase between 1984 and 1985 (to 15.1 thousand in the latter year) – quite contrary to the trend in employment from the Census of Manufactures and the two measures of output presented in the table. Nevertheless, the number for 1985 is quite close in both employment sources.

SOURCE Canadian Import Tribunal, *Report Respecting the Canadian Footwear Industry* (Ottawa: Supply and Services Canada, 1985), pp. 67, 127, 144, and 145; Department of Regional Industrial Expansion, *Manufacturing Trade and Measures, 1966-1984* (Ottawa, 1985), Report 1; and estimates by the Economic Council of Canada, based on Statistics Canada data.

entirely at bay. This reflected not only the competitive structure of the industry, but also the relaxation of import controls in the 1980s and the appreciation of the Canadian dollar against the currencies of most of the major footwear exporters to Canada.

Controlling Imports — Footwear comes in a variety of styles and is made from a number of different raw materials, such as leather, canvas, rubber, and plastic. A given quota may, however, apply only to footwear made of a certain raw material. There may be considerable scope for substituting other types of raw materials for footwear made of a quota-controlled raw material. Since quotas usually raise the price of the product to which they are applied, this creates an incentive for the substitution of products made of noncontrolled material for those made of the quota-controlled material. Such substitution lessens the effectiveness of the breathing space.

After global footwear quotas were introduced in December 1977, exporting countries looked for ways to substitute noncontrolled for controlled footwear. Canvas footwear

provided such a loophole. Since canvas was excluded from the quotas, low-priced canvas footwear was able to enter Canada quota-free. The Anti-dumping Tribunal concluded in its 1981 report that such substitution "did represent a displacement feature of some significance."[24] Higher leather prices provided an incentive for consumers to substitute canvas for leather footwear. However, there was also a worldwide movement in fashion toward more casual footwear. As a result of these factors, the effectiveness of the restraints during the late 1970s was reduced. In December 1981, however, global quotas were expanded to include canvas footwear, and this loophole was therefore closed.

The effectiveness of the quota in limiting imports also depends upon the way in which such controls are administered – i.e., on whether the switching of quotas from one category to another is permitted; on whether shoes above or below a certain price are excluded; on whether all types of shoes are covered; on the actual level of the quota and on its growth rate over time; on whether quotas are transferable; and so on. The available evidence in the tribunal's reports suggests that in the late 1970s, the system was fairly rigid and served to limit imports, while in the 1980s the quota system experienced changes that "reduced the protection provided to the domestic industry."[25] This helped provide a spur to the restructuring noted above.

Upgrading — In theory, quotas provide an incentive for foreign exporters to upgrade their footwear into higher-price categories in order to increase their profits. Quota holders, not surprisingly, will want to maximize their return. The impact has been explained as follows:

> One way of explaining the upgrading phenomenon is to note that importers will want to maximize their profits from the use of the licenses they hold. This implies that they will want to import items with the greatest difference between domestic selling price and import price. If the difference between these prices is higher on one variety than on another, they will shift license use to the variety with the greater price disparity. Importers can thus be expected to reallocate licenses among varieties, or subcategories of the overall quota, until the deviation of domestic price from import price, or the quota rent per unit imported, is equated across all varieties or types.
>
> This means the quota increases the price of all varieties of the product by exactly the same absolute amount. An import quota on all blouses, for example, would be expected to increase the domestic prices of all blouses above the world market price by, say, $5. Blouses that sell on the world market for $5 would sell domestically for $10, and blouses that sell on the world market for $10 would sell domestically for $15. The domestic selling price of the $5 blouse would increase by 100 per cent, while the domestic price of the $10 blouse would increase by only 50 per cent. Volume denominated import quotas thus tend to increase the prices of cheaper items *relative to* more expensive items, and shift consumer purchases toward higher valued items.[26] [Emphasis in original]

"There is little evidence that such upgrading has taken place" in Canadian footwear, however.[27]

This Canadian experience contrasts significantly with the situation in the United States, where upgrading did take place.[28] The difference may be accounted for by the fact that in the United States the quotas were bilateral rather than global and may thus have provided a greater incentive to upgrade. Because bilateral restraints target specific nations, the price of footwear from those countries will probably increase more than that of other imported footwear. As a consequence, unrestrained suppliers will be able to capture the low-price side of the market. Since the restrained suppliers can no longer compete at that level, they must upgrade and enter the higher-price, higher-value market section. With global quotas, everybody is affected equally, so that there is less incentive to upgrade.

A Credible Timetable — When government decides, for whatever reason, to assist an industry in a way that will shield it from foreign competition, expectations about the duration of that assistance are likely to affect the adjustment decisions made by workers and employers. If the assistance program has a clearly specified terminal date that is expected to be enforced, the industry will be spurred towards actively adapting, because it knows that in the near future the forces of foreign competition will reappear. If, however, producers and workers expect the program to be prolonged or, in the event of its termination, to reappear under another form, they will rationally incorporate those expectations into their behaviour, so that the incentive to adjust will be reduced and adjustment will be retarded. To the extent that foreign suppliers improve their efficiency and cost competitiveness faster than Canadian firms, the scale and scope of the required adjustment will increase rather than decrease. This will further strengthen the demand for continued protection.

In the case of footwear, there was a credible timetable. Quotas could only be imposed (or reimposed) after an inquiry by the independent, quasi-judicial Canadian Import Tribunal had found "serious injury." Even then the government could still refuse to impose the quotas – by invoking the fear of foreign retaliation, for example. Once granted, the quotas could only be of a temporary nature. Furthermore, the federal government, in its terms of reference to the tribunal in 1984, clearly signaled that they were to be terminated.

Who Benefits — When global quotas were first introduced in 1977, the major beneficiary was intended to be the domestic footwear industry. Quantitative restrictions on imports were designed to enhance domestic production by limiting the market share available to importers. Furthermore, to the extent that global quotas raised prices, they were intended to provide producers with extra funds for modernization during the breathing space. The quotas had quite different results, however, because most of the benefits were not captured by producers. This reflects the fact that quotas were allocated to importers of record in a base year, who could then import from any country.

While producers profited from the global quotas, the main winners were quota holders, most of whom were not manufacturers. Selecting 1980 as a typical year, the CIT reported that the benefits of quotas were distributed as follows:[29]

	(Per cent)
Manufacturers	32.3
From production at higher prices	24.8
From holding quotas	7.5
Importers	41.4
Retailers	26.3
	100.0

Importers secured the greatest gains, followed by manufacturers and then retailers. The manufacturers' gains came not so much from the holding of quotas, however, but from the benefit that accrued from production at higher prices.

In the retail sector, quota allocations benefited certain groups and limited competition. Since quota allocations were based on historical import performance, those retailers who received their supplies from the domestic industry and did not import directly were at a disadvantage if they wanted to obtain supplies abroad. In general, big department stores and chain stores possessed large quota rights; the small independent shoe stores did not. Many independents purchased imported footwear from quota holders, paying higher prices than their competitors who were granted free quotas. As a result, the small independent stores suffered while the larger stores benefited. The tribunal viewed this as a factor that limited competition at the retail level.

Besides the small independent stores, consumers were the principal losers from quotas, because they had to pay higher prices for imported footwear. The price increases put a heavier burden on the poor, since imported footwear was usually cheaper than domestic footwear. The quotas resulted in increased costs to consumers of $40 million in 1980 and $85 million in 1983.[30]

Employment — A study prepared for the tribunal's 1985 report by the Institute for Research on Public Policy (IRPP) examined the impact of quotas on footwear production and employment.[31] In terms of production employment, this study found that quotas had increased annual employment by between 2.1 and 4.4 per cent (between 350 and 700 jobs) over the period 1978-83.[32] With regard to production, the quota was found to have had a minimal effect – in the order of 2 to 4 per cent. The reasons that quotas had a minimal effect on production are twofold: 1) quotas had a relatively small effect on the retail price of footwear; and 2) domestic footwear proved to be an imperfect substitute for imported footwear. Thus a rise in the price of imported footwear did not always translate into higher sales of domestic footwear. On the basis of the IRPP's estimates, it can be said that the quotas made a marginal contribution to the protection of jobs and the maintenance of employment.

There is some evidence to support the conclusions of the IRPP study. In the period following the removal/relaxation of quotas in late 1985 footwear imports grew dramatically – 25.3 million pairs by 1987 or 48 per cent (Table 5-1). Much of this increase was in the athletic footwear category. Domestic output, however, did not fall on a one-for-one basis corresponding to the rise in imports, which would have meant a decline of almost 60 per cent between 1985 and 1987 in pairage rather than the 12-per-cent decline that actually took place. (Although the employment picture presented in Table 5-1 for the 1980s relies on several different sources, it clearly indicates a decline in employment between 1985 and 1987 of 11 per cent.) One possible reason for the size of the increase in imports is the fear by some exporting nations that Canada might attempt to reimpose global quotas or try to negotiate voluntary export restraints with countries such as South Korea, Taiwan, and China.

The IRPP study estimated the effect of quotas on both industry employment and the cost to consumers. Taken together, this implies that the cost of creating a job in the footwear industry through global quotas varied between $53,668 (in 1982) and $69,460 (in 1979) over the period of 1978 to 1983, where all amounts are expressed in 1978 dollars. The average annual earnings of Ontario and Quebec footwear workers were, in contrast, $7,145 in 1978.

Conclusion

We are impressed with the way in which the policy process and industry adjustment have worked with respect

to footwear. The right questions were asked, and the appropriate analysis was undertaken. Quotas were of a temporary nature, and they were removed. The industry restructured itself.

The CIT's mandate was gradually increased and broadened by government over time and the wider implications of global quotas were thereby assessed. For example, in 1973 the tribunal's focus was on whether serious injury was being caused, whereas in 1985 the tribunal was able to inquire into the impact of quotas on competition at the retail level, the price effect of the quotas, the possibility that the industry could compete with imports and the employment effects.

The wider mandate of the tribunal provides a much fuller picture of the impact of global quotas and gives decision makers and consumers alike a much better information base from which to assess the impact of the policy. Such broader mandates may become the norm, as suggested in the 1986 reference to the Tariff Board for the natural sweetener industry. It would appear to be a useful policy direction.

Bilateral Restraints: The Case of Textiles and Clothing

The policy framework within which Canada has developed a series of bilateral restraint agreements with non-OECD exporting nations concerning trade in textiles and clothing is the result of two complementary developments – one national and one international – that took place in the early 1970s. These two developments were the federal government's textile policy of 1970 and Canada's participation, in 1974, in the multilateral Multifibre Arrangement.

Rationale and Objective

The objective of the federal government's textile policy of 1970 was detailed at some length in a policy statement issued at the time.[33]

> The Government has decided to adopt a policy that takes due account . . . of the complex range of our interests, both domestic and international. It is geared to the realities and challenges of the 70s. It is, I think, a comprehensive and forward-looking policy, dealing not only with protection against disruptive competition, but just as importantly, providing positive inducements for adjustment, for restructuring and for the optimum use of new technology, creative research and design. It is intended to provide *a sense of direction, a framework and conditions within which the textile and clothing industries can plan, invest and develop with a greater degree of confidence.*
>
> *The purpose of this policy is to create conditions in which the Canadian textile and clothing industries continue to move progressively towards viable lines of production on an increasingly competitive basis internationally. However, Canada cannot assume alone the responsibilities for an unliberalized textile world. Because of the small domestic market, it is recognized that full competitiveness in many products may be achieveable only if there is liberalization in the present highly restrictive environment for world textile trade. While prospects for such liberalization do not appear promising at the present time, Canada is prepared to join with other countries in efforts to seek progress in this direction, including reduction of textile tariffs. In the meantime, the industries will be improving their competitiveness, and will be in a position to take better advantage of export opportunities as they arise.*
>
> *While no advance commitment about special protection can be provided, the Government will be prepared, in cases of serious injury or threat of injury from "low-cost" imports, to accord special protection – unilaterally when necessary – in order to facilitate adjustment to or strengthening of the more viable lines of production. Plans for such restructuring or strengthening will be a condition of the protection. The continued appropriateness of such protection will be kept under review.*
>
> *There is no question of such measures of protection being applied to encourage the maintenance lines of production which have no prospect of becoming viable in the years ahead. Progressively, and as access to world markets improves, the Canadian industry will be expected to compete more and more without special protection other than the tariff. The industry should, therefore, be planning progressively to phase-out of the least competitive lines and to move into those with the highest competitive potential for the future.* [Emphasis in original]

This statement is important because it became the cornerstone of the government policy. In 1981, for example, in another important policy statement concerning the textile and clothing industries, the federal government stated that the new program "continues the adjustment direction set by the Textile Policy of 1970."[34]

The objectives of the MFA are clearly stated in Article 1 of the arrangement, which aims at achieving

> the expansion of trade, the reduction of barriers to such trade and the progressive liberalization of world trade in textile products, while at the same time ensuring the orderly and equitable development of this trade and avoidance of disruptive effects in individual markets and on individual lines of production in both importing and exporting countries.

In attaining these objectives, Article 1 states that

> actions taken under this Arrangement shall not interrupt or discourage the autonomous industrial adjustment processes of participating countries. Furthermore, actions taken under this Arrangement should be accompanied by the pursuit of appropriate economic and social policies, in a manner consistent with national laws and systems, required by changes in the pattern of trade in textiles and in the comparative advantage of participating countries, which policies would encourage businesses which are less competitive internationally to move progressively into more viable lines of production or into other sectors of the economy and provide increased access to their markets for textile products from developing countries.

Finally, Article 1 implies that the aim of "eliminating the difficulties" that exist in textiles and clothing should be conducted "during the next few years."

The rationale for governments to provide a breathing space for textile and clothing producers reflected the continuing pressure for adjustment coming from imports. This pressure, in turn, reflected the characteristics of the textile and clothing industries, described as follows by the OECD:[35]

- Limited product differentiability, so that competition occurs primarily on a cost basis;
- A cost structure heavily dominated by labour costs, giving a major and durable competitive advantage to low wage countries;
- Weak barriers to entry and exit, reflected in a fragmented industry structure, high rates of firm turnover and the virtual absence of supra-normal profits;
- Wholesalers, retailers and some producers are highly sensitive to new sourcing opportunities.

Not surprisingly, given characteristics such as these and given the rapid diffusion and availability of machinery and equipment, comparative advantage would lie with the NICs and the LDCs. Two important caveats must be made, however. First, this characterization is much less true of textiles than of clothing, as the textile production process has become increasingly capital-intensive. Indeed, the import of textiles into Canada is mainly from the United States, whereas the NICs are much more significant in clothing imports (see Appendix Tables A-3 and A-4). Second, there are instances, in both clothing (e.g., high-fashion garments, some sportswear) and textiles (e.g., industrial fabrics), where developed countries such as Canada can carve out product niches and compete successfully with the NICs and the LDCs. Hence the emphasis, in the policy statements cited above, on viable lines of production as well as on the movement of resources into other sectors of the economy.

Evaluation

Our evaluation of bilateral quantitative restrictions on imports of textiles and clothing uses the same set of criteria that we applied to our assessment of global quotas on footwear. The emphasis here will be somewhat different, however, reflecting the differences in impact between global quotas and bilateral restraints, although global quotas were occasionally employed in the textiles and clothing industry as well.

Restructuring — As discussed in Chapter 2, firms in an industry have a number of options they can follow when faced with competition from imports. These include exit, or the movement of resources out of the industry under consideration, and specialization in particular product lines – the two options singled out in the various policy statements cited above.

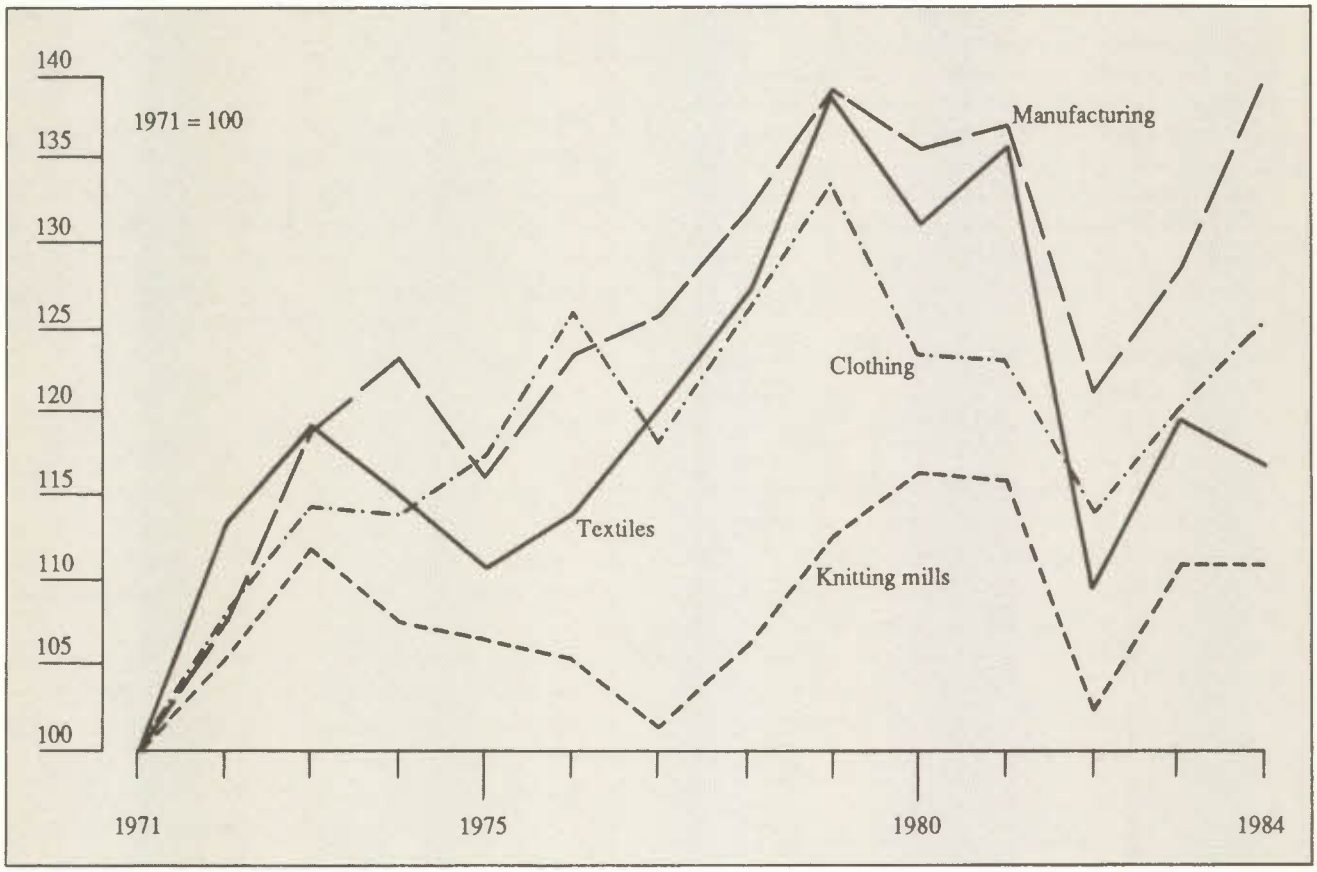
The size of an industry may be measured on the output or the input side. Concentrating on the output side, we observe no decline in the size of the textile, clothing, and knitting industries[36] comparing 1970 with 1984 or 1974 with 1984 (Chart 5-1). Nevertheless, given that the manufacturing sector expanded at a faster rate than those industries, the relative importance of textiles, clothing, and knitting mills in the manufacturing sector's output declined in the 1970s and early 1980s.

In terms of employment, textiles and knitting mills experienced a decline, when the data for either 1970 or 1974 are compared with those for the mid-1980s (Chart 5-2). The picture in clothing is somewhat different, in that the decline in its employment, particularly in the early 1980s, was less severe than that of textiles or knitting mills. Nevertheless, clothing, like textiles and knitting mills, experienced a decline in employment between 1970 and 1984, while manufacturing employment increased; thus these three industries experienced an absolute and a relative decline in importance. However, not too much should be made of this decline, since for textiles and clothing the decline over 14 years was less than 10 percentage points and these two industries accounted for the bulk of employment in the three industries (Table 7-1).

In our discussion of the degree to which the textile and clothing industries have downsized, we have followed the practice of looking at the absolute level of output and employment, as well as comparing the experience of

Chart 5-1

Index of Real Domestic Product,[1] Selected Manufacturing Industries,[2] Canada, 1971-84



1 Real domestic product is measured in 1971 dollars.
2 As defined in the 1970 Standard Industrial Classification.
SOURCE Based on data provided by the Industry Measures and Analysis Division of Statistics Canada; and estimates by the Economic Council of Canada.

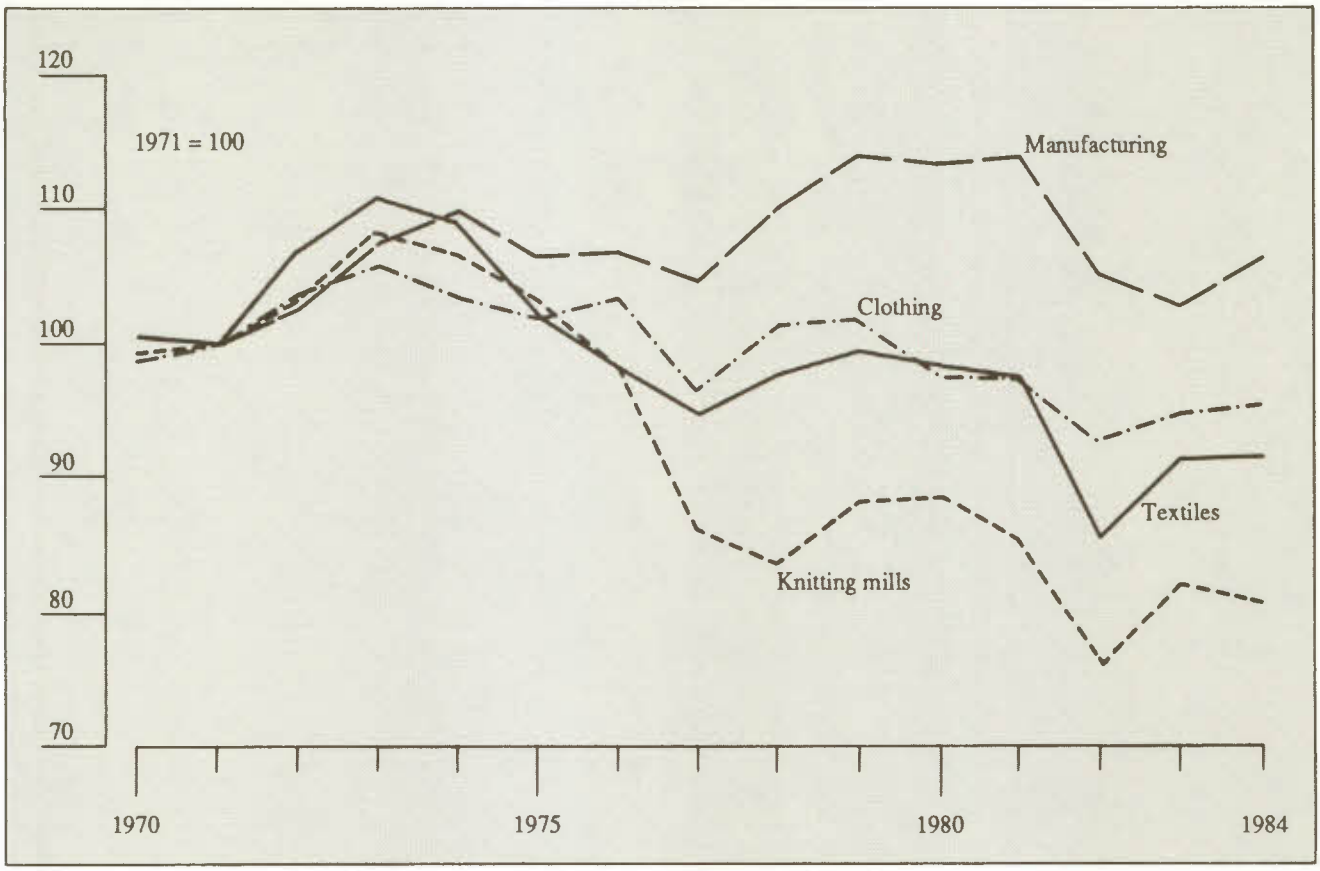
different industries in the manufacturing sector. Another alternative that is particularly relevant, given the multilateral nature of the MFA, is the experience of other developed countries (Charts 5-3 to 5-6). All the usual caveats apply concerning such international comparisons.

Several countries have followed the strategy of reducing the size of the textile and clothing industries.[37] In terms of employment over the period 1973-82, all of the countries in Charts 5-5 and 5-6 have seen a drop in textiles and, usually to a lesser extent, clothing. Particularly striking examples include Sweden and Japan (textiles only); Canada experienced one of the smallest declines in employment of all the countries. Turning to output in textiles and clothing in the same period, a decline is observed by the European Economic Community, Japan, and Sweden, but for the United States and Canada, there is either an increase or little change (Charts 5-3 and 5-4). This suggests that it is possible to reduce the size of the labour force in textiles and clothing, even under the umbrella of the Multifibre Arrangement.

Our description of the clothing and textile industries referred to the importance of labour costs in their cost structure, and that led us to conclude that low-wage countries have a cost advantage compared with industrialized countries. Several possible strategies could be followed by the developed countries, either separately or together, to offset their disadvantage. On the output side, firms could select product lines where fashion, design, and proximity to market are important enough to overcome the cost disadvantage; and on the input side, a reduction in costs could be achieved by substituting capital for labour and/or by keeping down, if not reducing, wage costs. Output and input strategies of this type are related, in that if the firm specializes in a few "viable" product lines, then this will likely encourage the use and development of machinery and

Chart 5-2

Index of Employment,[1] Selected Manufacturing Industries,[2] Canada, 1971-84



1 The number of employees is defined as the combined total of production and nonproduction workers.
2 As defined in the 1970 Standard Industrial Classification.
SOURCE Based on data from Statistics Canada, *Manufacturing Industries of Canada*, No. 31-203, various years.

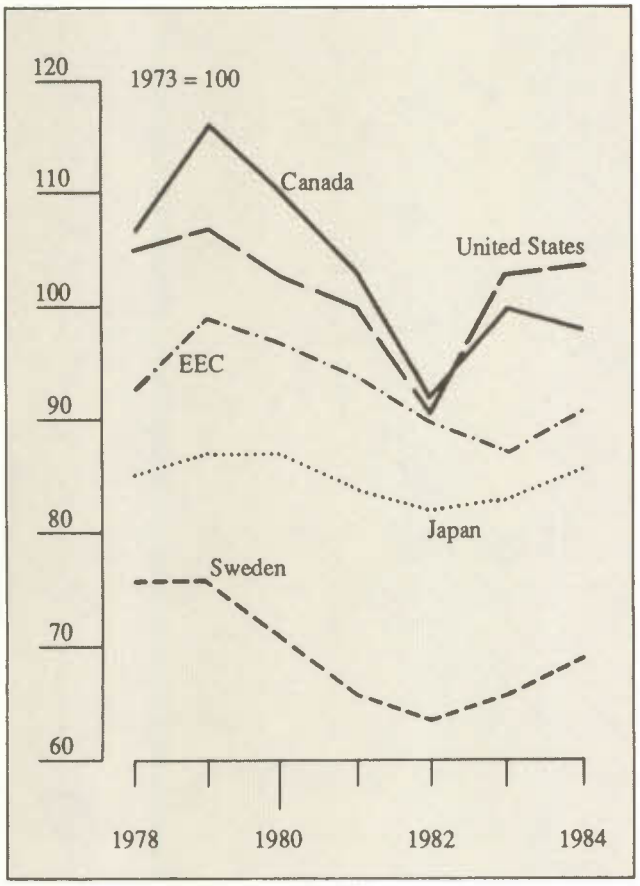
equipment that could take advantage of long production runs and hence lower unit costs. Since the strategies followed by the textile and clothing industries differ, we deal with them separately.

In the textile industry, the major strategy has been "an ambitious program of capital investment for renewal of capacity . . . [with] the emphasis . . . on raising capital-intensity through extensive automation of production processes, and a pronounced reduction in labour costs."[38] This emphasis on increased capital intensity was also promoted by a number of other government programs, including the Canadian Industrial Renewal Program (discussed at some length in Chapter 6). The resulting increase in labour productivity in the textile industry was above that in manufacturing as a whole, which accounted for much of the employment decline in textiles. It would appear, however, that total factor productivity did not increase to any great extent. Nevertheless, the combination of capital investment and the selection of suitable product niches (particularly for industrial fabrics, carpets and rugs, and ladies' hosiery) has resulted in very limited reliance on bilateral arrangements under the MFA for controlling textile imports. Indeed, it has been suggested that in many areas of the textile industry, adjustment has been successful and that further government intervention may be unnecessary.[39]

The restructuring experience of the clothing industry has, in many respects, been quite different from that of the textile industry. While clothing manufacturers attempted to follow the example of the textile industry by increasing investment in capital equipment so as to reduce the labour component of total costs, "the opportunities for reducing costs of production through increases in capital-intensity are vastly more limited in clothing production than in textiles."[40] Recent estimates by the Textile and Clothing Board suggest that "a technology based on automation, robotization and computer control will eventually become a reality, but new

Chart 5-3

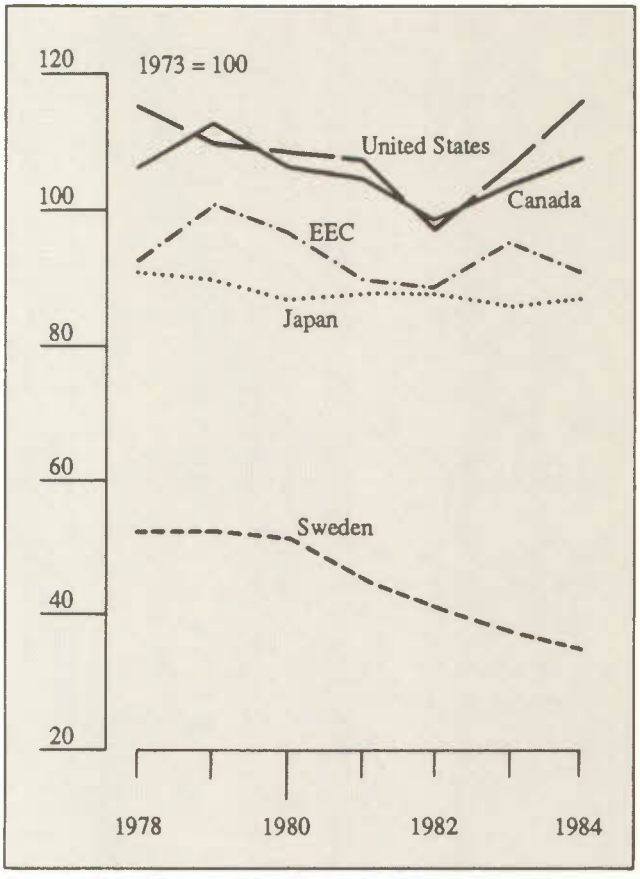
Index of Production, the Textile Industry, Selected Countries, 1978-84



SOURCE OECD, "Statistical annex" to "Structural adjustment in industry: A study of the textile industry" (Paris: OECD, 1987), p. 56.

Chart 5-4

Index of Production, the Clothing Industry, Selected Countries, 1978-84



SOURCE OECD, "Statistical annex" to "Structural adjustment in industry," p. 56.

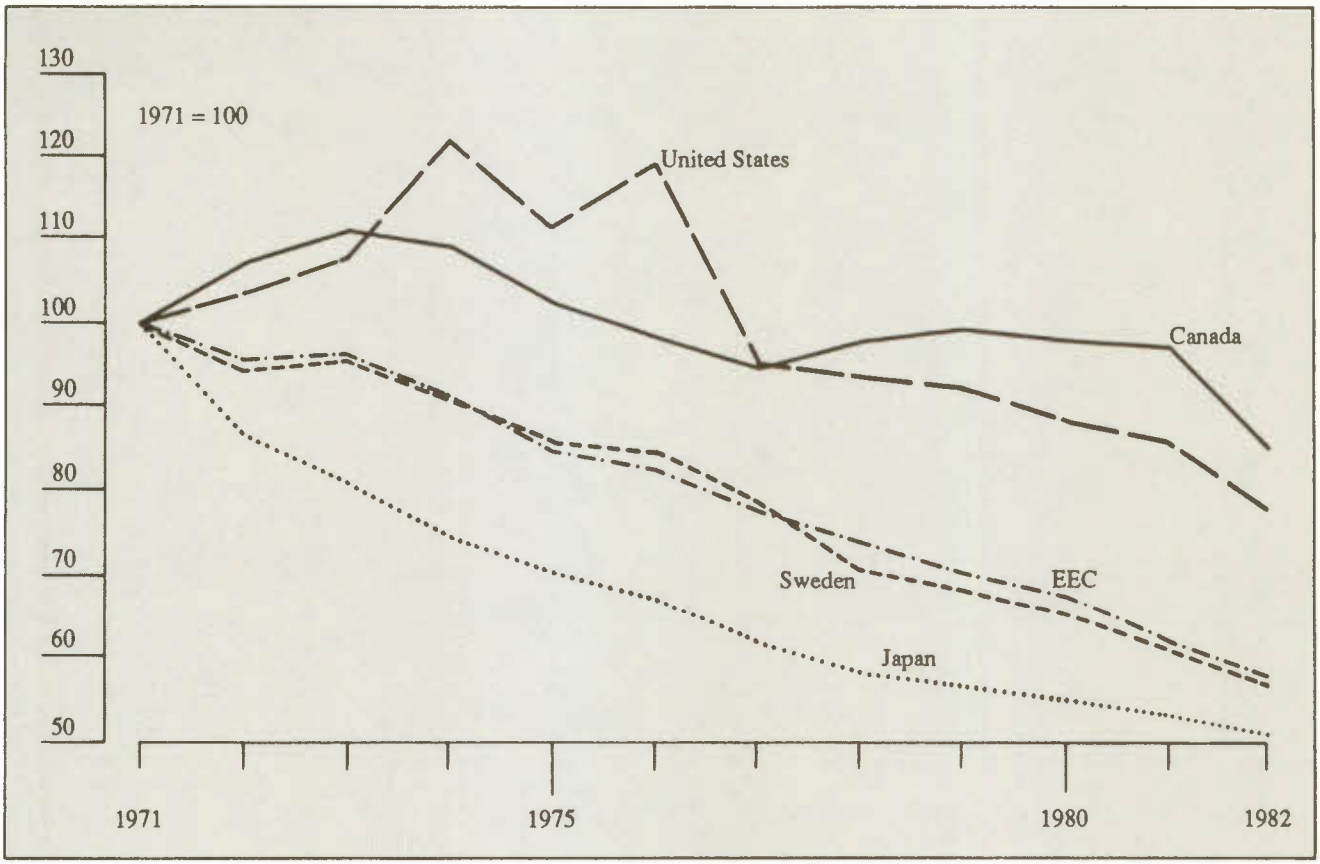
installations making use of this technology will not be commercially viable before 1995."[41]

Another contrast between the two industries is the way in which the clothing industry has maintained access to a relatively inexpensive pool of labour; in part, this difference also reflects the upgrading of skills in the textile industry because of modernization. The labour force of the clothing industry consists overwhelmingly of women, many of whom are immigrants with little command of English or French. Furthermore, the level of education of the workers in the clothing sector is much lower than that of the manufacturing sector as a whole. Not surprisingly, with labour force characteristics such as these, the average weekly earnings of clothing workers is slightly more than half of that in all manufacturing.[42] The use of contracting out to home workers, which grew in the 1980s, would appear to be another way in which relatively inexpensive labour is used by the clothing industry.[43]

It should be mentioned that the output of the textile industry is an important input for the clothing industry; conversely, the clothing industry is an important market for the textile industry. Since the Canadian textile industry is protected by very high tariffs (see Appendix Table A-1), it seems likely that clothing producers in Canada pay a higher price for their fabrics than do their competitors in the NICs and the LDCs. For example, Hong Kong has no duty on fabrics, while South Korea and Taiwan reimburse the duties collected once the final product is exported. Thus part of the protection afforded to the clothing industry, whether in the form of MFA restraints or high tariffs, is to compensate it for having to pay higher prices to the textile industry. In the context of the recently signed Canada-U.S. Free-Trade Agreement, the clothing industry is concerned that it will be unable to compete with U.S. producers because, in part at

Chart 5-5

Index of Employment, the Textile Industry, Selected Countries, 1971-82



SOURCE OECD, "Statistical annex" to "Structural adjustment in industry," p. 30; and estimates by the Economic Council of Canada.

least, U.S. tariffs are lower on textile products. The duty remission scheme announced in early 1988 should go some way to overcome this problem for Canadian clothing manufacturers.

In terms of market niches or product differentiation, there are a number of areas where price competition on standard products is of less importance – a fact that opens up the possibility of viable product lines for manufacturers in developed countries such as Canada. Those areas include the fashion-oriented and design-sensitive component of the market, as well as athletic wear and the home furnishings market. It is arguable, however, whether Canada, outside of a few exceptions, can "muster the minimum critical effort needed to make this strategy viable, but it remains a credible adjustment option."[44] This is made harder because of the way in which bilateral restraints encourage upgrading.

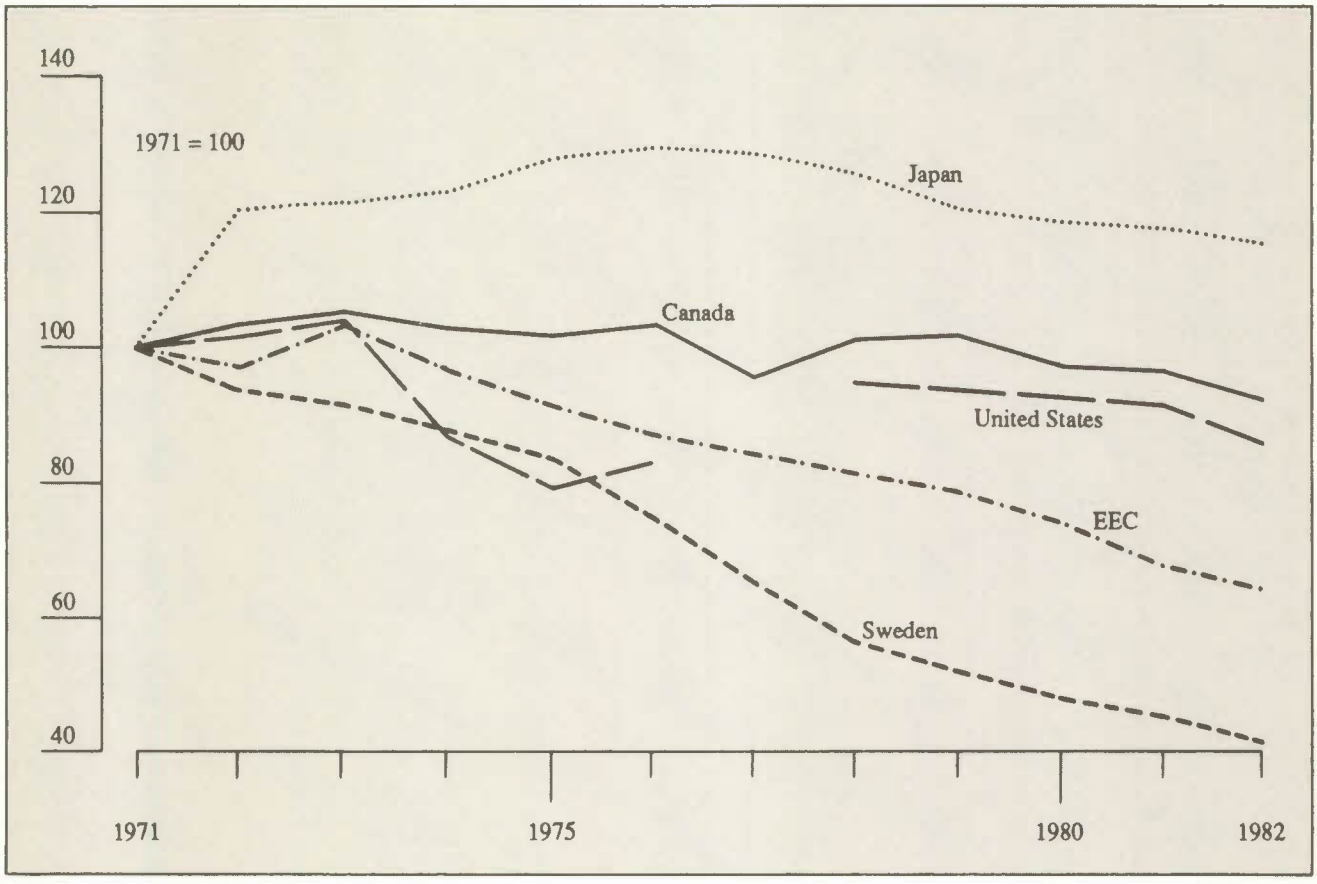
In sum, we see considerable evidence that the textile industry has successfully restructured, but the evidence is much less compelling in the case of clothing.

Controlling Imports — In discussing global quotas as applied to footwear, one of our main concerns was with the degree to which shoes that are made of raw materials unrestrained by quotas could be substituted for the restrained category. While similar situations exist in textiles and clothing, one important difference arises from the bilateral nature of the restrictions – nonrestrained countries can export freely to Canada and thus substitute their exports for those of the restrained countries.

In our earlier discussion of the textile and clothing sectors, we outlined very briefly their salient characteristics. These characteristics suggest that if the bilateral restraints between Canada and the various non-OECD countries that participate in the MFA are at all effective, prices will rise above costs and nonrestrained countries will have an incentive to export to Canada. This is indeed what has happened. The number of countries with which Canada has restraint agreements has steadily increased. In the case of clothing, such agreements have increased from fewer than five under MFA I to 13 under MFA III and to over 20 under MFA IV.[45]

Chart 5-6

Index of Employment, the Clothing Industry, Selected Countries,[1] 1971-82



1 Data were not presented for the United States for 1977.

SOURCE OECD, "Statistical annex" to "Structural adjustment in industry," p. 31; and estimates by the Economic Council of Canada.

Partly because of this, the average proportion of all clothing imports subject to restraint rose from 69 per cent in 1974-77 to 84 per cent in 1978-81 and to 86.5 per cent in 1982-86. In contrast, only 7 per cent of textile imports are subject to bilateral restraints.

In footwear, one way in which the effectiveness of quotas was lessened was that footwear made of nonrestricted raw materials was substituted for that made from restrained raw materials. The closest situation in clothing and textiles was the use of ramie and silk fibres. MFA IV saw the inclusion of clothing made of those fibres. Prior to the MFA, the Short and Long Term Cotton Arrangements were limited to cotton exports. As producers switched to other fibres, however, this arrangement became less effective in controlling imports, eventually leading to the much more comprehensive MFA in 1974, which included both wool and man-made textile and clothing products.

The MFA is designed, on the one hand, to achieve "the expansion of trade," but at the same time to ensure its "orderly and equitable development." In order to meet these aims, MFA I provided for annual quota growth of 6 per cent and included various provisions to allow flexibility – such as the swing provision, which permits an exporter to exceed one restraint level provided a similar amount is deducted from another restraint level, and "carryover" which allows unutilized quota portions to be brought forward. Many regarded the MFA I to be, on balance, liberalizing compared to the probable alternatives. However, subsequent renewals of the MFA became more restrictive. For example, MFA II saw the introduction of the "reasonable departure" clause, under which the growth rates of imports causing serious injury to "sensitive" domestic sectors could be reduced or immobilized, and other flexibility provisions could be suspended. MFA III saw the insertion of the "anti-surge" clause, which removed the assurance of base-year guaran-

tees on the minimum level of imports in so-called "sensitive" sectors. MFA IV, as noted above, saw an increase in the number of products covered by the restrictions. Nevertheless, despite this growing restrictiveness, imports have increased.[46]

Upgrading — Many countries start off in the production of textiles and clothing with fairly simple standard products. As their expertise and stage of development progress, they move to more-complex products in terms of design, quality of fabric, and fashion. The impact of the bilateral restraints, which are frequently aimed at the most efficient low-cost producers, is to accelerate that process in a number of ways. In particular, if the restraints are effective, prices will rise, thus providing an incentive for nonrestrained countries to move into competition with the restrained suppliers. That, in turn, will spur the latter to move out of this sector into the more complex, higher-value-added products, where the developed countries are more likely to have some comparative advantage.

The evidence available indicates that exporters have been successful in moving up the value-added chain.[47] In the first place, low-cost countries' exports to developed countries have gradually shifted from textile products in the 1960s to clothing in the 1970s, in part, of course, for the reasons outlined in the discussion under "restructuring." Within clothing, partly because of the influence of bilateral quotas, there also has been movement toward the higher-valued products. At least in some of the exporting countries, it would appear that the bilateral restraints have been used by governments to stimulate restructuring so as to encourage the production of higher-quality clothing lines.

A Credible Timetable — When the federal government's textile policy was introduced in 1970, it was envisaged that "adjustment would take a few years and the problem would then be resolved."[48] A similar philosophy prevailed when the MFA was introduced in 1974. As we stated in our discussion of the footwear industry, there are good reasons why a credible timetable for gradually eliminating restraints is important for purposes of realizing the goal of adjustment: if producers and workers expect the restraints to be phased out, they will adjust accordingly; if there is no phasing-out schedule, then there will be less incentive for them to adjust.

A credible timetable to ensure that quantitative restraints on textiles and clothing are only temporary could be developed in a number of different ways. At the international level, the participants in the MFA could agree to its formal phasing-out, in accordance with the initial aim of the arrangement. Each country would still be able to impose global quotas under Article XIX of the GATT. As noted, however, there has been no movement towards the abolition of the MFA.

The provisions of the *Textile and Clothing Board Act* provide considerable scope for policy to be pushed towards the positive-adjustment end of the policy spectrum by establishing credible timetables. The minister could ask the board to study the feasibility of phasing out bilateral restraints under the MFA, with particular attention to be paid to labour adjustment problems. Alternatively, the board could, in investigating a particular commodity or range of commodities subject to restraint, decide that these had little prospect of becoming internationally competitive (if only protected by the tariff) and that this was sufficient grounds for not recommending the continuance of special import measures. The board could also, when investigating the adjustment plans put forward by firms, examine them critically and present a timetable for when viability is expected to be obtained.[49] Typically, these things have not been done.

Instead, the Textile and Clothing Board has adopted a somewhat different tack. In its 1985 review of the textile and clothing industry, the board considered the costs and benefits of special protection measures and asked whether the latter should be phased out. It concluded that if Canada were to abolish unilaterally special import controls over a period of two to four years, imports would increase by 1 to 1.5 billion dollars resulting in an employment loss in the clothing sector between 23,000 and 34,500 jobs – between one-fifth and one-third of current employment. Given the dislocation involved, the board concluded that "the costs associated with internationally negotiated protection [are] more acceptable than the costs of the social upheaval that would be caused by lay-offs of the magnitude previously described."[50] Somewhat gratuitously, it added that it recognized "the necessity of ultimately reaching the end of internationally negotiated protection."

The board's analysis, however, only reflects one end of the spectrum. Over the period 1980-84, for example, clothing imports increased by 0.8 billion dollars, yet clothing employment declined by less than 3,000 (Table 7-1). Other estimates (reviewed below) suggest that the removal of bilateral restraints would lead to much smaller job losses than those forecast by the TCB. Furthermore, if the bilateral restraints were removed gradually – as happened in certain classes of footwear, but over a longer period – their removal would be much less likely to pose major adjustment problems. These problems would be even less severe if the MFA itself were phased out. While a number of suggestions have been made in this respect, the board did not refer to them nor

to the fact that other countries have considerably reduced the size of their clothing industries. A more complete treatment of these issues would serve to create a climate in which a credible timetable for the removal of restraints could be entertained. The board, by focusing on one end of the spectrum, does little to advance that debate.

Who Benefits — Bilateral restraints differ from global quotas in both their distribution and their administration. Under the MFA, Canada can negotiate bilateral agreements limiting the exportation of particular items from certain countries to Canada. The administration and allocation of the quotas are then in the hands of the exporting nations. In other words, all the benefits of holding quotas under the MFA accrue to the foreign exporters. Thus bilateral restraints lead to a redistribution of income from Canadians to foreigners. However, producers in Canada also gain to the extent that the price of domestic output is increased above what it would otherwise be. Indeed, the evidence available for clothing indicates that domestic producers gain more because of this than do foreign quota holders (Table 5-2).

The only exception to this pattern of distribution resulting from special import measures on textiles and clothing was Canada's imposition of global quotas, particularly between 1976 and 1978, on a wide array of clothing. Here, as in the case of global quotas for footwear, the main beneficiaries were not the clothing manufacturers but retailers and importers/wholesalers, as shown by the distribution of imports, by category of importer, for 1978:

	(Per cent)
Importers/wholesalers	60.3
Retailers	18.8
Manufacturers	20.9
	100.0

These figures[51] do not take into account the benefit to manufacturers because of higher prices which, as the footwear experience showed, would raise their share of overall rents from quotas.

Regardless of whether the special import restraints are bilateral or global, Canadian consumers pay higher prices. As frequently noted, this has a particularly important impact on the less affluent consumers in the country.

Employment — It has been estimated that in 1979, tariffs were responsible for 11,914 jobs in the clothing industry, while bilateral restraints were responsible for another 9,231.[52] This translates into 12 per cent and 9 per cent, respectively, of industry employment. Given the mobility of workers,[53] if restraints were gradually phased out over a period of 10 years, appropriate labour adjustment policies (e.g., preretirement benefits and retraining, discussed in Chapters 7 and 8) adopted and, if necessary, support for the diversification of the industrial base in communities heavily dependent on clothing (e.g., the Business and Industrial Development Program, discussed in Chapter 6), labour adjustment could be accommodated relatively smoothly.

The impact of trade restrictions in terms of the cost to society per job saved has also been estimated. In 1979, the tariff on clothing generated jobs that cost $40,600 ($37,819 consumer costs, $2,781 economic loss), the bilateral restraints, $50,982 ($35,457 consumer costs, $15,525 economic loss). Since at that time clothing workers earned about $10,000 per year, it can be seen, using either estimate, that the use of bilateral restraints results in each dollar of employment income costing between $5 and $6 (somewhat lower if tariffs are used). This would seem to be a very expensive way of providing employment.

Table 5-2

Estimated Cost of Protection in the Clothing Sector, Canada, 1979

	Tariff system alone (1)	Tariff plus bilateral quota (2)	Addition of bilateral quotas (2-1) (3)
	(Thousands of dollars)		
Cost to consumers	450,575	777,882	327,307
Gain to foreign producers	–	76,180	76,180
Tariff revenue	190,548	183,267	–7,281
Additional profits to domestic producers	226,889	418,170	191,281
Economic waste of resources in production	23,458	71,260	47,802
Loss in standard of living from reduced consumption	9,680	29,005	19,325
Total	450,575	777,882	327,307
Overall economic loss to Canada[1]	33,138	176,445	143,307

1 Measured by adding the gain to foreign producers, the economic waste, and the loss in the standard of living.

SOURCE Glenn P. Jenkins, *Costs and Consequences of the New Protectionism: The Case of Canada's Clothing Sector*, second edition, revised (Ottawa: North-South Institute, 1985), p. 36.

Conclusion

In 1991, at the conclusion of MFA IV, textiles and clothing will have enjoyed 30 years of protection in the form of high tariffs and increasingly restrictive and comprehensive quantitative restraints on imports. While both the MFA and Canada's textile policy subscribed to the view that special import policy should provide a breathing space, actual policy implementation belied this view, especially in the case of clothing. The right questions have not been asked nor the appropriate analysis undertaken. Nevertheless, existing evidence does not suggest that gradual reduction of MFA bilateral restraints will lead to major labour adjustment problems, if the reduction is accompanied by appropriate complementary policies. This does not mean, of course, that over the past 10 to 20 years no adjustment has taken place. In particular, the textile industry, which has little direct protection under the MFA, has shown considerable evidence of restructuring; but the evidence suggests that successful restructuring has not taken place to the same extent for clothing.

Voluntary Export Restraints: The Case of Automobiles

The 1970s, and especially the early 1980s, saw an unprecedented challenge by foreign producers, particularly from Japan, to the dominance of the North American market by the large U.S.-based multinational automobile makers (Table 5-3). The Japanese specialized in the production of smaller, fuel-efficient autos, the demand for which increased with the oil price shocks of 1973-74 and 1978-79. This market penetration, when combined with the worst recession in the postwar period, saw employment in the automotive sector fall dramatically in the early 1980s (Table 5-4). In motor vehicle assembly, for example, employment fell by nearly 20 per cent between 1979 and 1982, but for all manufacturing the drop was much smaller, 8 per cent. The North American auto makers suffered a financial crisis that would probably have seen Chrysler go bankrupt, but for government assistance. General Motors in the United States recorded its first loss since 1921.

In 1981, the Government of Canada announced a voluntary export restraint (VER) understanding with Japan, which applied to all imports of automobiles from Japan, whether imported by Japanese or North American manufacturers. This followed closely a similar U.S.-Japan arrangement and reflected the Canadian government's concern that Japanese exports would turn northward to Canada. In the case of the United States, however, the VERs were introduced only after the U.S. International Trade Commission had found, in November 1980, that foreign cars were not being imported "in such increased quantities as to be a substantial cause of serious injury, or threat of serious injury."[54] No equivalent investigation took place in Canada.[55] Under the Canada-Japan understanding, Japan agreed to limit exports of automobiles to Canada to 174,000 vehicles between April 1981 and April 1982. This agreement was subsequently renewed annually on a number of occasions but apparently expired in March 1987.[56] While it would appear that there is no formal arrangement at the present time, officials of both countries do monitor export levels.

Rationale and Objective

The rationale for VERs in both the United States and Canada appears to have been to give the automobile industry and its workers some breathing space and time to adjust to the competitive pressure from Japan – in short, to revitalize. For example, in early 1987 the Minister of Regional Industrial Expansion stated:

> The Canadian government has consistently stressed that the automotive industry must adjust to these [NIC's and Japan] international competition factors and must introduce the new technologies and work practices that will make our industry truly competitive in the long run. However, we recognize that during the transition period, while the industry adapts, it must be provided with a breathing space, and disruption of the Canadian market should be minimized, to ensure the financial health and long-term viability of this important sector.[57]

In none of the official statements is the length of the breathing space specified or is any procedure laid down for the determination of such a period or, for that matter, of the appropriate level of the VER.[58]

Evaluation

Restructuring — In restructuring their operations to meet the Japanese challenge, which combined lower prices with increased quality and reliability, North American manufacturers adopted a number of strategies. One was to improve productivity levels, since the evidence indicated that the Japanese had a substantial productivity advantage over their North American counterparts.[59] Figure 5-2 presents a summary of the factors affecting the differences in productivity between U.S. and Japanese automobile producers, while Figure 5-3 summarizes the results of a survey of industry experts, which indicates the order of importance of those factors most responsible for the productivity gap.

Table 5-3

Sales of New Passenger Cars, by Origin, Canada, 1964-86

		Domestic		Total imported		Japanese	
	Total sales	Volume	Proportion	Volume	Proportion	Volume	Proportion
	(Number of units)	(Number of units)	(Per cent)	(Number of units)	(Per cent)	(Number of units)	(Per cent)
1964	616,759	550,823	89.3	65,936	10.7	–	–
1965	708,716	633,641	89.4	75,075	10.6	2,834	0.4
1966	694,820	626,986	90.2	67,834	9.8	2,742	0.4
1967	679,435	605,049	89.1	74,386	10.9	5,617	0.8
1968	741,915	637,393	85.9	104,522	14.1	15,859	2.1
1969	760,803	638,270	83.9	122,533	16.1	39,033	5.1
1970	640,360	497,185	77.7	143,175	22.3	65,569	10.2
1971	780,762	592,319	75.9	188,443	24.1	106,552	13.7
1972	858,959	653,933	76.1	205,026	23.9	116,860	13.6
1973	970,828	782,914	80.6	187,914	19.4	111,467	11.5
1974	942,797	796,840	84.5	145,957	15.5	87,609	9.3
1975	989,280	835,679	84.5	153,601	15.5	95,772	9.7
1976	946,488	793,201	83.8	153,287	16.2	101,558	10.7
1977	991,398	797,752	80.5	193,646	19.5	134,900	13.6
1978	988,890	815,994	82.5	172,896	17.5	113,166	11.4
1979	1,003,008	863,554	86.1	139,454	13.9	79,879	8.0
1980	932,060	740,767	79.5	191,293	20.5	138,107	14.8
1981	904,195	646,942	71.6	257,253	28.4	207,639	23.0
1982	713,481	489,435	68.6	224,046	31.4	178,174	25.0
1983	843,318	625,088	74.1	218,230	25.9	176,525	20.9
1984	971,210	724,932	74.6	246,278	25.4	171,204	17.6
1985	1,137,216	794,965	69.9	342,251	30.1	199,221	17.5
1986	1,091,117	761,867	69.8	329,250	30.2	198,410	18.2
1987[1]	988,354	657,994	65.9	340,360	34.1	227,104	22.7

1 Data refer to January-November 1987.

SOURCE Canada, Department of Regional Industrial Expansion, *Report on the Canadian Automotive Industry in 1985* (Ottawa: DRIE, 1987), p. 57; and Statistics Canada, *New Motor Vehicle Sales*, No. 63-007.

Putting the two sets of data together, it can be seen that the most important groupings of factors were work-force management (accounting for 30 to 61.5 per cent of the difference), followed by process systems (35.5 to 50 per cent) and technology (6 to 25 per cent).

The North American automobile manufacturers have taken a number of steps to narrow the Japanese productivity advantage and reduce costs. Major new investments in plant and equipment have been made, such as General Motors' $2-billion modernization program in Oshawa. They have reorganized their existing production and corporate structure by closing plants, speeding up automation, negotiating some wage reductions, introducing the "clean sheet" approach and "just in time" production and inventory, as well as developing better work-force relationships to improve quality. New work arrangements have been introduced in some of the brand-new factories and in the joint ventures between North American and Japanese producers. In order to increase the quality, price, competitiveness, and flexibility of inputs, automobile manufacturers have put much greater pressure on suppliers than before for better quality and lower prices, and they have obtained a far greater proportion of supplies from external sources, such as arm's-length suppliers in North America and affiliated firms outside North America (e.g., in Brazil, Mexico, or Japan).

While the productivity lessons to be learnt from the Japanese have wide applicability to the automotive industry, initially at least, the Japanese challenge was confined to the small-car segment. The comparative advantage of the North American automotive manufacturers is often

Table 5-4

Employment Related to Automotive Manufacturing, Canada, 1964-85

	Motor vehicle assembly	Truck body and trailers	Automotive parts and accessories	Automotive fabric accessories	Total
			(Thousands)		
1964	34.3	4.4	30.5	1.3	70.5
1965	39.8	5.8	35.3	1.9	82.8
1966	40.7	6.3	37.6	2.7	87.3
1967	38.7	6.7	37.7	2.6	85.7
1968	39.6	6.8	37.3	3.1	86.8
1969	42.3	8.2	40.4	4.1	95.0
1970	37.5	8.4	36.4	3.7	86.0
1971	41.0	10.1	41.3	4.3	96.7
1972	41.9	14.2	41.4	5.2	102.7
1973	45.2	14.8	48.8	5.8	114.6
1974	47.1	15.2	45.9	5.7	113.9
1975	43.4	14.4	41.2	4.8	103.8
1976	46.6	14.0	46.2	5.6	112.4
1977	50.6	12.6	48.6	6.5	118.3
1978	52.3	13.6	52.1	6.9	124.9
1979	52.6	14.8	49.8	6.6	123.8
1980	43.9	12.9	41.0	6.3	104.1
1981	43.4	12.1	44.7	7.2	107.4
1982	42.7	8.6	41.1	6.3	98.7
1983[1]	44.4	11.5	55.2	4.5	115.6
1984	49.5	12.5	56.9	4.9	123.8
1985	50.4	13.5	60.3	5.1	129.1

1 Effective March 1983, the employment data are based on a sample survey rather than on all firms with 20 or more employees, as was the case until then. Accordingly, the data for 1983 cannot be compared with the historical employment data.

SOURCE DRIE, *Report on the Canadian Automotive Industry in 1985*, p. 82.

considered to be in the category of mid-sized cars. There are advantages, however, of supplying a full range, in order to attract first-time buyers and as a hedge against demand shifts, for example. The North American automotive manufacturers decided increasingly in the 1980s to supply this segment of the market by "captive" imports, rather than domestic production.[60] These imports are the result of arrangements such as joint ventures, contractual arrangements with their Asian counterparts or the creation of wholly owned subsidiaries, to supply the small-car market. At the present time, for example, it is estimated that 20 per cent of total Canadian imports from Japan fall under such arrangements.[61]

In order to determine whether the strategies of the North American automobile producers have been successful, quantifiable criteria and benchmarks are needed. We have selected six:

- the level and change in productivity;
- consumer rankings of the quality and reliability of North American automobiles vis-à-vis their Japanese counterparts;
- the level and change of absenteeism;
- the level and rate of change of wages of automobile-worker wages;
- the breakeven point required for profitability; and
- the share of the automobile market held by the North American firms.

The first four and, to a lesser extent, the fifth criteria, are concerned with Japanese productivity and cost advantages, while the other indicator refers to overall market success. The latter indicator will reflect a number of factors besides productivity improvement, cost reduction, and lowering of breakeven points. These include the rise in the price of Japanese automobiles because of the appreciation of the yen since 1985 and the response of the Japanese to VERs, including product upgrading.

The corporate strategies of the North American auto makers have met with limited success in overcoming the challenge of their Japanese rivals (see Appendix D for details). In particular, they have not succeeded in enlarging their market share; there is limited evidence of some success with respect to four of the other benchmarks – productivity, consumer evaluation, absenteeism, and wage levels; only in the area of lowering the breakeven point can the industry be seen as having been successful. Overall, this suggests that North American producers have not yet attained parity with Japanese productivity and quality levels, although the recent appreciation of the yen suggests that cost levels are very similar.

Controlling Imports — The effectiveness of a VER that targets one country and is measured in volume terms depends, as our discussion in clothing showed, on the degree of product upgrading and the ease with which nonrestrained countries can enter the market. The VERs on automobiles from Japan were effective in restraining imports from Japan for several years. As prices rose and Japanese producers moved out of the low end of the market, however, a vacuum (or market gap) was created, thus giving an incentive to new entrants. And indeed, this was filled initially at least by

Figure 5-2

Factors Affecting Productivity: A Comparison of Technology, Management, and Organization in U.S.-Japanese Auto Production

Factor	Definition	Comparative practice in Japan relative to the United States
Process systems		
Process yield	Good parts per hour from a line, press, work group, or process line over an extended period of time; key determinants are machine cycle times, system uptime and reliability; affected by material control methods, maintenance practices, and operating patterns.	Production/materials control minimizes inventory, reduces scrap, exposes problems; line stops highlight problems, help eliminate defects; operators perform routine maintenance; two shifts instead of three leaves time for better maintenance.
Quality systems	The series of controls and inspection plans to ensure that products are built to specifications.	Japanese use fewer inspectors; some authority and responsibility vested in production worker and supervisor relationship with supplier and very high standards lead to less incoming inspection.
Technology		
Process automation	The introduction and adaptation of advanced, state-of-the-art manufacturing equipment.	Overall, the state of technology is comparable; Japanese use more robots; their stamping facilities appear to be somewhat more automated than average U.S. ones.
Product design	Differences in the way the car is designed for a given market segment; aspects affecting productivity; tolerances, number of parts, fastening methods, etc.	Japanese have more experience in small-car production and have emphasized design for manufacturability (i.e., productivity and quality); newer U.S. models (Escort, GM's J-car) are first models with design/manufacturing specifications comparable to Japanese.
Work-force management		
Absenteeism	All employee time away from work place including excused, unexcused, medical, personal, contractual, or other.	Levels of contractual time off are comparable; unexcused absences are much higher in U.S. firms.
Job structure	The tasks and responsibilities included in job definitions.	Japanese practice is to create jobs with more breadth (more tasks/skill per job) and depth (more involvement in planning and control of operation); labour classifications are broader; regular production workers perform more skilled tasks; management layers are reduced.
Work pace	Speed at which operators perform tasks.	Evidence is not conclusive; some lines run faster, some appear to run more slowly.

SOURCE The National Academy of Engineering and the National Research Council, *The Competitive Status of the U.S. Auto Industry* (Washington, D.C.: National Academy Press, 1982), p. 102.

Hyundai, the South Korean producer, which exported 5,000 automobiles to Canada in 1983 but by 1985 had raised its sales to 79,000 units – 23.9 per cent of all Canadian imports of automobiles. This led Canada to negotiate an undertaking with South Korea to "avoid disruption of the Canadian market."[62] Imports from South Korea have fallen substantially since then, but unrelated to this undertaking. However, exports from other nonrestrained countries have risen, frequently in the form of captive imports associated with North American manufacturers.

Upgrading — The evidence available suggests very strongly that the VERs have accelerated the movement of Japanese producers into the higher-priced product cate-

Figure 5-3

Factors Explaining the U.S.-Japanese Productivity Gap: Rankings and Relative Weights[1] from Expert Panel

	Panel members									
	A		B	C		D	E		Average	
Factor	Rank	Weight	Rank	Rank	Weight	Rank	Rank	Weight	Rank	Weight
		(Per cent)			(Per cent)			(Per cent)		(Per cent)
Process yield	1	30	1	1	30	1	1	40	1	30-40
Absenteeism	3	20	3	1	30	2	2	25	2.2	20-30
Job structure	2	25	2	5	5	5	4	10	3.6	10-25
Process automation	6	6	4	3	15	4	3	15	4.0	6-15
Quality systems	7	5.5	5	4	10	6	4	10	5.2	5.5-10
Product design	4	7	7	4	10	3	7	0	5.0	0-10
Work pace	5	6.5	6	7	0	7	7	0	6.4	0-6.5

1 The weights are the fraction of the differential that is explained by the factor.
SOURCE NAE and NRC, *Competitive Status*, p. 103.

gories, thus posing more of a challenge to North American manufacturers than before. One study of the possible objectives of Japanese firms and of their price-setting behaviour has found that over the period 1980-85, VERs affected the mix of Japanese exports to the United States by increasing their share of small luxury cars by several percentage points.[63] By 1990, it is expected that Honda, Toyota, and Nissan will all have "introduced new upscale brands in North America with distinct marketing channels."[64]

A Credible Timetable — In the case of footwear, textiles, and clothing, there are institutions, international agreements, and domestic laws that provide a framework for evaluation and a forum within which a credible timetable for introducing, reviewing, and phasing out special import measures can be debated and set. The VERs, however, fall outside that legislative and institutional framework.

In order to fill the void, the federal government set up a task force in 1982 to "review the development, competitive environment and position of the Canadian automotive manufacturing industry and to make recommendations that will assist in identifying priorities and formulating strategies and policies to support industry initiatives that will contribute to a balanced and competitive automotive manufacturing capability in Canada."[65] The task force was co-chaired by Robert White, director of the United Automobile Workers (UAW), and Patrick Lavelle, president of the Automotive Parts Manufacturers' Association. It also included members of UAW and the parts producers' association, as well as the presidents of the Canadian divisions of Ford, General Motors, and Chrysler. Its report, published in 1983, was concerned mainly with the new competitive environment created by the Japanese challenge.

The Lavelle-White report does pinpoint some of the advantages that Japanese auto makers have over their Canadian counterparts, such as the quality of the output and the advantages of good worker/management relations in solving production problems. Little or no reference is made to the problem of absenteeism, which is known to be an important cause of the U.S.-Japanese productivity gap.[66] Furthermore, no attempt is made to rank the various causes of the Canada-Japan productivity differentials or to discuss whether the wages paid to Canadian auto workers in relation to either Japanese automobile workers or other Canadian manufacturing workers should be moderated. Nevertheless, the task force report claims that the "productivity gap with the Japanese can be closed,"[67] although it never specifies how long it will take to close it; nor are any indications of how the gap is being closed presented in the report.

While the report pays some attention to the view that a breathing space is required to match Japanese competition, its Canadian-content recommendation suggests that the task force assumes that the gap cannot easily be closed.[68] Indeed, forcing Japanese producers to meet the same content requirements as North American manufacturers under the Canada-U.S. Auto Pact may be counter to Canada's obligations under the GATT. It is for that and other reasons that the content recommendation was not accepted or implemented by the federal government.[69] Thus the task force did little to establish a credible timetable to meet the Japanese challenge.[70]

Who Benefits — The VERs are administered by the exporting country, Japan, and allocated to Japanese producers, who thus capture the quota benefits. The U.S. automobile manufacturers in Canada and the United States also benefited, however, because they were able to realize higher prices, without attracting entry, at least in the short run. One estimate suggests that a "reasonable figure" for the benefits of domestic producers in 1985 attributable to the VERs would be 200-300 million dollars.[71] However, since these are all controlled by U.S. corporations, some of the benefits will accrue to foreign shareholders. Estimates of the benefits to Japanese producers arising from Canadian VERs suggest that, while less than those received by the domestic manufacturers, the benefits were still substantial.

VERs (like bilateral restraints in textiles and clothing) may be seen as a bargain negotiated between the importing and the exporting countries – an arrangement under which both countries bear some of the costs and enjoy some of the benefits of limitations placed on trade. The term "co-operative protectionism" has been coined to describe such situations, since both the VER and the bilateral restraint can be seen as creating "a cartel-like arrangement among importers and exporters."[72] In the case of textiles and clothing, at least, this has led to an arrangement of some duration, while for automobiles it is too early to predict, although as soon as South Korea became a threat it did agree to limit exports to Canada.

Employment — A study on the impact of VERs was commissioned by the federal Department of Consumer and Corporate Affairs as part of a larger multicountry study sponsored by the OECD Committee of Experts on Restrictive Business Practices.[73] This showed that VERs in 1985 had a very small impact on employment in the auto industry. Estimates varied from an employment *decline* of 1,577 to an increase of 879. The estimated decline can be explained by the scarcity created by the VERs which may have led North American producers to raise prices, thus reducing output. Another report, undertaken for the Canadian Association of Japanese Automobile Dealers in 1986, concluded that of the *increase* in employment in the automobile industry between 1982 and 1985, 10 per cent (3,180 jobs) was due to the VERs.[74]

Both studies estimated the cost per job created by the VERs for 1985. In the OECD study, the estimated consumer cost per job protected in the one scenario resulting in increased employment was $226,394. In the other study, a similar figure ($179,000) was reached. Clearly, voluntary export restraints are a very expensive way to maintain jobs, given that in 1985 the average earnings in the automobile industry varied between $29,000 (for motor vehicle parts and accessories) and $35,000 (for motor vehicle assembly).

Conclusion

The VER experience in the automobile industry suggests that the policy process suffers from the absence of transparency, of a clear rationale, and of a thorough program evaluation. In large part, this reflects the lack of an institutional mechanism to perform such tasks. That is not to deny that substantial changes have taken place in the North American automobile industry in the past few years. However, the evidence indicates that in many areas the Japanese challenge still remains a real threat.

The challenge of adjustment will continue in the foreseeable future. Japanese producers, for a variety of reasons, including the appreciation of the yen, VERs, and various government incentive programs, have located automobile plants in Canada. Given the considerable excess capacity both worldwide and in North America, one can expect to see some plant closures in the future. Adjustment in the industry will probably see some downsizing and at the same time an increase in the importance of Japanese ownership. To the extent the Japanese are more efficient producers this should increase the overall productivity and efficiency in the industry in North America. Hence, it could be argued that one of the VERs' principal effects was to delay the downsizing of the industry in North America.

Implications for Policy

We began this chapter by stating that we would pay particular attention to whether special import measures – quantitative import restraints on quotas – have provided a temporary breathing space that has facilitated adjustment or whether they have been transformed into more or less permanent restrictions on imports, thus retarding rather than promoting adjustment. In the three examples that we

studied – footwear, textiles and clothing, and automobiles – the public-policy objectives of special import measures have stressed the use of the breathing space to promote adjustment, not retard it. Apart from the notable exception of footwear, however, reality has not matched the rhetoric of policy statements and pronouncements.

Adjustment to import competition can take place in a number of different ways. The surge in imports might signify that Canada has lost its comparative advantage suggesting the size of the industry should be reduced. In the industries we have examined, although there are instances where Canada appears to have lost its comparative advantage, the size of the industry has typically not been reduced during the period in which restraints were in place. Using output as the size dimension, the industry usually has become larger, while employment has shown no consistent pattern. However, where the special measures have been (or are expected to be) removed, employment has declined or is expected to decline. In other words, it would appear that special import measures do not so much result in the orderly downsizing of an industry, during the breathing space provided, but rather postpone the reduction. Indeed, in the case of long-lasting protection under the Multifibre Arrangement (and its predecessors), the special import measures encourage younger workers to enter the industry, rather than seek alternative employment elsewhere. A credible timetable for the removal of the special protection accompanied by appropriate labour programs would, perhaps, encourage workers to seek alternatives where this is appropriate.

Another set of adjustment options revolve around the word revitalization, which we defined and discussed in Chapter 2. If an industry is extremely successful at revitalization then the tide of imports will be stayed, then reversed. The evidence suggests that industries have not revitalized themselves sufficiently to stem the flow of imports in relation to the size of the domestic market. Nevertheless, within individual industries there are areas where domestic producers appear to be able to compete with imports. However, while special import measures undoubtedly play a role, other – unrelated – factors appear to be equally, if not more, important such as technology changes, currency movements, domestic industry growth, and fashion changes. These results suggest that while there is a role for special import measures, it must be seen against a wider canvas of change.

Getting public policy to move towards the positive-adjustment end of the policy spectrum is important:

- Special import measures are an expensive method of preserving employment with consumer costs per job ranging between $180,000 and $226,000 in the automobile industry, between $54,000 and $69,000 in the footwear industry, and about $35,000 in the clothing industry.[75] In all instances these figures are well above the average earnings of industry employees.

- The income distribution consequences of special import measures may not be considered attractive. They confer financial gains on foreigners (automobiles and clothing), on Canadians who are not experiencing adjustment problems, such as retailers, wholesalers, and importers (footwear), or on shareholders of foreign corporations operating in Canada (automobiles).

- In the case of bilateral restraints, the administration of the quotas may lead to more rapid entry of importers into the market segments dominated by Canadian producers, who will not only have a shortened period in which to adjust but who may also move down to the lower-priced segment.

- In several instances, the special import measures protect industries with low-wage, low-skill requirements, where comparative advantage for at least some of the industry's output lies with the NICs and the LDCs, not with the developed countries.

Too often, adjustment policies simply do not aim at fostering adjustment; rather, they attempt to preserve the size of the protected industry in the hope that restructuring and revitalization will take place either through the substitution of capital for labour or in some other unspecified manner.

Our discussion shows that public policy in the area of special import measures can move towards the positive-adjustment end of the policy spectrum. The experience of the footwear industry shows that when there is a credible timetable for phasing out restraints, supported both by the political will and by domestic trade legislation, this can indeed occur and adjustment take place. Too often, however, the political will and the right legislative framework are not there. Indeed, in the case of automobiles, there is *no* such framework for a policy that essentially imposed a "tax" on the purchases of new Japanese automobiles through the use of the VERs. Accordingly, the use of bodies that are closer in mandate and outlook to the Canadian Import Tribunal than to the Textile and Clothing Board and to task forces such as the Lavelle-White is much more likely to raise the visibility of the special import measures, to ensure that the right questions are asked, and to encourage the authorities to implement policies consistent with their stated objectives. It is not a panacea, but it will at least be a useful first step. Difficult choices will still have to be made rather than ignored, as is too often the case at present.

6 Revitalization through Sectoral Subsidies

Subsidies to business are virtually an industry unto itself. It has been estimated that the subsidies provided by all levels of government in Canada in 1980 were the equivalent of 2.6 per cent of GDP – substantially above the 1 per cent recorded for 1960 and 1970.[1] In absolute terms they totalled $7.8 billion in 1980 and accounted for approximately 7 per cent of current government expenditures. Subsidy programs have been introduced by governments to achieve a wide variety of objectives.[2] Among them, improvement in international competitiveness, achieved through revitalization, is the one for which sectoral subsidies have been used most frequently in the Canadian manufacturing sector. In particular, it was believed that subsidies designed to encourage additional investment might lead Canadian producers to improve their plant and equipment and thus enhance their ability to compete with foreign rivals.

The Economic Council has examined closely three recent examples of such subsidy programs: the Pulp and Paper Modernization Program (PPMP); the Shipbuilding Industry Assistance Program (SIAP); and the Canadian Industrial Renewal Program (CIRP), which was concerned with the textile, clothing, and footwear industries. We report on the results of that research here.[3]

Evaluating the Effectiveness of Subsidy Programs

In our discussion and evaluation of the effectiveness of the three subsidy programs, we adopt two separate, but closely related, criteria. First, we ask whether there was a valid rationale for the program. In addressing this issue, we carefully and critically examine the rationales put forward in the documentation made available at the time the program was introduced, whether in the form of government reports, ministerial statements, or the reports of joint industry-government task forces.

The second criterion is whether or not the subsidy program has met its objectives. This has several dimensions. Objectives need to be examined to determine if they are consistent with one another. The administration, structure, and implementation of the program must also be studied to see if they are congruent with its objectives. A methodology must be designed to examine if the program's objectives are fulfilled. One way of doing this is to determine whether or not the program has contributed to an increase in output or investment. Any such increase, it is argued, will usually result in the maintenance or enhancement of international competitiveness.

An increase in investment or output can be incremental to a single firm, to an industry, or to the economy.[4] Incrementality at the firm level implies that the recipient firm would not have undertaken the project without the subsidy. At the industry level, a subsidized project is said to be incremental only if it does not occur at the expense of, or does not duplicate, some other project within the same industry. And the results of the subsidy will be incremental to the economy only if it does not displace or duplicate some other investment elsewhere.

A fully incremental subsidy should lead to new investment projects being undertaken at the expense of private consumption and should generate social benefits in excess of the full costs of the subsidy. Thus, for a subsidy to be justified on efficiency grounds, two conditions must be fulfilled: 1) the subsidy must be incremental; and 2) it must generate an excess of the social over the private rate of return on the incremental activity that is large enough to cover both the social rate of return on the activities that are crowded out *and* the resource cost of administering the program.

The initial level at which to test for incrementality depends upon the program objective, which may refer to the firm, the industry, or the economy. In assessing the wider economic and social implications of the subsidy program, however, *all* levels of incrementality should be employed.

Evaluating whether a subsidy leads to a new investment project or to an incremental increase in output imposes a heavy burden on those responsible for administering the program, and this means that considerable importance should be given to the administration, structure, and implementation of the program. In the case of firm-specific subsidies, the administrator requires detailed information on the costs of each producer so that he may determine which projects are marginal – i.e., which one would not be undertaken, in the absence of the subsidy. The administrator

also needs to know the exact amount of the subsidy required to make it profitable for each producer to undertake the investment. Anything above that amount would give the recipient a cost advantage over his competitors and could lead to the displacement of efficient producers. In the case of a subsidy to a specific industry, if the total amount is set too high, there will be windfall gains to some or all of the producers, leading to an overexpansion of that industry vis-à-vis other sectors. The information requirements to determine whether a subsidy is incremental to the economy are clearly substantial, entailing knowledge of the investment, consumption, and output patterns, both with and without the subsidy.

Incrementality is difficult to estimate at all three levels. The least difficult to measure is incrementality at the firm level, followed by the industry level and the economywide level. In this chapter, we are concerned mainly with incrementality at the firm level. If we find none at that level, this implies that there has been no incrementality at either the industry or the economy level.

For each dollar of subsidy, the costs involved in effecting the transfer of funds from taxpayers to firms would appear to be substantial, according to a recent Council study:[5]

• cost of designing and administering the subsidy program	$0.10
• cost to firms of applying for subsidies	0.05
• cost to taxpayers of tax compliance	0.06
• loss of social welfare caused by the distortion of consumption and work/leisure choices (arbitrarily positioned within a range of various estimates)	0.60
Total	$0.81

In view of the problems encountered in measuring these costs they should be viewed as approximations only.

The cost of effecting the transfer of funds from taxpayers to firms has at least two implications. First, unless the recipients of subsidies (i.e., the firm's shareholders, managers, workers, and/or suppliers) are particularly deserving of a windfall gain, subsidies are a very expensive way to redistribute income. Second, in examining incrementality from society's point of view, at least $1.81 of extra investment or output should be generated for each dollar of subsidy.

The Pulp and Paper Modernization Program

The Pulp and Paper Modernization Program (PPMP) was set up in 1979, mainly to assist the pulp and paper industry in improving its international competitiveness through the modernization of its plant and equipment.[6] It lasted until 1984.

Industry Background

The pulp and paper industry, which is part of the broader "paper and allied products" industry (Table 6-1), is one of the more important industries in Canada, and one in which this country is thought to have a comparative advantage. During the 1970s, however, the pulp and paper industry experienced a marked deceleration in export growth: from 5.7 per cent a year during the 1960s, the rate of increase in exports declined to 2.8 per cent a year during the mid- to late 1970s (Table 6-2). This slowdown was brought about by rapidly escalating costs relative to those in the industry's major export market (the United States), as well as by the expansion of U.S. producers, located mainly in the southern states. For example, a comparison of unit labour costs between the two countries reveals that costs in the Canadian pulp and paper industry (measured in Canadian dollars) increased by 268 per cent over the period 1970-84, compared with only 100 per cent in the United States (measured in U.S. dollars); 54 per cent of the relative increase in Canadian unit labour costs was associated with wages, and the remaining 46 per cent with slower productivity growth in this country. In the period up to 1976, however, there was no change in the value of the Canadian dollar to compensate for these differences. As a result, Canadian producers were at a cost disadvantage vis-à-vis their U.S. counterparts. However, the change in the value of the Canadian dollar in 1977-78 went a long way towards restoring the competitiveness of the Canadian pulp and paper industry in the U.S. market.

Faced with slower growth in demand, low capacity utilization, a cost disadvantage in selling in the U.S. market, and cash-flow difficulties – characteristics that were found in other manufacturing industries – pulp and paper companies were reluctant to undertake investment. The industry appealed to the federal and provincial governments for assistance, claiming that without such help there would be many plant closures and worker layoffs. As one study points out, however, the change in the value of the dollar in 1977-78 "virtually eliminated the industry's case for public assistance."[7] Nevertheless, the momentum built up in the crisis atmosphere of the mid-1970s for some kind of public

Table 6-1

Components of the Paper and Allied Products Industry, Canada, 1985[1]

		Value added		
			Distribution	
		Amount	SIC 27	SIC 271
		(Millions)	(Per cent)	
SIC:				
27	Paper and allied products	7,554	100.0	...
271	Pulp and paper	5,773	76.4	100.0
2711	Pulp	1,191	...	20.6
2712	Newsprint	3,207	...	55.6
2713	Paperboard	575	...	10.0
2714	Building board	47	...	0.8
2719	Other paper industries	753	...	13.0
272	Asphalt roofing	134	1.8	...
273	Paper box and bag	848	11.2	...
279	Other converted paper products	799	10.6	...

1 The components are identified by their Standard Industrial Classification (SIC) number at the three- or four-digit level.

SOURCE Based on Statistics Canada, *1985 Census of Manufactures*.

Table 6-2

Change in Selected Indicators of the Pulp and Paper Industry, Canada, Selected Periods, 1962-85

	Average annual rate of growth				Average level of employment
	Exports[1]	Output[2]	Output per person-hour	Employment	
	(Per cent)				(Number)
1962-66	5.7	6.2	3.1	2.9	68,153
1967-73	4.1	4.4	4.7	1.3	77,390
1974-80	2.8	2.4	1.2	1.2	85,901
1981-85	0.5	0.4	2.1	–2.2	81,423
1974-85	1.8	1.6	1.6	–0.2	84,035

1 In constant (1971) dollars.

2 Gross domestic product at factor cost, in constant (1971) dollars.

SOURCE Estimates by the Economic Council of Canada, based on Canadian Pulp and Paper Association, *Reference Tables, 1985* (Montréal: CPPA, 1985), and on data from Statistics Canada.

assistance was too great. As the study points out (p. 17), "reassessments were not undertaken."

In response to these appeals, the Pulp and Paper Modernization Program was introduced in 1979 by the federal and provincial governments under a cost-sharing arrangement. Between April 1979 and April 1985, approximately $542 million (in current dollars) was spent by the two levels of government to assist investment in the industry (Table 6-3). The principal recipients of funds under

Table 6-3

Regional Distribution of Subsidies Granted under the Pulp and Paper Modernization Program, Canada,[1] 1979-85

	Federal/ provincial shares of cost	Cumulative amounts paid up to 1 April 1985			Total amount paid as a proportion of industry value added (1979-84 average)
		Federal	Provincial	Total	
	(Per cent)	(Thousands of current dollars)			(Per cent)
Newfoundland	90/10	38,265	4,252	42,517	..
Nova Scotia	80/20	14,992	3,748	18,740	10.9
New Brunswick	80/20	42,600	10,650	53,250	20.0
Quebec	56/44	135,081	106,135	241,216	13.3
Ontario	33/66	62,163	124,326	186,489	16.4
Total	...	293,101	249,111	542,212	..

1 The federal government signed agreements under the PPMP with Ontario and Quebec in 1979, with New Brunswick in 1980, and with Newfoundland and Nova Scotia in 1981.

SOURCE Based on data from the Department of Regional Industrial Expansion and from Statistics Canada.

the program were located in Quebec and Ontario; these mills accounted for approximately 80 per cent of pulp and paper capacity in eastern Canada. British Columbia, the only western province with a sizable pulp and paper industry, did not participate in the program, mainly because its mills were of much more recent origin and required much less modernization.

Rationale and Objectives

The most frequently stated objectives of the PPMP were modernization, pollution abatement, and energy conservation. For example, the Canada-Quebec Subsidiary Agreement stated that "the purpose of this Agreement is to ... offer financial assistance to pulp and paper companies eligible for the program, to enable them to a) modernize their facilities with a view to reducing production costs; b) install equipment that will help protect the environment and conserve energy."[8]

Modernization was the most important of these objectives, accounting for about 70 per cent of total expenditures under the PPMP; pollution abatement accounted for another 10 to 15 per cent, with the remainder being devoted to energy conservation.

Modernization — The main rationale for the PPMP was an alleged shortage of capital, which was believed to have reduced productivity, and thus the international competitiveness of the industry.[9] No serious attempt was made, however, to check the validity of that argument. Real capital growth slowed down in the paper and allied products industry after 1973 – to an annual rate of 1.8 per cent over the period 1974-85. Moreover, this slower growth of capital affected the manufacturing sector as a whole, although not to the same extent (2.6 per cent). In contrast, the annual increase in capital spending during the period 1961-73 had been greater in paper and allied products (5.2 per cent) than in all manufacturing (4.6 per cent). On the basis of these contrasting growth rates before and after 1973, it is not clear whether the slowdown in real capital growth was caused by a capital shortage or by cyclical factors (such as the overvaluation of the Canadian dollar).

Potentially more important as an explanatory factor, is the contribution of capital to the labour productivity slowdown in the paper and allied products industry during the period 1974-79. Research undertaken at the Council and elsewhere suggests, however, that this factor accounted for only about 12 per cent of the productivity slowdown.[10] In short, capital was not the major cause of the productivity slowdown and of the erosion of the international competitiveness of the Canadian paper and allied products industry. Moreover, even if capital had been the main cause of the loss of the industry's competitiveness, that alone would not have provided justification for the PPMP unless there had been evidence of capital-market failure.

Capital markets may fail for a variety of reasons – the practices of private financial institutions, lack of competition, government regulation, the tax system, and so on. In a report that examined the presence of imperfections in Canadian capital markets, the Economic Council found

them to be relatively insignificant, except perhaps for small firms raising equity.[11] This exception does not apply to the pulp and paper industry, which is dominated by large firms that finance their operations by borrowing not only in Canada but on the international financial markets as well. The fact that the majority of pulp and paper mills in eastern Canada are older than those of foreign competitors does not prove that capital markets are not working properly, especially if one takes into account the fact that some firms had already undertaken a considerable modernization program prior to the introduction of the PPMP.

A second reason frequently mentioned for government intervention is the alleged low average rate of return in the pulp and paper industry, which is believed to have discouraged investment. The ratio of net profits after tax to total assets in the paper and allied products industry was 3.4 per cent during the period 1970-74, compared with 5.4 per cent in manufacturing as a whole. During the period 1975-79, however, the net profit rate for paper and allied products climbed to 5.3 per cent, whereas for manufacturing it reached only 5.8 per cent. Thus when the PPMP was introduced, profitability in the paper and allied products industry had improved considerably since the early 1970s, although it remained slightly lower than in manufacturing.

The foregoing discussion is based on average historical profit rates and not on marginal rates of return on new investment, which is the more relevant variable in investment decision-making. A recent study has found that the rates of return on investment in pulp and paper mills in Ontario and Quebec for the period 1980-82 were considerably higher than those in the southern United States – the region that provides the main competition to eastern Canadian mills.[12] Given the depreciation of the Canadian dollar relative to the U.S. dollar since 1982, one would have expected the relative attractiveness of investment in pulp and paper projects in Ontario and Quebec to increase further. It is not surprising then that the study concluded that the PPMP "must be judged to have been a wholly unnecessary, and even harmful, policy initiative."[13]

Pollution and Energy — One area where there is market failure – and hence an efficiency rationale for intervention – is environmental protection. When a firm pollutes the environment, it is usually because it has little incentive to abstain from doing so: it does not have to pay for the cost of lower-quality air or water. Consequently, a case can be made for government assistance to encourage pollution abatement. Whether a subsidy, a pollution tax, or some other device is the best solution is, of course, a different matter. On the question of energy conservation, there may have been a reason to correct the distortions created by the pricing of energy, but it is not clear that a subsidy was the best way of either removing or offsetting those distortions.

Summary — Our discussion and examination of the rationales for the introduction of subsidies, together with the accompanying evidence, suggests that the case for justifying the PPMP on either efficiency or equity grounds was not convincing, with the possible exception of pollution abatement, and perhaps of energy conservation. Subsidies granted for the modernization of capital equipment accounted for 70 per cent of the funds disbursed under the PPMP.

Description and Structure

The PPMP was a firm-specific program; the amount of subsidy varied from firm to firm, and the selection of the beneficiaries was left to the discretion of the program administrators. Thus it was different from an industry-wide policy, under which all participants would have been entitled to grants. The criteria for eligibility were explicitly stated in a number of federal/provincial agreements. For example, the Canada-Quebec Subsidiary Agreement mentioned the following criteria:

> Assistance for cost-cutting modernization projects shall be given on the following conditions:
>
> a) incentives shall be provided only for those investments which would probably not be made without government assistance;
>
> b) mills for which incentives are given must be shown to be commercially viable in the long term;
>
> c) a socio-economic cost-benefit analysis must show that the project will result in a net profit.[14]

The program was essentially a cost-sharing agreement between the two levels of government; the share paid by each level of government varied across provinces (see Table 6-3). It was administered in each province by a management committee comprised of officials from both levels of government. In the case of Ontario and Quebec, the federal government and the province financed up to 25 per cent of the eligible costs, while in the other provinces taking part in the scheme the maximum was fixed at 20 per cent. Eligible costs included those incurred for modernization, energy conservation, and pollution abatement. In Ontario and New Brunswick, the level of assistance awarded to different projects was determined after negotiation with each company, whereas in Quebec a fixed level of

assistance was awarded to all projects deemed eligible. The ratio of the total subsidy to the total investment of the recipient firm varied from province to province, with Nova Scotia recording the highest ratio (15 per cent); and New Brunswick, the lowest (9 per cent). In all of eastern Canada including Quebec and Ontario, subsidies were equivalent to 10 per cent of total investment expenditures (current dollars) in the pulp and paper industry during the period 1979-82.

The program also included a Canadian-content provision. Firms were encouraged to purchase Canadian materials, parts, and services inasmuch as "such material and services are available and consistent with proper economy and without prejudice to the expeditious completion of the program or projects."[15] A specific level of Canadian content was mentioned in the contract signed with each beneficiary company in Ontario and New Brunswick. That was not true of Quebec companies, however; in their case, the letter of offer to the company contained a strongly worded paragraph emphasizing the importance attached to Canadian content by the two levels of government. Whatever the nature of the Canadian-content provisions, they did not result in any significant difference in the level of Canadian content reached in any of the provinces.

Evaluation

To assess whether the PPMP achieved its primary objective of encouraging the pulp and paper industry to modernize its capital equipment and to become more internationally competitive, we looked at a number of indicators. The first group of these measures concern the administration of the program, while the second set – incrementality, modernization, and the age of the mill – are based on statistical analysis in order to evaluate the degree to which the program criteria were met; a third indicator pertains to the freedom of choice that pulp and paper firms have in selecting their source of capital equipment.

Program Implementation — There are a number of dimensions that need to be addressed in considering program administration. The first is the adequacy and consistency of the criteria used to award the subsidy. Two of the three criteria cited in the Canada-Quebec agreement would seem to be appropriate – i.e., that the project be incremental, and that the project generate social benefits in excess of its social costs. It is difficult, however, to reconcile these two criteria with the third, which states that the mills should be "commercially viable in the long term." If the third criterion is met, then it is difficult to see why the government should provide assistance, since private firms would presumably undertake the required investment even if they received no financial assistance, as occurred in western Canada and in some eastern Canadian mills.

The second aspect of program implementation refers to the degree to which program administrators followed the stated criteria in awarding grants. To examine these issues, we studied about 95 per cent of the files of companies that submitted applications for grants to the Department of Regional Industrial Expansion (DRIE). On the question of incrementality at the firm level, the application form asked questions concerning the firm's investment plans and the anticipated return it deemed necessary in order to undertake an investment. The answer to the latter question would have been sufficient to determine eligibility but unfortunately, the information was not always provided; when it was, it seems that it was rarely investigated thoroughly. Furthermore, the site-specific nature of each project would have made investigation a potentially time-consuming and expensive process, in view of the varying vintages of the machinery. Perhaps as a result, concerns were subsequently expressed about the degree of incrementality achieved under the PPMP. For example, in a 1980 Cabinet discussion paper, the minister responsible for DRIE stated that "there are concerns that incrementality has not always been observed, and that levels of assistance have tended to be approved . . . in instances where lesser grants may have sufficed to achieve the necessary incentive."[16] That observation is consistent with our examination of the files, which reveals that virtually all applications were successful. It is hard to believe that they were all incremental.

No socio-economic cost/benefit analysis was undertaken, even though such an analysis would clearly have focused on the appropriate criteria in considering such issues as employment in the pulp and paper industry, the effect of plant closure on single-industry towns, and so on, which were mentioned in a number of instances in connection with the PPMP.[17] There is little, if anything, in the company files to suggest that the commercial viability of the investment projects was viewed as an important criterion. While the program administrators emphasized that influencing the timing of investment was an important consideration, it is not clear what rationale there was for government encouraging firms to accelerate their investment.

Incrementality — We performed a number of statistical and qualitative tests to determine if the PPMP led to an increase in investment over the level that would have occurred had the program not been introduced. One of the statistical tests dealt with the impact of the program on real investment, since that is the channel through which the

program was expected to influence the international competitiveness of the pulp and paper industry. We studied the determinants of the investment behaviour of five firms that accounted for about 35 per cent of the total value of PPMP grants. The results, which must be regarded as tentative, indicated that the program did not have a significant impact on the total investment of the recipients. They also showed that a dollar of subsidy did not produce a dollar's worth of new investment. That is an important finding, given the fact that the PPMP funded only part of the cost of the modernization, and given the fact that for each dollar transferred, the costs incurred were in the neighbourhood of 81 cents. Several case studies on the incrementality effect of PPMP grants reinforced the statistical findings.

Modernization — The PPMP was designed to raise the level of industry investment through the modernization of pulp and paper mills. One indicator of the "need" for such modernization is the age of the mill. There should be a relationship between the age of the mill, which is a crude indicator of the state of the technology employed, and the size of the grant, other things being equal (including the size of the mill, its location, and so on). Our statistical results suggested that there was no such systematic relationship.

Purchase of Machinery and Equipment — In order for pulp and paper firms to modernize their mills, lower their production costs, and thus compete more efficiently, they should be allowed to purchase the most cost-effective parts, machinery, and equipment. The PPMP, however, restricted the choice of machinery and equipment that could be purchased: the program criteria encouraged recipients to purchase Canadian equipment, even though that provision may have been at variance with Canada's obligations under the GATT with respect to the national treatment of imports – that is, with its pledge not to discriminate, beyond the tariff, between foreign and domestic suppliers.

During the initial stages of the program, some recipient firms did purchase equipment from abroad. This led to protests from domestic manufacturers of pulp and paper machinery and equipment to the federal and provincial governments, along with requests for intervention. In one case, this culminated in a foreign producer of such machinery facing antidumping duties, although in a subsequent decision, the Anti-dumping Tribunal (now the Canadian Import Tribunal) rescinded those duties.[18]

There were several reasons why domestic pulp and paper firms preferred to buy from abroad. One was the price. According to a 1982 report, the prices of Canadian-made machinery and parts were about 14 per cent higher than those of equipment made in the United States.[19] Another reason was quality. In its 1981 *Finding* the Anti-dumping Tribunal found that pulp and paper firms attached even more importance to the quality of products and to after-sales service than to prices. Some of the Canadian suppliers of machinery were plagued by start-up problems, technological breakdowns, and delivery problems; as a result, foreign suppliers were preferred to domestic sources.

Nevertheless, the evidence available suggests that the PPMP did achieve some success in this regard. As a result of the pressures exerted by the program administrators to encourage pulp and paper firms to buy their machinery from domestic suppliers, Canadian content under the PPMP was about 80 per cent. Thus it seems likely that because of the Canadian-content provision, many of the ultimate beneficiaries were the domestic producers of pulp and paper machinery and parts, although the intended beneficiaries of the program were the pulp and paper firms.

Summary

Our results suggest that the PPMP, despite its laudable objective of making Canada's pulp and paper industry more internationally competitive through increased investment in plant and equipment, was not a success. It had no valid rationale, and it was not incremental. It should be noted that although the PPMP was terminated in 1984, government assistance for modernization continues to flow to the pulp and paper industry through the Industrial and Regional Development Program.

The Shipbuilding Industry Assistance Program (SIAP)

The Shipbuilding Industry Assistance Program (SIAP), introduced in 1975, integrated two existing subsidy programs.[20] One was designed to encourage shipbuilding for domestic shipowners. It started in 1961, although it was suspended briefly in 1965, when the industry's prospects improved. The other program was aimed at the construction of vessels for export and dated from 1970. SIAP addressed a number of concerns, including the collapse of the world shipbuilding industry and demands for financial assistance by the Canadian industry. It was terminated in 1985.

Industry Background

The shipbuilding and ship repair industry has played a relatively minor role in the Canadian economy, accounting for only 0.1 per cent of real domestic product and aggregate employment in 1985. Its performance since the 1960s was

extremely weak relative to that of the manufacturing sector as a whole (Table 6-4). During the period 1962-84, several key indicators such as real output, productivity, and employment declined. The industry's export performance has also been weak: in terms of gross tonnage of vessels, the ratio of exports to output dropped from 14.8 per cent in 1979 to 0 per cent in 1986. Profitability, as measured by net profits as a proportion of total assets, declined from 3.7 per cent in 1974 to –2.3 per cent in 1985, compared with a decline from 7.2 per cent to 4.6 per cent for total manufacturing. Thus, for all intents and purposes, shipbuilding can be regarded as a declining industry.

One of the factors responsible for that decline was the worldwide fall in demand for both shipping and shipbuilding as a result of the energy price shocks of the 1970s, which had a particularly adverse effect on the construction of tankers. In 1975, tankers accounted for 61 per cent of total gross tonnage of vessels built in Canada, but this was followed by a steady decline thereafter, culminating in a complete stoppage in the early 1980s. Several other categories – tugs, barges, and bulk carriers, for example – have also experienced sharp declines in construction in Canada. The lower demand for these vessels, which are mainly used in the transportation of such products as iron ore, wheat, forest products, and coal, is largely attributable to slower growth in demand for those resource products. Only two vessel types used in Canada experienced a significant increase in construction during the 1980s. They are government vessels and ferry boats. In both cases, the increases resulted mainly from the heavy emphasis, in government procurement policies, on having new vessels constructed in Canada. In 1972, the government's share of new vessel construction was only 16 per cent; by 1986, it had risen to 92 per cent (Table 6-5). A similar, albeit smaller, increase in the government's share is noticeable in repairs and conversions of vessels.

A recent comparison of the prices of supply vessels, bulk carriers, and offshore rigs for the early 1980s produced in Canada and in two of the world's leading shipbuilding nations – Japan and South Korea – highlights the lack of international competitiveness of Canada's shipbuilding industry.[21] The results show that Canadian prices were 28 per cent higher than those of South Korea for supply vessels; 50 per cent higher than Japanese prices for bulk carriers; and 77 per cent higher than South Korean prices for rigs (relative to the lower of the Japanese or the South Korean price in each case). Data for 1986 and 1987 indicate that these price differentials have not narrowed and, in some instances, have widened. They are partly attributable to the wage differentials in shipbuilding between Canada and Japan and (especially) Canada and South Korea, although there has been some narrowing of the gap in recent years (figures in U.S. dollars):

	1975	1985
Canada	$6.83	$10.47
Japan	$3.93	$ 9.24
South Korea	$0.60	$ 2.58

The price differentials are also attributable to productivity differentials, reflecting a number of factors, including

Table 6-4

Growth in Real Output, Employment, and Productivity in the Manufacturing Sector and in the Shipbuilding and Ship Repair Industries, Canada, 1962-85

	Shipbuilding and ship repair				Manufacturing		
		Average annual rate of growth in:			Average annual rate of growth in:		
	Average number of employees	Output[1]	Employment	Output per person-hour	RDP	Employment	Output per person-hour
				(Per cent)			
1962-69	17,577	3.8	0.6	3.1	7.0	2.7	3.7
1970-79	14,737	2.5	0.9	1.2	4.0	1.1	2.7
1980-85	13,935	–5.1	–5.3	2.6	0.9	–0.7	1.3
1962-85	15,483	1.1	–0.7	2.2	4.2	1.2	2.7

1 Gross domestic product at factor cost, in constant (1971) dollars.

SOURCE Estimates by the Economic Council of Canada, based on data from Statistics Canada.

Table 6-5

Shipbuilding and Ship Repair Activity in Canada, 1972-86

	New construction				Repairs and conversions			
			Government				Government	
	Total	Commercial	Amount	Share	Total	Commercial	Amount	Share
	(Thousands of current dollars)			(Per cent)	(Thousands of current dollars)			(Per cent)
1972	185,399	155,091	30,308	16.3	44,902	39,367	5,535	12.3
1973	175,020	165,719	9,301	5.3	59,792	46,373	13,419	22.4
1974	248,711	238,763	9,948	4.0	62,145	47,752	14,393	23.2
1975	369,600	346,342	23,258	6.3	89,410	67,611	21,799	24.4
1976	349,868	314,839	35,029	10.0	88,222	74,020	14,202	16.1
1977	335,328	288,601	46,728	13.9	130,636	100,815	29,821	22.8
1978	350,870	319,339	31,531	9.0	142,444	103,481	38,963	27.4
1979	398,210	386,625	11,585	2.9	180,978	134,437	46,541	25.7
1980	476,651	447,551	29,100	6.1	207,108	158,544	48,564	23.4
1981	481,782	432,550	49,232	10.2	313,700	243,899	69,801	22.3
1982	652,918	624,298	28,620	4.4	296,228	214,883	81,345	27.5
1983	381,743	348,906	32,837	8.6	204,222	145,789	58,433	28.6
1984	288,204	172,541	115,663	40.1	250,685	163,259	87,426	34.9
1985	462,410	160,156	302,254	65.4	214,662	131,204	83,458	38.9
1986	332,189	25,609	306,580	92.3	227,554	136,623	90,931	40.0

SOURCE Data from the Canadian Shipbuilding and Ship Repairing Association.

continuing labour demarcation and perhaps the lack of a strong domestic marine industry.[22] Chart 6-1 shows Canada's position relative to its competitors in terms of both productivity and direct labour costs. It is clearly less competitive than that of a large number of countries, not just Japan and South Korea.

Rationale and Objective

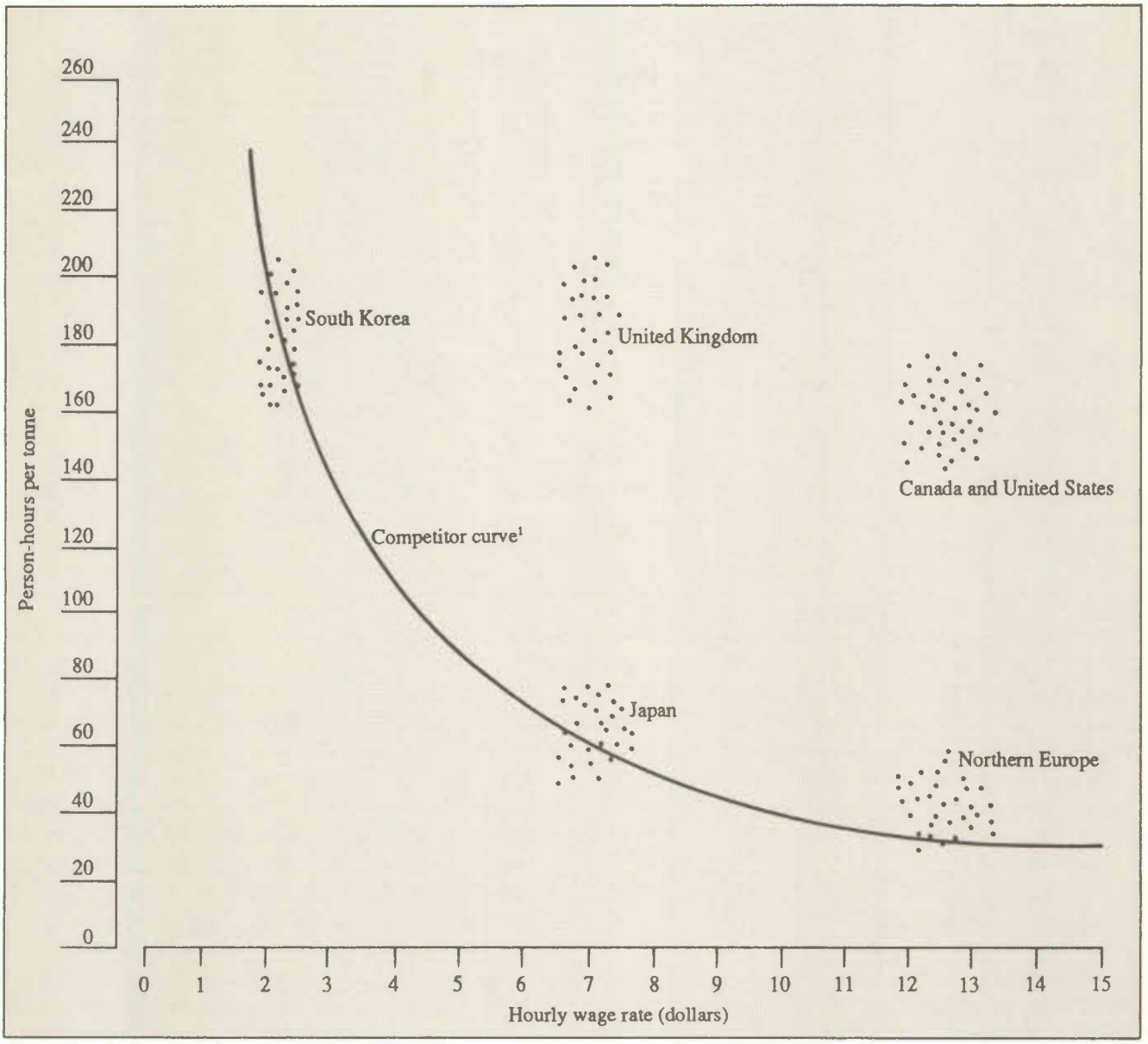
The objective of SIAP was, according to the statement in which its adoption was announced, "to assist the industry to improve substantially its internationally competitive position . . . to maintain stable employment with less reliance on government assistance in the future."[23] Three rationales were put forward to justify the establishment of a government program.

Encourage Investment — The government anticipated, at the time that SIAP was introduced, that there would be a strong demand for vessels, for a number of reasons, including the development of Canada's offshore and Arctic resources. To meet this demand, the government's statement added, "further investment will be required of the industry . . . and to provide the climate for this investment, it will be necessary for the government to facilitate a longer term policy for the industry" (p. 5). However, it is difficult to see why this demand, in itself, is a valid rationale for government intervention. As the statement noted, the shipbuilding industry appeared to be "in a reasonably healthy state" (p. 4),[24] and there did not appear to be any imperfections in the capital market that would have prevented the necessary investment from being undertaken. On the basis of the evidence made available at the time SIAP was introduced, and of later studies conducted by, or for, the government, this reason for intervention would not appear to be valid.

Matching Subsidies — In the aftermath of the oil price shock of 1973-74, as noted above, worldwide demand for shipping services and, as a result, for shipbuilding grew more slowly. This led to a reduction in orders and to substantial overcapacity – a situation that is expected to continue into the 1990s.[25] A number of countries, especially in Europe, responded with various forms of financial assistance for what was perceived to be a temporary period.[26] In several cases, this assistance was substantial. In Sweden, for example, government subsidies per employee in the late 1970s were more than double the employers' average cost for an employee. For this reason, Canada felt that subsidies would be required if Canadian shipyards "are to compete successfully in world markets."[27] The recognition of the problems that would be created if shipbuilding subsidies in the industrialized countries reached even higher levels as countries outbid each other in their use of subsidies to secure

Chart 6-1

Competitiveness in Shipbuilding, Selected Producing Countries, Early 1980s



1 The competitor curve is an isocost curve: all points on the curve represent the same cost per tonne of output. The points above the curve represent higher unit costs, while the points below the curve represent lower unit costs.

SOURCE A&P Appledore Limited, "Shipbuilding, shiprepair and offshore market investigation," Department of Regional Industrial Expansion, Document DRIA:0003, Ottawa, September 1984, vol. 3, p. 407.

orders, resulted in action being taken at the OECD level to restrict the use of subsidies, although the agreement broke down on at least one occasion.

While there may be some merit in instituting a temporary subsidy to counter subsidies given by other nations to their shipbuilding industries, those foreign subsidies are not, by themselves, a sufficient rationale for continued government intervention. The questions that need to be asked are: Given the agreed-upon level of subsidy, is it likely that Canada will be able to compete with the leading shipbuilders in the world? Even if Canada could compete, is it a wise expenditure of public funds, compared with the other uses to which they could be put, bearing in mind the cost of transferring revenues from the taxpayer to the shipbuilding industry? We could find no evidence that these questions had been

posed, let alone answered. Nevertheless, our earlier discussion suggested that Canadian shipbuilding suffered considerable competitive disadvantages, compared not only with Japan but with several European and NIC producers as well.

Maintaining Employment — The employment rationale for shipbuilding is that, according to the government's 1975 statement, the industry "is a major employer of skilled workers in the slow growth areas of Quebec and the Atlantic provinces, where alternative job opportunities are not generally available."[28] For example, of the 49 shipyards in existence in 1983, approximately half were located in communities where they provided the principal source of employment. It is argued that many of these communities would suffer if the shipyards were to close down and to lay off workers. Such layoffs would raise the cost of job search for all workers living in these communities. As noted in Chapter 1, this argument is a valid rationale for government intervention. The optimal solution is probably not a subsidy to the shipyards, however: the problem might be more appropriately tackled with labour-market adjustment policies. But such alternatives do not appear to have been considered.[29]

Summary — Our discussion of the rationales for SIAP, together with the accompanying evidence, suggests that no attempt was made to present a convincing case justifying the creation of the program on either efficiency or equity grounds. The most charitable judgment would be the Scottish verdict of "not proven." Certainly there was little evidence that Canada could compete successfully, with or without the subsidy, with Japan, the NICs, or several European countries. It would appear, however, that there was an argument for aid to ease the adjustment transition of labour in some local labour markets, as we shall see later.

Description and Structure

The SIAP had two important subsidy elements. One was an "output subsidy" designed to encourage shipbuilding firms in Canada to undertake more construction of new vessels. (It was subsequently extended to include conversions.) Initially, the output subsidy was fixed at 14 per cent of vessel costs; this rate was to be reduced by 1 percentage point each year until the subsidy was equal to 8 per cent of costs in 1981. No terminal date for the program was set when SIAP was introduced.

The other major aspect of the program was a system of performance improvement grants (PIGs) designed to encourage shipbuilding firms to undertake modernization of their shipyards. Under the PIG scheme, a shipbuilder could earn a credit equal to 3 per cent of approved costs for all vessels above a size specified in the program regulations. The credit was to be applied as a 50-per-cent grant against approved productivity – improvement projects. Since these were essentially capital-intensive projects, the performance improvement grants were, in effect, capital subsidies. The production subsidy, as well as the PIG scheme, was terminated for vessels scheduled for delivery after 30 June 1985. However, shipbuilders could use any outstanding PIG credits after that date.

During the period 1976-86, SIAP subsidies (in current dollars) totalled $480 million – $426 million for output subsidies and $54 million for PIGs. About 60 shipyards received assistance under the program, five of them accounting for more than 80 per cent of the total amount. Among the provinces, the principal beneficiary was Quebec, followed by Ontario and British Columbia. The program was administered by the Department of Regional Industrial Expansion, and no special organizational structure was set up for this purpose.

Under SIAP, any shipbuilder could apply for assistance; if he satisfied the criteria laid down in the program regulations, he was given a subsidy. Thus, unlike the PPMP, it was an industry-wide program, at least in theory. In practice, however, SIAP operated like a firm-specific program, because the decisions regarding the amounts of the subsidies to be awarded were made on an individual firm basis and were left to the discretion of the program administrators.

As set out in the SIAP regulations, the criteria for eligibility were relatively straightforward; applicants had to provide:

> a) evidence that the shipbuilder has, in all respects, sufficient resources to complete the ship or ships in respect of which the application is made;
>
> b) evidence that the shipbuilder is able to carry out the construction of the ship without having to overexpand his facilities in relation to anticipated long-term demand;
>
> c) evidence that the construction of the ship will not have a detrimental effect on the long-term competitive status of the shipbuilder or of the Canadian shipbuilding and repair industry;
>
> d) in the case of a ship to be built for a foreign owner, evidence that the construction of the ship will not have a detrimental effect on the continuing availability of facilities to satisfy domestic requirements for ship construction and repair.[30]

A number of other criteria, mostly of a relatively minor nature, were also applied. One criterion of major import was that recipient shipbuilders were to use Canadian materials, components, and equipment in both ship construction and yard improvement. Orders from the government were not eligible for SIAP subsidies.

Evaluation

In the evaluation of SIAP, we tried to ascertain whether the program met its objectives of fostering employment stability in the shipbuilding industry, enhancing the industry's international competitiveness, and reducing its dependence on government assistance.

Program Implementation — There are a number of dimensions that need to be addressed in considering the administration of SIAP. The first concerns the adequacy and consistency of the criteria used to determine grant eligibility. In particular, there may have been a conflict between the objective of maintaining employment stability and the criterion cited in b), since in some instances "over-expansion" may have been required to maintain local employment opportunities. On the other hand, criteria a), b), and c) seemed consistent with the view that SIAP should maintain, if not increase, the competitiveness of the industry. It is not clear, however, how these three criteria were to be traded off against criterion d). Criterion d) appeared to imply that even if a foreign buyer was willing to pay more for the use of the facilities of a Canadian yard, preference should have been given to a Canadian buyer. Notwithstanding these potential inconsistencies, the task of awarding grants under SIAP in conformity with criteria a) to c) involved a considerable exercise in crystal-ball gazing. In other words, considerable information and knowledge were needed to determine if a particular application met those criteria.

Our examination of the SIAP application form and of the DRIE files relating to individual applications revealed that the questions asked of applicants pertained to such subjects as the physical description of the vessel, the dates of commencement of construction and delivery, the country of intended registry, and the type and number of ships to be built. It is difficult to see how this information, by itself, would enable the program's administrators to determine whether the eligibility criteria for a SIAP grant were fulfilled. That may be the reason why all applications for SIAP grants were honoured. Indeed, it is not clear what information would have been required for the criteria to be satisfied. Comparable levels of subsidy between different countries bidding for the same contracts might have been a useful starting point. We can only deduce that the objective of SIAP seems to have been to provide a certain level of subsidy toward new vessel construction in Canada.[31]

In view of the universal nature of SIAP and of the fact that virtually no attention was paid to incrementality, it seems more than likely that at least some of the SIAP grants were not incremental but were windfall gains to the recipients. In a background paper prepared in 1982, the then minister of Industry, Trade and Commerce and of Regional Economic Expansion, was quite candid about the lack of incrementality of the subsidies given under SIAP. He argued that "by providing across-the-board assistance, it would appear that subsidy is paid on vessels that would have been constructed in Canada in any event."[32]

Degressivity of Government Assistance — When SIAP was introduced, it was envisaged that the amount of subsidies would be gradually reduced. This degressivity did not occur, however. Instead, two things happened.

First, during the life of the program there was a temporary increase in subsidies for new vessels. In 1977, the subsidy/output rate was raised from 12 to 20 per cent, but it was lowered to 9 per cent in June 1980 (Chart 6-2).[33]

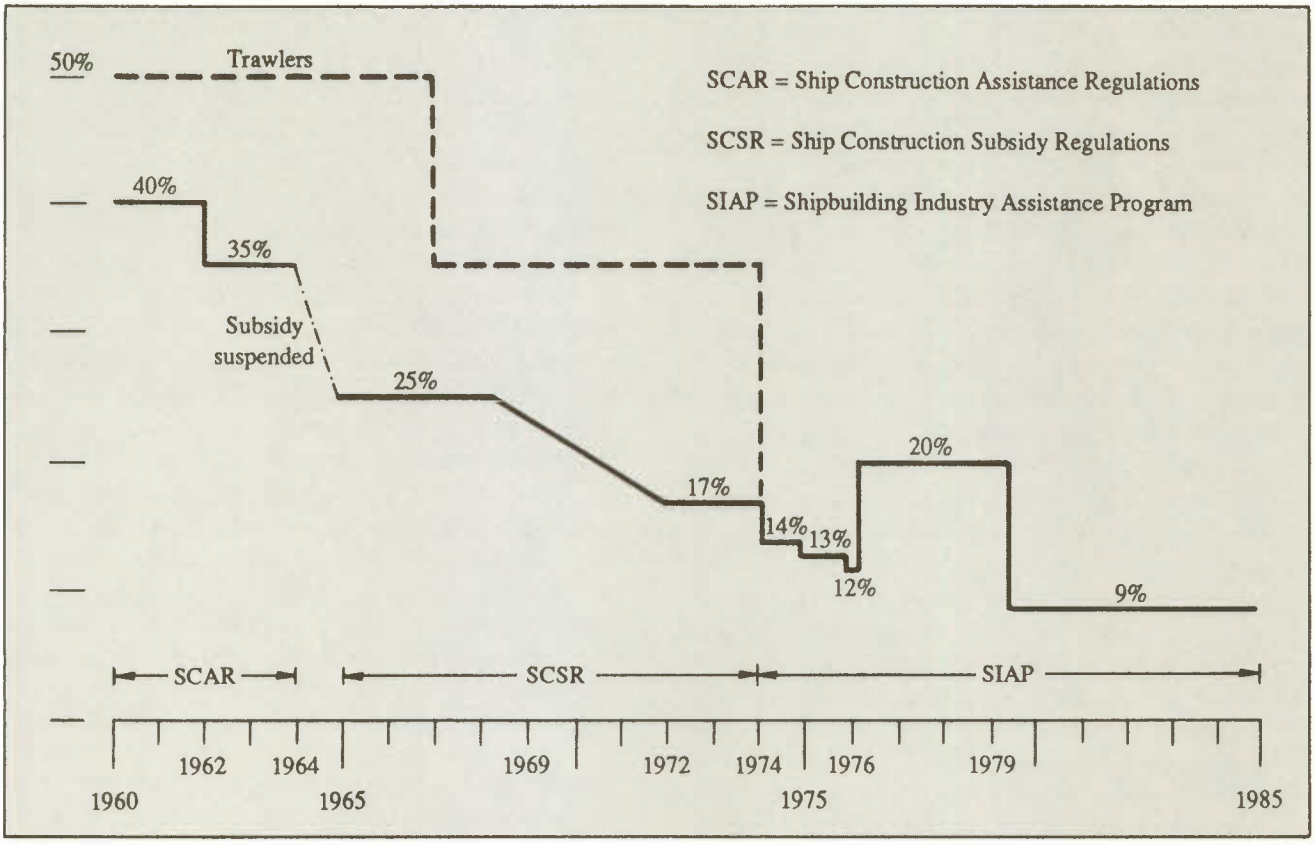
Second, when SIAP finally ended, it was replaced by a number of measures – none of which have terminal dates – that maintained subsidies, in one form or another. These measures included:

1 Increased Tariffs — The normal rate of duty on an imported ship is 25 per cent. Prior to the passage of the 1983 *Customs and Excise Offshore Application Act*, however, ships built in the British Commonwealth bore a zero tariff; the "general preferential tariff" on ships from such countries as South Korea was one-half the normal rate; and drilling rigs were subject to a zero tariff if operating offshore. The 1983 legislation removed all of these exemptions, so that a uniform tariff rate of 25 per cent applied to all vessels (20 per cent, in the case of rigs), regardless of origin. Fishing vessels that were at least 100 feet long remained exempt from duty.

2 Government Procurement — The government has become a major customer of the shipbuilding industry through its procurement policies, which exclude foreign suppliers. Without doubt, this policy has provided Canadian shipyards with a significant continuing subsidy. It has recently been reported, for example, that the current frigate-building program will cost Canada $4.95 billion for six Halifax-class ships, at an average cost per vessel of $825 million – more

Chart 6-2

Rate of Subsidy to Shipbuilders, by Application Date, Canada, 1960-85[1]



1 During the period 1970-74, the Shipbuilding Temporary Assistance Program (STAP), with a maximum subsidy rate of 17 per cent, coexisted with the SCSR.

SOURCE The Honourable Edward Lumley, Minister of Industry, Trade and Commerce/Regional Economic Expansion, *Canada's Shipbuilding Industry: Performance, Prospects, and Policy Options* (Ottawa, 1982), p. 70.

than three times the cost paid by Britain's Royal Navy for Type-22 frigates (similar to the Halifax-class vessels).[34] The Task Force on Program Review has noted that, because of the emphasis on Canadian yard protection and given the higher prices of Canadian-built ships, "government procurement, in the order of billions of dollars, provides substantial support, in the hundreds of millions of dollars, to the industry."[35] The Treasury Board's guidelines state explicitly that government procurement must not be used as a subsidy to support an otherwise unprofitable industry. However, roughly 65 per cent of government orders during the period 1977-86 were placed with shipbuilders who subsequently either closed down their operations or experienced severe financial difficulties that brought them close to bankruptcy. Some shipyards were bought by provincial governments in a last-ditch effort to keep them open. In other words, government procurement may have been used, at least in part, to support otherwise unprofitable industries.

These measures reflect the government's view that even with SIAP subsidies, there were "dwindling prospects for exports."[36] Thus, given the tariff protection enjoyed by the industry and the government's quasi-exclusive procurement policy, SIAP was unnecessary.

Increasing International Competitiveness — Perhaps the most important of the objectives of SIAP was to make the industry substantially more competitive on world markets. The attainment of this objective would have made it easier to maintain industry employment and to reduce the level of SIAP assistance. In this respect, however, the program must be judged a failure. By the time the program was ended, the major client of the shipbuilding industry was the federal government, which, as we have seen, awarded contracts to Canadian producers despite the fact that this entailed a substantial increase in its procurement costs.

Employment Stability — Another major objective of SIAP was to maintain employment in the shipbuilding industry. By the time the program ended, however, employment had fallen substantially; its decline was particularly evident in the early 1980s (see Table 6-4). This reflected the inability of SIAP to make the industry competitive internationally. Nonetheless, the program could still have led to some increase in employment over and above what would have been the case without it, depending upon the degree to which it encouraged incremental output and investment. The evidence, both from the government's admission and from our research, suggests that the program was not entirely successful in that regard.[37]

In considering the issue of employment, one must ask: What is the cost of maintaining employment stability in the industry? The cost of SIAP subsidies to the shipbuilding industry over the period from 1980/81 to 1984/85 totalled $5,187 (in current dollars) per employee – one of the highest subsidy levels in the Canadian manufacturing sector.[38] Separate studies conducted by the Departments of Finance and of Industry, Trade and Commerce for 1978 concluded that the subsidies to shipbuilding (including SIAP grants and assistance under other programs) were "at least twice the magnitude of benefits," where the chief benefits were those associated with employment.[39] Furthermore, on reviewing the issue a few years later, it was stated that these conclusions had not fundamentally changed.[40]

Purchase of Machinery and Equipment — In order to compete on both world and Canadian markets, shipbuilders should be able to purchase inputs from the most competitive sources, whether in Canada or abroad. One of the conditions attached to the receipt of SIAP subsidies, however, was the Canadian-content requirement. The shipbuilder was expected to use Canadian materials, components, equipment, and services in the construction of vessels and for the improvement of the shipyard, if such materials and equipment were available at prices that were competitive with imported materials and equipment. Although this rule meant that domestic prices were to be equal to, or lower than, those of imported goods, it was not strictly observed. The application for a subsidy was accepted if there was not a "wide" discrepancy between domestic and foreign prices. How wide that discrepancy could be was left to the discretion of program administrators. In the absence of any evidence showing that Canadian shipbuilders were unaware of, or inadequately informed about, domestic sources of supply, the content provisions can only be considered as inconsistent with SIAP's overall objective of making the Canadian shipbuilding industry substantially more competitive.

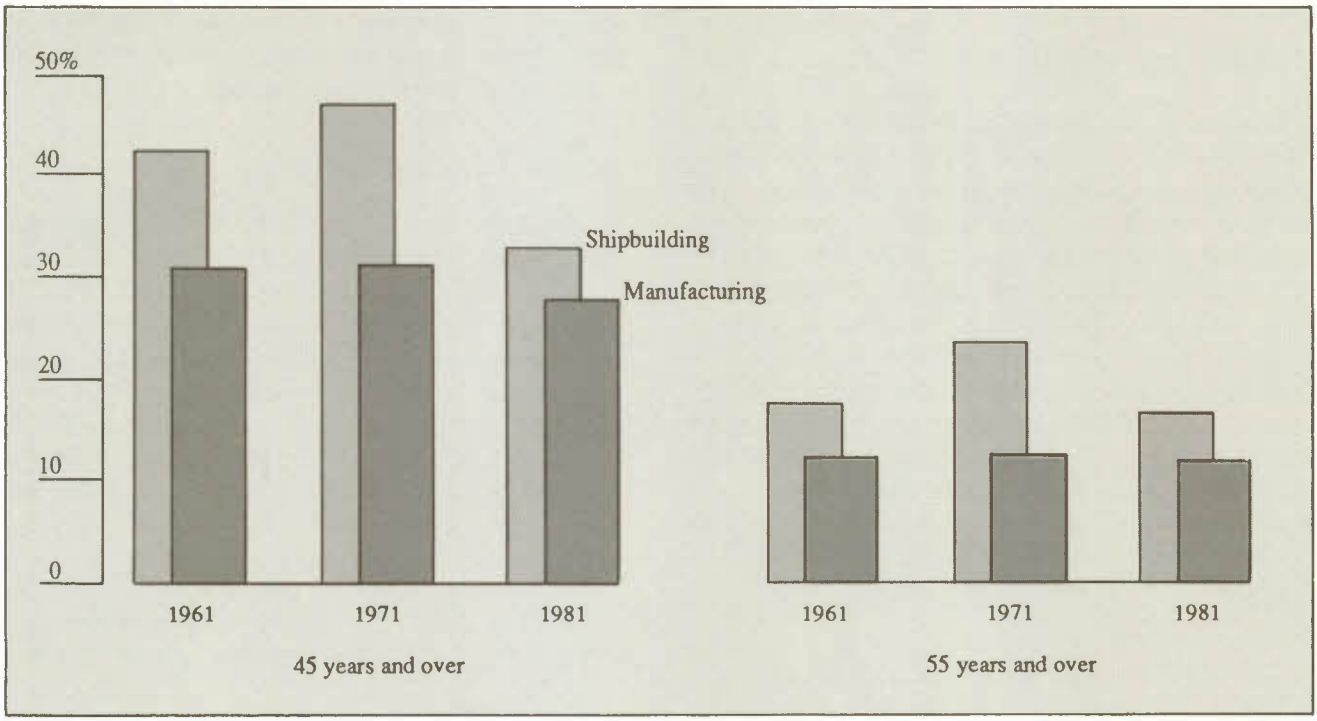
An Alternative Strategy — Not all of those countries whose shipbuilding industry was exposed to the problems caused by the oil price shocks, the continuing worldwide overcapacity, and declining international competitiveness followed the Canadian government's strategy of continued financial assistance, in one form or another.[41] Like Canada, Sweden, which in 1974 was the leading shipbuilder after Japan, at first responded to the industry's problems by giving subsidies. Unlike Canada, however, Sweden decided in 1985 to end its aid policy; as a consequence, virtually all merchant shipbuilding has ceased in that country, with employment dropping from 23,600 in 1976 to less than 4,000 in 1985. Various policies were introduced to provide workers with alternative employment. Australia also subsidized its shipbuilding industry initially; in view of the mounting cost of this support, it was later eliminated. Japan introduced measures leading to a substantial reduction in capacity while providing severance payments and relocation assistance to redundant workers. In the United Kingdom, the nationalized British Shipbuilders Corporation in 1977 operated 28 yards with 35,000 people; by the end of 1986, the corporation operated only five yards and employed fewer than 5,000 people. These examples show that there *are* alternatives to continued financial assistance, although they usually involve difficult political choices.

In Canada, one such alternative to SIAP and to the plethora of programs and measures that have been employed since 1985 would be to devote the funds to compensating older workers with a long attachment to the industry and to providing job training and mobility assistance to younger workers. Our calculations show that the government would have had to spend roughly $132 million in 1971 dollars – compared with the actual expenditure of over $250 million (in 1971 dollars) spent under SIAP – if it had chosen the early-retirement option.[42] The average age of workers in the shipbuilding and repair industry is significantly higher than in manufacturing industries that have received special incentives for older workers to retire early (Chart 6-3). As for younger workers, the evidence in Chapter 3 indicates that they typically possess a higher degree of mobility than older workers. Furthermore, the available evidence on the mobility of shipbuilding workers during the 1970s and 1980s does not suggest a labour force that is exceptionally immobile.[43] The combination of an early-retirement program and the gradual withdrawal of the various support programs is a feasible option – one that is preferable to encouraging younger, more mobile persons to enter this industry.

Summary — The foregoing discussion suggests that SIAP failed to meet its stated objectives. The program achieved neither employment stability in the industry nor its

Chart 6-3

Older Workers in the Shipbuilding Industry and in All Manufacturing Industries, Canada, 1961-81



SOURCE Statistics Canada, *Census of Canada*, 1961, 1971, and 1981.

international competitiveness nor a reduction in assistance to it. A recent review of the shipbuilding industry stated that "the major objective for the Canadian industry would now seem to be the preservation of the tariff protected domestic market against increasingly severe export pressure by foreign shipyards."[44] As our discussion makes abundantly clear, we seriously doubt whether, on either efficiency or equity grounds, public policy should continue to be aimed at preserving the industry in aspic.

Conclusion

As in the case of the PPMP, our evaluation of SIAP suggests that despite its laudable objectives of maintaining employment and increasing international competitiveness, the program did little in either regard. And, while there may have been a rationale for labour adjustment policies in areas where labour-market congestion existed, this was not the case for SIAP. However, this has not stopped the government from replacing SIAP with a series of measures designed to insulate the shipbuilding industry from competition for an indefinite future.

The Canadian Industrial Renewal Program

In June 1981, the federal government announced the establishment of the Canadian Industrial Renewal Program (CIRP) to coordinate all of the adjustment-assistance activities aimed at the textile and clothing industries that had previously been undertaken by a variety of government agencies.[45] In November 1981, the footwear industry was included. The Canadian Industrial Renewal Board (CIRB) was set up to administer all but the labour-adjustment portion of the program, which was administered by the Canada Employment and Immigration Commission. The program, which was viewed as a temporary measure, came to an end on 31 March 1986.

Industry Background

In our discussion of bilateral restraints under the Multifibre Arrangement (MFA) and of global quotas imposed in accordance with Canada's GATT commitments (see Chapter 5), we presented the salient points concerning the

background of the textile, clothing, and footwear industries.

Rationale and Objectives

When CIRP was established, the ministers of Industry, Trade and Commerce and of Regional Economic Expansion jointly stated that its purpose was to "secure for Canada viable and competitive textile and clothing industries and to revitalize the economies of those communities most vulnerable to foreign competition in these sectors."[46] In particular, the ministers stated that the program had three major objectives: 1) "to establish new employment in communities affected by industrial adjustment"; 2) "to help displaced workers take advantage of new employment opportunities"; and 3) "to assist the modernization of viable firms in the textile and clothing industries" (p. 1). It was also envisaged that while the quantitative restrictions under the MFA would continue during the existence of the program, at the end of the period "reliance on quantitative import barriers can be reduced."[47]

Unlike the PPMP and SIAP, there was a valid rationale for CIRP. The program appeared to signal a realization by the federal government that continued protection in the form of high tariffs and import restraints had given the industries concerned ample time to adjust. Furthermore, it also appeared to acknowledge that some parts of the textile, clothing, and footwear industries – particularly those where production is based on labour-intensive, standard technology – might contract as import restraints were phased out. That is why programs were provided to establish new employment opportunities and help for displaced workers – both concerns that conform to the efficiency and equity rationales for government intervention, discussed in Chapter 1 of this report. Finally, it might be noted that this Council itself suggested a policy initiative very similar to CIRP in 1978, when it studied Canada's relations with developing nations.[48]

Despite the fact that the rationale for CIRP is generally valid, one important aspect merits criticism: it is not clear what justification there was for granting capital subsidies for the modernization of viable firms. This would have been the correct solution if there had been serious imperfections in the capital market; as mentioned previously, however, that does not seem to have been the case. Indeed, it seems clear that the program gave subsidies to stronger firms that would likely have had the least difficulty in raising capital to finance their operations.

Thus, there is somewhat of a contradiction between encouraging further investment in the industry and, at the same time, encouraging regional diversification and employee retraining. If the two thrusts of CIRP are to be consistent, program administrators are called upon to forecast who will be the winners and the losers within the textile, clothing, and footwear industries in terms of firms, product niches, and locations – not an easy task.

Description and Structure

The CIRB was administered by a board of directors drawn mainly from the private sector and responsible to the minister of Regional Industrial Expansion. Of the 14 members on the board in 1985, only three were from the government; there was no representation from the targeted industries (except for a single union delegate). The decision to entrust the administration of CIRB to a board of directors with heavy private-sector orientation was made because it was felt that "to carry out this plan, the participation and commitment of the private sector is essential"[49] – particularly if, as envisaged at the outset, some grant applications were going to be rejected. This represented a significant difference from SIAP and the PPMP, which were administered directly by a government department.

The CIRP involved three components: 1) the Sector Firms Program, aimed at revitalizing the industry through modernization and restructuring; 2) the Business and Industrial Development Program, aimed at strengthening and diversifying the economic base of communities that were heavily dependent on the textile, clothing, and footwear industries; and 3) the Labour Adjustment Program (LAP), aimed at encouraging workers in those three industries to seek employment elsewhere. We look at the first two programs in this chapter; LAP is discussed in Chapter 7.

The Sector Firms Program (SFP) comprised three phases. During Phase 1, firms were encouraged to identify their strengths and weaknesses through the hiring of consultants; Phase 2 involved the drawing-up of three- or five-year plans by firms applying for a grant; and Phase 3 saw the implementation of those plans. In this manner, the program encouraged firms to pay a great deal of attention to long-term planning and to improving their management skills. The program concentrated on the stronger firms in the industry. The criteria for evaluating applicants for grants were their profitability, their retained earnings, and their growth potential. Firms had to retain 75 per cent of their after-tax profits for reinvestment. Firms generally received grants equal to up to 25 per cent of capital costs for restructuring (although program regulations allowed an upper limit of 50 per cent) and up to 75 per cent of R&D and consulting costs. Between 1981 and 1985, the funds committed under the SFP amounted to $223 million (in current

dollars); 53.9 per cent of the total grants went to textiles; 35.9 per cent to clothing; and 10.2 per cent to footwear.

The Business and Industrial Development Program (BIDP) provided financial assistance to firms willing to invest in certain designated areas, which were chosen on the basis of their vulnerability to import competition and their potential for industrial development. Those areas were Trois-Rivières/Shawinigan, Drummondville, Victoriaville/Plessisville, Sherbrooke/Magog, and Valleyfield, all of which are located in Quebec, as well as Cornwall and Hawkesbury in Ontario. The criteria for eligibility for assistance included the viability of the project, the potential for employment creation, and whether or not the project could proceed without assistance – the incrementality criterion. Grants under the program covered up to 50 per cent of capital costs and 75 per cent of consultants' fees. The funds committed under the BIDP totalled approximately $97 million (in current dollars) during the period 1982-85, with Sherbrooke/Magog receiving the largest single contribution (30.6 per cent).

Evaluation

In evaluating CIRP, our main concern was whether the program was able to make the targeted industries internationally competitive and whether it succeeded in reducing the dependence of certain designated communities on the textile, clothing, and footwear industries through the encouragement of investments by new firms in other industries. To gauge the success of the program, we looked at its implementation and at its incrementality. In contrast to our assessment of SIAP and the PPMP, we did not examine the files of CIRB. Instead, we relied heavily on its various annual reports and on an independent evaluation commissioned by the board and conducted by Price Waterhouse, as well as on extensive discussions with a small number of CIRB officials.

Program Implementation — One of the important aspects of the Canadian Industrial Renewal Board was that it sought to be selective, with respect to the applicants who were to receive grants, by choosing only "viable" firms. This was in sharp contrast to the PPMP and SIAP, under which all, or virtually all, applicants received grants. Perhaps because of this selectivity the screening of applicants was entrusted to the semi-autonomous CIRB, which had only an arm's-length relationship with the government. The evidence available suggests that CIRB was indeed selective, in that not all applicants received funding. For example, 636 of the 1,113 applications received for assistance under the Sector Firms Program during the period 1981-85 were rejected. Even applicants who had progressed through both Phases 1 and 2 of the program were turned down. Similarly, 571 of the 1,126 applications submitted for assistance under the Business and Industrial Development Program during 1981-85 were rejected.

This brings us to another important issue – that of the criteria used to accept some applicants and reject others. An examination of CIRB's Annual Reports provides some clues. In the case of the SFP, the board "only provided [assistance] to applicants on the basis of proven performance, satisfactory financial resources, and strong restructuring plans."[50] As noted above, if the firm had a proven performance and satisfactory financial resources, it is difficult to understand why it needed funding from CIRP. The Price Waterhouse study does little to clarify that issue except to note that the "program rationale was that SFP could influence the content of the plans (through phases 1 and 2) as well as the scale and timing of capital investments of strong firms."[51] The selection of strong firms thus took place as a result of thorough assessments of the business plans of applicants evaluated through Phases 1 and 2 of the SFP.[52] Having selected a strong firm, the task of CIRB was to encourage increased investment.

As regards the implementation of the BIDP, the approach was a two-pronged strategy, comprising "an active campaign aimed at encouraging local firms to examine their operations in detail and draw up projects, and a promotion campaign aimed at attracting companies in the growth sectors identified in the economic development plans prepared for each Special Area by local representatives and financed by CIRB in 1982."[53] The special areas selected were those which were heavily dependent on the affected sectors, so that the congestion externalities discussed in Chapter 1 would be taken into consideration. Equally, an attempt to determine which industries could be attracted seemed to be a sensible strategy. The actual criteria employed to decide whether to provide funding were that "the project must be viable, the project must create manufacturing employment and the project will not proceed without BIDP assistance."[54] Given our discussion at the beginning of this chapter, the criterion of incrementality was sensible, but it is not clear why the BIDP had to be biased towards capital subsidies to generate employment. The literature on regional grants shows the weakness of this approach to job creation.[55]

Allocation of Resources between the SFP and the BIDP — When the CIRB was first announced in 1981, it was envisaged that funding would be divided equally between the SFP and the BIDP. As it turned out, however, the funds were allocated overwhelmingly to the SFP, which

received approximately 70 per cent of the CIRB funding. This development did not result so much from an increase in funding for modernization at the expense of regional diversification as from the difficulties experienced in promoting the BIDP, particularly in the climate immediately following the 1982 recession. Hence the CIRB grants were primarily a subsidy to capital.

Incrementality — In considering the issue of incrementality, Price Waterhouse conducted a survey based on a sample of firms that had received Phase 3 assistance under the SFP. The response rate was high – 81 per cent. Both questionnaires and interviews were used to evaluate the program. Of the eligible Phase 3 expenditures, 89 per cent were for equipment. In one of the questions, the SFP recipients were asked "to indicate the percentage of approved expenditures in the phase 3 plan which they would have made, in the same time frame, if they had not received CIRB funds." The response indicated that "firms claim that they would have spent 61.6 per cent of the planned expenditures for phase 3 . . . even if they had not received a CIRB contribution."[56] Hence there was a modest degree of incrementality at the level of the firm. Apparently this was most marked in the area of consulting. Price Waterhouse estimated that for every dollar of CIRB assistance received, the average firm spent $1.79.

A number of caveats must be borne in mind before concluding that the program was incremental. First, the data refer to firm incrementality. To the extent that the SFP was successful in targeting the "stronger" firms, its effect may have been to determine which firms would undertake the investment rather than increase the total amount of industry investment.[57] Second, given the absence of a rationale demonstrating that such subsidies are needed, it is difficult to see what benefits are generated. Third, any incrementality needs to be offset against the fact that the cost per dollar of subsidy delivered is approximately 81 cents. These caveats suggest that although the subsidy may have achieved some incrementality at the level of the firm this is much less certain at the level of industry. Against this must be set the costs of administering the subsidy and the lack of any rationale which raises doubts about any benefits being generated.

The ultimate aim of the SFP was to make textile, clothing, and footwear firms more competitive so that they could face imports without the aid of quantitative restraints. In the course of the Price Waterhouse study, the recipients were asked about the impact of the SFP on competitiveness. The average results were as follows:

The viability and competitiveness of your *firm* were increased	3.4
Your *industry* was more competitive with developed countries	2.9
Your *industry* was more competitive with low-cost countries	2.1

where the rating ranged from 1 ("not effective at all") to 5 ("extremely effective").

Two points can be made about these findings. First, the fact that the recipient firm became more competitive lends some credence to the view that the SFP resulted in a redistribution of industry investment rather than in an increase. Second, in the view of the recipients, the program clearly failed to make the textile, clothing, and footwear industries more competitive with low-cost countries. On this, the Price Waterhouse report noted (p. 19) that

> a large number of firms in all sectors assigned this low rating because SFP did not improve their industry's ability to compete with low wages in developing countries. Many firms saw wages as the key cost differential between Canadian firms and firms in low cost countries. A low rating was assigned because SFP assistance could not address this problem.

In other words, the SFP was unlikely to have been successful, because the capital subsidies were insufficient to offset the low wages in developing countries.

In examining the Business and Industrial Development Program (BIDP), Price Waterhouse adopted a survey approach similar to that employed with respect to the SFP. The survey led to several findings:

- It was established that each dollar of BIDP contribution resulted in incremental capital expenditures of $2.77. . . . In other words, according to recipients' stated views, only 19 per cent of capital expenditures would have taken place without BIDP grants. [p. 33]
- According to the same views, seventy-two per cent of planned jobs would not have been created if BIDP grants were not received. . . . The average contribution per incremental job is around $18,000. [pp. 33-34]
- *In total, jobs created by BIDP supported projects address the total number of TCF jobs lost in the designated areas, but with a two-year delay . . . 26 per cent of the jobs created by BIDP supported projects go to former TCF workers.* [p. 65, emphasis in original]

- *BIDP impact on compensating lost TCF jobs by newly created jobs and on regional manufacturing employment varies significantly among designated areas, both in terms of level and timing.* [p. 65, emphasis in original]

- *BIDP was successful in increasing the proportion of jobs in the non-TCF sectors.* [p. 66, emphasis in original]

These results are much more encouraging than those recorded with respect to the SFP. The BIDP resulted in substantial incrementality, and the cost per job created was substantially below the cost per job saved by special import measures. Nevertheless, in some locations the BIDP had minimal impact, which suggests that there is an important role for labour retraining and relocation policies (see Chapter 7).

Reducing Quantitative Restraints — One of the objectives of CIRP was to bring about reductions in quantitative restraints. As noted in Chapter 5, however, in 1986 this did not occur for textiles and clothing. Indeed, the renewal of the MFA until 1991 increased rather than reduced the restrictiveness of quantitative import controls. In contrast, footwear quotas were gradually phased out for the period 1985-88, following the Canadian Import Tribunal's 1985 report. Hence for textiles and clothing, which accounted for the vast majority of the employment and output of the three industries falling under CIRP, the objective of reducing quantitative restraints was not met; in fact, the reverse occurred. In part, this reflected the fact, noted earlier, that the program administrators' benchmark of success was not the removal of restraints but, rather, to make "firms more competitive and communities less dependent"[58] on the three industries covered by CIRP and to assist workers in those industries.

Conclusion

The Canadian Industrial Renewal Program was an interesting departure from the SIAP and PPMP experience in at least two important ways: there was an underlying rationale for the program; and the organizational structure increased the probability that the program would lead to incremental investment since the board could be, and was, selective in granting applications for funding.[59] Thus, the BIDP had a valid rationale – with some qualifications – and the program appears to have been incremental. In contrast, the SFP had little in the way of a valid rationale, although its grants did lead to some modest incrementality at the firm level; there was probably little incrementality at the industry level. When CIRP was terminated, the promised reduction in quantitative restraints did not take place. Indeed, in the new textile and clothing import policy announced in July 1986, no reference was made to this earlier commitment. Instead, Canada continued to participate in the MFA restrictions, and the policy statement noted that "industry assistance continues to be available."[60]

Implications for Policy

In Chapter 1 we introduced a dichotomy between policies aimed at promoting adjustment (positive adjustment) and those which retarded or thwarted adjustment (new protectionism). The objectives of the sectoral subsidy programs that we have examined in this chapter have all tended to be at the positive-adjustment end of the policy spectrum. The Pulp and Paper Modernization Program and the Shipbuilding Industry Assistance Program were both aimed at encouraging or enhancing the international competitiveness of specific industries through increasing investment and output. In the case of the Canadian Industrial Renewal Program, in addition to this goal there was also a recognition that some parts of the textiles, clothing, and footwear industries might not be able to compete, once special import measures had been removed. Thus, initially at least, the attempts to diversify the economic base of communities heavily dependent on the targeted industries and to provide additional measures to encourage labour mobility and retraining represented a major thrust of the program.

However, the actual implementation of the three subsidy programs fell well short of their stated objectives. Industries were not revitalized. Little extra or incremental investment was undertaken, reflecting the lack of either an efficiency or an equity rationale (with the exception of the BIDP), combined with (in the case of SIAP and the PPMP) an administrative structure that was not designed to select incremental projects. Of course, had extra investment been forthcoming in these instances because the market was functioning adequately, this could have led to excess capacity and depressed prices and profits, thus exacerbating any adjustment problems. Furthermore, assistance to the industries did not stop at the conclusion of each program but continued, often in a different form. Thus the subsidy programs lacked a credible timetable for their phasing-out. As a result, program recipients rationally incorporated expectations that the program would continue into their behaviour, and adjustment itself was retarded. New protectionism seems a more appropriate way to describe the actual implementation and outcome of the policies.

In terms of the two sets of criteria – the rationale of the program and its incremental effects – presented at the beginning of this chapter as appropriate for evaluating

subsidy programs, the results of our analysis can be summarized in a simple matrix:

		Was the project incremental?	
		Yes	No
Was there a rationale for the project?	Yes	BIDP (CIRP)	
	No	SFP (CIRP)	PPMP SIAP

where incrementality is measured at the firm level. If incrementality were measured at the level of the industry or the economy, then SFP (CIRP) would more appropriately be placed together with SIAP and the PPMP in the bottom right-hand quadrant.

For the implementation of a policy to be consistent with its stated objectives, the proper questions must be asked, both about the adjustment problem and about its solution:

– Is there a problem? If so, of what nature? How can it be measured? What caused it?

– Is there a need for government intervention based on efficiency and equity rationales? What form should it take? What are the costs and benefits of each available instrument or form of intervention?

– What criteria should be used to distinguish between the various policy alternatives? Was the best alternative selected?

– Was the policy alternative selected properly implemented? If not, what changes are required?

– How long should the intervention last?

– What benchmarks should be laid down in advance to determine the eventual success or failure of the program under consideration?

In the case of the subsidy programs that we have evaluated in this chapter, there have been a few attempts at an analysis based on such questions, but they tend to be limited in scope. As a result – with the exceptions of CIRP's BIDP and labour program – the adjustment programs followed the flawed approach of capital and output subsidies as a means to industry revitalization.

7 Labour Adjustment Policies

As noted in Chapter 1, governments in Canada have introduced programs to socialize some of the most important risks associated with change. By reducing these risks, society not only reduces the burden of change but may also make change more acceptable. The programs usually provide varying degrees of financial assistance to those who face loss of employment (unemployment insurance) or, to a much lesser extent, to those who suffer loss of skills (training assistance), or who must cope with the changing distribution of job opportunities across the country (mobility allowances).[1] They also promote planning for change, both in general (unemployment insurance) and at the company level (Industrial Adjustment Service). Such programs are usually offered, regardless of the reason for the loss in employment – i.e., technological change, import competition, adverse macroeconomic developments, overvaluation of the dollar, or firm bankruptcy.

In a number of instances, governments have supplemented those universal programs with other measures aimed specifically at individuals in a small number of trade-sensitive industries;[2] such additional programs were offered to textile and clothing workers over the period 1971-86 and to footwear and tanning workers during the period 1978-86.[3] In addition, in the early 1980s, there were programs aimed at communities experiencing economic dislocation because of their dependence on a small number of industries that were undergoing permanent (and not just cyclical) change. While the dislocation might have been caused by any factor (including trade), several of the community/industry designations involved industries – shipbuilding, automobiles, and pulp and paper – that were receiving sectoral assistance to relieve difficulties experienced in meeting foreign competition.

The programs tried to encourage worker adjustment in two ways: income payments to displaced older workers with a long attachment to a particular industry and with little prospect of finding another job which, in the context of this report, we shall call preretirement benefits programs; and re-employment measures designed to encourage job mobility, relocation, and retraining so that workers could enter new industries, occupations, or places of employment (Figure 7-1). As we saw in Chapter 1, such measures can be justified on equity grounds (in the case of older workers who have developed a skill specific to one industry) or on efficiency grounds (in cases where the decline in industry employment may have led to congestion problems in local labour markets).[4] Furthermore, the evidence in Chapter 3 suggests that older workers and those in areas with a narrow industrial base face particularly difficult problems in adjusting to change.

In considering the rationale, impact, and utilization of each of these labour programs, we shall examine the process and criteria for awarding special labour-adjustment assistance to individual workers. There are three steps to the procedure: industry designation; layoff certification; and worker certification. In other words, before a worker can receive assistance under the programs, he/she must be employed in a designated industry, must be part of a "certified layoff," and must meet certain eligibility requirements (with respect to the duration of his/her employment in the industry, for example). We shall introduce evidence about the incidence of the utilization of these programs and about the way in which the industry-designation and the layoff- and worker-certification procedures and criteria influence that utilization. In the discussion, we shall distinguish the program granting preretirement benefits to older workers from re-employment programs, because there are some important differences in the procedures governing access to the two types of programs which affect their utilization.

Industry Designation

Preretirement Benefits Programs

In the period 1971-86 there were several statutes and sets of regulations that determined the designation of industries – alone or in combination with particular communities – for which preretirement benefits programs could be made available. The *Textile and Clothing Board Act* and the Adjustment Assistance Benefit Regulations were aimed at the textile and clothing industries during the period 1971-82; the Adjustment Assistance Benefit Regulations (Footwear and Tanning Workers) were in effect from 1978 to 1982; and the *Labour Adjustment Benefits Act*, in effect since 1982,[5] extended or continued the existing textile,

Figure 7-1

Schematic Overview of Trade-Related Labour Adjustment Programs in Canada

Preretirement benefits programs

- Adjustment Assistance Benefit Regulations
- 1971-82
- Textile and clothing industries
- Income maintenance for older workers

- Adjustment Assistance Benefit Regulations (Footwear and Tanning Workers)
- 1978-82
- Footwear and tanning industries
- Income maintenance for older workers

- Labour Adjustment Benefits Act
- 1982 to present[1]
- Textiles, clothing, footwear and tanning industries, and a number of industry/community designations (see Figure 7-2)
- Income maintenance for older workers

- Program for Older Worker Adjustment[2]
- In process
- Income maintenance for older workers

Re-employment programs

- Industry and Labour Adjustment Program[3]
- 1981-87
- A number of industry/community designations (see Figure 7-2)
- Enriched features of existing CEIC programs (see Table 7-5)

- Canadian Industrial Renewal Program
- 1981-86
- Textiles, clothing, and footwear industries
- Enriched features of existing CEIC programs (see Table 7-5)

Other programs

- Transitional Assistance Benefits Program
- 1965-76
- Automobile industry
- Supplementary unemployment insurance benefits[4]

1 The last designation expired in 1987; hence we refer to the period 1982-87 in the text. The act, however, is still in force, and new designations could be made; but the program is to be replaced by the Program for Older Worker Adjustment.

2 This program was announced in the February 1986 budget, as a replacement for the *Labour Adjustment Benefits Act*. It is to be a joint federal/provincial program. To date, however, no federal/provincial agreements have been signed.

3 The program consisted of a number of other features besides re-employment measures, including assistance to business. When this aspect of the program was dropped in 1984 and a number of the enriched re-employment features were reduced in 1984, the program's name was changed to Modified Industry and Labour Adjustment Program (MILAP). To avoid confusion, we refer to ILAP throughout the text; indeed, most of our comments in the text refer to ILAP, not MILAP. Note that 1987 refers to the expiry date of the last certification under MILAP.

4 The supplementary unemployment insurance benefits raised total UI benefits from 50 per cent of insurable wages to 65 per cent for auto workers laid off more than four weeks if the layoff involved 50 employees or 10 per cent of a plant's work force. In 1972, general unemployment insurance was raised to 66 per cent; as a result, the program became redundant. However, it was not repealed until 1976.

SOURCE Various government publications.

clothing, and footwear designations and, in addition, made several industry/community designations for the first time.

The *Textile and Clothing Board Act* itself designated the textile and clothing industries as eligible for preretirement benefits programs. The designations under this act and in the Adjustment Assistance Benefit Regulations were part of the federal government's 1970 textile policy, which envisaged that

> *progressively, and as access to world markets improves, the Canadian industry will be expected to compete more and more without special protection other than the tariff. The industry should, therefore, be planning progressively to phase-out of the least competitive lines and to move into those with the highest competitive potential for the future.*[6] [Emphasis in original]

The need for such restructuring – and possibly, given the discussion in Chapter 5, some expected employment loss – provided the rationale for selecting this industry as one where a preretirement benefits program might be particularly useful as part of a package of measures designed to encourage industry restructuring and the removal of special import measures.

In the case of footwear, the Adjustment Assistance Benefit Regulations (Footwear and Tanning Workers) were introduced at the same time as temporary global quotas were placed on footwear, following the 1977 report of the Canadian Import Tribunal. The quotas were to provide a breathing space during which firms could restructure to meet foreign competition or, in some instances, leave the industry. It was anticipated that such changes might lead to

labour displacement, and thus it was felt that there was a role for the provision of preretirement benefits that would compensate older workers experiencing adjustment problems.

Under the *Labour Adjustment Benefits Act*, industries could be designated by the Governor in Council provided that: 1) the industry in Canada generally was undergoing significant economic adjustment of a noncyclical, structural nature because of import competition or because it was undergoing restructuring as a result of a government policy measure; and 2) there was significant loss of employment in the industry in Canada generally. Thus the criteria for designating an industry retained the link with trade, but they also permitted industry designation where government-sponsored restructuring plans were in place; this applied to textiles, clothing, and footwear, with the advent of the Canadian Industrial Renewal Program in 1981. Such a link, for reasons discussed earlier, appeared to be sensible.

Industry designations under the *Labour Adjustment Benefits Act* were made without any open formal hearings or without "significant economic adjustment" or "significant loss of employment" being defined; rather, they were made through a confidential "Memorandum to Cabinet" prepared by officials. Unlike the pre-1982 situation, all industry designations were for set periods – initially up to three years, with a possible extension for another three years.

During the period 1982-86, no new industry designations were made. In other words, the only industries that were designated nationally for preretirement benefits programs over the period 1971-86 were textiles, clothing, and footwear.

Although no new industry designations were made on a national basis, the *Labour Adjustment Benefits Act* did provide for industries in particular communities or regions to be designated, provided the industry in question was undergoing structural adjustment across Canada, resulting in severe economic disruption in a specific region and in a significant loss of employment in the industry in that region. This criterion is consistent with our discussion of congestion externalities as a rationale for government intervention. In such situations, older workers are likely to be particularly disadvantaged when seeking employment.

The industry/community designations could be made initially for one year, with two extensions each for another six months.[7] As with the national industry designations, the Governor in Council could designate an industry/community on the basis of a "Memorandum to Cabinet." Perhaps more pertinent from our point of view, while the criteria for national industry designation refer specifically to imports as the trigger for such designation, this was not the case for industry/community designation. Here, any cause (or combination of causes) of a noncyclical nature, including trade, could result in designation.

Under the *Labour Adjustment Benefits Act*, there were 22 industry/community designations (Figure 7-2). The actual determination of these designations was closely related to another adjustment program – the Industry and Labour Adjustment Program (ILAP).[8] Once this program had made an industry/community designation, then appropriate documentation was prepared by Labour Canada program officials for designation under the LAB program. The designation was usually made retroactively in order to take this delay into account. The criteria employed by ILAP to designate an industry/community were consistent with those in the *Labour Adjustment Benefits Act*.

Re-employment Programs

Two labour adjustment programs, introduced in the early 1980s, were designed to encourage workers in designated industries or industries/communities to find alternative employment: the Canadian Industrial Renewal Program (1981-86), aimed at workers in the textile, clothing, and footwear industries; and the Industry and Labour Adjustment Program (1981-87), aimed at workers in a variety of industry/community designations. Both CIRP and ILAP had a number of features or program-delivery aspects that covered not only labour policies but also firm policies. We concentrate only on the former.

The Industry and Labour Adjustment Program allowed particular industry/community designations (but *not* industry-only designations), provided certain conditions were met: 1) particular attention must be given "to dislocations which reflect industry-wide structural adaptation"; 2) the dislocation must be a recent event, not a long-standing problem; and 3) the size of the disruption within the community must be severe. No specific reference was made to trade-related disruption. The designations were made with reference to a Memorandum to Cabinet; there were no hearings or written decisions, only an Order in Council giving the community designations.[9]

The use of industry/community designations rather than only industry designations had the advantage that resources could be concentrated in those areas where the need was greatest, because labour-market congestion problems were likely to be most important there, given the importance of the industries to local communities. It is not easy, however, to determine whether a given dislocation situation is

Figure 7-2

Industry/Community Designations under the Industry and Labour Adjustment Program

Province	Community	Industries
Newfoundland	Buchans	Metal mining
	Corner Brook	Logging; pulp and paper
	Labrador City/Wabush	Iron mining; railway transport (iron ore-related freight)
	Port-aux-Basques	Water transport; services incidental to water transport
Nova Scotia	Glace Bay	Coal mines; fish products; industrial chemicals
	Sydney	Iron and steel mills; metal rolling, coating, and extruding
	North Sydney	Water transport; services incidental to water transport
New Brunswick	McAdam	Logging; veneer and plywood mills
Quebec	Asbestos/Thetford-Mines	Asbestos mining
	Gagnon/Fermont	Iron mining; railway transport (iron ore-related freight)
	Montmagny/L'Islet	Truck-body and trailer manufacturing; major appliances manufacturing
	Murdochville/Grande-Vallée	Metal mining; sawmill, planing mill, and shingle mill products; pulp and paper
	Port-Cartier/Sept-Îles/ Schefferville	Logging; pulp and paper industry; iron mining (iron mining and iron pellet manufacturing); railway transport (iron ore-related freight)
	Tracy/Sorel	Shipbuilding
Ontario	Brantford	Iron foundries; agricultural implements manufacturing
	Chatham	Auto-related rubber-products manufacturing; auto-fabric accessories manufacturing; motor-vehicle manufacturing; auto-related glass and glass-products manufacturing; truck-body and trailer manufacturing
	Kitchener/Waterloo	Auto-related rubber-products manufacturing; auto-fabric accessories manufacturing; motor-vehicle manufacturing; motor-vehicle parts and accessories manufacturing; auto-related glass and glass-products manufacturing; truck-body and trailer manufacturing
	Sudbury	Miscellaneous metal mining; smelting and refining
	Windsor	Auto-related rubber-products manufacturing; auto-fabric accessories manufacturing; motor-vehicle manufacturing; motor-vehicle parts and accessories manufacturing; auto-related glass and glass-products manufacturing; truck-body and trailer manufacturing
British Columbia	Logan Lake	Logging; metal mining; sawmill, planing mills, and shingle mill products
	Nelson	Logging, sawmill, planing and shingle mill products; veneer and plywood products
	Port Alberni	Logging; sawmills, planing mills, and shingle mill products; veneer and plywood industries; pulp and paper mills
	Salmon Arm	Logging; sawmill, planing mills, and shingle mill products; veneer and plywood

SOURCE Labour Canada, *Report on the Administration of the Labour Adjustment Benefits Act, July 1, 1986 to September 30, 1986* (Ottawa: Labour Canada, 1986), pp. 21-22.

permanent and structural, rather than temporary and easily reversed. As noted in Chapter 2, the decline in the automobile industry in the early 1980s was primarily cyclical, while in shipbuilding it was permanent; nevertheless, both were designated under ILAP. In hindsight, one can say that this was not appropriate for automobiles but appropriate for shipbuilding.

The Canadian Industrial Renewal Program was fully described in Chapter 6. The re-employment part of CIRP was designed to complement the restructuring and modernization of the textile, clothing, and footwear industries, as well as the reduction in dependence of communities heavily reliant on those industries. There was a sound rationale for the labour adjustment part of a program that was designed to remove special import measures gradually and to help displaced workers in advance of such a move, as well as those displaced because of the restructuring.

Layoff and Worker Certification and Program Utilization

Preretirement Benefits Programs

The worker- and layoff-certification criteria and procedures, and the utilization of the preretirement benefits programs, changed considerably over the period 1971-87. Consequently, we divide our discussion into three separate, but related, parts: textiles and clothing, 1971-82; footwear and tanning, 1978-82; and labour adjustment benefits, 1982-87. As will be seen, the criteria for providing preretirement benefits were changed over the period, so as to increase the number of eligible persons. This resulted in the program being utilized by more people. In Appendix E, we provide selected abstracts from the legislation and regulations pertaining to the preretirement benefits and re-employment programs.

Textile and Clothing Workers, 1971-82 — The certification of a textile or clothing worker eligible for preretirement benefits was a two-stage procedure. First, the Textile and Clothing Board (TCB) had to "certify" a layoff by determining that:

1 the work force of a firm (either overall or in any single plant) must be reduced, for a period of at least four weeks, by 10 per cent of the employees or 50 employees, whichever was the lesser; and

2 the layoff must be directly attributable to either a reduction in tariffs, any conditions set by the federal government for special protection, or a finding of serious injury by the TCB but where special measures of protection had not been implemented.

Note that the certified layoff might include workers of all ages, not just those eligible for preretirement benefits.

Once the TCB had certified the layoff, the Canada Employment and Immigration Commission could assess whether a worker who was employed in the designated industry and was part of a certified layoff was eligible for the benefit. Eligibility criteria were satisfied if

3 the laid-off worker was between the ages of 54 and 65, had worked in the designated industry for at least 1,000 hours in at least 10 of the previous 15 years, had exhausted his UI benefits, and was unable to find work (with or without further training or relocation assistance), or had accepted employment with earnings that were less than his previous average weekly earnings.

Workers who qualified were given early retirement benefits equal to two-thirds of their insurable earnings. Deductions were made for earnings from employment, pension benefits, vacation pay, and so on. The retirement benefits were paid as regular UI payments but terminated upon re-employment. There was provision for an annual review of each claimant, to ensure that he/she was still eligible for the benefit.

The procedure to get layoff certification could be initiated by a union or by any other representative group of workers. Because written decisions concerning points 1 and 2 above are not available, it is impossible to determine the methodology used to link imports with marginal reductions in the firm's labour force. As a consequence, we cannot evaluate the approach used by the TCB to assess the importance of trade as a cause of employment change.

The preretirement benefits program was intended to provide last-resort income maintenance for older workers with a long attachment to the industry and with no prospect of re-employment. There are good reasons to help such workers, who are likely to have acquired firm- and industry-specific skills that may be difficult to transfer to jobs in a different environment. Typically, older workers are the last to be laid off because of seniority. In any industry undergoing a reduction in employment, it is the young workers who are laid off first, who are the most mobile, and who have the best chance of finding another job; the opposite is true of older workers. Thus it would seem socially optimal to allow employment contraction to proceed by keeping the older workers employed in the declining industry until they are laid off according to seniority (since they continue to be productively employed, and their output is not lost to society forever), while encouraging the younger,

more-mobile workers to seek employment in the growing sectors of the economy. In other words, the equity and efficiency criteria would seem to be satisfied by worker-certification criteria.

We expect little use to have been made of the preretirement benefits program in the period 1971-82, for a number of reasons. First, layoffs were usually made on a seniority basis – that is, the older workers with a long attachment to the labour force would be the last to be laid off – and employment levels in the textile and clothing industries did not drop significantly over the period 1971-81 (Table 7-1). Second, layoffs had to be directly attributable to tariff reductions, to a condition set pursuant to the granting of special protection, or to the finding of serious injury by the TCB but which was not remedied by any action by the federal government, such as special import measures.[10] For textiles and clothing, tariffs fell slowly;[11] quantitative restraints were not relaxed but strengthened in successive renewals of the Multifibre Arrangement; and the TCB recommendations were usually followed. The evidence in Table 7-2 is consistent with the view that, given the layoff- and worker-certification procedures, the employment pattern in the textile and clothing industries, and continued special protection, program utilization would be low.

Ideally, however, it would be preferable to have data on the number of workers with the required number of years

Table 7-1

Number of Employees[1] in Selected Manufacturing Industries,[2] Canada, 1961-85

	Textiles	Clothing	Shoe factories	Knitting mills	Shipbuilding and repairs	Pulp and paper mills	Total manufacturing
				(Thousands)			
1961	62.2	93.3	21.9	22.7	15.0	63.8	1,352.6
1962	65.1	91.7	21.6	22.8	17.6	64.6	1,389.5
1963	67.3	92.3	21.2	22.6	18.0	65.0	1,425.4
1964	71.3	96.4	20.5	23.0	17.1	67.7	1,491.3
1965	73.5	98.7	20.4	24.1	18.6	69.9	1,570.3
1966	74.0	99.7	20.6	23.6	19.5	73.5	1,646.0
1967	74.1	98.3	20.1	22.8	18.9	74.0	1,652.8
1968	70.2	97.6	20.1	23.8	15.7	73.5	1,642.4
1969	72.2	99.1	19.8	24.7	15.2	75.4	1,675.3
1970	69.7	97.4	17.8	23.7	13.8	80.4	1,637.0
1971	69.4	98.5	17.6	23.9	13.3	79.4	1,628.4
1972	74.2	102.0	17.0	24.7	14.6	79.0	1,676.1
1973	76.9	104.3	16.8	25.9	15.1	80.1	1,751.1
1974	75.6	101.7	16.4	25.5	14.7	86.2	1,786.0
1975	71.1	100.5	16.9	24.7	16.3	84.0	1,741.2
1976	68.2	101.7	16.5	23.5	15.5	87.0	1,743.0
1977	65.5	94.9	14.5	20.6	14.6	84.5	1,704.6
1978	67.8	99.8	15.2	20.0	13.5	85.6	1,790.6
1979	69.2	100.3	16.2	21.1	16.0	87.1	1,855.4
1980	68.2	96.1	15.5	21.2	17.2	86.9	1,850.4
1981	67.7	95.9	16.5	20.5	16.7	87.9	1,854.0
1982	59.4	91.3	14.4	18.3	16.2	83.1	1,709.4
1983	63.4	93.2	15.1	19.6	11.7	79.2	1,678.0
1984	63.6	93.8	15.6	19.4	10.7	79.4	1,729.1
1985	61.2	114.3	14.9	18.9	11.0	77.6	1,774.0

1 All production and administrative employees, as defined by the 1970 Standard Industrial Classification (SIC).

2 In most cases, no continuous series based on a single, consistent definition exists for the entire period, because of changing SIC definitions. The data for the textile industry had to be converted from the 1960 SIC definitions for the period 1961-69. (It was possible to link the data for the 1960s with those for the 1970s because the data for 1970 and 1971 were published under both 1960 and 1970 definitions.) Other industries shown remained consistent until 1982. With the introduction of the 1980 SIC in 1983 data, all except shipbuilding and pulp and paper registered changes. The data for 1981 and 1982 were available on both the 1970 and 1980 bases, so it was possible to link the two series.

SOURCE Based on data from Statistics Canada, *Manufacturing Industries of Canada*, No. 31-203 (various years).

Table 7-2

Labour Adjustment Benefits Program, Expenditures and Claims by Stream, 1972-86[1]

	Total labour adjustment benefits			Textile and clothing		Footwear and tanning		ILAP/MILAP[2]	
	Expenditures	Active claims	Average benefit per week	Expenditures	Active claims	Expenditures	Active claims	Expenditures	Active claims
	(Millions of $)	(Number)	(Dollars)	(Millions of $)	(Number)	(Millions of $)	(Number)	(Millions of $)	(Number)
Fiscal year :									
1972/73	0.2	96	47	0.2	96	...	...	...	...
1973/74	0.3	114	50	0.3	114	...	...	...	...
1974/75	0.4	108	57	0.4	108	...	...	...	...
1975/76	0.5	168	77	0.5	168	...	...	...	...
1976/77	1.1	302	82	1.1	302	...	...	...	...
1977/78	2.1	387	92	2.1	387	--	..	...	...
1978/79	2.6	460	116	2.5	446	0.1	14	...	...
1979/80	3.3	511	129	3.1	489	0.2	22	...	...
1980/81	3.8	531	155	3.6	512	0.2	19	...	...
1981/82	5.1	765	158	4.8	716	0.3	49	...	...
1982/83	9.4	1,632	148	8.3	1,350	0.6	90	0.5	192
1983/84	24.3	3,326	174	19.5	2,418	1.8	233	3.0	675
1984/85	42.2	4,814	184	32.6	3,735	2.9	326	6.7	753
1985/86	59.7	6,947	199	45.3	5,199	4.7	597	9.7	1,151

1 The Labour Adjustment Benefits Program existed from 1982 to 1986. Prior to that, separate preretirement benefits programs existed for textiles and clothing workers and for footwear and tanning workers. In the table, expenditures are cumulative for each year, while the data on claimants are end-of-year figures.

2 ILAP = Industry and Labour Adjustment Program; MILAP = Modified Industry and Labour Adjustment Program.

SOURCE Labour Canada, "The Labour Adjustment Benefits (LAB) Program," Ottawa, 1986.

and hours in the designated industry and to compare them with data on program utilization. Unfortunately, we do not possess such data. A useful alternative is the number of people in the age brackets 45 to 54 and 55 to 64 (Table 7-3). This somewhat crude indicator of the eligible population shows that program utilization is "low."

Footwear and Tanning Workers, 1978-82 — The certification procedures and criteria under the Adjustment Assistance Benefit Regulations (Footwear and Tanning Workers) were very similar to those described above for textile and clothing workers. There were, however, several differences:

- the Enterprise Development Board (EDB) was the body responsible for certifying a layoff;
- in a 1979 amendment to the regulations, a layoff was defined specifically as "involuntary separation from employment for an indefinite period of an employee of a manufacturer solely as a result of a reduction by that manufacturer in the number of employees employed by him";
- as stipulated in the 1979 amendment, the layoff had to be directly attributable to import competition that resulted in "(i) an increase in the market share in Canada of footwear produced by manufacturing or processing activities outside Canada; and (ii) a decline in the production of footwear by a manufacturer."

Despite these differences, the rationale for worker certification in the textile and clothing industries is also valid for older footwear and tanning workers. We would expect, for reasons similar to those discussed in the case of textile and clothing workers, that footwear and tanning workers would not utilize the preretirement benefits programs to any great extent. The results in Table 7-2 for the period 1978-82 are consistent with this conjecture.

Labour Adjustment Benefits, 1982-87 — The *Labour Adjustment Benefits Act* brought the layoff-certification

Table 7-3

Labour Force[1] in Selected Trade-Sensitive Industries, Canada, 1971 and 1981

	All ages		45-54 years				55-64 years			
			1971		1981		1971		1981	
	1971	1981	Number of persons	Proportion of industry labour force	Number of persons	Proportion of industry labour force	Number of persons	Proportion of industry labour force	Number of persons	Proportion of industry labour force
	(Number of persons)			(Per cent)		(Per cent)		(Per cent)		(Per cent)
Textiles	68,785	83,440	12,125	17.6	13,655	16.4	7,705	11.2	9,260	11.1
Knitting mills	18,315	22,645	2,830	15.5	3,815	16.8	1,960	10.7	2,075	9.2
Clothing	94,700	130,020	16,520	17.4	23,465	18.0	11,160	11.8	12,460	9.6
Shoe factories	18,040	20,005	2,745	15.2	2,910	14.5	1,910	10.6	1,765	8.8
All manufacturing industries	1,707,335	2,279,360	315,005	18.5	375,395	16.5	186,815	10.9	238,620	14.5

1 The data in this table are not comparable with those in the other tables in this chapter because of difference in coverage, methodology, and reference periods between the Census of Manufactures and the Census of Canada. In particular, the Census of Canada measures the labour force as a snapshot at a particular point in time, covers both employed and unemployed persons, and is based on a 20 per cent sample. In contrast, the Census of Manufactures measures employment over a year, refers to person-year employment, and is not based on a sample.

SOURCE Based on data from Statistics Canada, Census of Canada, 1971 and 1981.

procedures formerly carried out by the TCB and the EDB under the aegis of a new, specially created body – the Labour Adjustment Review Board (LARB). This board was also responsible for layoff certifications for all new designations made under the act. Workers in the textile, clothing, and footwear industries, however, were by far the largest group of recipients of benefits under the program (see Table 7-2).

The layoff-certification procedure under the act was similar to that established earlier for footwear, textile, and clothing workers. The board had to certify, with respect to each worker who was part of a certified layoff according to the act, that

- he/she was laid off;
- the Canadian establishment from which he/she was laid off was part of a designated industry;
- the number of employees at the Canadian establishment was reduced as a result of layoffs in any 12-month period (including the effective date of the employee's layoff) by at least 10 per cent or 50 employees, whichever was the lesser; and
- the worker's layoff resulted from economic adjustment, as described in the section on "Industry Designation" above.

These criteria are similar to those discussed above for the 1970s. As with the TCB and the EDB, however, there are no written decisions pertaining to certification. Nevertheless, the annual reports on the administration of labour adjustment benefits stated that persons who requested certification did not always receive it because layoffs did not occur in the designated industry.

Once LARB certified the layoff, then the next stage of the process required that the CEIC certify that the worker was of eligible age and had worked a required number of years in the designated industry, and so on. These conditions were essentially the same as those prior to 1982 for footwear, textile, and clothing workers. Nevertheless, the 1982 *Labour Adjustment Benefits Act* and the 1983 amendments to the act made a number of changes to the layoff- and worker-certification procedures that considerably broadened these eligibility criteria:

- In 1982, persons aged 50 to 53 could be certified if they had been employed in the designated industry for 30 years prior to the layoff and had worked at least 1,000 hours in each of those years. In 1983, this was changed to the "rule of 80": if the sum of the laid-off person's age and years of employment in the designated industry was 80 or more, then he/she would qualify. (As a practical matter, LARB used the age of 47 as the lowest age likely to be eligible.) In both 1982 and 1983, however, applicants qualifying under this provision had to demonstrate severe financial hardship.
- The English wording of the original 1982 act and of the footwear and tanning regulations defined a layoff as an *involuntary* separation for an indefinite period, while that word was missing in the French version. In 1983, the act was amended, in both English and French, to define a layoff simply as a "separation, for an indefinite period."
- Prior to 1982, in order for a layoff to be certified in the textile and clothing industries, it had to be directly attributable to specific trade policy measures (or to a lack of such measures), while in footwear the layoff had to be directly attributable to a decline in domestic production and a rise in the share of imports in the Canadian market. In 1982, these links were no longer required in any of the three industries. Instead, if the industry was undergoing noncyclical adjustment across Canada because of either import competition or restructuring promoted by the government, then the layoff could be certified. In the case of industry/community designations, no link to trade or restructuring was required.[12]

One of the effects of those changes was to enable older workers to volunteer for redundancy without losing their eligibility for preretirement benefits. In other words, if an employer had to reduce his/her labour force by 60 employees, he/she could ask older workers if they would accept to be laid off, even though their seniority would normally protect them. When the older workers accepted, an incentive was created for younger workers to enter and stay in industries adversely affected by international competition, even though it might have been more useful to encourage them to go elsewhere. Thus it is not clear that there was either an efficiency or an equity rationale for such a change.

Another impact of the changes in the act and its link to ILAP was the change in the criteria applying to the reason for the layoff. This post-1982 change broadened the range of factors that could be held responsible for the layoff. On grounds of equity and economic efficiency (to relieve labour congestion in a local labour market), there was much to be said for such a change. The way in which these new criteria were employed in certifying layoffs is difficult to discern, however, because the annual reports on the administration of the *Labour Adjustment Benefits Act* do not discuss this particular criterion. We are informed that this criterion was satisfied on the basis of information received from the employer as to whether restructuring or import competition was the cause of the layoff. In the case of

layoffs related to restructuring in the textile, clothing, and footwear industries the CIRB was also contacted.

The early 1980s saw a decline in employment in the textile, clothing, and footwear industries, but there was little change thereafter (except for clothing). We would expect that, given this decline in employment and given the change in the certification procedures, the utilization of preretirement benefits programs would increase – and that is exactly what happened. The interesting question is: What triggered the increased use of the program? Voluntary unemployment? Lack of a demonstrated link between layoff and specific trade-policy measures? The lowering of the age requirement? Increased unemployment because of the recession? Or the fact that the designations were temporary? While we do not have definitive answers to those questions, we do have some useful indicators.

An analysis undertaken by Labour Canada in 1985 examined the impact of the *Labour Adjustment Benefits Act* on layoff and worker certifications, particularly in view of the 1983 amendments to the act.[13] It concluded that there was a significant increase in workers aged 54 to 64 who were laid off under LARB layoff certifications – from 10.8 per cent prior to the 1983 amendment to 24.8 per cent after the amendment. In terms of the "rule of 80" change, the age distribution of claimants in 1984-85 included 6.7 per cent who were 54 and younger; in 1982 that proportion had been only 2 per cent. The program may also have been a way of lowering a firm's wage bill if older workers were paid more because of seniority. Finally, broadening the criteria with respect to the cause of layoffs probably also increased program use.

The review undertaken by Labour Canada also included a profile of claimants under the act (Table 7-4). It shows that the claimants had a very long association with their company and the designated industry. It also shows how textile, clothing, footwear, and tanning workers had much lower levels of education than those of other recipients of labour adjustment benefits and that they had much less in the way of company pensions, either before or after age 65. The data certainly provide evidence that older workers in the textile, clothing, and footwear industries are less well equipped, compared with their counterparts in other industries, to deal with problems of adjustment.

Summary — The criteria for the certification enabling workers to receive preretirement benefits were gradually relaxed in the early 1980s. There was no longer the requirement that a plant closure be linked to a specific trade-policy measure in order for certification to be granted. Layoffs could be voluntary as well as involuntary; and the "age/length of service" criterion meant that younger workers could qualify for benefits. The net result was that a substantial increase in the number of claimants took place; for example, whereas there were 716 active claims in textiles and clothing in 1981-82, that figure had surged to 5,199 in 1985-86; in footwear and tanning, the corresponding figures were 49 and 597, respectively. This shows that considerable attention must be paid to the criteria for worker certification since they clearly matter; that finding is also amply demonstrated by the experience in the United States with respect to assistance to workers in trade-sensitive industries.[14]

Re-employment Programs

Under ILAP there were a number of labour adjustment programs that were designed to aid workers in the designated industries and communities (see Figure 7-1). These were not new programs but, rather, enrichments to existing CEIC programs. To be eligible, a worker had to be part of a certified layoff in a designated industry/community. Certification was conducted by the local CEIC office, in conjunction with the employer. Previous attachment of two out of the last 10 years to the designated industry was required for certification for those who claimed the "portable wage subsidy" (Table 7-5). Such a straightforward procedure made it much easier to administer the adjustment programs through local CEIC offices. In view of the desire for quick certification so that the program could be readily administered, more elaborate or extensive eligibility criteria for worker certification would probably have been inappropriate.

A thorough review of ILAP was undertaken for the CEIC by Robertson Nickerson Limited.[15] It concentrated on the first four communities designated under ILAP, all in March 1981: Sydney, Nova Scotia; Windsor, Ontario; Port-Cartier/Sept-Îles, Quebec; and Tracy/Sorel, Quebec. In our discussion below, it should be borne in mind that the results are dominated by Windsor, which accounted for 69 per cent of the eligible workers, followed by Tracy/Sorel (12 per cent), Port-Cartier/Sept-Îles (9 per cent), and Sydney (6 per cent). The study was based on the records of the CEIC and on a telephone survey of a sample of the workers eligible.

In terms of the utilization of the various programs, by far the most important was the one aimed at promoting direct job creation – the Community Employment Program. The evaluation commented that "this employment measure was essentially aimed at encouraging the retention of industrial skills, and at providing short-term employment assistance and income support for workers running out of U.I. eligibility.[16] In the ILAP context, such assistance was designed as a 'bridging mechanism' until economic conditions im-

Table 7-4

Selected Characteristics of Claimants under the *Labour Adjustment Benefits Act*, Canada, 1984 and 1985[1]

	All claimants	Textile and clothing	Footwear and tanning	ILAP
		(Years)		
Average age	59.6	59.5	59.5	59.9
		(Per cent)		
Distribution:				
54 and less	6.7	7.8	8.9	2.5
55-59	39.6	39.1	35.7	41.8
60-64	53.7	53.1	55.2	55.7
		(Years)		
Average education level	7.2	6.9	7.0	8.3
		(Per cent)		
Distribution:				
No schooling	7.5	8.2	10.4	4.4
1 to 4 years	10.6	11.7	12.2	6.9
5 to 8 years	56.4	59.8	51.3	47.5
9 to 12 years	22.5	19.1	23.9	32.7
		(Years)		
Average length of service in:				
Industry	29.1	28.9	29.9	29.6
Company	23.6	22.0	26.9	27.6
		(Dollars)		
Labour adjustment benefits:				
Average weekly level	192.30	193.00	201.40	186.80
Standard deviation	53.30	45.40	39.30	77.20
		(Per cent)		
Proportion receiving a company pension:				
Before age 65	11.0	3.6	2.1	37.4
At age 65	35.0	26.0	12.8	70.8
Proportion who are:				
Male	57.9	46.9	59.6	91.8
Female	42.1	53.1	40.4	8.2
Married	73.5	69.8	76.5	84.3
Union members	77.0	76.8	69.1	80.3
Proportion who live in:				
Quebec	83.8	90.9	86.0	60.8
Ontario	11.9	8.5	14.0	23.0

1 The data on labour adjustment benefits and the age of claimants reflect the situation in January 1985. All other data are based on the characteristics of claimants in November 1984.

SOURCE Labour Canada, "Labour adjustment benefits policy review," Ottawa, 1985, p. 6.

proved, either locally or as part of a more general recovery."[17] Given the severity of the recession in the early 1980s – the worst since the Second World War – it perhaps was not surprising that the Community Employment Program was the most important ILAP program. Buoyant economic conditions make jobs easier to find, and such conditions would probably have seen greater use of other aspects of the ILAP programs designed to promote re-employment.

Table 7-5

Utilization of Programs under the Industry and Labour Adjustment Program,[1] Canada, 1980-83

	Proportion of workers utilizing the program	
	Yes	No
	(Per cent)	
Category of program:		
Training[2]	26.3	73.6
Apprenticeship[3]	5.3	94.6
Mobility[4]	9.3	90.6
Portable Wage subsidy[5]	4.0	96.0
Community Employment Program[6]	55.2	44.7
Preretirement benefits	5.3	94.6

1 Based on the first four industry/community designations under ILAP.
2 Increased reimbursement (100 per cent of trainee wages, to a maximum of $250 weekly, in the first year) to firms that trained people under the Critical Trade Skills Training program. This compared with the current rate of 50 per cent in the first year.
3 Additional training allowances to laid-off Critical Trade Skills Training program apprentices who enrolled in approved training centres or under special arrangements with firms.
4 Increased relocation assistance (three times the normal amount) for workers in selected communities.
5 For older workers (45 years and older) who are laid off; have at least two years' employment, out of the last 10, in the same industry; and have little prospect of re-employment.
6 Temporary employment for workers whose unemployment insurance benefits are expiring. This employment counted towards requalification for UI benefits.

SOURCE Robertson Nickerson Ltd., "CEIC/ILAP evaluation: Worker survey results," Program Evaluation Bulletin, Working Paper No. 3, Canada Employment and Immigration Commission, Ottawa, 1984, p. 44; Employment and Immigration Canada, "Backgrounder" to "Canada Employment and Immigration Commission labour adjustment," news release, Ottawa, 1981; and Employment and Immigration Canada, *The Industry and Labour Adjustment Program (ILAP)* (Ottawa: Supply and Services Canada, 1982).

Of the other programs offered under ILAP, the most heavily utilized were training and, to a much lesser extent, mobility assistance. An examination of the utilization of the programs offered under ILAP by region/community showed that where the layoffs were expected to be permanent (at Port-Cartier/Sept-Îles), the major program used was mobility allowances; where, in the period under study, the local economy showed signs of resurgence (at Windsor), industrial training (outside ILAP) was heavily used. In the remaining two instances (Sydney and Tracy/Sorel), the expectation of some local economic recovery led to the use of classroom courses rather than mobility allowances. However, the additional financial assistance offered under ILAP seems to have had only a marginal impact on workers' decisions to train or to move.

The CIRP's Labour Adjustment Program (LAP) was similar to ILAP in many ways. It consisted essentially of enriched features of existing CEIC programs. Eligibility was determined by the CEIC in conjunction with CIRB. Initially, in January 1983, these benefits were available only to textile, clothing, and footwear workers employed by firms that were restructuring and rationalizing their operations under CIRB's Sector Firms Program or that were located in CIRB-designated Special Areas. In March 1984, however, the enhanced CEIC programs became available to *all* workers in those three industries. As with ILAP, in order to be eligible for the portable wage subsidy (aimed at older workers), prior association with the industry for a number of years was required.

The evidence available suggests that the impact of CIRB-related adjustment programs was very limited. In the period 1981/82 to 1985/86, of the $57.5 million in expenditures by CEIC on labour programs for the textile, clothing, footwear, and tanning industries, 99 per cent ($57.1 million) was made up of regular (i.e., not enriched) CEIC programs. In other words, the enhanced portion was little used. As the Task Force on Program Review remarked:

> It can be argued that the CEIC measures delivered under CIRP appear to be illusory. That is to say, without the enhanced benefits portion of the program (which is virtually unused), most of the activity has occurred under regular CEIC programming, and would probably have occurred anyway.[18]

One possible reason that has been suggested is that the enriched programs may not have been widely known to workers because of the lack of a systematic attempt to identify and contact the eligible group. This in turn may reflect the fact that the CIRP-related labour programs were funded out of existing CEIC allocations, and had no separate identifiable budget of their own. Furthermore, even if these difficulties had been overcome, the characteristics of textile, clothing, and footwear workers – in terms of level of skills and formal education – would have posed barriers to their enrolment in the enriched CIRP programs.[19]

Summary — Neither ILAP nor CIRP seems to have been particularly successful in encouraging adjustment by promoting re-employment; one provided mainly short-term employment, while the other was virtually unused. The explanation seems to lie in the recession of the early 1980s

and in the paucity of the information aimed at potential recipients of CIRP benefits.

Conclusion

Our discussion of labour market policies has confined itself to those programs aimed at specific trade-sensitive industries or at communities within these industries. The programs were designed to provide last-resort income compensation to older workers with little prospect of re-employment and a long attachment to a trade-sensitive industry, and to encourage the more-rapid re-employment of displaced workers, thus reducing the cost of adjustment to both the individual worker and society. In both cases, there are sound economic and equity rationales for such policies. Furthermore, as will be seen in the next chapter, while we feel that some improvement can be made in these policies, they are basically sound.

In several instances – textiles and clothing in the early 1970s and in the 1980s, and footwear in the late 1970s and early 1980s – the preretirement benefits programs and the re-employment programs were part of policies that, initially at least, envisaged the removal of special import protection. In other cases, such as automobiles and shipbuilding, labour adjustment was introduced to complement continuing government assistance to the industry in the form of special import measures, subsidies, or government procurement. The removal of special protection or other assistance did not always take place, however. Hence an important caveat in commenting on the various labour-adjustment programs is that the increased competitive pressure on domestic producers that had been expected did not materialize. Thus the policies were not given a suitable opportunity to demonstrate their usefulness. Indeed, it could be argued that the new protectionism that underlay much of the implementation of sectoral subsidies and of special import measures eventually co-opted the preretirement benefits programs by relaxing the criteria for eligibility in the early 1980s, so that the program became, in part at least, an indirect subsidy to firms.[20]

It should be remembered that there are a number of framework policies designed to ease the burden of change. While some of these were mentioned in the opening paragraph of this chapter, there are others that were not cited.[21] These include various statutory provisions. In most provinces, for example, there are statutory minimum periods before group termination of employment takes place; in addition, most provinces have legislation to ensure that pensions become fully vested upon the closure of a plant or of a major service or division, even if the usual conditions for vesting are not satisfied; in some instances, severance pay has been legislated. Furthermore, collective bargaining usually includes provisions for layoff notice, severance pay, and pensions.[22] While all of these programs and benefits are likely to facilitate adjustment to major change, some individuals will fall through the cracks, necessitating programs such as those for older workers, introduced in the 1970s and 1980s, and, of course, re-employment programs.

8 Principles for Adjustment in an Imperfect World

In this final chapter, we present a set of principles to guide government in managing adjustment and, in particular, in dealing with the demand for intervention generated by competitive pressures. As we have seen, governments have to act in an imperfect world, facing constraints inherited from the past and pressures from numerous groups in society. Nevertheless, they have considerable latitude in how they manage adjustment, and their decisions have far-reaching consequences.

In previous chapters, we summarized the results of our examination of the way in which Canadian firms and workers are constantly adjusting and on our investigation of the working of special sectoral adjustment policies. Our findings lead us to conclude that the Canadian marketplace, structured by sound framework policies, can generally be counted upon to provide signals – prices, shortages, surpluses – that point labour and capital in the direction of positive adjustment.

This does not mean, of course, that the market mechanism has no shortcomings – our discussion of training in Chapter 1 suggested imperfections in that field, for example – or that the adjustment path is always smooth and painless.

Our findings do, however, lead us to give priority to adjustment through the working of framework policies (which include, as we shall see, labour market policies) and to consider special sectoral policies as exceptions, to be introduced only under particular conditions and subject to clear evaluation.

This leads us to our first principle for adjustment:

1 **We recommend that governments make every attempt to develop, maintain, and strengthen framework policies that facilitate and promote the movement of resources from less-productive to more-productive uses in the way that is least costly to society.**

Where sector-specific policies are adopted, they should respect the same principle.

Sectoral Policies

Our analysis of sectoral adjustment-assistance policies suggests that while their stated objective was the promotion of adjustment to change, their actual impact has retarded it. Good intentions were clearly not enough. Since the objectives and the rhetoric inspiring those policies were, by and large, consistent with the "positive adjustment" end of the policy spectrum, our suggestions and recommendations are designed to make implementation consistent with objectives.

Assistance for Workers, Not Firms

In our general discussion of the relative merits of labour and firm adjustment-assistance policies in Chapter 1, we unequivocally favoured programs to support workers rather than firms. Our examination of the way in which firm assistance programs have worked in practice (in Chapter 6) confirms this view.

Subsidies granted to firms and industries to modernize their capital equipment have not promoted adjustment, despite their aims. Although it is theoretically possible to promote incremental private-sector investments through subsidies, our review of capital subsidies led to the following conclusions: 1) in general, the expenditure of modernization subsidies was not incremental – that is, the subsidies did not typically encourage firms to undertake extra investment; and 2) the subsidy programs could not be justified on either efficiency or equity grounds. This was true whether the subsidy program was administered by a government department or an arm's-length agency, whether the targeted industry was facing international competition either in Canada or in export markets, and whether the program specifically included incrementality in its objectives or not.

In contrast, there is a strong argument for government intervention to help workers adjust. The design of the labour adjustment measures that we examined was consistent with the "positive adjustment" rationale and objectives. So far, these policies have only had a limited opportunity to demonstrate their usefulness because other sectoral programs (quantitative restraints and firm subsidies) were actually retarding adjustment.

Thus, as our second principle for adjustment,

2 **We recommend that when a particular industry or firm is suffering adverse consequences because of international competition, governments respond by adopting**

labour adjustment policies rather than by granting subsidies to firms and industries so that they may modernize their capital equipment.

Our recommendation reflects the fact that resources are scarce.[1] Canada cannot afford capital modernization subsidy programs with a low payoff. However, the recommendation refers only to capital modernization subsidies provided to particular industries adversely affected by international competition. Other forms of government assistance that are generally available to business (including R&D support and assistance to small businesses), which form the great bulk of firm and industry support, were not examined in our research.

Efficient Use of Quotas

Quota restraints provide both labour and capital with time to adjust. To the extent that an import surge is likely to cause "serious injury," there is a rationale for giving industry a breathing space in which to adjust. Consequently, we support the use of quotas to assist industries adversely affected by international competition, provided that Canada corrects the mistakes of the past. Thus, as our third principle,

3 **We recommend that, where import quotas are used, they should be:**

- **global, not bilateral;**
- **temporary, not permanent;**
- **gradually phased out (degressive), not constant; and**
- **subject to a preset termination date.**

These guidelines flow directly from our conclusions in Chapter 5 regarding lack of government credibility in establishing phase-out dates, the need to use the breathing space provided by quotas to promote rather than retard adjustment, and the advantages of global over bilateral quotas. It should be noted that global quotas are not the blunt instrument they might appear to be. While a global quota is directed at all foreign sources of supply, the restriction usually applies to a particular commodity and, in some instances, even to a particular price range. A global quota can thus be placed on a chosen range of goods as long as the range is not too narrow – in particular, as long as it is not so narrow as to be a substitute for selective restraints.

We also note that, although our attention has been confined to three instruments of government intervention that have been used to support a select group of industries, there are other measures that address particular causes of disruption from imports. Canada can countervail subsidized exports and impose antidumping duties on dumped goods, for example. In this report, we do not deal with these mechanisms, which are quite distinct from the three instruments we studied, but we note their availability to relieve firms suffering from import-related disruption under certain circumstances.

In Recommendations 4, 5, 6, and 7, presented in the following paragraphs, we flesh out the principles for the proper application of quotas, which we believe to be the appropriate instrument for dealing with import disruption on a sectoral basis. However, some of the principles outlined below (particularly in Recommendations 4 and 5) could be applied to the adoption of other sectoral policies, such as subsidy programs, should governments persevere in using them.

Defining the Problem — Good public policy requires that the right questions be asked, that the costs and benefits of government intervention be evaluated, and that alternatives be considered. This should be done through documents that are easily accessible to policy makers, elected representatives, and the public. Once a clear, concise, and well-defined statement of the problem, as well as a full assessment of the costs and benefits of the proposed corrective measures, becomes an important part of the debate over the introduction and implementation of sectoral policies, those seeking (and opposing) such policies will be called upon to argue their case. Hence,

4 **When governments introduce sectoral policies (in particular import quotas), to assist industries or firms suffering from the adverse consequences of international competition, we recommend:**

- **that they undertake a thorough evaluation of the problem to be addressed, as well as of the costs and benefits of alternative policy options, including their transparency, duration, necessity, and impact on firm-adjustment options;**
- **that they implement the preferred policy in such a way as to generate the information necessary for the retrospective evaluation of the policy; and**
- **that they make accessible to the general public, as well as to interested parties, the documents that result from both the initial and the retrospective reviews.**

If the urgency of the situation requires a quick reaction by government the evaluation may be undertaken after, rather than before, the policy has been introduced.

Not only will such evaluations make the policy process much more transparent; they should also help to prevent the adoption of policies that have little chance of success.

An Independent Review — In considering the nature of the process required to implement Recommendation 4, we are guided by the principles laid down in our earlier report on the regulatory process.[2] We stated that four values should be respected in designing government intervention: informed decision making; accountability; procedural fairness; and openness. We also found that one of the problems that regulatory boards experience in respecting those values is that they frequently become captured by the very industry they are regulating. Agencies that confine themselves to a particular industry are more likely than others to be overwhelmed by its concerns and those of its labour force, and they are less likely to learn from the experiences of adjustment that may have occurred elsewhere. Accordingly,

5 We recommend that the policy evaluation proposed in Recommendation 4 be undertaken by an independent arm's-length tribunal, whose mandate is not confined to one or a small number of industries.

The tribunal would hold hearings and issue written reports.

Compliance with the GATT Rules — Being a small, open economy, Canada has much to gain from adherence by all countries to internationally agreed-upon rules governing the way in which special import measures and other trade measures – such as countervailing duties, dumping, government procurement, and subsidies – are administered. These rules are agreed upon within the GATT framework, but their enforcement depends largely on their interpretation under national legislation by each country's administrative tribunals. Large, economically powerful countries can obviously circumvent the rules or bend them to their own purposes more easily than smaller countries. The latter – Canada among them – therefore have much to gain from everyone's strict adherence to the rules. One way to encourage such adherence is for Canada itself to honour the rules.

In the case of quantitative restraints, Canada's own interests should also lead it to respect GATT rules. Article XIX of the General Agreement is the central safeguard measure – sometimes referred to as the "escape clause" – dealing with the right of governments to aid firms or industries that experience import competition difficulties unrelated to foreign subsidies or dumping. This article is generally taken to mean that if serious injury is threatened or actually caused to domestic producers, the affected country can raise tariffs, impose quantitative restrictions, or take other appropriate action. Serious injury arises from an increase in imports, usually referred to as a "surge." Any emergency action taken under Article XIX is clearly intended to be of limited duration – "for such time as may be necessary to prevent or remedy such injury."

Canada has adopted legislation designed to be consistent with Article XIX of the General Agreement. It was under this legislation that the Canadian Import Tribunal was requested by the government of the day to inquire into, and report on, whether imports of footwear were causing serious injury. The CIT is an independent, quasi-judicial tribunal that is aided in reaching its decision by both in-house and commissioned research and by a wide array of interest groups that present briefs and appear before it. For example, during the 1984-85 footwear inquiry, representations were made by both Canadian importers and Canadian producers, exporters, the Consumers' Association of Canada, and the Director of Investigation and Research of the Department of Consumer and Corporate Affairs. Their participation enhanced the tribunal's ability to explore a wide range of pertinent issues. It is important to note that it was the broad and comprehensive terms of reference set by the government that enabled such a wide range of views to be heard.

In our review of the use of quantitative restraints, we were favourably impressed by the manner in which the tribunal undertook its various inquiries into the footwear industry in order to meet the serious-injury test of Article XIX and by the appropriate terms of references that the government set out for these inquiries, particularly in 1984. It accords with our recommendations for a thorough policy review by an independent tribunal, whose mandate would not be confined to one or a small number of industries.

Such reviews have been the exception rather than the rule, however. A contrasting example was the "negotiation" of restraints on automobile imports. In this case, there was virtually no public analysis of the link between the policy instrument adopted and the expected adjustment; the government-appointed industry task force did little, if anything, to advance the debate. The procedure for determining serious disruption in the textile and clothing industries has usually fallen somewhere between the CIT experience and that of the task force report on automobiles. In view of this,

6 We recommend

- **that *before* governments impose import quotas, they refer the matter to the Canadian Import Tribunal for a thorough policy evaluation;**
- **that *after* import quotas are imposed, governments refer the question of their continuation to the CIT for reconsideration within three years; and**
- **that *both* before and after the imposition of import quotas, the CIT hold hearings and issue a written report.**

In case of emergency, the policy evaluation may take place while some temporary import restraint is in place.

The procedure outlined in this recommendation is the one followed when Canada imposes quantitative restraints under Article XIX of the GATT. (In cases of emergency, the government can, under certain conditions, impose a temporary surcharge for 180 days while the CIT conducts an interim inquiry, as happened in the case of footwear in 1977.) We are recommending here that the procedure be extended to cover *all* proposed import quotas. In the event that the government ignores our recommendation to avoid the use of further voluntary export restraints, Canadians would at least be assured that their implementation would be transparent and that their costs and consequences would be properly documented.

Linking Benefits to Adjustment — Import quotas hold imports at a lower level than would otherwise be the case. This creates valuable commercial rights, as the price of foreign supplies in the Canadian market is higher than the world price. As we saw in Chapter 5, the difference is frequently captured by the quota holder. By imposing quotas, the government is essentially creating monopoly rights.

We have seen that different types of quantitative restraints affect the domestic industry in different ways. The distribution of the quota benefits between Canadians and foreigners and between different classes of quota holders also varies, depending on the criteria used in allocating the quota. Global quotas imposed in conformity with GATT rules offer one example of the distribution of benefits. These quotas are usually allocated on a historical basis to firms that have previously imported – retailers, wholesalers, and manufacturers, as well as professional importers. Typically, a base year is selected, and all importers of record that year receive the right to import a percentage of their base-year imports. In the case of footwear, these imports can be purchased from any country. Officials from the Department of External Affairs administer the quotas: they determine their initial allocation and decide on subsequent changes, such as increases over the base level (some of which may be allocated to new holders).

A different pattern of distribution arises from bilateral restraints under the Multifibre Arrangement and from voluntary export restraints (VERs) on automobiles. In these cases, Canada negotiates the overall level of each country's quota for each restricted commodity, although the rules and framework in each case are different. The exporting country is then responsible for allocating the quotas among its exporters.

One of the characteristics of voluntary export restraints and bilateral restraints under the MFA is that quotas (and their associated benefits) go to the foreign country in return for its agreement to limit exports to Canada. Where many commodities and countries are involved, negotiations can be very time-consuming. By awarding the financial benefits to the exporting country, Canada can offer it an incentive to negotiate restraint agreements.

In Recommendation 3, we favoured global quotas over bilateral restraint arrangements such as those which are permissible under the MFA. The question that arises is: How should the quotas be allocated? One alternative to the present system – one that is consistent with Canada's obligations under the GATT – is to auction off the quota. Under this system, the government would continue to set an import ceiling but, rather than have the Department of External Affairs verify importers of record for a given base year, the quota would be divided into standard lot sizes and auctioned off. Quotas could be set for a three-month period, for a year, or for a longer period, depending on the nature of the commodity and on the normal cycle of orders.[3]

The auctioning of quotas offers several advantages over the present allocation method:

- It ensures greater transparency. Because quotas would be given a dollar value – $3 per pair of shoes or $1,000 per automobile, for example – import restraint policies would be much more visible, giving voters and elected representatives a clear idea of their cost.

- Existing quota allocations to importers, producers, retailers, and others follow historical import patterns. This excludes or discourages new entrants, potentially reducing competition in the industry. If quotas are auctioned, the windfall gain from the quota will accrue to the government. This means that the quota holder cannot use it as a competitive advantage to shut out new entrants.

- The benefits of existing global quotas frequently go to importers and retailers rather than to the manufacturers and workers who need to adjust to competition. Under the auction system, the benefits would accrue to the government, which could then use the funds to respond to adjustment needs.

- Setting up auctions for quotas would provide a clear indication of their tariff equivalent. This would raise the possibility of converting the quota to a tariff – generally considered to be a more efficient instrument of trade policy.[4]

There are some perceived problems with quota auctions, but we do not consider any of them to be insuperable. First, the novelty of the idea may suggest impracticability. But quotas are already auctioned off for a number of goods in

Australia and New Zealand; and in the case of some bilateral restraints under the MFA, the exporting country allows quota markets to exist. Second, the auctioning of quotas might cause difficulties for "traditional" importers and retailers. But if this is felt to be an important problem, then – initially at least – some proportion of the quota could be reserved for certain categories of buyers. Third, it could be claimed that a monopoly problem may occur if one person, or a small number of persons, controls the quotas. This problem could be overcome if no individual or company were allowed to hold more than a certain percentage. In any event, if the quotas are temporary and gradually phased out, any monopoly problem will be short-lived. Finally, some might argue that a large bureaucracy would be needed to administer and police the quota auctions; however, officials are already in place to allocate and police existing quotas; it is not clear why an auction system would require more resources.

On balance, we feel that the advantages of quota auctions outweigh their disadvantages. Indeed, according to a report prepared for the Department of External Affairs,[5] quota auctions would appear to overcome virtually all of the administrative, distributional, and economic efficiency problems to which the present allocation system gives rise. Accordingly,

7 We recommend that the quota rights created under quantitative restraints, pursuant to Article XIX of the General Agreement on Tariffs and Trade, be auctioned off by the Canadian government and that the results of such auctions be published.

The recommendation as formulated only applies to global quotas, in conformity with GATT rules. But it has also been suggested that auctioned quotas be used as an element in a proposed phase-out of the MFA, which could start when the current agreement expires in 1991.[6] Basically, in return for phased-in guaranteed access to Canadian and other developed countries' markets by non-OECD suppliers, a developed country would be permitted to auction quotas during the phase-in period, but the quotas would be gradually expanded until they became meaningless. Then, only the tariff would remain to protect domestic producers. Such a proposal might be usefully considered by Canada and by the other signatories to the Multifibre Arrangement, perhaps as part of the *Uruguay Round* of multilateral trade negotiations under the GATT.

Index of Protection — Quantitative restraints are only one of a number of policy instruments that can be used to aid industry. Our discussion of sectoral assistance has shown cases where one protective instrument was substituted for another – for example, the Shipbuilding Industry Assistance Program was replaced by government procurement and a juggling of the tariff rates that effectively raised tariff protection. So there is the danger that if our recommendations concerning quotas are followed, governments may shift to the use of alternative, less transparent methods of protection. This would be more likely to happen if the evaluation of a proposed policy was expected to undermine the justification for quotas. A systematic examination of the range of instruments being used to provide assistance to a particular industry (subsidies, government procurement, tariff changes, quantitative restraints, and so on) would reveal such a shift. The results of the examination should be provided to the public, to policy makers, and to elected representatives at regular intervals.[7] Accordingly,

8 We recommend that the Canadian Import Tribunal publish annually, on an industry-by-industry basis,

- **a list of the instruments currently being used to protect an industry from international competition; and**
- **an estimate of the effect of each instrument by calculating the tariff that would be required to replace it with the same degree of protection.**

Recent work at the Council and elsewhere on nontariff barriers suggests that the implementation of this recommendation is likely to be a major undertaking.[8] Accordingly, the tribunal should begin by confining its attention to a narrow range of instruments: firm and industry subsidies, tariffs, government procurement, Canadian-content rules, and quantitative restrictions. Clearly, if the government decides to use a close substitute for one of these instruments to avoid the glare of public examination, the CIT should report it.

An example of a more ambitious proposal for an industry protection balance sheet is detailed in Figure 8-1. This may eventually become a suitable model for use in Canada. Alternatively, consideration might be given to the establishment of a separate agency with responsibility not only for such a more-extensive protection index but also for assessing the possibilities for rationalization and adjustment particularly in trade-sensitive industries – a proposal first made by the Economic Council in 1975 (in *Looking Outward*).

This raises the problem of having a quasi-judicial tribunal undertake both a research and a judicial function. The type of data collection envisaged in Recommendation 8, however, would minimize such a conflict. If a more ambitious program, such as that outlined in Figure 8-1, were undertaken, then there might be a problem, and the creation of a separate agency might be warranted. Indeed, that is what this Council recommended over 10 years ago.[9]

The publication of a protection index raises a potentially important strategic consideration for trade negotiations. If

Figure 8-1

A Proposal for an Industry "Protection Balance Sheet"

Protection budget for the ... industry – Fiscal year 19..

General description of
(a) the aims of the overall system of protection granted to the ... industry,
(b) the length of time that protection has already been granted, and when existing non-tariff protection is expected to be phased out, and
(c) the reasons why the assistance is being continued.

Trade measures	(1) Rationale, goals and time horizon of the specific measures	(2) Exact description of the measures	(3) Estimated income re-distribution effects in 19..	(4) Quantifiable costs and benefits to the country as a whole (efficiency effects)			(5) Ratio of cost per job protected to average annual wage in protected industry in 19..	(6) Non-quantifiable costs and benefits to the country as a whole	
				(a) Estimated costs in 19..	(b) Estimated benefits in 19..	(c) Ratio of costs to benefits		(a) Costs	(b) Benefits
I. Import controls 1) Tariffs and other charges 2) Quantitative restrictions (including VERs and MAs) 3) Import controls made effective through state trading 4) Preferential government procurement 5) Other (specify)									
II. Export subsidies 1) Direct subsidies and tax subsidies (fiscal exemptions) 2) Regulatory exemptions 3) Export credit guarantees 4) Other (specify)									
III. Industry-specific production subsidies 1) Direct subsidies and tax subsidies (fiscal exemptions) 2) Regulatory exemptions 3) Credit guarantees 4) Other (specify)									
IV. Total for the ... industry									

Figure 8-1 (cont'd.)

Explanatory Notes

General remarks

The purpose of the Protection Balance Sheet is to provide the public, the legislature and the policy makers with the best available information on, and analysis of, the (i) level of, (ii) nature of, and (iii) rationale for the public support being given to each industry (including all industries in the agriculture, mining, manufacturing and tradeable services sectors which are receiving protection). Wide dissemination of such information would greatly improve the quality of the democratic decision-making process.

The draft Protection Balance Sheet refers to the situation of an individual industry (sugar, steel, clothing, automobiles, and so forth). A publication which included a Protection Balance Sheet for each industry could also include a table which presented in summary form the "net cost/benefit" position of the individual industries. It should also be possible in such a summary to group the nation's industries according to rough estimates of the overall level of protection afforded them (for example, above-average level of protection, average level of protection, and below-average level of protection). It should also be possible to give a rough estimate of the overall cost to the economy of the current trade régime.

In its present form, the Protection Balance Sheet refers to trade policies currently in existence. A logical extension would be to require its use in evaluating proposed new trade policies as well.

With respect to the distinction between quantifiable and non-quantifiable costs/benefits, two points may be mentioned: (i) even the quantifiable cost/benefit estimates will be subject to fairly wide margins of error, but not necessarily more than in many other areas where governments currently carry out cost/benefit or "budget-type" calculations; and (ii) the non-quantifiable part of an industry's protection budget can be viewed as "complementary evidence" to be used in conjunction with the quantified information.

Description of the sample "Protection Balance Sheet"

A. The heading

The Protection Balance Sheet for each industry would begin with a brief and concise description of (1) the aims of the assistance which the public is providing to the industry through its trade policies, (2) details on the length of time such assistance has been provided, indicating which measures have a firm termination date, and which measures are expected to be relatively permanent, and (3) the reasons why it is necessary to continue the assistance. When appropriate, some indication could be given of the extent to which state/provincial policies also discriminate in favour of domestically-produced output.

B. The "trade measures" column

I. Import Controls
   1) Tariff and other charges with equivalent effects, including import deposit schemes, variable levies and internal taxes discriminating between imported and domestic goods.
   2) Quantitative restrictions and other measures with equivalent effects, including non-automatic import licensing, voluntary export restraint agreements, internal regulations and requirements, and mixing regulations that discriminate between imported and domestic goods.
   3) Import controls made effective through state trading.
   4) Preferential government procurement.
   5) Other (specify).

II. Export subsidies
   1) Direct subsidies, and tax subsidies (fiscal exemptions), contingent upon export performance (a separate sub-section for each).
   2) Regulatory exemptions contingent upon export performance.
   3) Export credit guarantees, including export insurance programmes that are not self-financing.
   4) Other (specify).

III. Industry-specific production subsidies
   1) Direct subsidies and tax subsidies (fiscal exemptions).
   2) Regulatory exemptions.
   3) Credit guarantees.
   4) Other (for example, price and/or export controls on primary or intermediate goods.

IV. Total for the Industry

This is intended to be, for each of the column headings across the top of the table, an overall summary that takes into account the collective impact of all the trade measures applied to the products of the industry in question. An attempt would also be made to determine whether the given level of assistance to the industry is being provided in the least-cost manner.

Figure 8-1 (concl.)

C. Column headings (1) through (6)

(1) Rationale, goals and time horizon of the specific measures

This information is necessary for judging the extent to which each specific measure is fulfilling its rationale and achieving its goals within the time horizon postulated when the measure was introduced.

(2) Exact description of the measures

This column would contain the exact nature of the measure (for example, a nominal tariff of 18 per cent; voluntary export restraint agreements with six of the eight leading suppliers, limiting their exports of the product concerned to 110 per cent of the 1980 level; and so forth). Specific information describing the domestic legal authority for the measure, and its conformity with the country's international obligations, would also go in this column.

(3) Estimated income redistribution effects

One of the two major effects of protection is to redistribute domestic income. Four main groups may be identified: consumers, producers in the protected industry (that is, employees and shareholders), all other producers, and taxpayers (depending on the instrument of protection and on whether one takes a short-run or a long-run view, government revenue may rise or fall with an increase in protection). Further subdivisions are sometimes necessary – for example, firms involved in importing or exporting activities may need to be singled out.

In the case of voluntary export restraint agreements, it would be also important to calculate the quota rents accruing to the foreign exporters (the per unit quota rent is equivalent to the difference between the domestic wholesale price of the protected commodity and its c.i.f. import price, inclusive of any import duties).

The estimates in this column, which could be given in "ranges" to reflect the imperfect nature of the techniques for quantifying the redistribution effects (this point holds as well for all the other quantitative estimates in the Protection Balance Sheet), would refer to each of the net income transfers – for example, from consumers to producers – associated with each of the restrictive measures.

(4) Quantifiable costs and benefits to the country as a whole (efficiency effects)

The other major impact of protection is on the level of economic efficiency, and thus on the country's overall rate of economic growth. Some of the effects of protection on economic efficiency and growth are, at least in principle, quantifiable in a rough and ready way, whereas others are not. The three sub-columns in this section deal with the former effects.

(5) Ratio of cost per job protected to the average annual wage in the protected industry

The "cost" element used in this calculation would include both the income redistribution effects and the net efficiency effects. The goal would be a rough estimate of the amount that the rest of the economy is paying – in terms of income transfers and reduced national income per job "saved" in the protected industry (if a credible case can be made that the protective measure increases national income, the added income would be deducted from the income transfer to get the net cost to consumers).

(6) Non-quantifiable costs and benefits to the country as a whole

Many of the more important costs and benefits of protection which are believed to exist cannot be quantified, and the evaluation of them is necessarily subjective (for example, the political precedent effect of protection; international trade frictions, including the threat of retaliation; and so forth). However, this does not mean that they should be neglected. By listing, in a very concise and brief way, the principal non-quantifiable costs and benefits which have been identified by various interest groups, the Protection Balance Sheet would be contributing to its goal of a more informed public discussion of the country's trade policies.

SOURCE Fritz Leutwiler *et al.*, *Trade Policies for a Better Future: Proposals for Action* (Geneva: GATT, 1985), pp. 52-56.

Canada were to regularly publish an exhaustive list of all of its direct and indirect methods of protecting an industry from international competition, this could place its negotiators at a disadvantage in attempting to get balanced concessions from other countries where such information was not available. This concern reinforces the suggestion above that the CIT confine its attention to a narrow range of instruments. Foreign governments can collect data about the use of these five instruments relatively easily, either directly or through firms exporting to Canada. The proposed index would thus inform Canadians without weakening the hands of our negotiators.

Now is an especially propitious time for the recommendations concerning the proper use of quotas, appropriate evaluation procedures, quota auctions, and a protection index to be implemented. The federal government has recently introduced in Parliament Bill C-110, the *Canadian*

International Trade Tribunal Act. This will see the merger of the Textile and Clothing Board, the Canadian Import Tribunal, and the Tariff Board to form the new tribunal, whose mandate would not be confined to one industry or a small group of industries. Thus an opportunity arises to incorporate our recommendations into the proposed Bill.

Strengthening the Framework Policies

Our recommendations for limited and well-defined sectoral policies presuppose sound framework policies. Indeed, a well-functioning market economy, operating within a properly designed set of framework policies, is likely to be conducive to positive adjustment. As the levels and growth of productivity, income, and employment are maximized, the demand and necessity for sector-specific intervention will be lessened, and workers and firms are more likely to be receptive to change. Hence, setting the appropriate framework policies is an important part of any overall adjustment package, since it is likely to influence the policy orientation towards the positive-adjustment end of the policy spectrum and to lessen the demand for special sectoral policies. Indeed, as noted in Chapter 1, the Council has over the past few years recommended major changes to framework policies in the fields of research and development, technological change, tax reform, and financial markets.

In the following paragraphs, we recall the importance of macroeconomic policies and discuss labour-market adjustment programs in some detail. These and many other framework policies must constantly be reviewed to make sure that they support, rather than thwart, adjustment.

Managing the Economy

Managing the country's economy by adopting appropriate monetary and fiscal stances is one of the most important sets of framework policies. Whether or not it is successful in providing a healthy, vibrant, and buoyant economy is an important factor in determining both the demand for intervention and the ability of governments to respond to it. When economic times are good, adjustment is greatly facilitated, as jobs are easier to find and workers are more willing to move. Furthermore, in good times, even if international competition slows the rate of increase of output and employment, it is less likely to result in actual reductions. In periods of prosperity, governments are also likely to have the funds available to aid workers in those few industries where adjustment problems are severe enough to warrant some intervention. In an economic downturn, on the other hand, difficulties in finding new jobs, combined with reluctance to move, coincide with a narrowing of governments' margin for manœuvre because of fiscal constraints.

Table 8-1 gives an overview of the macroeconomic conditions in Canada over the past two to three decades. All the indicators suggest that conditions significantly worsened in the 1970s and 1980s compared with the 1960s: productivity and real output growth slowed down, and unemployment rates reached, and remained at, very high

Table 8-1

Indicators of Canada's Economic Performance, 1962-91

		Productivity[1]		
	Average annual GDP growth rate	Level	Annual growth rate	Unemployment level[2]
1962-64	6.3	. .	. .	. .
1965-69	5.4	26,447[3]	1.9[4]	4.0[3]
1970-74	5.2	29,242	2.1	5.8
1975-79	4.2	31,934	1.5	7.6
1980-84	2.3	32,847	1.1	9.8
1985-86	3.8	34,898	0.9	10.1
1987-91[e]	2.8	35,456	0.6	8.5

1 Measured as real GDP per employed person, in constant 1981 dollars.
2 Persons aged 15 and over.
3 Data for 1966-69.
4 Data for 1967-69.
SOURCE Economic Council of Canada, Chart Book Data Bank Series. The data for 1987-91 are base-case projections of the Council; for details, see Economic Council of Canada, *Reaching Outward*, Twenty-Fourth Annual Review (1987).

levels. Despite this deterioration, we saw in Chapter 3 that considerable adjustment took place in the Canadian manufacturing sector in the 1970s.

In the Council's Twenty-Fourth Annual Review, *Reaching Outward*, the indicators projected for the 1987-91 period suggest that some improvement in the underlying macroeconomic conditions is likely: unemployment is expected to average 8.5 per cent, down from 10.1 per cent in 1985-86; growth in GDP, on the other hand, is projected to average 2.8 per cent, which is somewhat below the figure for 1985-86 but above that for the early 1980s. Hence the demand for sectoral intervention, to the extent that it is driven by overall macroeconomic conditions, will probably abate somewhat.

Another series of indicators, presented in Table 8-2, provide a measure of the federal government's fiscal capacity to respond to any increased demands placed upon it for adjustment assistance programs. All the ratios suggest that compared with the situation in the 1960s, the federal government was subject in the 1970s and 1980s to considerable constraints on its ability to provide such assistance. While the evidence available suggests that its fiscal position will improve in the medium term, that improvement will only be achieved as the result of very strict control over expenditures, reducing them from the equivalent of 23 per cent of GDP in 1985-86 to an estimated average of 20.9 per cent annually for the period 1987-91. This will foster a climate for eliminating existing programs rather than adding new ones.

This report is not the appropriate vehicle for recommendations regarding macroeconomic policy in Canada; but we cannot ignore its importance for adjustment. Our very brief review of the overall macroeconomic situation and of the federal government's fiscal position suggests that the resources available to finance adjustment will be greatly rationed. At the same time, the pressures of international competition highlighted in Chapter 1 will subject governments to continued demands for intervention in trade-sensitive industries.

Labour Adjustment Policies

One of the first considerations in discussing measures aimed at aiding workers adversely affected by a decline in the international competitiveness of a given industry (caused by changes in policy or in comparative advantage) is whether a trade-related, sectoral program is appropriate. Earlier, we argued that there are grounds for targeting assistance at older workers, displaced as a result of international competition, and at those adversely affected by local labour-market congestion. We did not, however, address the related question of whether workers in the same target groups but affected for other reasons, such as technological change, should also receive assistance. An affirmative answer would suggest that a general, or framework, policy directed at all workers is more appropriate than sectoral measures reserved for those who are adversely affected by international competition.

A worker can become unemployed for a variety of reasons in a number of different situations, some of which may call for special government intervention. At first sight, there would appear to be little justification, on equity grounds, for a separate policy for workers employed in

Table 8-2

The Federal Government's Fiscal Position: 1961-91

	Average annual ratios[1] to GDP of:				
	Federal expenditures	Federal revenues	Federal deficit	Interest payments on federal debt	Federal debt
1961-64	15.9	15.6	–0.6	1.9	39.5
1965-69	15.1	15.9	+0.4	1.8	29.6
1970-74	17.5	17.9	+0.2	2.0	23.8
1975-79	19.5	16.7	–3.0	2.5	20.6
1980-84	21.7	17.1	–4.8	4.1	26.1
1985-86	23.0	17.4	–5.8	5.3	36.9
1987-91[e]	20.9	17.8	–3.2	5.0	34.7

1 All ratios are based on data expressed in current dollars.

SOURCE Economic Council of Canada, Chart Book Data Bank Series. The data for 1987-91 are base-case projections of the Council; for more details, see Economic Council of Canada, *Reaching Outward*.

trade-sensitive industries. There is no reason to suppose that the unemployment caused by imports of Japanese automobiles is more deserving of special assistance than that caused by a decline in the demand for asbestos, now deemed by many to be a health hazard. Some people argue, however, that government has an obligation to provide assistance when hardship is the result of changes in trade policy: because it is responsible for changing the rules of the game, it should compensate those affected. But the argument for a separate policy in that particular instance is not convincing. Trade policy is only one of many government policies that adversely affect a few people but are intended to benefit society as a whole.

A second argument in favour of general, rather than sectoral, labour adjustment programs is the difficulty of isolating trade-related dislocation from that caused by other changes. As we saw in Chapter 3, large numbers of workers are constantly leaving their jobs and taking on new ones. Even if we were able to say what proportion of the job loss in a particular industry was related to changes in trade policy, it would be very difficult, if not impossible, to identify which of 1,000 workers laid off were specifically the victims of the resulting trade pressures. And, again, on equity grounds should society not also help those among the 1,000 who were laid off for other reasons?

Our conclusion, based on considerations of equity and administrative feasibility, is that the most appropriate way to assist workers who have been adversely affected by international competition is not through trade-related, sector-specific measures but through a more general set of labour policies. Thus,

9 We recommend that labour adjustment policies adopted by government to assist workers in industries suffering the adverse consequences of international competition be part of general (or framework) policies designed to facilitate the adjustment of workers to changing economic times and conditions.

Canada already has a wide variety of labour-market framework policies, many of which address the adjustment issue (Table 8-3). The largest, in terms both of workers affected and money spent, is unemployment insurance, which in 1986-87 provided temporary income support amounting to more than $10 billion to several million claimants. The major objective of the Canadian Jobs Strategy (CJS), announced in June 1985, and of related programs is the provision of training and skill development, while a number of other programs, such as the Industrial Adjustment Service, are also designed to promote adjustment. Although we did not attempt to evaluate the adequacy of these programs, others have recently tackled this subject. The Forget Commission, for example, examined unemployment insurance;[10] a recent Senate Committee report, looked at some aspects of the CJS;[11] and with respect to the issue of on-the-job versus institutional training, a number of studies, including some by this Council, have advised placing greater emphasis on on-the-job training.[12]

Although we are not in a position to make recommendations on the broad sweep of labour market policies, our work on a number of particular programs aimed at workers adversely affected by the pressures of international competition leads us to make three suggestions as to how these

Table 8-3

Selected Labour Program Expenditures, Canada, 1986-87

	Annual expenditures	Per cent of total
	(Million $)	
Unemployment Insurance:		
Unemployment Insurance benefits[1]	10,159.0	85.1
Training[2]	236.9	2.0
Work Sharing	21.7	0.2
Job Creation	96.0	0.8
Less: overpayments and cancelled warrants	(86.3)	(0.7)
benefit repayments	(33.8)	(0.3)
Total	10,393.5	87.1
Canadian Jobs Strategy:		
Job Development	834.2	7.0
Job Entry		
– Challenge '86	117.6	1.0
– Other Job Entry	228.3	1.9
Skill Shortages	185.0	1.5
Skill Investment	48.8	0.4
Community Futures	64.1	0.5
Innovations	14.8	0.1
Other related programs	50.0	0.4
Total	1,542.8	12.9
Grand total	11,936.3	100.0

1 Including regular, sickness, maternity, adoption, age 65, and fishing benefits.
2 Income support for trainees.
SOURCE Employment and Immigration Canada, *Annual Report, 1986-1987* (Ottawa, 1987).

programs might be modified or improved. We also draw on other recent Council work pertinent to the labour adjustment issue.

Preretirement Benefits Programs— Income maintenance for older workers, in the form of preretirement benefits, has been one of the main elements of labour adjustment policies for trade-sensitive industries. The programs of the 1970s and 1980s are gradually being phased out, however, to be replaced by the Program for Older Worker Adjustment (POWA), which was announced in the 1986 Budget Papers[13] and is of a framework nature. POWA has yet to be implemented, but some details of its design are already available. The program will be a joint federal/provincial endeavour; it will be aimed, according to those Budget Papers, at "older workers who lose their jobs through major layoffs or plant closures and who have no immediate prospects for re-employment" (p. 24); it will be triggered by "technological change, shifts in market demand, resource depletion and a variety of other factors" (p. 24) – in other words, by structural change. Furthermore, it would appear that POWA will not only provide income maintenance to older workers but also attempt to encourage them to re-enter the labour force. Over the first four years, the federal government plans to allocate $125 million to POWA; as yet, however, it has not signed agreements with any of the provincial governments. While program details remain sketchy, POWA does take the existing preretirement benefit programs as its point of departure. Our examination of those programs suggests that a number of improvements could be made in their eligibility criteria.

Preretirement benefits programs are intended to provide last-resort income maintenance for older workers with a long attachment to an industry and no prospect of re-employment. There are good reasons to help such workers, as discussed above. Typically, young workers are laid off first, and older workers, last, because of their seniority. In any industry undergoing a reduction in employment, the younger workers are most mobile and have the best chance of finding another job, while the opposite is true of older workers. Hence it is socially preferable to allow contraction to proceed by encouraging the younger workers to seek employment in the growing sectors of the economy, while keeping the older workers employed in the declining industry until they are laid off according to seniority. They would thus continue to be productively employed, and their potential would not be lost to society forever.

In the early 1980s, however, changes were made in preretirement benefits programs to enable older workers to volunteer for redundancy without losing their eligibility for such benefits. In other words, if an employer has to reduce his labour force by 60 employees, he can ask older workers if they would accept layoff, even though their seniority would normally protect them. As a result, younger workers are encouraged to enter and to stay in industries adversely affected by international competition, even though it might be more useful to encourage them to go elsewhere. We suggest, therefore, that to be eligible for preretirement benefits older workers must have been involuntarily, and permanently, laid off by their employer. This suggestion represents a return to the practice that existed before 1982-83.

An important element of the preretirement benefits programs has been the designation of industries and communities eligible for benefits. For example, a community/industry designation can be made if, as a result of an industry undergoing structural adjustment across Canada, severe economic disruption occurs in a particular region. In addition, there has to be a significant loss of employment in the industry in that region. In the past, these designations were made on the basis of a Memorandum to Cabinet, with no public involvement. Some communities were helped; others were not.

In view of our concern that the administration and implementation of all adjustment policies should be fair and transparent, we suggest that the criteria for determining structural change, for designating industries and/or industry/communities eligible for preretirement benefits, and for certifying layoffs be applied by an independent tribunal, with labour and employer representation and an independent chairman. Written decisions should be given. The Labour Adjustment Review Board is such a tribunal. At present, the board certifies that a worker was part of a layoff in a designated industry/community, then the Canada Employment and Immigration Commission (CEIC) certifies that he or she has the requisite number of hours and years of service in the designated industry and is entitled to benefits equal to 60 per cent of his/her average weekly insurable earnings. Under our proposal, the board would also be responsible for designating the industries/communities.

These suggestions for consideration in the development of POWA represent modest changes to the existing preretirement benefits programs. This reflects our judgment that preretirement programs are sound in principle but have been given only limited opportunity to demonstrate their usefulness because of the adjustment-retarding impact of quotas, as well as of firm and industry subsidies. An important concern at the present time, however, is the delay in the implementation of the new program. Workers who would most likely meet the eligibility criteria are being denied access because of this delay; consequently, we urge federal and provincial governments to implement POWA as soon as possible.

Re-employment Programs — Canada has considerable experience in designing preretirement benefits programs but much less experience in trade-related, sectoral re-employment programs to encourage job mobility, relocation, and retraining. The major re-employment programs used to aid workers in trade-sensitive sectors, described in Chapter 7, were essentially the enriched features of existing CEIC programs, supplemented by some direct job creation. Our review of the evidence suggests that direct job creation resulted in many workers requalifying for unemployment insurance, while the enriched features of existing CEIC programs seem to have had little effect in the trade-sensitive textile, clothing, and footwear industries. (It must be remembered, however, that these programs were launched during the worst recession since the Second World War.)

We have shown that there is considerable mobility of labour in Canada between occupations, regions, and employers, even in trade-sensitive industries. This does not mean, of course, that people in trade-sensitive industries do not have re-employment problems that require assistance. It is important, however, to make sure that the assistance provided responds to the observed needs of that segment of the labour force.

One prevalent characteristic of some of the most important trade-sensitive industries is that worker education is low, by general manufacturing standards, and the jobs are unskilled. For example, 76 per cent of the workers in Ford's automobile assembly plants in Canada are in unskilled jobs (defined as those requiring less than 30 days' training to be proficient on the job). In 1981, the percentage of the labour force with less than Grade 9 education was much higher in the textile, leather, knitting, and clothing industries – ranging from 26 per cent to 39 per cent – than in all of manufacturing, where it was only 19 per cent. Furthermore, this lack of formal education is particularly prevalent in the clothing industry – by far the largest employer of the four industries – where the labour force consists largely of women.[14]

Canada is unlikely to have a competitive advantage in industries characterized by low levels of formal education and unskilled tasks. Underdeveloped and newly industrialized countries (NICs) have large supplies of labour with such characteristics. Furthermore, even in industries requiring considerable capital investment (such as the automotive industries), some of the NICs (South Korea, for example) pose a competitive challenge to Canadian producers. This does not mean that trade-sensitive sectors cannot revitalize themselves, using a more-skilled work force. Nevertheless, job growth in Canada is likely to be in sectors requiring more highly skilled labour, so it is important that workers be given the opportunity to upgrade their skills and their educational attainment.

As the Council pointed out in *Making Technology Work*, the need for skill upgrading is not confined to trade-sensitive industries. In that report, we made a number of suggestions for achieving a well-trained, flexible, and committed labour force. These included support for employer-based training in selected highly skilled occupations, the creation of conditions conducive to continuous learning on the job, and the provision of funds and leave for training. The central principles of our proposed policy framework for worker retraining were:

- private-sector initiative in making training choices;
- support for joint employer/employee solutions;
- concern for those disadvantaged in the labour force;
- flexibility in program design and administration; and
- decentralized decision making.

These principles are consistent with the general orientation of positive-adjustment policies, particularly in encouraging workers and employers to make their own decisions about training. Regarding government funding for labour training, we suggested in *Making Technology Work* not an increase but a re-allocation of funds, with a view to providing "an environment within which employers and workers can make informed decisions about necessary retooling and can then carry out the required training" (p. 31). This suggestion, which we continue to believe would pay high dividends, is also supportive of positive adjustment.

Consultative Mechanisms — In Chapter 1, we noted that the worker's access to information about job opportunities (except at the local level) is much more restricted than the investor's or the firm's access to information on market conditions. The individual is much less likely to be aware of all the government programs that offer opportunities for job creation, training, or employment than is the firm with respect to government programs that offer financial assistance. We also noted that in local labour markets, a major plant closure necessarily has a severe impact on employment opportunities. Thus there is a role for government not only in providing such information to individuals but also in actively facilitating the adjustment process for workers.

This role is undertaken by the Industrial Adjustment Service (IAS), whose objective is "to encourage employers and their employees to work together to reduce current and

expected labour adjustment problems within their establishments . . . and, through human resource planning, to obtain or provide an appropriate workforce in the future."[15] Management and labour will often approach the IAS when labour adjustment problems are anticipated – a plant shutdown, for example. Shutdowns frequently require advance notification by law, so that the IAS may be called in before the anticipated layoff takes place. Management and labour form joint consultative committees to "analyze the labour adjustment problems, develop solutions to them and oversee the implementation of the solutions" (p. 142). The IAS offers financial assistance to set up the joint consultative committee and provides details of the full range of CEIC and Labour Canada programs. A number of studies have given the IAS program high marks;[16] as we noted in *Making Technology Work*, it "has proven to be a fast, flexible, and cost-effective method of promoting adjustment" (p. 34). It should be noted that this flexibility applies not only to plant closures but also to plant start-ups.

In a typical year, between 4 and 5 million Canadians, or one-fifth of the working-age population, lose or leave their jobs. As we saw in Chapter 3, many workers decide to change jobs on their own initiative, but a considerable part of the turnover is firm-initiated and leads to permanent layoffs. The number of workers currently assisted by the IAS is much smaller than the number of those laid off, so there are probably other workers who could benefit from its services. Accordingly, we suggest that government make every attempt to make workers and employers aware of the availability, functioning, and purpose of the Industrial Adjustment Service. Major plant shutdowns are traumatic events, frequently leading people to use CEIC services and to draw unemployment insurance benefits for the first time.[17] The IAS offers a way of smoothing the transition and facilitating re-employment. It should be strongly supported.[18]

Conclusion

We realize that Canada cannot avoid adjusting manufacturing operations to the harsh pressures of international competition. The challenge is to manage that adjustment wisely. We see a legitimate and important role for government intervention at two distinct levels: the setting-out of framework policies in areas such as taxation, competition, and labour markets; and the designing of selected sectoral policies to help specific industries cope with adjustment. But we consider sectoral policies as exceptions, to be introduced only under particular conditions and subject to clear evaluation.

It is important to recognize that Canadians have demonstrated a considerable capacity to adjust. Our research shows that they frequently change not only jobs but occupations and industries. One role for government, therefore, is to encourage necessary change by helping workers to acquire new skills through training and by creating a safety net (through unemployment insurance, for example) to cushion the income losses associated with involuntary job change.

Our research also shows that firms are constantly engaged in a process of adaptation – contracting or expanding production and employment, entering or exiting industries, merging and divesting, building new plants and closing existing plants. Furthermore, using a number of indicators of firm adjustment (such as firm exit rates via plant closures), we find that the industries most sensitive to international competition perform in much the same way as other manufacturing industries. In addition, we find that foreign-owned firms often respond to international competition in much the same way as Canadian firms. Where differences do arise, however, the presence of foreign-owned firms appears to enhance, rather than diminish, the ability of the Canadian manufacturing sector to adjust to the pressures of change. Accordingly, we see no need for adjustment policies that differentiate between Canadian and foreign-owned firms.

While we are critical of the way the federal government's sectoral programs have been implemented in the past, the objectives of those programs have largely been on the side of positive adjustment. That is, they have been designed to promote adjustment by encouraging manufacturers to renew their product line and upgrade their production systems. They have also frequently provided a breathing space during which the firm could leave the industry in an orderly fashion.

The problem is that there is a large gap between the rhetoric of policy objectives and the reality of program implementation. The programs themselves have, more often than not, discouraged adjustment. They are therefore examples of the new protectionism. We do not see that outcome as either inevitable or predetermined by the Canadian political system. There is an alternative approach that is both more open and more judicious in the use of resources.

To make the actual program implementation more congruent with the objective of positive adjustment, we have put forward nine principles. These principles call for more open and thorough evaluation of the policy options, with emphasis on labour market policies rather than on assistance to firms to modernize capital equipment. We also set out guidelines for the proper allocation of quantitative restraints on imports.

The use of these principles will help governments to manage the adjustment process in a way that is attuned to the hardship created by competitive pressures; targeted at improving the competitive performance of manufacturers; and, at the same time, alive to the interests of consumers, workers, and employers.

Appendices

A Trade and Tariffs in Canada's Manufacturing Sector

This appendix provides a series of tables that detail Canada's trade in manufactures with other countries, as well as the level of tariff protection enjoyed by the Canadian manufacturing sector. The most frequently used data are those provided by the International Trade Division of Statistics Canada, which are described in the following paragraphs.[1] While most of the tables are self-explanatory, a few notes are provided in the text of the appendix.

International Trade Division Data

The International Trade Division provided data on the value of imports and exports (excluding re-exports), with imports broken down into several categories: the value of dutiable imports, excluding duties; the value of duty-free imports; and duties collected. The imports and exports data are available by country of origin (for imports) and by destination (for exports) on a four-digit industry basis, using the 1970 Standard Industrial Classification (SIC) for the years 1971 to 1985.[2]

The import data are collected by Canada Customs. Customs' values are identical to the selling prices for most transactions, with exceptions occurring for transactions among company affiliates, where adjustments are made such that the customs value may exceed company transfer prices. Imports are measured free on board (f.o.b.), which is the price as exported from the home base and does not include transportation costs. Some imports from the United States, however, are purchased on a delivered basis, and their prices will reflect an allowance for transportation. Exports are recorded at the values declared on export documents, which reflect the actual selling price (and in the case of non-arm's-length transactions, at the transfer price used for company accounting). Most exports are valued at the place in Canada where they are loaded onto a carrier for export.

Import and export data are collected at the commodity level. These are then aggregated to the industry level,[3] usually with all of the commodity allocated to a single industry. The commodity breakdown is much finer and more detailed for imports than for exports,[4] by a factor of approximately two.[5] In some cases it appeared that it may have been difficult to allocate a commodity wholly to a single four-digit SIC. Hence, for that reason, and, no doubt, others,[6] in some instances data relating to several four-digit industries were combined into a single observation.[7] This was much more prevalent for the export/SIC concordance[8] than the import/SIC concordance.[9]

In matching the trade data to the 167 four-digit manufacturing industries' data set, it was assumed that, on the import side, the tariff rates[10] and ratio of imports to industry shipments are the same for each constituent four-digit industry grouped into a single observation – and similarly, on the export side, for the ratio of exports to industry shipments. Finally, it should be noted that in some instances there were no import or export data given.[11] This reflected the fact that the industry was of a service nature or that because imports/exports were so close to zero, little or no data were collected and tabulated separately. In one case, on the import side, however, no data were provided; thus that industry was omitted from analysis.[12] In view of the fact that most of the data presented in the tables aggregate the 167 four-digit industries into 20 two-digit industries, these approximations, assumptions, and omissions should be of little consequence.

Notes on Tables

In Table A-1, although the trend in nominal tariff protection is downward over time, in a small number of instances, tariff rates increase. For example, the nominal tariff rate on all imports of food and beverages increases from 4.1 per cent in 1978 to 7.2 in 1985 (columns 5 and 8). Such movements primarily reflect the fact that the data refer to actual duties collected, not the published or bound tariff rate. Hence if a commodity is subject to a prohibitive tariff rate (no imports), which is then reduced somewhat (some imports), actual duties collected may go up, thus showing a rise in the nominal tariff rate. This may be the case in the example of food and beverages.

Because of the large difference between the imported price and the imposition of various nontariff taxes on tobacco – not typical of most industries – the tobacco

industry has very variable tariff rates. This applies to both nominal tariff rates (Tables A-1 and A-5) and effective tariff rates (Table A-2).

In Table A-8, the tariff levels are much the same, regardless of whether the imports are from the United States or the NICs.[13] In some instances, however, there are differences, which are frequently explained by the fact that there are substantial duty-free imports from the United States – leather, knitting mills. For clothing, however, this is not the case; tariff rates are just lower on imports from the NICs compared with the United States.

Table A-1

Nominal Tariff Protection in the Canadian Manufacturing Sector, by Industry, 1971, 1978, and 1985

	1971			1978			1985		
	Nominal tariff		Proportion of imports not dutiable[3]	Nominal tariff		Proportion of imports not dutiable[3]	Nominal tariff		Proportion of imports not dutiable[3]
	All imports[1]	Dutiable imports[2]		All imports[1]	Dutiable imports[2]		All imports[1]	Dutiable imports[2]	
	(Per cent)								
Food and beverages	15.0	19.8	24.5	4.1	7.6	46.5	7.2	11.9	39.0
Tobacco products	52.4	52.4	--	35.9	45.3	20.8	43.1	51.1	15.7
Rubber and plastics	14.0	17.9	21.9	15.2	17.9	15.2	11.0	13.6	19.1
Leather	18.8	20.1	6.8	17.6	19.7	10.9	17.5	19.3	9.3
Textiles	17.1	20.7	17.7	16.5	20.2	18.6	15.0	19.0	21.1
Knitting mills	24.7	24.7	--	25.1	27.2	7.4	22.2	25.1	11.5
Clothing	15.1	15.2	0.3	12.7	13.7	6.8	11.2	12.1	7.4
Wood products	7.2	13.1	45.2	5.5	13.2	58.2	2.9	9.9	70.2
Furniture and fixtures	18.2	18.4	1.1	17.8	18.7	4.9	14.1	14.6	3.8
Paper and allied products	11.0	15.0	26.7	10.9	15.0	27.0	6.7	9.8	31.3
Printing and publishing	4.6	16.2	71.5	5.3	14.9	64.6	1.8	14.1	87.4
Primary metals	5.2	8.8	41.0	5.2	8.9	41.6	4.1	6.7	39.0
Metal fabricating	12.7	15.6	18.3	11.5	15.4	25.3	8.4	11.5	26.7
Machinery	5.9	12.8	54.1	5.3	13.3	60.1	3.2	7.8	58.9
Transportation equipment	1.8	15.1	88.2	1.4	14.4	90.2	1.2	10.8	88.9
Electrical products	12.4	15.8	21.5	10.7	15.6	31.4	6.4	11.4	43.5
Nonmetallic mineral products	8.1	14.3	42.8	8.0	13.6	40.9	6.7	10.3	35.4
Petroleum and coal products	4.5	6.8	34.5	3.1	12.5	75.2	0.6	10.3	93.8
Chemical and chemical products	7.1	13.0	45.4	6.6	12.5	47.2	5.3	10.8	50.5
Miscellaneous manufacturing	10.5	16.8	37.6	9.7	15.6	37.6	6.3	11.1	43.0
All manufacturing	7.1	15.4	54.0	5.9	14.4	59.3	4.2	11.2	62.8

1 Total duties collected, divided by total value of all imports, excluding duties.
2 Total duties collected, divided by total value of dutiable imports, excluding duties.
3 Percentage of all imports (excluding duties) that entered Canada duty-free.
SOURCE Special tabulations provided by the International Trade Division of Statistics Canada.

Table A-2

Effective Tariff Protection[1] in the Canadian Manufacturing Sector, by Industry,[2] 1966, 1970, and 1978

	1966	1970	1978
		(Per cent)	
Food and beverages	18.7	15.7	10.8
Tobacco products	83.7	192.7	–363.2
Rubber and plastics	20.1	17.7	23.5
Leather	31.1	28.7	26.8
Textiles	22.5	16.1	20.6
Knitting mills	40.1	48.7	36.0
Clothing	28.8	25.0	25.7
Wood products	15.5	14.4	10.1
Furniture and fixtures	25.2	19.9	21.0
Paper and allied products	16.6	15.2	14.7
Printing and publishing	2.2	3.1	6.9
Primary metals	9.6	8.0	10.1
Metal fabricating	16.1	13.1	11.9
Machinery	6.5	4.4	5.6
Transportation equipment	–1.6	–1.3	–1.6
Electrical products	18.7	13.4	11.2
Nonmetallic mineral products	10.4	10.7	10.7
Petroleum and coal products	29.6	36.0	37.6
Chemical and chemical products	9.5	9.6	10.8
Miscellaneous manufacturing	14.3	13.0	11.7
All manufacturing	8.7	7.6	6.9

1 Simple effective tariff rates, calculated as the decline in value added that may occur if nominal tariff protection is removed from both inputs and outputs. More formally, the effective tariff rate is $(v^1 - v)/v^1$, where v^1 = value added per unit of output *under* protection and v = value added per unit of output *after* protection has been removed; and "valued added" is defined as the return to the primary factors of production, labour, and capital. In estimating the effective tariff rates, we do not, unfortunately, have estimates of value added both *before* and *after* the imposition of tariffs, but only for after – i.e., the value added that we actually observe. In order to derive the value added prior to the imposition of tariffs or after tariffs have been removed, certain assumptions are usually made. The effect of these assumptions is to bias upward the measure of effective protection. For further details, see Bruce W. Wilkinson and Kenneth Norrie, *Effective Production and Return to Capital* (Ottawa: Information Canada, 1975), pp. 5-20.

2 For each two-digit industry or major group, the effective rate is the weighted average for the four-digit industries into which the group is divided. The weights used are the industries' total imports in the year for which effective rates are estimated (except for 1966 and 1978, when 1970 and 1979 import weights were used, respectively). All 167 four-digit manufacturing industries were employed.

SOURCE Special tabulations provided by the Input Output Division of Statistics Canada.

Table A-3

Level of Imports and Exports in the Canadian Manufacturing Sector, by Industry and by Selected Country/Grouping, 1971 and 1985

	Proportion of total for each industry															
	Imports								Exports							
	1971				1985				1971				1985			
	Japan	Far East NICs[1]	South American NICs[2]	United States	Japan	Far East NICs[1]	South American NICs[2]	United States	Japan	Far East NICs[1]	South American NICs[2]	United States	Japan	Far East NICs[1]	South American NICs[2]	United States
	(Per cent)															
Food and beverages	2.0	1.6	2.1	38.0	1.2	1.9	5.5	45.2	4.9	0.5	1.3	58.2	11.0	2.6	1.3	60.4
Tobacco products	--	--	0.2	43.2	--	0.2	0.1	59.9	--	1.2	--	3.5	--	6.6	--	39.0
Rubber and plastics	6.6	4.6	--	71.9	8.0	5.1	0.6	73.4	0.2	0.3	0.5	74.4	0.5	1.8	0.2	91.4
Leather	7.9	7.6	2.3	20.0	0.7	32.9	5.9	10.4	1.4	0.7	--	81.8	0.1	2.4	0.1	88.9
Textiles	10.4	2.5	1.7	42.3	5.5	11.2	3.9	41.6	0.8	2.0	0.7	34.3	0.8	5.5	0.5	55.9
Knitting mills	17.9	22.2	--	10.9	1.4	52.1	0.5	15.4	--	1.1	-	70.2	3.8	0.5	--	82.0
Clothing	16.1	32.8	0.2	21.3	1.8	47.6	0.5	5.3	0.2	0.6	0.1	74.4	1.9	0.8	--	87.0
Wood products	7.2	15.4	0.8	67.0	0.6	4.7	1.2	83.2	4.4	--	--	80.0	7.8	0.2	--	82.1
Furniture and fixtures	2.9	2.5	0.5	66.2	1.2	12.1	0.6	46.0	--	--	--	89.3	0.1	0.3	--	94.7
Paper and allied products	0.7	0.2	0.2	93.7	1.4	0.8	0.7	79.9	3.0	0.8	1.4	70.4	4.8	1.4	0.4	75.2
Printing and publishing	0.6	0.2	--	83.0	0.9	0.9	--	86.3	0.4	0.2	0.2	84.8	0.2	0.2	0.1	92.9
Primary metals	16.8	--	0.2	54.5	7.9	1.9	2.3	58.4	2.9	0.4	2.0	57.0	4.2	2.1	1.0	75.6
Metal fabricating	7.7	1.1	0.2	69.9	5.7	6.9	0.6	69.6	1.1	0.6	0.4	70.9	0.4	0.6	0.3	87.5
Machinery	2.2	--	--	81.2	5.7	1.2	0.3	77.3	1.7	0.7	1.7	73.7	0.7	0.9	0.8	75.9
Transportation equipment	4.4	--	--	88.4	6.5	1.8	1.6	86.4	--	--	0.6	92.4	0.1	0.1	0.5	96.8
Electrical products	13.1	1.5	--	68.9	16.9	8.3	2.6	64.3	0.4	0.6	0.9	62.9	0.6	2.5	2.9	76.2
Nonmetallic mineral products	5.7	0.5	0.1	66.5	7.3	1.9	1.0	61.6	0.9	0.1	0.4	84.3	0.4	0.2	0.1	93.1
Petroleum and coal products	--	--	0.1	35.3	--	0.8	2.4	52.0	--	--	--	90.1	0.3	0.4	--	94.1
Chemical and chemical products	1.8	0.1	0.2	76.3	2.2	0.8	0.6	73.7	4.2	1.0	1.4	61.7	6.1	5.1	1.6	65.1
Miscellaneous manufacturing	8.7	2.7	0.2	63.9	10.6	9.3	0.4	60.5	3.0	0.5	0.8	63.8	2.0	2.1	0.5	74.9
All manufacturing	5.8	1.3	0.3	72.9	6.5	4.2	1.5	73.1	1.9	0.4	1.0	75.7	2.5	1.1	0.7	84.6

1 Includes South Korea, Taiwan, Singapore, and Hong Kong.
2 Includes Mexico and Brazil.
SOURCE Special tabulations provided by the International Trade Division of Statistics Canada.

Table A-4

Distribution of Imports and Exports in the Canadian Manufacturing Sector, by Industry and by Selected Country/Grouping, 1971 and 1985

	Proportion of total for each country/grouping															
	Imports								Exports							
	1971				1985				1971				1985			
	Japan	Far East NICs[1]	South American NICs[2]	United States	Japan	Far East NICs[1]	South American NICs[2]	United States	Japan	Far East NICs[1]	South American NICs[2]	United States	Japan	Far East NICs[1]	South American NICs[2]	United States
	(Per cent)															
Food and beverages	1.8	6.2	41.4	2.7	0.7	1.8	14.4	2.4	17.9	9.2	9.2	5.5	23.0	12.6	9.8	3.8
Tobacco products	--	--	--	--	--	--	--	--	--	1.4	--	--	--	0.7	--	0.1
Rubber and plastics	2.1	6.2	0.1	1.8	2.1	2.1	0.7	1.7	--	0.2	0.2	0.3	0.2	2.2	0.5	1.5
Leather	1.2	5.1	7.9	0.2	0.1	6.9	3.5	0.1	0.1	0.3	--	0.2	--	0.2	--	0.1
Textiles	6.4	6.6	23.4	2.1	1.9	6.0	5.9	1.3	0.3	3.4	0.4	0.3	0.2	2.6	0.4	0.3
Knitting mills	3.9	20.7	0.2	0.2	0.2	8.8	0.2	0.1	--	0.2	--	0.1	--	--	--	--
Clothing	2.1	18.3	0.5	0.2	0.3	13.3	0.4	0.1	0.1	0.9	0.1	0.6	0.3	0.3	--	0.4
Wood products	1.2	10.8	2.8	0.9	0.1	0.7	0.5	0.7	17.7	0.3	0.1	8.2	20.5	1.2	--	6.4
Furniture and fixtures	0.2	0.6	0.6	0.3	0.1	1.4	0.2	0.3	--	--	--	0.3	--	0.2	--	0.9
Paper and allied products	0.1	0.2	0.8	1.3	0.3	0.2	0.6	1.4	24.8	34.3	21.2	14.9	22.1	13.4	6.9	10.5
Printing and publishing	0.2	0.3	0.1	2.3	0.2	0.3	--	1.8	0.1	0.1	--	0.3	--	0.1	0.1	0.6
Primary metals	15.3	0.1	3.4	3.9	4.3	1.6	5.5	2.8	19.6	13.9	25.9	9.9	12.7	14.4	10.8	6.8
Metal fabricating	4.9	3.0	2.4	3.6	2.7	5.1	1.3	2.9	1.0	2.5	0.7	1.6	0.3	1.1	0.8	2.2
Machinery	6.6	0.1	2.9	19.2	14.0	4.7	3.0	17.0	5.0	10.7	9.5	5.5	1.7	4.7	6.3	5.0
Transportation equipment	25.5	0.3	1.7	40.7	39.1	16.3	42.0	46.3	0.3	4.0	22.4	43.5	0.9	2.3	30.2	47.2
Electrical products	15.8	8.0	1.1	6.6	20.5	15.5	13.6	6.9	0.5	4.4	2.4	2.3	0.9	9.7	17.7	3.8
Nonmetallic mineral products	1.7	0.7	0.6	1.6	1.5	0.6	0.9	1.1	0.4	0.1	0.3	0.8	0.1	0.1	0.1	0.9
Petroleum and coal products	--	--	0.6	0.8	--	0.4	3.0	1.3	--	--	--	0.7	0.3	1.1	--	3.0
Chemical and chemical products	1.8	0.4	4.5	6.2	2.2	1.2	2.6	6.6	9.8	11.9	6.3	3.6	15.3	29.6	15.0	4.9
Miscellaneous manufacturing	9.2	12.4	5.0	5.4	9.8	13.3	1.5	5.0	2.5	2.0	1.2	1.4	1.3	3.3	1.3	1.5
All manufacturing	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

1 Includes South Korea, Taiwan, Singapore, and Hong Kong.
2 Includes Mexico and Brazil.
SOURCE Special tabulations provided by the International Trade Division of Statistics Canada.

Table A-5

Level of Nominal Tariff Protection on Imports in the Canadian Manufacturing Sector, by Selected Country/Grouping, 1971-85

	Nominal tariff, all imports[1]				Nominal tariff, dutiable imports[2]				Proportion of imports not dutiable[3]			
	Japan	Far East NICs[4]	South American NICs[5]	United States	Japan	Far East NICs[4]	South American NICs[5]	United States	Japan	Far East NICs[4]	South American NICs[5]	United States
	(Per cent)											
1971	14.3	18.5	10.9	5.4	15.6	19.4	15.4	14.7	8.5	4.7	28.8	63.3
1972	14.4	18.2	11.5	5.6	15.9	19.4	15.8	15.0	9.5	5.9	27.2	62.5
1973	13.1	17.5	10.3	5.5	14.8	18.6	17.8	14.6	11.3	5.8	42.0	62.6
1974	12.3	16.8	8.7	5.9	14.2	18.1	18.2	14.5	13.7	7.2	52.1	59.3
1975	12.3	16.0	8.1	5.5	14.5	17.9	18.9	14.6	15.0	10.4	57.0	62.3
1976	11.5	14.8	7.1	5.6	15.6	18.0	15.3	14.9	26.7	17.4	53.8	62.6
1977	11.1	14.2	4.8	5.2	15.0	17.3	12.8	14.6	25.8	17.9	62.9	64.4
1978	10.4	14.3	5.2	5.0	14.5	17.3	12.3	14.4	28.8	17.1	57.7	65.5
1979	9.3	12.8	5.1	4.9	14.1	16.3	12.2	14.4	33.8	21.5	58.0	66.1
1980	9.7	13.0	4.9	4.7	13.6	16.5	13.2	13.8	28.6	21.3	62.8	66.0
1981	9.7	12.3	5.8	4.5	13.3	16.1	13.2	13.1	27.5	23.4	56.0	65.8
1982	9.3	11.9	5.5	4.1	12.8	15.5	12.9	12.4	27.6	23.0	57.4	67.1
1983	8.9	12.1	4.5	3.7	12.1	15.5	15.2	11.8	26.5	22.2	70.7	68.8
1984	8.0	11.1	3.2	3.3	11.4	15.0	14.5	10.8	29.7	25.9	77.7	69.3
1985	7.8	9.7	3.0	3.0	10.7	14.2	13.9	10.4	27.4	31.5	78.8	71.3

1 Total duties collected, divided by total value of all imports, excluding duties.
2 Total duties collected, divided by total value of dutiable imports, excluding duties.
3 Percentage of all imports (excluding duties) that entered Canada duty-free.
4 Includes South Korea, Taiwan, Singapore, and Hong Kong.
5 Includes Mexico and Brazil.

SOURCE Special tabulations provided by the International Trade Division of Statistics Canada.

Table A-6

Importance of Japan and the NICs[1] in the World-Market Economies,[2] Selected Years, 1964-83

	Developed-market economies[3]		Developing-market economies		World-market economies
	Total	Japan	Total	NICs	
			(Per cent)		
A Growth rate in gross domestic product[4]					
1964-73	4.8	9.2	6.2	8.4	5.1
1973-82	2.1	3.8	4.0	5.9	2.4
B Growth rate in manufacturing value added[4]					
1964-73	5.5	..	7.9	10.8	5.7
1973-82	1.3	5.3	5.0	6.1	1.8
C Manufacturing value added as a share of GDP[4]					
1964	27.9	..	15.6	22.4	26.0
1973	29.5	35.4	18.0	27.5	27.5
1982	27.5	40.2	19.7	27.8	25.9
D Growth rates of manufacturing exports[5]					
1965-73	16.3	20.6	20.7	29.5	16.6
1973-82	12.4	16.1	17.8	20.0	13.0
E Share of world exports of manufactures[5]					
1965	93.7	8.1	6.3	1.9	100.0
1973	91.7	10.6	8.3	4.3	100.0
1983	86.7	14.3	13.3	8.3	100.0
F Share of world manufacturing value added[4]					
1964	90.5	..	9.5	3.1	100.0
1973	88.6	12.8	11.4	4.7	100.0
1982	84.9	17.4	15.1	6.8	100.0
G Exports of manufactures as a share of national exports[5]					
1965	70.5	92.0	16.1	35.4	58.2
1973	74.2	94.5	25.0	59.8	63.8
1983	74.2	96.9	29.2	62.9	61.6

1 Includes South Korea, Taiwan, Singapore, Hong Kong, Mexico, and Brazil.
2 All countries of the world except centrally planned economies.
3 Those of OECD member countries, Puerto Rico, and South Africa, for stub items A, B, C, and F; and those of OECD member countries (except Turkey), Yugoslavia, Malta, Gibraltar, Israel, and South Africa for stub items D, E, and G.
4 Measured at constant 1975 prices and exchange rates.
5 Measured at current prices and exchange rates.

SOURCE Organisation for Economic Co-operation and Development, "The newly industrialising countries: Implications for OECD industries and industrial policies," Document DSTI/IND/87.5 (Paris: OECD, 1987), pp. 11-15.

Table A-7

Share of Imports and Exports in the Canadian Manufacturing Sector Accounted for by Selected Country/Grouping, 1971-85

	Proportion of total[1]							
	Imports				Exports			
	Japan	Far East NICs[2]	South American NICs[3]	United States	Japan	Far East NICs[2]	South American NICs[3]	United States
	(Per cent)							
1971	5.8	1.3	0.3	72.9	1.9	0.4	1.0	75.7
1972	6.4	1.7	0.3	71.6	2.0	0.5	1.0	77.1
1973	4.9	1.9	0.5	73.8	2.9	0.6	0.9	75.7
1974	5.3	1.8	0.6	73.3	2.8	0.7	1.4	72.4
1975	4.2	1.9	0.6	75.0	2.5	0.8	1.6	71.3
1976	4.8	2.9	0.7	75.7	2.6	0.7	1.2	73.4
1977	5.0	2.7	0.7	76.3	2.6	0.8	1.1	75.9
1978	5.3	2.7	0.7	75.3	3.3	0.9	0.8	75.4
1979	4.1	2.9	0.7	76.2	3.6	1.1	0.9	72.8
1980	5.1	2.9	0.7	75.1	3.9	1.7	1.5	67.4
1981	6.3	3.3	0.7	74.5	3.4	1.2	1.6	71.4
1982	6.2	3.6	0.9	74.5	3.6	1.4	1.0	73.8
1983	6.7	4.1	1.1	74.2	3.2	1.2	0.6	80.0
1984	6.7	4.2	1.6	73.3	2.7	1.1	0.6	82.5
1985	6.5	4.2	1.5	73.1	2.5	1.1	0.7	84.6

1 Imports from, or exports to, country/grouping as a percentage of total imports or exports for the whole manufacturing sector.
2 Includes South Korea, Taiwan, Singapore, and Hong Kong.
3 Includes Mexico and Brazil.
SOURCE Special tabulations provided by the International Trade Division of Statistics Canada.

Table A-8

Importance of Far East NICs to Five Manufacturing Industries, Canada, 1971-85

	Textiles			Furniture and fixtures			Leather			Knitting mills			Clothing		
	Imports from Far East NICs[2]	Nominal tariff[1]		Imports from Far East NICs[2]	Nominal tariff[1]		Imports from Far East NICs[2]	Nominal tariff[1]		Imports from Far East NICs[2]	Nominal tariff[1]		Imports from Far East NICs[2]	Nominal tariff[1]	
		Far East NICs	United States		Far East NICs	United States		Far East NICs	United States		Far East NICs	United States		Far East NICs	United States
	(Per cent)														
1971	2.5	20.1	18.5	2.5	18.9	18.1	7.6	23.3	13.0	22.2	27.0	27.3	32.8	14.5	20.2
1972	2.9	21.8	19.2	2.3	18.7	18.1	9.8	21.4	12.2	33.2	27.0	27.2	31.9	14.6	20.1
1973	2.7	23.4	19.1	2.4	15.7	15.7	12.0	22.3	12.5	42.4	26.9	27.3	31.9	14.0	20.0
1974	3.1	21.0	18.8	1.8	16.1	17.0	11.8	21.6	12.3	40.1	26.9	27.3	27.8	12.5	19.4
1975	3.5	22.3	19.7	2.5	17.3	18.7	10.8	19.3	11.7	43.5	26.6	27.1	34.3	12.3	18.2
1976	4.9	20.1	19.5	4.1	16.3	18.9	16.4	19.5	12.6	52.3	24.6	27.0	46.7	11.5	17.7
1977	4.9	18.1	19.0	4.5	14.8	18.8	18.0	19.3	14.0	52.0	24.5	26.8	46.7	10.1	18.8
1978	5.6	18.8	18.2	5.6	14.5	18.4	21.2	18.8	13.6	55.8	24.7	26.6	52.9	10.7	18.1
1979	5.0	16.5	17.7	7.8	14.4	18.4	20.6	19.0	14.8	49.0	24.3	26.4	48.4	9.7	17.8
1980	5.8	16.0	17.8	9.5	14.8	17.9	26.6	19.0	16.2	52.4	24.5	26.4	50.2	10.8	17.5
1981	6.8	16.5	17.6	10.4	14.2	17.3	31.1	18.6	16.3	57.9	24.9	26.4	54.8	11.0	16.6
1982	7.0	16.5	16.0	10.7	14.5	16.2	30.1	18.6	15.3	58.3	25.2	22.4	56.8	10.5	15.3
1983	8.8	16.9	15.7	13.3	13.4	15.7	34.7	19.4	14.6	62.0	25.0	21.5	56.8	11.6	15.3
1984	9.6	16.0	15.3	14.0	13.5	15.0	36.5	19.3	14.4	56.0	24.0	20.3	53.9	11.1	15.2
1985	11.2	16.7	15.5	12.1	13.5	14.1	32.9	19.6	14.5	52.1	23.4	16.9	47.6	10.4	15.2

1 Total duties collected, divided by total value of all imports, excluding duties.

2 Imports from South Korea, Taiwan, Singapore, and Hong Kong, as a proportion of total imports in this industry.

SOURCE Special tabulations provided by the International Trade Division of Statistics Canada.

Table A-9

Employment[1] Shares in the Canadian Manufacturing Sector, by Selected Industry and by Type of Occupation, 1961, 1971, and 1981

	Manufacturing			Textiles			Furniture and fixtures			Leather			Knitting and clothing mills			Metal fabricating			Electrical products			Miscellaneous manufacturing		
	1961	1971	1981	1961	1971	1981	1961	1971	1981	1961	1971	1981	1961	1971	1981	1961	1971	1981	1961	1971	1981	1961	1971	1981
	(Per cent)																							
Type of occupation:																								
White-collar[2]	25.5	29.4	29.3	17.8	21.9	22.1	14.4	22.0	20.0	13.4	17.7	16.0	12.3	18.4	17.0	23.0	26.2	26.7	36.8	39.0	39.0	33.5	42.4	42.8
Blue-collar[3]	69.7	64.1	66.4	78.6	72.2	74.5	83.3	72.5	77.0	83.5	75.7	80.3	86.4	77.9	81.1	72.5	67.1	69.8	60.6	56.5	58.1	60.8	51.1	52.7
Other[4]	4.8	6.4	4.3	3.6	5.9	3.4	2.3	5.6	3.0	3.1	6.5	3.7	1.3	3.7	1.8	4.5	6.7	3.5	2.6	4.5	2.9	5.8	6.5	4.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

1 Defined as the employed work force – i.e., those employed at least once in the 18 months prior to the census.
2 Includes managerial occupations, professional occupations, clerical and related, and sales occupations.
3 Includes service occupations; transportation equipment operators; construction trades and other crafts; and production and related workers.
4 Resource-based occupations and occupations not elsewhere classified.
SOURCE Based on data from the Census of Statistics Canada.

Table A-10

Level of Nominal Tariff Protection in the Canadian Manufacturing Sector, Using Various Weighting Systems, 1971-85

	Weights[1]					
	Nominal tariff					
	All imports[2]		Dutiable imports[3]		Proportion of imports not dutiable[4]	
	Import	Production worker	Import	Production worker	Import	Production worker
	(Per cent)					
1971	7.1	10.5	15.4	14.8	54.0	32.3
1972	7.3	10.6	15.5	15.0	52.9	32.3
1973	6.9	10.0	15.3	14.3	55.0	34.0
1974	7.1	10.4	15.0	14.6	52.9	31.1
1975	6.7	10.2	15.1	14.3	55.9	31.5
1976	6.4	9.6	15.1	14.4	57.4	34.8
1977	6.0	9.1	14.7	14.2	58.8	36.7
1978	5.9	8.8	14.4	14.0	59.3	37.6
1979	5.6	8.3	14.2	13.6	60.6	39.8
1980	5.4	8.0	13.8	13.7	60.6	41.2
1981	5.4	7.9	13.2	13.3	59.4	40.0
1982	5.1	7.6	12.9	12.8	60.1	40.8
1983	4.9	7.5	12.5	12.3	60.9	41.0
1984	4.5	7.0	11.6	11.6	61.6	41.4
1985	4.2	7.0	11.2	11.3	62.8	40.0

1 For each four-digit industry, the indicator of tariff protection, as defined in footnotes 2, 3, and 4 below, is estimated using imports as weights from the commodity data. Then, four-digit industry imports and production workers are used to weight those ratios at the manufacturing-sector level. In other words, each four-digit industry's indicator of tariff protection is multiplied by that industry's share of the manufacturing sector's employment or imports. Current-year weights are used, except for production workers for 1983-85, where 1982 weights are used. This reflects the fact that such data were not available for those years on a 1970 SIC basis. Thus the production-worker weighted tariffs are a hybrid import/production-worker weighted system.

2 Total duties collected, divided by total value of all imports, excluding duties.

3 Total duties collected, divided by total value of dutiable imports, excluding duties.

4 Percentage of all imports (excluding duties) that entered Canada duty-free.

SOURCE Special tabulations provided by the International Trade Division of Statistics Canada.

Table A-11

Level of Nominal Tariff Protection on All Imports[1] in the Canadian Manufacturing Sector, by Industry, Using Various Weighting Systems, 1971, 1978, and 1985

	Weights[2]					
	1971		1978		1985	
	Import	Production worker	Import	Production worker	Import	Production worker
	(Per cent)					
Food and beverages	15.0	11.0	4.1	5.6	7.2	7.0
Tobacco products	52.4	52.4	35.9	35.9	43.0	43.0
Rubber and plastics	14.0	14.2	15.2	15.0	11.0	11.2
Leather	18.8	21.0	17.6	19.5	17.5	18.7
Textiles	17.1	17.3	16.5	16.7	15.0	14.7
Knitting mills	24.7	24.3	25.1	24.4	22.2	21.8
Clothing	15.2	12.1	12.7	10.1	11.2	8.9
Wood products	7.2	4.6	5.5	4.0	2.9	2.4
Furniture and fixtures	18.2	17.2	17.8	16.5	14.1	12.9
Paper and allied products	11.0	10.8	10.9	10.4	6.7	6.5
Printing and publishing	4.6	10.6	5.3	10.3	1.8	5.3
Primary metals	5.2	4.4	5.2	4.7	4.1	3.9
Metal fabricating	12.7	11.1	11.5	11.1	8.4	8.3
Machinery	5.9	5.9	5.3	5.4	3.2	3.4
Transportation equipment	1.8	4.7	1.4	3.0	1.2	3.0
Electrical products	12.4	12.5	10.7	11.5	6.4	7.3
Nonmetallic mineral products	8.1	6.9	8.0	6.3	6.7	4.2
Petroleum and coal products	4.5	4.5	3.1	2.0	0.6	0.8
Chemical and chemical products	7.1	7.9	6.6	6.9	5.3	5.5
Miscellaneous manufacturing	10.5	13.3	9.7	11.3	6.3	7.7
All manufacturing	7.1	10.5	5.9	8.8	4.2	7.0

1 Defined as total duties collected, divided by the total value of all imports, excluding duties.

2 For each four-digit industry, the NRP defined in footnote 1 is estimated using imports as weights. Then industry imports and production workers are used to weight these ratios at the two-digit level. In other words, each four-digit industry's NRP is multiplied by that industry's share of the two-digit industry's sector employment. Current-year weights are used, except for production workers for 1983-85, where 1982 weights are used. This reflects the fact that such data were not available for those years on a 1970 SIC basis. Thus the production-worker weighted tariffs are a hybrid import/production-worker weighted system.

SOURCE Special tabulations provided by the International Trade Division of Statistics Canada.

Table A-12

Level of Imports Entering Duty-Free[1] in the Canadian Manufacturing Sector, by Industry, Using Various Weighting Systems, 1971, 1978, and 1985

	Weights[2]					
	1971		1978		1985	
	Import	Production worker	Import	Production worker	Import	Production worker
	(Per cent)					
Food and beverages	24.5	28.3	46.5	33.8	39.0	33.4
Tobacco products	– –	– –	20.8	20.8	15.7	15.7
Rubber and plastics	21.9	19.1	15.2	14.4	19.1	18.5
Leather	6.8	3.7	10.9	8.4	9.3	6.3
Textiles	17.7	12.1	18.6	13.6	21.1	19.9
Knitting mills	– –	– –	7.4	7.2	11.5	10.3
Clothing	0.3	0.1	6.8	4.4	7.4	5.7
Wood products	45.1	62.3	58.2	65.7	70.2	72.9
Furniture and fixtures	1.1	1.0	4.9	4.7	3.8	3.9
Paper and allied products	26.7	27.8	27.0	29.5	31.3	32.5
Printing and publishing	71.5	46.9	64.6	45.7	87.4	61.4
Primary metals	41.0	50.9	41.6	48.2	39.0	46.4
Metal fabricating	18.3	17.7	25.3	20.8	26.7	17.2
Machinery	54.1	54.0	60.1	60.1	58.9	64.0
Transportation equipment	88.1	73.4	90.2	81.5	88.9	80.0
Electrical products	21.5	21.9	31.4	27.9	43.5	39.2
Nonmetallic mineral products	42.8	29.9	40.9	31.6	35.4	37.2
Petroleum and coal products	34.5	26.5	75.2	83.9	93.8	92.7
Chemical and chemical products	45.4	43.3	47.2	46.7	50.5	51.1
Miscellaneous manufacturing	37.6	25.4	37.6	31.0	43.0	34.6
All manufacturing	54.0	32.3	59.3	37.6	62.8	40.0

1 Percentage of all imports (excluding duties) that entered Canada duty-free.

2 For each four-digit industry, the NRP defined in footnote 1 is estimated using imports as weights. Then industry imports and production workers are used to weight these ratios at the two-digit level. In other words, each four-digit industry's NRP is multiplied by that industry's share of the two-digit industry's sector employment. Current-year weights are used, except for production workers for 1983-85, where 1982 weights are used. This reflects the fact that such data were not available for those years on a 1970 SIC basis. Thus the production-worker weighted tariffs are a hybrid import/production-worker weighted system.

SOURCE Special tabulations provided by the International Trade Division of Statistics Canada.

B Documents Governing Canada's Foreign Trade: Selected Abstracts

General Agreement on Tariffs and Trade

Article XIX

Emergency Action on Imports of Particular Products

1. (*a*) If, as a result of unforeseen developments and of the effect of the obligations incurred by a contracting party under this Agreement, including tariff concessions, any product is being imported into the territory of that contracting party in such increased quantities and under such conditions as to cause or threaten serious injury to domestic producers in that territory of like or directly competitive products, the contracting party shall be free, in respect of such product, and to the extent and for such time as may be necessary to prevent or remedy such injury, to suspend the obligation in whole or in part or to withdraw or modify the concession.

(*b*) If any product, which is the subject of a concession with respect to a preference, is being imported into the territory of a contracting party in the circumstances set forth in sub-paragraph (*a*) of this paragraph, so as to cause or threaten serious injury to domestic producers of like or directly competitive products in the territory of a contracting party which receives or received such preference, the importing contracting party shall be free, if that other contracting party so requests, to suspend the relevant obligation in whole or in part or to withdraw or modify the concession in respect of the product, to the extent and for such time as may be necessary to prevent or remedy such injury.

2. Before any contracting party shall take action pursuant to the provisions of paragraph 1 of this Article, it shall give notice in writing to the CONTRACTING PARTIES as far in advance as may be practicable and shall afford the CONTRACTING PARTIES and those contracting parties having a substantial interest as exporters of the product concerned an opportunity to consult with it in respect of the proposed action. When such notice is given in relation to a concession with respect to a preference, the notice shall name the contracting party which has requested the action. In critical circumstances, where delay would cause damage which it would be difficult to repair, action under paragraph 1 of this Article may be taken provisionally without prior consultation, on the condition that consultation shall be effected immediately after taking such action.

3. (*a*) If agreement among the interested contracting parties with respect to the action is not reached, the contracting party which proposes to take or continue the action shall, nevertheless, be free to do so, and if such action is taken or continued, the affected contracting parties shall then be free, not later than ninety days after such action is taken, to suspend, upon the expiration of thirty days from the day on which written notice of such suspension is received by the CONTRACTING PARTIES, the application to the trade of the contracting party taking such action, or, in the case envisaged in paragraph 1 (*b*) of this Article, to the trade of the contracting party requesting such action, of such substantially equivalent concessions or other obligations under this Agreement the suspension of which the CONTRACTING PARTIES do not disapprove.

(*b*) Notwithstanding the provisions of sub-paragraph (*a*) of this paragraph, where action is taken under paragraph 2 of this Article without prior consultation and causes or threatens serious injury in the territory of a contracting party to the domestic producers of products affected by the action, that contracting party shall, where delay would cause damage difficult to repair, be free to suspend, upon the taking of the action and throughout the period of consultation, such concessions or other obligations as may be necessary to prevent or remedy the injury.

Customs Tariff

Provisions for Temporary Surtaxes

Surtax under certain conditions

8. (1) Where at any time it appears to the satisfaction of the Governor in Council, as a result of

(*a*) a report of the Minister of Finance,

(*b*) an inquiry made by the Canadian Import Tribunal under section 48 of the *Special Import Measures Act*, or

(*c*) in the case of any textile and clothing goods within the meaning of the *Textile and Clothing Board Act*, an inquiry made by the Textile and Clothing Board under that Act,

that goods of any kind, that are the product of any country, are being imported into Canada under such conditions as to cause or threaten serious injury to Canadian producers of like or directly competitive products, the Governor in Council may, on the recommendation of the Minister of Finance, by order make any goods of that kind that are the product of any country specified in the order, when imported into such region or part of Canada during the period that the order is in effect, subject to a surtax

(*d*) at a rate specified in the order, or

(*e*) at a rate specified in the order that varies from time to time as the quantity of such goods imported into such region or part of Canada during a period specified in the order equals or exceeds totals specified in the order,

but no such rate shall, at the maximum, exceed the rate that in the opinion of the Governor in Council is sufficient to prevent further such injury or the threat of such injury.

Period, revocation and publication of order

(2) Every order made under subsection (1)

(*a*) shall, subject to this section, remain in effect for such period, not exceeding three years, as is specified therein;

(*b*) may, notwithstanding anything in this section, be revoked at any time by the Governor in Council, unless, prior to that time, a resolution specifying a day on which the order shall cease to have effect has been adopted by both Houses of Parliament pursuant to subsection (3); and

(*c*) shall be published in the *Canada Gazette*.

Duration of order

(3) Where an order is made under subsection (1) pursuant to a report of the Minister of Finance, the order ceases to have effect on the expiration of the 180th day from the date of its making if Parliament is sitting on that day or, if Parliament is not sitting on that day, on the expiration of the 15th sitting day after that day, unless before the order so ceases to have effect

(*a*) it is approved by a resolution adopted by both Houses of Parliament,

(*b*) the Canadian Import Tribunal reports to the Governor in Council pursuant to section 48 of the *Special Import Measures Act* that the goods described in the report of the Minister of Finance are still being imported into Canada from the country named in the report under such conditions as to cause or threaten serious injury to Canadian producers of like or directly competitive products, or

(*c*) where the goods described in the report of the Minister of Finance are goods referred to in paragraph (1)(*c*), the Textile and Clothing Board reports pursuant to the *Textile and Clothing Board Act* that the goods described in the report of the Minister of Finance are still being imported into Canada from the country named in the report under such conditions as to cause or threaten serious injury to Canadian producers of like or directly competitive products,

in which case the order shall remain in effect for the period referred to in paragraph (2)(*a*).

Sitting day

(4) For the purposes of subsection (3), a day on which either House of Parliament sits shall be deemed to be a sitting day.

Resolution of Parliament revoking order

(5) Notwithstanding anything in this section, where an order made under subsection (1) remains in effect by reason of any provision of this section and a resolution praying that it be revoked is adopted by both Houses of Parliament, the order shall cease to have effect on the day that the resolution is adopted or, if the adopted resolution specifies a day on which the order shall cease to have effect, on such specified day.

Export and Import Permits Act

Provisions for Quantitative Restraints

Import list of goods

5. The Governor in Council may establish a list of goods, to be called an Import Control List, including therein an article the import of which he deems it necessary to control for any of the following purposes, namely,

(*a*) to ensure, in accordance with the needs of Canada, the best possible supply and distribution of an article that is scarce in world

markets or is subject to governmental control in the countries of origin or to allocation by intergovernmental arrangement;

(*a.1*) to restrict, for the purpose of supporting any action taken under the *Farm Products Marketing Agencies Act*, the importation in any form of a like article to one produced or marketed in Canada the quantities of which are fixed or determined under that Act;

(*a.2*) to restrict, for the purpose of supporting any action taken under the *Meat Import Act*, the importation of products to which that Act applies;

(*b*) to implement any action taken under the *Agricultural Stabilization Act*, the *Fisheries Prices Support Act*, the *Agricultural Products Co-operative Marketing Act*, the *Agricultural Products Board Act* or the *Canadian Dairy Commission Act*, to support the price of the article or that has the effect of supporting the price of the article; or

(*c*) to implement an intergovernmental arrangement or commitment;

and where any goods are included in the list for the purpose of ensuring supply or distribution of goods subject to allocation by intergovernmental arrangement or for the purpose of implementing an intergovernmental arrangement or commitment, a statement of the effect or a summary of the arrangement or commitment, if it has not previousy been laid before Parliament, shall be laid before Parliament not later than fifteen days after the Order of the Governor in Council including those goods in the list is published in the *Canada Gazette* pursuant to the *Statutory Instruments Act*, or, if Parliament is not then sitting, on any of the first fifteen days next thereafter that Parliament is sitting.

(2) Where at any time it appears to the satisfaction of the Governor in Council on a report of the Minister made pursuant to

(*a*) an inquiry made by the Textile and Clothing Board with respect to the importation of any textile and clothing goods within the meaning of the *Textile and Clothing Board Act*, or

(*b*) an inquiry made under section 48 of the *Special Import Measures Act* by the Canadian Import Tribunal in respect of any goods, that goods of any kind are being imported or are likely to be imported into Canada at such prices, in such quantities and under such conditions as to cause or threaten serious injury to the production in Canada of like or directly competitive goods, any goods of the same kind may, by order of the Governor in Council, be included on the Import Control List, for the purpose of limiting the importation of such goods to the extent and, subject to subsection (5), for the period that in the opinion of the Governor in Council is necessary to prevent or remedy the injury.

Idem

(3) Where at any time it appears to the satisfaction of the Governor in Council on a report of the Minister made pursuant to an inquiry referred

to in paragraph (2)(*a*) or (*b*) that goods of any kind are being imported or are likely to be imported into Canada at such prices, in such quantities and under such conditions as to make it advisable to collect information with respect to the importation of such goods in order to ascertain whether such importation is causing or threatening injury to the production in Canada of like or directly competitive goods, any goods of the same kind may, by order of the Governor in Council, be included on the Import Control List in order to facilitate the collection of such information.

Idem

(4) Where, for the purpose of facilitating the implementation of action taken under section 3.4 of the *Customs Tariff* or paragraph 7(2)(*f*) or 8(1)(*e*) thereof, the Governor in Council considers it necessary to collect information with respect to the importation of any goods, the Governor in Council may, by order, include such goods on the Import Control List for that purpose.

Goods deemed to be removed from List

(5) Where goods are included on the Import Control List by order of the Governor in Council under subsection (2), (3) or (4), the goods shall be deemed to be removed from that List

(*a*) on the expiration of the period of three years from the day on which they are included on the List by the order; or

(*b*) if the order specifies a day prior to the expiration of the period referred to in paragraph (*a*) on which they shall be deemed to be removed from that List, on the day specified in the order.

Special Import Measures Act

Provisions for Inquiries into Injury

Inquiry into matters referred by the Governor in Council

48. The Tribunal shall inquire into and report to the Governor in Council on any matter or thing in relation to

(*a*) the importation of goods into Canada that may cause or threaten injury to, or that may retard the establishment of, the production of any goods in Canada, or

(*b*) the provision, by persons normally resident out of Canada, of services in Canada that may cause or threaten injury to, or that may retard, the provision of any services in Canada by persons normally resident in Canada.

Textile and Clothing Board Act

Provisions for Inquiries into Serious Injury and Other Subjects

Inquiries

Filing of complaint

8. A person who produces in Canada any textile and clothing goods, hereinafter referred to as a "Canadian producer", or a person or association acting on his behalf may file a notice of complaint with the Board

alleging that the importation of the textile and clothing goods described in the notice is causing or threatening serious injury to his production in Canada of any textile and clothing goods.

Board to conduct inquiry

9. The Board, with respect to the importation of any textile and clothing goods,

(*a*) may, on its own initiative, or on receipt by the Board of a notice of complaint filed pursuant to section 8, or

(*b*) shall, on receipt of a written request from the Minister,

conduct an inquiry in order to determine whether the textile and clothing goods that are the subject of the inquiry are being imported at such prices, in such quantities and under such conditions as to cause or threaten serious injury to the production in Canada of any textile and clothing goods.

Submission of plans

14. (1) Where the Board has commenced an inquiry,

(*a*) if the inquiry is instituted as a result of a notice of complaint

(i) any Canadian producer who is a party to the complaint shall, and

(ii) any other Canadian producer who is so requested by the Board may, or

(*b*) in any other case, any producer of textile and clothing goods who is so requested by the Board may

file with the Board, in the manner specified by its rules, a plan describing the adjustments that the producer proposes to make in his operations, including adjustments in the nature of continued efficient development or, if appropriate, the phasing out of lines of production that have no prospect of becoming internationally competitive, in order to increase his ability to meet international competition in the market in Canada if the only protection to be provided is that provided at any time by rates of duties of customs.

Parties to a complaint

(2) For the purpose of subsection (1), a Canadian producer shall be deemed to be a party to a complaint if

(*a*) he filed the notice of complaint;

(*b*) the notice of complaint was filed on his behalf by any person or association so authorized; or

(*c*) he has, in accordance with the rules of the Board, associated himself with the complaint.

Examination of plans

15. When, during the course of an inquiry, the Board receives a plan described in subsection (1) of section 14 from a producer, the Board shall examine the plan together with any other plans submitted in connection

with the inquiry to determine whether the implementation thereof would significantly improve the performance of the Canadian producers who are producing goods of a kind that are the subject matter of the inquiry in meeting international competition in the market in Canada.

Report and Recommendations

Recommendation to Minister

17. (1) Where, as a result of an inquiry, the Board

(*a*) determines that the textile and clothing goods that are the subject matter of the inquiry are being imported at such prices, in such quantities and under such conditions as to cause or threaten serious injury to the production in Canada of any textile and clothing goods, and

(*b*) has made an evaluation of any plans described in subsection (1) of section 14 that were submitted in connection with the inquiry,

the Board shall make a written report to the Minister setting out the results of the inquiry and containing a recommendation as to whether, in its opinion, special measures of protection should be implemented.

Interim recommendation

(2) Where, during the course of an inquiry, the Board is of the opinion that the textile and clothing goods that are the subject matter of the inquiry are being imported at such prices, in such quantities and under such conditions as to cause or threaten serious and immediate injury to the production in Canada of any textile and clothing goods that would be difficult to repair, the Board may, before making any evaluation of the plans required to be submitted in connection with the inquiry, make a written report to the Minister recommending that special measures of protection be implemented immediately on an interim basis pending its evaluation of the plans.

Full report to follow

(3) Where the Board makes a report under subsection (2) recommending that special measures of protection be implemented immediately, the Board shall, not later than one hundred and eighty days after the making of that report, make a written report to the Minister as required under subsection (1) containing its recommendations with respect to the textile and clothing goods that were the subject matter of the report under subsection (2).

Report of Board

(4) The report of the Board on an inquiry shall, where special measures are recommended, specify the recommended scope and duration of the special measures.

When special measures recommended

(5) Subject to subsection (2), the Board, as a result of an inquiry, shall not recommend the implementation of any special measures of protection unless

(*a*) the Board has, in respect of the inquiry, received from producers plans as described in subsection (1) of section 14; and

(*b*) the Board, taking into account the factors set out in paragraphs (*a*) to (*e*) of section 18, is of the opinion that the plans so received are acceptable.

Board to consider

18. The Board when considering any question relating to injury, examining any plans or making any report to the Minister, shall take into account

(*a*) any relevant manpower and regional considerations and any program or service provided by a department or agency of the Government of Canada that deals therewith;

(*b*) the provisions of the General Agreement on Tariffs and Trade, of the Arrangement Regarding International Trade in Cotton Textiles and of any other relevant international agreement;

(*c*) the probable effect of any proposed special measures of protection on various classes of consumers;

(*d*) the principle that special measures of protection are not to be implemented for the purpose of encouraging the maintenance of lines of production that have no prospects of becoming competitive with foreign goods in the market in Canada if the only protection to be provided is that provided at any time by rates of duties of customs; and

(e) the conditions prevailing in international trade relevant to textile and clothing goods.

Other Duties

Board to review

19. The Board shall keep under constant review

(*a*) the effect of any special measures of protection implemented pursuant to a recommendation of the Board,

(*b*) the progress of any adjusments made by producers of textile and clothing goods pursuant to plans submitted to the Board, and

(*c*) any other matter relevant to the production of textile and clothing goods,

for the purpose of recommending to the Minister the modification or the removal of any special measures of protection as soon as circumstances permit, and shall make such reports thereon from time to time to the Minister as are required by him but before recommending major changes in the special measures of protection, the Board shall seek the views of any producer that may be significantly affected.

Reference by Minister

20. The Board shall consider and report to the Minister on any other matter or thing in relation to textile and clothing goods that the Minister refers to the Board for consideration and report.

C Anti-Dumping Tribunal:* Terms of Reference of the Inquiries into the Footwear Industry

The 1973 Inquiry

THEREFORE, HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL, on the recommendation of the Minister of Industry, Trade and Commerce and the Minister of Finance, is pleased hereby to direct the Anti-dumping Tribunal to undertake forthwith an inquiry under section 16A of the Anti-dumping Act in respect of the importation into Canada of footwear of all kinds, other than footwear the main components of which are rubber or canvas, in order to:

(*a*) determine whether such goods or any specific types of such goods, are being imported or are likely to be imported into Canada at such prices, in such quantities and under such conditions as to cause or threaten serious injury to Canadian producers of like or directly competitive goods; and

(*b*) obtain the most complete information possible on:

(i) the volume and prices of imported and domestically produced footwear in the domestic market, as well as exported footwear, broken down by categories and types;

(ii) the structure of the industry as regards manufacturers, importers, distributors and retailers including their interrelationships and marketing practices;

(iii) supply and demand situations and trends in the domestic market that are pertinent to the relative competitive position of domestic footwear vis-à-vis imported footwear, particularly such factors as quality and style;

(iv) trends in profitability of the industry; and

(v) trends of employment in the industry.

The 1977 Inquiry

THEREFORE, HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL, on the recommendation of the Minister of Industry, Trade and Commerce and the Minister of Finance, is pleased hereby to direct the Anti-dumping Tribunal to undertake forthwith an inquiry under section 16.1 of the Anti-dumping Act in respect of the importation into Canada of footwear of all kinds, other than footwear the main component of which is rubber or canvas, in order to determine within 180 days after commencement of the inquiry whether such goods, generally, or in respect to those of any sector(s) of the industry thereof, are being imported or are likely to be imported into Canada at such prices, in such quantities and under such conditions as to cause or threaten serious injury, to Canadian production of like or directly competitive goods.

* Later known as the Canadian Import Tribunal.

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL, is further pleased to direct that the Anti-dumping Tribunal may submit interim report(s) with respect to any sector(s) of the footwear industry, if it is of the opinion that such goods, generally, or in respect to those of any sector(s) of the industry thereof, are being imported into Canada at such prices, in such quantities and under such conditions as to cause or threaten immediate serious injury to Canadian production of like or directly competitive goods.

The 1981 Inquiry

THEREFORE, HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL, on the recommendation of the Minister of Industry, Trade and Commerce and the Minister of Finance, is pleased hereby to direct the Anti-dumping Tribunal to undertake forthwith an inquiry under section 16.1 of the Anti-dumping Act in respect of the importation into Canada of footwear in order to:

(*a*) determine whether footwear, other than footwear the main component of which is rubber, in respect of any sectors of the industry thereof, would, in the absence of special measures of protection, be imported or would likely be imported into Canada at such prices, in such quantities and under such conditions as to cause or threaten serious injury to Canadian production of like or directly competitive goods having particular regard to the major sources of specific imports and to product lines now produced in volume in Canada; and

(*b*) examine, in the course of the inquiry, the extent to which the Canadian footwear industry has restructured since the Anti-dumping Tribunal's report of 1977 and the extent to which the industry has improved its competitive position against imports.

The 1985 Inquiry

THEREFORE, HER EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL, on the recommendation of the Minister of Finance and the Minister for International Trade, pursuant to section 16.1 of the Anti-dumping Act, is pleased hereby to direct the Anti-dumping Tribunal to undertake forthwith an inquiry in respect of the importation into Canada of footwear and skates in order to:

(*a*) determine whether such goods, other than those the main component of which is rubber, in respect of any sectors of the industry thereof, in the absence of special measures of protection, are being imported, would be imported or would likely be imported into Canada at such prices, in such quantities and under such conditions as to cause or threaten serious injury to Canadian production of like or directly competitive goods;

(*b*) examine the extent to which the Canadian footwear industry has restructured since the 1981 Report of the Anti-dumping Tribunal Respecting the Canadian Footwear Industry and the extent to which the industry has improved or has made realistic plans to improve its competitive position against imports;

(*c*) taking into account the various elements that affect the retail price of footwear in Canada, examine what impact the import quotas on footwear have had on the operations and levels of activity of importers, wholesalers and retailers of these products in Canada and on the prices paid for footwear by Canadian consumers;

(*d*) consider the future competitive prospects of the industry, including identifying areas where the Canadian footwear and skate industries are, or could become, competitive with imports in the domestic market without special measures of protection, having particular regard, as appropriate, for differentiations among the various product lines now produced in volume in Canada, and the relative strength of import competition in these specific product lines or in like or directly competitive products; and

(*e*) taking into account the above, and in the event of a determination of injury or threat thereof, recommend a formula by which the special measures of protection could be phased out through a progressive liberalization process covering a period of not more than three years, by which time the Canadian industry would be required to face international competition without special measures of protection.

D Corporate Strategies Aimed at Meeting Japanese Competition in the Automobile Industry

The success of the North American automobile manufacturers in meeting the Japanese challenge will depend upon a number of factors. These include the degree to which productivity and quality differences can be narrowed. Even if such differences could be removed, if suppliers, management, shareholders, and workers receive greater compensation in North America than in Japan, then competition problems will likely still exist for GM, Chrysler, and Ford. These problems can be reduced by such strategies as locating some production abroad, negotiating wage and salary reductions, putting more pressure on suppliers for reduced prices, and so on. The necessity and success of such strategies for containing compensation will depend on movements in the dollar/yen exchange rate.

Several aspects of the comparative performance of the North American and Japanese automobile manufacturers are examined in this appendix: productivity; consumer perceptions of quality; absenteeism; wage levels; the breakeven point; and market share. These relate to the factors mentioned above. Market share provides an overall indicator of success, as reflected in the productivity, quality, and cost components. In some instances, we refer specifically to Canada; in others, to North America or the United States. Given the integrated nature of production resulting from the Canada-U.S. Auto Pact and the common ownership links, this wider frame of reference is particularly appropriate.

Productivity

In the early 1980s, the Japanese appear to have had a substantial productivity advantage compared with their U.S. counterparts.[1] A limited number of subsequent studies provide more current information.[2] Comparison with earlier studies is not always possible, however, because of differences in data, methodology, sample coverage, and so on.

One study that recently addressed the issue of productivity differences between countries examined "38 final assembly plants in 13 countries, representing 15 major automotive assemblers."[3] The plants that were studied accounted for 25 per cent of the world's automotive-assembly capacity. The index of productivity selected was the number of person-hours required to assemble one unit – a not-uncommon measure of productivity in the automotive industry. The index was adjusted to take into account factors such as the degree of vertical integration, the number of options on the automobile, and its size. Nevertheless, it still has a number of shortcomings.[4] The productivity measure appears to refer to 1987.

The productivity results are presented in Table D-1 (together with a quality index, to be discussed below). The results refer to Japanese-owned plants located in both Japan and the United States and to U.S.-owned plants located in both North America and Europe (the latter was included for the sake of completeness only). The sample size is frequently quite small, thus making inferences concerning inter-country and inter-firm productivity differences somewhat tentative.

On average, U.S.-owned plants in North America lag behind Japanese-owned plants, in both Japan and the United States, in productivity. Indeed, the sample Japanese plants with the lowest productivity in both Japan and the United States rate below the U.S.-owned plants in North America on average. Nevertheless, some U.S.-owned plants in North America, such as Ford in Atlanta, operate at very close to Japanese levels of productivity.[5] Thus the evidence suggests that while, for 1987, a productivity gap does still exist between Japanese and U.S.-owned plants, in some instances the gap has been virtually eliminated. Comparison with earlier plant-level studies is difficult because of the sample coverage, the productivity measure used, and so on. Nevertheless, bearing in mind those qualifications, such comparisons,[6] as well as one other recent study that looks at productivity over the 1980s,[7] suggest that North American manufacturers have improved their productivity compared with that of the Japanese.

Consumer Ranking of Quality

One indicator of how successful the North American manufacturers have been in meeting the competition from foreign producers is the improvement in the quality and reliability of their products. In this context, improvement is

Table D-1

Plant Productivity and Quality Performance in Automobile Assembly, by Location and Ownership, Selected Countries, 1987

	Productivity			Quality		
	Number of person-hours per unit			Number of defects per 100 units		
	Low	Mean	High	Low	Mean	High
Location and ownership (sample size):[1]						
Japanese plants in Japan (5)	16.0	20.3	24.2	21.4	47.3	66.8
Japanese plants in the United States (3)	18.2	19.6	22.4	53.7	62.1	77.9
U.S. plants in North America (8,10)	19.0	25.8	32.7	70.9	88.6	132.2
U.S. plants in Europe (4,6)	22.8	29.5	36.3	64.0	80.9	105.6
European plants in Europe (4,5)	35.4	39.3	50.0	55.3	102.0	138.5

1 If the sample size for quality and productivity differed, the first number in parentheses refers to the sample size for quality; the second, productivity.

SOURCE John F. Krafcik, "Comparative analysis of performance indicators at world auto assembly plants," unpublished M.Sc. thesis, Sloan School of Management, Massachusetts Institute of Technology, Boston, Mass., 15 January 1988, pp. 91 and 93.

not measured only in absolute terms but, perhaps more importantly, vis-à-vis the Japanese competition. In other words, the critical issue is not so much whether North American automobile manufacturers are improving the quality of their products, but whether they are being improved so as to be comparable with similar Japanese products.

In order to evaluate the quality of North American automobiles, we drew upon the Canadian Automobile Association's Vehicle Durability Survey. One of the questions asked in the survey was:

> Taking into account the purchase price and the maintenance and repair costs of your vehicle, how satisfied are you with your vehicle?
>
> 1 Very satisfied
> 2 Moderately satisfied
> 3 Dissatisfied.

The question varied somewhat over the years, making the 1982 results particularly difficult to interpret. The answers to this question are tabulated in Table D-2 for North American, Japanese/Korean, and European autos from 1981 to 1987.

The survey refers to the autos owned by the respondents in the year of the survey. In 1987, for example, 75.4 per cent were purchased new by the owner; in 1981, the corresponding number was 70.7 per cent. Hence the survey reflects automobiles that were built in years other than the year of the survey. For example, the distribution of survey automobiles, by model year, in the 1981 and 1987 survey years was as follows:

Model year	1981 survey	Model year	1987 survey
	(Per cent)		
1980/81	11.0	1986/87	7.2
1979	14.8	1985	18.0
1978	17.4	1984	18.2
1977	15.3	1983	11.9
1976	14.1	1982	9.6
1975 and earlier	27.3	1981 and earlier	35.1

Hence the satisfaction score in Table D-2 represents a lagged indicator of the relative quality of North American vs. Japanese automobiles. Thus if North American manu-

Table D-2

Automobile-Owner Satisfaction, Canada, 1981-87[1]

	Very satisfied	Moderately satisfied	Unsatisfied
		(Per cent)	
Year and make (country of origin):[2]			
1981			
North American	66.0	24.8	9.2
Japanese and South Korean	79.2	15.9	4.9
European	69.5	21.2	9.3
Overall	67.9	23.3	8.8
1983			
North American	60.2	28.2	11.6
Japanese and South Korean	82.1	14.2	3.7
European	63.8	24.5	11.7
Overall	65.2	24.7	9.9
1984			
North American	61.1	28.1	10.8
Japanese and South Korean	81.4	14.5	4.1
European	62.6	25.8	11.6
Overall	65.8	24.8	9.4
1985			
North American	64.1	26.2	9.7
Japanese and South Korean	83.7	12.9	3.4
European	67.6	21.2	11.2
Overall	69.3	22.4	8.3
1986			
North American	65.4	26.7	7.9
Japanese and South Korean	83.6	13.1	3.3
European	71.2	20.9	7.9
Overall	70.6	22.7	6.7
1987			
North American	65.7	25.4	8.9
Japanese and South Korean	84.2	12.3	3.5
European	76.2	15.9	7.9
Overall	72.0	20.8	7.2

1 The figures reflect the ownership of automobiles at the time of the survey; thus they reflect the stock of automobiles rather than purchases in the year in question. The data for 1982 are omitted because the question was changed that year and led the respondents to provide answers that cannot be compared with those obtained in other years.

2 The Japanese and South Korean makes essentially refer to Japanese makes only: no South Korean make was included in the survey until 1985; and in 1986 and 1987 South Korean makes accounted for 3.1 and 5.5 per cent, respectively, of the combined total of Japanese and South Korean makes included in the survey.

SOURCE Canadian Automobile Association, *Car Facts*, and *Used Cars Buyer Guide*, various issues.

facturers have improved their models substantially in recent years, that will not be reflected in the survey results reported here.

Finally, it should be noted that the number of responses used was 13,287 in 1981 and 18,962 in 1987; in addition, in 1981, it was reported that the composition of the sample was close to the mix of vehicles sold in Canada in the preceding few years; in the 1987 survey, that issue was not addressed.

The results in Table D-2 suggest that there has been little change in the ranking of "very satisfied," "moderately satisfied," and "dissatisfied" over time, between the three groupings of auto makers – North American, Japanese/Korean, and European. For Japanese/Korean automobiles, the proportion of dissatisfied respondents declined from 4.9 per cent in 1981 to 3.5 per cent in 1987; the decline in "moderately satisfied" customers was smaller, but there was an increase of several percentage points in the proportion of "very satisfied" buyers. In contrast, there is no clear trend in the responses of owners of North American automobiles. Overall, in both 1987 and 1981, there remained substantial differences between respondents who were "very satisfied" with their North American automobile and owners of Japanese/Korean automobiles who expressed a similar degree of satisfaction. In other words, the evidence – albeit somewhat imperfect – indicates that over the recent past, North American automobile manufacturers have not gained ground vis-à-vis their Japanese/Korean counterparts, in terms of consumer satisfaction.

An alternative indication of quality is the Assembly Plant Quality Index, which attempts to measure the quality of the automobile as it leaves the factory gate.[8] The results of using that index for 1987 are presented in Table D-1. It shows that automobiles assembled in U.S.-owned plants in North America, on average, have a greater number of defects – i.e., are of lower quality – than automobiles assembled in Japanese plants, whether located in the United States or Japan. Unlike the productivity comparisons, the best-performing U.S.-owned plants in North America do not match the quality of the worst-performing Japanese plants in Japan. Although it appears that the U.S. industry improved its quality at a faster rate than the Japanese in the period 1985-87, the Japanese seem destined to retain that quality edge for at least the next couple of years.[9]

Absenteeism

Absenteeism, defined as an unplanned absence from employment, can raise the cost of producing a vehicle, because "a pool of relief workers must be carried to cover for unexpected absences" and the "fill-in workers may be less familiar with the absentees' job and not as effective in

the affected work group."[10] Absenteeism has been shown to be a factor of some importance in the productivity differences between Japan and the United States; indeed, a panel of experts attributed 20 to 30 per cent of the difference between U.S. and Japanese productivity to that factor (Figure 5-3). It would also seem to be linked to quality differences as well.[11]

"Unplanned absenteeism" is defined, using Statistics Canada's Labour Force Survey questionnaire, as absence from the job for any one of the following reasons: (1) own illness or disability; (2) personal or family responsibility; and (0) other.[12] Special tabulations were provided by Statistics Canada for the period 1976-86 for the motor vehicle assembly industry on absenteeism, as defined above. Two ratios were calculated:[13]

$$\text{the incidence rate} - \frac{\text{number of workers absent}}{\text{total employed}}; \text{ and}$$

$$\text{the inactivity rate} - \frac{\text{number of hours absent}}{\text{number of hours usually worked}}.$$

The incidence rate refers to the number of workers absent, while the inactivity rate measures the total hours lost, irrespective of whether the proportion of workers absent is large or small.

The incidence and inactivity rates are presented in Table D-3 for the full-time employees of motor vehicle manufacturers and for manufacturing as a whole. This reflects the fact that corresponding figures are not available on an annual basis for Japan; instead, figures for all manufacturing are used as a benchmark. Nevertheless, we do have a limited amount of data for Japan, which we shall discuss below.

In order to see whether voluntary export restraints (VERs) have had the effect of reducing absenteeism, we take the mean level of the incidence rate and the inactivity rate for the periods prior to, and following, the introduction of VERs in 1981. The results are as follows:

	Incidence rate	Inactivity rate
	(Per cent)	
1976-80	9.24	5.42
1982-86	8.07	5.45

They suggest that while there has been some progress in reducing the incidence rate, the inactivity rate shows little sign of change before or after 1981.

Table D-3

Absenteeism in the Auto-Assembly Industry and in All Manufacturing, Canada, 1976-86[1]

	Incidence rate[2]		Inactivity rate[3]	
	Automobile assembly	Manufacturing sector	Automobile assembly	Manufacturing sector
	(Per cent)			
1976	9.0	7.1	4.7	3.7
1977	8.7	7.1	4.4	3.8
1978	9.9	7.2	6.6	3.8
1979	8.8	7.9	5.4	4.0
1980	9.8	7.2	6.0	3.9
1981	6.6	6.9	3.6	3.8
1982	8.8	7.1	5.9	4.0
1983	7.9	7.1	5.4	4.1
1984	8.7	7.0	6.1	4.0
1985	7.7	6.7	4.9	3.8
1986	7.3	6.9	5.0	4.0

1 The data apply to full-time employees only.
2 Number of workers absent as a proportion of total employed.
3 Number of hours of absence as a proportion of number of hours usually worked.
SOURCE Special tabulations provided by Labour Force Survey Sub-Division, Household Surveys Division, Statistics Canada.

In every year except 1981, absenteeism was higher in auto assembly than in manufacturing. This suggests that the recession had a certain cathartic effect on absenteeism in the auto industry. When the two ratios of absenteeism are compared for the auto industry and manufacturing, the five-year averages are as follows:

	Comparison of auto/manufacturing ratios (five-year average)	
	Incidence rate	Inactivity rate
	(Manufacturing = 100)	
1976-80	127	140
1982-86	116	138

Once again, there is some reduction in the incidence rate but very little in the inactivity rate. Although an examination of the trend over the past few years suggests some moderation in the level of absenteeism, even in 1986 the inactivity rate in auto assembly was 25 per cent above that in all manufacturing.

The second standard of comparison is the Japanese absenteeism rate. A comparison of U.S. and Japanese absenteeism reveals that the U.S. rate is between 3 and 6 per cent when the measure used is similar to the inactivity rate defined above, while the Japanese rate is between 0.5 and 1.0 per cent.[14] This shows that Canadian and U.S. rates are in the same range; thus while absenteeism in Canada shows some signs of moderation, it is still high by Japanese standards.

Our discussion of absenteeism should not be taken to mean that North American manufacturers and their unions are unaware of the problem of absenteeism or that efforts have not been made to reduce such absenteeism. Nevertheless, recent reports suggest, like Table D-3, that it is still a problem of some importance.[15]

Wage Levels

In Chapter 2 we discussed ways in which firms could meet foreign competition. One way is to increase productivity; another is to reduce the rewards to the various factors of production: management; workers; and shareholders. In the case of automobiles, some attention has been focused on the returns to both management and labour. In particular, the fact that the workers are paid substantially above the mean level for all manufacturing in Canada and, to a greater extent, the United States (Table D-4), as well as in relation to potential offshore locations where U.S. and Canadian plants have been, and continue to be, relocated (Table D-5), raises the issue of whether compensation to workers should be reduced as part of an adjustment strategy.[16] It could be argued that the wage structure in the automobile industry is

Table D-4

Earnings and Total Hourly Compensation of Production Workers in the Automobile Industry[1] as a Ratio of Those for All Manufacturing, Canada and the United States, 1975-85

	Canada		United States	
	Earnings	Total compensation	Earnings	Total compensation
		(Manufacturing = 100)		
1975	120	126	133	150
1976	119	124	136	146
1977	120	125	138	149
1978	120	127	138	150
1979	118	123	135	149
1980	120	127	135	162
1981	118	125	138	157
1982	115	122	137	156
1983	114	117	137	152
1984	116	119	139	153
1985	117	120	141	154

1 Motor vehicle and equipment manufacturing.

SOURCE Based on unpublished data from the Office of Productivity and Technology, U.S. Bureau of Labor Statistics, 1986.

Table D-5

Index of Hourly Compensation of Production Workers in the Automobile Industry[1] Relative to That of the United States, Canada, and Other Selected Countries, 1975-85

	1975	1977	1979	1981	1983	1985
			(United States = 100)			
Canada	77	80	71	69	69	63
Brazil	16	17	17	17	12	10
Japan	37	43	52	45	43	42
South Korea	5	8	12	9	9	9
Taiwan	6	7	10	11	9	9
France	55	53	65	55	49	42
West Germany	81	87	105	79	73	62
Italy	54	49	54	45	43	40
Sweden	78	80	86	71	50	50
United Kingdom	42	35	48	46	39	36

1 Motor vehicle and equipment manufacturing.

SOURCE Based on unpublished data from the Office of Productivity and Technology, U.S. Bureau of Labor Statistics, 1985.

the product of many years with little foreign competition, which, combined with an oligopolistic market structure and a single union representing workers, resulted in wage rates that contained some portion representing the rents that such market situations could generate.[17]

The data in Table D-4 suggest that when comparing the period 1975-80 with the period 1982-85, using either earnings or total compensation, we can observe some slowdown in growth of compensation in the automobile industry in Canada but little in the United States. Table D-5 shows that Canadian compensation has also been falling compared with that of workers in the U.S. automobile industry over the period 1977-85. The difference may have been sufficient to encourage investment by the three large U.S. automobile manufacturers in Canada rather than the United States, under the Canada-U.S. Auto Pact. However, the recent appreciation of the Canadian dollar vis-à-vis its U.S. counterpart will have gone some way to narrow the wage differential.

Although there is evidence of declining compensation in Canada relative to all manufacturing and to U.S. automobile workers to 1985, Table D-5 suggests that the wage rates are still high compared with many other countries. Some of the difference reflects lower productivity levels in the case of the NICs.[18] The recent appreciation of the Japanese yen will have gone a long way toward reducing the differential with Japan. That, however, is not so true of the other countries such as Brazil, South Korea, and Taiwan. Indeed, one trend that is apparent is the increasing tendency of the leading North American automobile manufacturers to source both parts and smaller automobiles offshore as a way to reduce costs.[19]

Breakeven Point

The "Big Three" – GM, Ford, and Chrysler – substantially reduced their breakeven points between 1979 and 1984. Given the increased importance of Japanese automobiles and the likelihood that the market shares of the Big Three would diminish, that was undoubtedly a requirement for their survival – particularly in view of the substantial overcapacity in North America and the world. Analyzing the breakeven points involves "determining the level of net sales required to cover a firm's fixed and variable expenses" in order to provide "insight into trends of operational profitability and potential corporate performance."[20]

The performance of the Big Three in reducing their breakeven point has been summarized as follows:

> The 3 major U.S. automakers, General Motors, Ford, and Chrysler, which together account for over 90 percent of domestic production, have each substantially lowered their breakeven point during 1979-84. According to one analysis, General Motors' breakeven level, based on worldwide vehicle sales, fell from 8.4 million units in 1979-80 to about 6.7 million units in 1983. Similarly, the breakeven level for Ford's North American vehicle operations declined from 3.6 million units in 1979-80 to 2.5 million units in 1983. Chrysler Corp. reportedly reduced its breakeven level for its North American operations from 2.3 million units to 1.1 million units during the period 1979-80. The 1979 breakeven re-

quirement for Chrysler exceeded Chrysler's production capacity at the time. Another analysis indicated that GM's 1982 breakeven point of 6.5 million units for its worldwide vehicle operations had been lowered to 5.6 million units by 1984 and Ford's North American vehicle operations breakeven declined from 3.1 million units in 1982 to 2.3 million units in 1983 and to 2.1 million units by 1984. This analysis noted that Chrysler's corporate restructuring came about more quickly than those of its larger domestic rivals, such that the corporation's breakeven level has remained at about 1.2 million vehicles since 1982.[21]

On this score, there would therefore seem to have been considerable success by the major U.S. auto makers.

In addition, industry profit levels have rebounded. Both 1983 and 1984 were record-profit years for the North American automobile companies ($6.2 billion and $10.9 billion, respectively, based on worldwide operations). These profit levels and the current cash-flow situation provide the companies with the capacity to carry out the necessary capital expenditures and to pay back the loans that were used to finance those expenditures.

Market Share of North American Manufacturers

Our final indicator of the ability of the North American automobile-assembly firms to compete with import competition is their market share. This will reflect a large number of factors, not just those we discussed above. Other factors include:

- the substantial revaluation of the Japanese yen against the Canadian dollar since 1985 – 44 per cent to 1986 and 59 per cent to 1987 (this has led to a substantial rise in the landed price of Japanese automobiles. In the two high-volume categories of exports to Canada – whether measured in dollars or units – the average landed unit price rose between 1985 and 1987 by 34 and 21 per cent.[22] In contrast, the 1984-85 increase was only between 4 and 6 per cent.);[23]

- the response of the Japanese manufacturers in terms of product upgrading;

- the pricing strategy followed by the North American automobile manufacturers (the more North American manufacturers take advantage – by raising the price of their automobiles – of the price enhancement of Japanese cars as a result of VERs, the lower will be the market share of the North American automobile producers.);[24]

- the quality of the management of the North American automobile manufacturers (this is very difficult to gauge. Some reports have been critical of GM and favourable to Ford.[25] In any event, GM's market share fell, and Ford's increased, in the 1980-87 period.);[26] and

- the degree to which labour and management have been able to work together so that the lessons of Japanese work-force management and co-operation can be successfully copied and adopted, and consequently result in increased productivity and quality.[27]

The evidence available in Table 5-3 shows that the market share accounted for by North American automobile manufacturers has continued to decline since 1981, in spite of the brief recovery experienced in the 1983-84 period. In 1987, the market share of North American automobile manufacturers – at 65.9 per cent – was the lowest in nearly a quarter of a century. Although VERs were able to stabilize imports from Japan, the latter eventually increased, as did imports from other countries.[28]

E Criteria Used in Awarding Sectoral Labour Adjustment Assistance: Selected Abstracts

Sectoral labour adjustment programs can be divided into two categories: preretirement benefits programs and re-employment measures. We present selected abstracts from legislation and regulations which determine industry and industry/community designations, as well as layoff and worker certification for these two types of programs.

Preretirement Benefits Programs

The legislation relating to preretirement benefits programs for older workers employed in the textile and clothing industries between 1971 and 1982 consisted of two parts: the procedure for layoff certification, contained in the *Textile and Clothing Board Act*; and that for worker certification, found in the Adjustment Assistance Benefit Regulations.

Textile and Clothing Industries

Textile and Clothing Board Act

Adjustment Assistance for Workers

Application for adjustment assistance benefits

21. (1) Any labour union or unit thereof, or any other representative group of workers, representing any workers employed in Canada in the production of textile and clothing goods or any Canadian producer may apply to the Board, in the manner specified by its rules, for certification of those persons or classes of persons who are eligible to apply for assistance under any law of Canada providing for a scheme of employee adjustment assistance benefits to persons employed in the production of textile and clothing goods.

Investigation

(2) Upon an application pursuant to subsection (1) the Board shall carry out such investigation as it considers necessary for the purpose.

Certification of eligibility

(3) Where, in the opinion of the Board,

(*a*) the work force of a Canadian producer has been or will be reduced through lay-offs

(i) by ten per cent of the employees or fifty employees, whichever is the lesser, of the producer in Canada or in any plant in Canada of the producer, and

(ii) for a period of at least four weeks, and

(*b*) the lay-offs referred to in paragraph (*a*) are directly attributable to

(i) a reduction after the commencement of this Act in the rates of duties of customs on any textile and clothing goods imported into Canada,

(ii) any conditions set by the Government of Canada for special protection, or

(iii) serious injury or a threat thereof to the production in Canada of any textile and clothing goods caused by import competition, as determined by the Board pursuant to an investigation under this section, and special measures of protection in respect of the import competition have not been recommended or, if recommended, have not been deemed to be practicable,

the Board shall certify to the Minister of Labour those persons or classes of persons who are eligible to apply for assistance under the law of Canada referred to in subsection (1) and shall set out in the certification such information as may be prescribed.

Adjustment Assistance Benefit Regulations

Pre-Retirement Benefit Period

12. (1) A pre-retirement benefit period is established in respect of an employee when, upon filing an application for pre-retirement benefit, he proves that

(*a*) he had been employed by a Canadian producer in at least ten of the fifteen years immediately preceding a lay-off certified by the Board and that he was paid by a producer for at least one thousand hours in each of those ten years;

(*b*) he was 55 years of age but not more than 65 years of age at the date of the lay-off; and

(*c*) he has been certified by an officer of the Department of Manpower and Immigration as a person

(i) for whom there is no present prospect of employment with or without further training or relocation assistance, or

(ii) who has accepted employment with earnings that are less than his average weekly earnings.

(2) The circumstances of every person referred to in paragraph 21(1)(*c*) shall be reviewed at least once every twelve months by an officer of the Department of Manpower and Immigration and if upon review any such person does not meet the requirements of that paragraph the certification referred to therein shall be suspended.

Duration of Pre-Retirement Benefit

13. Every pre-retirement benefit period established under these Regulations in respect of an employee shall commence with the date on which his unemployment insurance benefit period is terminated and shall terminate when he attains the age of 65 years, or on the date on which he becomes eligible to receive retirement pension under the *Canada Pension Plan* or the *Quebec Pension Plan*, whichever is the earlier.

Deduction for Earnings

15. (1) There shall be deducted from pre-retirement benefits payable to an employee an amount equal to

(*a*) fifty cents for each dollar obtained by the employee as

(i) earnings from employment or self-employment,

(ii) pension benefits from employer pension plans that were earned as a result of employment,

(iii) vacation pay, and

(iv) any income other than that described in subparagraphs (i) to (iii) that is received during the pre-retirement benefit period established under these Regulations as a result of current or previous employment; and

(*b*) one dollar for each dollar obtained by the employee as unemployment insurance benefit received during a pre-retirement benefit period established under these Regulations.

Industry and Industry/Community Designations

In 1982 the determination of industry designation, layoff certification, and worker certification for preretirement benefits became subject to the *Labour Adjustment Benefits Act*.

Labour Adjustment Benefits Act

Designation of Industries

Designation of industries

3. (1) For the purposes of this Act, the Governor in Council may, by order, designate any industry either generally or with respect to any region of Canada.

Criteria for general designation

(2) An industry may be designated generally pursuant to subsection (1) if the Governor in Council is satisfied that

(*a*) the industry in Canada generally is undergoing significant economic adjustment of a non-cyclical nature by reason of import competition or by reason of industrial restructuring implemented pursuant to a policy or program of the Government of Canada to encourage such restructuring; and

(*b*) the economic adjustment referred to in paragraph (*a*) is resulting in a significant loss of employment in the industry in Canada generally.

Criteria for regional designation

(3) An industry may be designated with respect to any region of Canada pursuant to subsection (1) if the Governor in Council is satisfied that

(*a*) the industry in that region is undergoing significant economic adjustment of a non-cyclical nature; and

(*b*) the economic adjustment referred to in paragraph (*a*) is resulting in a severe economic disruption in that region and in a significant loss of employment in the industry in that region.

Terms of general designation

(4) An order under subsection (1) that designates an industry generally is in force for such period, not exceeding three years from the date the order is made, as is specified in the order unless, before the expiry of the period so specified, the Governor in Council makes a continuation order continuing the order in force for such period, not exceeding three years, as is specified in the continuation order.

No further extension

(5) No more than one continuation order may be made under subsection (4) in respect of any one order under subsection (1).

Terms of regional designation

(6) An order under subsection (1) that designates an industry with respect to a region in Canada is in force for one year from the date the order is made unless, before the expiry of that one year, the Governor in Council makes a continuation order continuing the order in force for such period, not exceeding six months, as is specified in the continuation order.

Further extension

(7) Where the Governor in Council has made a continuation order under subsection (6) continuing an order in force, he may, before the expiry of the period for which the order is so continued, make one further continuation order continuing the order in force for such further period, not exceeding six months, as is specified in the further continuation order.

Entitlement continued

(8) The revocation or expiration of an order under this section does not affect the entitlement, after the revocation or expiration, of any person laid off while the order was in force to make an application under section 10 or 12 in relation to the order or to receive labour adjustment benefits by virtue of the order. 1980-81-82-83, c. 89, s. 3, c. 169, s. 2.

Retroactive application

4. (1) Subject to subsection (2), the Governor in Council may, in any order under section 3, declare

(*a*) that the designation of the industry in the order is retroactive in effect and applies as of such day, before the date of the order, as is specified in the order; and

(*b*) that this Act applies in respect of lay-offs from a Canadian establishment in the industry designated in the order occurring on or after the day specified pursuant to paragraph (*a*).

Limitation

(2) The Governor in Council may not specify pursuant to paragraph (1)(*a*) a day that is more than forty-eight months before the day this section comes into force.

Re-employment Programs

The major re-employment program that is considered in the report is the Industry and Labour Adjustment Program, which was introduced in the early 1980s. Under this program certain industry/community designations could be made.

Industry and Labour Adjustment Program: Criteria for Designating Industry/Community

The selective nature of this approach means that only a limited number of community designations be in place at any point in time. The following considerations are used in assessing the designations. They will continue to be used to ensure that only the most severe cases of existing or future community disruption are designated.

– It needs to be demonstrated that the combined impact of both the absolute size of the industry sector layoffs in any given community, and their effect as a per cent of total employment in the community, warrant designation.

– The dislocation must represent a recent event and not a long-standing situation. Other programs exist to deal with long-term regional or local income disparities.

– The industry situation giving rise to the community dislocation must be of a permanent character as opposed to temporary. In this context, particular attention is given to dislocations which reflect industry-wide structural adaptation. It is, therefore, necessary to determine that the dislocation is not likely to reverse itself, in a reasonable period of time, as a result of improvement in the relevant economic conditions. Moreover, it is necessary to assess if any potential industrial projects are on the horizon for communities under consideration and the extent to which these would dampen or reverse the existing situation.

– Consideration is also given to the characteristics of the affected labour force including such factors as its potential mobility and the proximity of the community to a larger, healthier labour market.

– The definition of community for purposes of the program must recognize local labour market conditions. Where appropriate, it also allows for the aggregation of adjacent communities when a number of neighbouring smaller communities are involved, or when the prospects of capturing a greater number of viable industrial projects are enhanced.

Notes

Chapter 1

1 Perhaps the best example is government policy aimed at the shipbuilding and ship repair industry. Policy in the 1960s and 1970s attempted to maintain employment in this industry, in which Canada appears to have had little comparative advantage. In 1982-83, a wrenching change came about: the labour force was reduced by 27.4 per cent; it has subsequently remained at that level. Full details are presented in Chapter 6.

2 Thomas J. Courchene, "Towards a protected society: The politicization of economic life," *Canadian Journal of Economics* 13, no. 4 (November 1980):556-77; Mancur Olson, *The Rise and Decline of Nations: Economic Growth, Stagflation and Social Rigidities* (New Haven: Yale University Press, 1982); and André Blais and John McCallum, "Government, special interest groups and economic growth," in *Responses to Economic Change*, ed. David Laidler (Toronto: University of Toronto Press, 1986), pp. 153-201.

3 Under certain conditions, markets will result in a socially optimal amount of each good or service and of each input (such as labour). If these conditions are not met, then market imperfection is said to exist. For example, market imperfection exists in a monopoly where prices are set above the marginal costs. This provides a necessary but not sufficient rationale for government intervention.

4 Department of Regional Industrial Expansion, *Manufacturing Trade and Measures*, various issues. Note that the 1966 data are based upon the 1970 Standard Industrial Classification; the 1986 data on the 1980 SIC. A comparison of the import and export ratios for the years 1981 to 1984 – when they were available using both the 1970 and 1980 SIC definitions of manufacturing – indicates differences ranging between 0.2 and 0.5 of a percentage point.

5 Canada has accounted for between 3 and 5 per cent of world trade in the postwar period. In contrast, exports and imports of goods and services climbed from approximately 20 per cent of GNP in 1960-70 to 30 per cent in 1985; see Economic Council of Canada, *Changing Times*, Twenty-Third Annual Review (Ottawa: Supply and Services Canada, 1986), pp. 83-84. These percentages are based on figures expressed in constant 1971 dollars.

6 In the context of the proposed Canada-U.S. Free-Trade Agreement, an alternative definition could be employed: trade-sensitive industries are those likely to suffer a loss in employment because of the expected impact of the agreement. The Economic Council examined the potential employment impact of the agreement. That analysis indicated a number of manufacturing industries that might be expected to suffer employment losses, some of which have already received sectoral assistance programs. However, not all of the industries that are likely to suffer employment loss because of the Canada-U.S. Free-Trade Agreement will necessarily merit sectoral policies, given the marginal nature of the predicted employment losses and given that the agreement will be phased in over 10 years. For industry-by-industry details of the employment change projected to result from the agreement, see Economic Council of Canada, *Venturing Forth: An Assessment of the Canada-U.S. Trade Agreement* (Ottawa: Supply and Services Canada, 1988), pp. 22 and 26.

7 The Economic Council of Canada reports referred to here are, in chronological order: *Looking Outward: A New Trade Strategy for Canada* (1975); *For a Common Future: A Study of Canada's Relations with Developing Countries* (1978); *Reforming Regulation* (1981); *The Bottom Line: Trade, Technology, and Income Growth* (1983); and *The Taxation of Savings and Investment* (1987). All were published in Ottawa by Supply and Services Canada, except for *Looking Outward*, which was published by its predecessor, Information Canada.

8 See Economic Council of Canada, *Intervention and Efficiency: A Study of Government Credit Guarantees to the Private Sector* (Ottawa: Supply and Services Canada, 1982); and Michael J. Trebilcock, Marsha Chandler, Morley Gunderson, Paul Halpern, and Jack Quinn, *The Political Economy of Business Bailouts* (Toronto: Ontario Economic Council, 1985).

9 Ronald S. Saunders, *Aid to Workers in Declining Industries* (Toronto: Ontario Economic Council, 1984).

10 Such externalities arise because the firm does not take into account all of the adverse consequences that impose costs when it decides to close a plant. See the discussion in Morley Gunderson, "Alternative mechanisms for dealing with permanent layoffs, dismissals and plant closings," in *Adapting to Change: Labour Market Adjustment in Canada*, ed. W. Craig Riddell (Toronto: University of Toronto Press, 1986), pp. 111-62.

11 See, for example, Jaleel Ahmad, "Trade-related, sector-specific industrial adjustment policies in Canada: An analysis of textile, clothing and footwear industries," Economic Council of Canada, Discussion Paper 345, March 1988.

12 This may not necessarily be the case for small firms, however. There may be instances in which equity would argue in favour of intervention to prevent small firms from having to shoulder a disproportionate share of the adjustment burden.

13 See, for example, Louis Kaplow, "An economic analysis of legal transitions," *Harvard Law Review* 99, no. 3 (January 1986):509-617.

14 See, for example, William T. Stanbury, *Business-Government Relations in Canada* (Toronto: Methuen, 1986), pp. 88-157.

15 See, for example, Michael J. Trebilcock and Marsha Chandler, "Adjusting to trade: A comparative perspective," a background paper prepared for the Economic Council of Canada, December 1987. The authors conclude that the evidence "does not suggest an iron law of politics that inexorably drives governments, in particular sets of circumstances, to the adoption of particular trade restricting policies. Degrees of policy latitude, fortunately from a normative perspective, seem quite significant."

16 See, for example, Organisation for Economic Co-operation and Development, *The Case for Positive Adjustment Policies: A Compendium of OECD Documents* (Paris, 1979); OECD, *Positive Adjustment Policies: Managing Structural Change* (Paris, 1983); and Robert A. Jenness, *Positive Adjustment in Manpower and Social Policies* (Paris: OECD, 1984), pp. 9-11.

17 See, for example Fred Lazar, *The New Protectionism: Non-Tariff Barriers and Their Effects on Canada* (Ottawa: Canadian Institute for Economic Policy, 1981); and OECD, *Positive Adjustment Policies*, pp. 100-104.

18 Michael F. Charette, Robert P. Henry, and Barry Kaufmann, "The evolution of the Canadian industrial structure: An international perspective," in *Canadian Industry in Transition*, ed. Donald G. McFetridge (Toronto: University of Toronto Press, 1986), pp. 61-133.

19 General Agreement on Tariffs and Trade, "Ministerial Declaration on the Uruguay Round," *GATT Focus*, no. 41 (October 1986), p. 2.

Chapter 2

1 This section is based on Jaleel Ahmad, "Trade-related, sector-specific industrial adjustment policies in Canada: An analysis of textile, clothing and footwear industries," Economic Council of Canada, Discussion Paper 345, March 1988; W. Craig Riddell, "Adapting to change: Labour market adjustment in Canada – An overview," in *Adapting to Change: Labour Market Adjustment in Canada* (Toronto: University of Toronto Press, 1986), pp. 1-5; Richard G. Harris, Frank D. Lewis, and Douglas D. Purvis, "Market adjustment and government policy," in *Economic Adjustment and Public Policy in Canada*, ed. Douglas D. Purvis, Proceedings of the Second John Deutsch Roundtable on Economic Policy, Queen's University, 11-13 November 1982 (Kingston, Ontario: Queen's University, John Deutsch Institute for the Study of Economic Policy, 1984), pp. 81-117; and Christopher Green, *Industrial Policy: The Fixities Hypothesis* (Toronto: Ontario Economic Council, 1984).

2 Garnett Picot and Laval Lavallée, "Structural change in employment of industries and occupations, 1971-81: An input-output analysis," Ottawa, Economic Council of Canada, Discussion Paper 316, December 1986; Matthew Robertson and Alex Grey, "Trade-related worker adjustment policies: The Canadian experience," in *Domestic Policies and the International Economic Environment*, ed. John Whalley (Toronto: University of Toronto Press, 1985), pp. 183-97; Ahmad, "Industrial adjustment policies," Table 52; and Martin Wolf, "Adjustment policies and problems in developed countries," World Bank, Staff Working Paper 349, Washington, D.C., 1979, p. 76.

3 See Picot and Lavallée, "Structural change," p. 37. The analysis was conducted at the two-digit classification level, where the manufacturing sector is divided into 20 industries (see Table 2-1).

4 For some import-sensitive industries (textiles, knitting mills, clothing, and furniture and fixtures), changes in domestic demand are the most important factor accounting for employment change, followed by changes in labour productivity and the net trade effect. Only in leather industries is the net trade impact greater than the productivity impact. While the Picot and Lavallée study is based on 1971-81 data, Ahmad's analysis, based on 1978-83 data for shoe factories, clothing, textiles, and knitting mills (the data end in 1982, in the last case), comes to a similar conclusion, except that for knitting mills and textiles, productivity is the most important cause, and the net trade impact is always the least important factor accounting for industry employment change.

5 See Charles Pearson and Gerry Salembier, *Trade, Employment and Adjustment* (Montréal: Institute for Research on Public Policy, 1983), pp. 38-40; and Gene M. Grossman, "Comment," in *Import Competition and Response*, ed. Jagdish N. Bhagwati, National Bureau of Economic Research (Chicago: University of Chicago Press, 1982), pp. 396-99.

6 Gene M. Grossman, "Imports as a cause of injury: The case of the U.S. steel industry," *Journal of International Economics* 20, no. 3/4 (1986):202.

7 Grossman,"Imports as a cause of injury"; Gene M. Grossman, "The employment and wage effects of import competition in the United States," National Bureau of Economic Research, Working Paper No. 1041, Cambridge, Mass., 1982. Tim Hazledine and Ian Wigington, "Protection in the

Canadian automobile market: Costs, benefits and implications for industrial structure and adjustment," in Organisation for Economic Co-operation and Development, *The Costs of Restricting Imports: The Automobile Industry* (Paris, 1987); and Coopers and Lybrand Consulting Group, *The Five Years since the Introduction of the Voluntary Export Restraints (Quotas) on the Importation of Japanese Cars into Canada* (Willowdale, Ont.: Canadian Association of Japanese Automobile Dealers, 1986).

8 The costs of erroneous intervention are not always high, as shown by the ILAP example cited earlier.

9 For a full discussion of the incidence and importance of bankruptcies in Canada, see Benoît-Mario Papillon, "The Bankruptcy Law and economic adjustment," a background paper prepared for the Economic Council of Canada, May 1988.

10 For a discussion of the distinction between the exit and "voice" options, see Albert O. Hirschman, *Exit, Voice, and Loyalty: Responses to Decline in Firms, Organizations, and States* (Cambridge, Mass.: Harvard University Press, 1970); for a further discussion of the protectionist option, see Wolf, "Adjustment policies," pp. 92-99; and Michael J. Trebilcock and Marsha Chandler, "Adjusting to trade: A comparative perspective," a background paper prepared for the Economic Council of Canada, December 1987.

11 See John R. Baldwin and Paul K. Gorecki, "The determinants of the Canadian tariff structure before and after the Kennedy Round, 1966-1970," Economic Council of Canada, Discussion Paper 280, Ottawa, April 1985; the authors find evidence to support this view with respect to tariff reductions under the Kennedy Round.

12 These are plant-level scale economies, measured by using the actual plant-size distribution in Canada in the 1970s. As such, they capture all those things that take place within a plant as its size increases. That may include rationalization because product diversity is reduced and the length of production runs increases. This has implications for comparisons of Canada-U.S. relative plant scale. To the extent that U.S. and Canadian plants are of similar size, Canadian plants may still have higher unit costs because of shorter production runs and greater product diversity. The issue of plant size and product diversity is discussed further in John R. Baldwin and Paul K. Gorecki, "The relationship between plant scale and product diversity in Canadian manufacturing industries," *Journal of Industrial Economics* 34 (June 1986):373-88.

13 See John R. Baldwin and Paul K. Gorecki, *The Role of Scale in Canada-U.S. Productivity Differences in the Manufacturing Sector, 1970-1979* (Toronto: University of Toronto Press, 1986).

14 Indeed, it has been suggested that where markets are characterized by a small number of producers, little change in the domestic price will occur when tariffs or other barriers to cross-border trade are reduced. In general, however, the available evidence is inconsistent with this view. For full details, see Steven Globerman, "The impacts of trade liberalization on imperfectly competitive industries: A review of theory and evidence," Economic Council of Canada, Discussion Paper 341, Ottawa, January 1988.

15 This is explicitly encouraged in the United States by imports entering under tariff items 806.30 and 807.00, "which permit duty-free entry of U.S. components sent abroad for processing or assembly"; see Joseph Grunwald and Kenneth Flamm, *The Global Factory: Foreign Assembly in International Trade* (Washington, D.C.: The Brookings Institution, 1985), p. 12. See also Chapter 4 of this report.

16 See, for example, Ronald P. Dore, "Adjustment in process: A Lancashire town," in *Import Competition and Response*, pp. 295-320; and Vincent Cable, "Economics and the politics of protection: Some case studies of industries," World Bank, Staff Working Paper 569, Washington, D.C., 1983. In "Adjustment policies," Wolf goes so far as to state (p. 69):

> One might hypothesize that private costs, measured here either by the death of the firm or by the size of its contraction, will be ranked as follows [in response to imports from developing countries]: highest for small firms producing homogeneous, standard products; then large firms also producing homogeneous products; then small but diversified firms (perhaps producing to order on a batch basis); then large, diversified firms; then large, diversified firms which are technically dynamic or have valuable brand names; and, lowest of all, firms in the last category able to benefit from vertical integration across frontiers.

17 There is a large body of economic literature on the question of intra- vs. interindustry trade; see, for example, H. G. Grubel and P. J. Lloyd, *Intra-Industry Trade: The Theory and Measurement of International Trade in Differentiated Products* (Bristol, U.K.: MacMillan Press, 1975); Bela Balassa, "Intra-industry specialization: A cross-country analysis," *European Economic Review* 30, no. 1 (February 1986):27-42; Jeffrey H. Bergstrand, "The scope, growth, and causes of intra-industry international trade," *New England Economic Review* (September/October 1982):45-61; and P. K. Tharakan, "The economics of intra-industry trade: A survey," *Recherches économiques de Louvain* 47, no. 3-4 (1981):259-90.

18 For a dissenting view, see Wolf, "Adjustment policies," pp. 63-67.

19 On automobiles, see Chapter 5; on television sets, see Glenn P. Jenkins, Gary D. Sawchuk, and Gloria Webster, "Trade, protection, and industrial adjustment: The consumer electronics industry in North America," a paper prepared for the NSI-ISEAS Project on Trade, Protectionism and Industrial Adjustment, September 1986. In the case of television sets, the industry eventually became largely owned by the

Japanese after the Canadian government imposed various barriers to imports.

20 The major exceptions would appear to be certain agricultural products, including milk, turkeys, eggs, and chickens, where there are import controls. As we noted in Chapter 1, however, we are not considering agriculture in our discussion of adjustment. Part of the reason is that the Council has already made an extensive study of these particular systems of import controls and their associated supply-management systems; see *Reforming Regulation*, Economic Council of Canada (Ottawa: Supply and Services Canada, 1981), Chapter 6.

21 In contrast to either Japan or the NICs, the United States has considerable leverage to prevent or stop proposed Canadian protectionist policies that adversely affect its interests. That is why exit and revitalization are more likely scenarios with respect to U.S.-Canada trade adjustment.

Chapter 3

1 This chapter is based on John R. Baldwin and Paul K. Gorecki, *Structural Change and the Adjustment Process*, Economic Council of Canada (forthcoming). The study draws on data on job turnover provided by John McVey of Statistics Canada and on labour turnover provided by Matthew Robertson of Employment and Immigration Canada. The advice, cooperation, and guidance provided by these two researchers are gratefully acknowledged. The Statistics Canada data are based on the Annual Census of Manufactures; the Employment and Immigration Canada data, on various administrative sources, such as the Record of Employment.

2 For a further discussion of the distinction between job and labour turnover, see Organisation for Economic Co-operation and Development, *Employment Outlook* (Paris, 1987), pp. 97-99.

3 Another reason is that establishment-based employment turnover figures most closely approximate those pertaining to labour turnover, presented later on.

4 The concept of employment here refers to person-year equivalents. In other words, if one person is fully employed in an establishment for one year, then that is one person-year; if three people are employed in an establishment for four months each, that is also one person-year. This definition contrasts with that used in our discussion of labour turnover (see note 9 below).

5 Such a pattern is found for the United States in D. L. Birch, "Who creates jobs?", *The Public Interest* 65 (Fall 1981):8-9.

6 See Baldwin and Gorecki, *Structural Change and the Adjustment Process*, Chapter 3. See also Benoît-Mario Papillon, "The Bankruptcy Law and economic adjustment," a background paper prepared for the Economic Council of Canada, May 1988, for a discussion of the length of life of firms prior to bankruptcy. This is typically of 15.8 years, on average, at least for firms with larger liabilities (the sample for which data were collected included firms with liabilities of $1 million or more).

7 See John R. Baldwin and Paul K. Gorecki, with John McVey and John Crysdale, "Entry and exit to the Canadian manufacturing sector: 1970-1979," Economic Council of Canada, Discussion Paper 225, Ottawa, February 1983. In both cases, if growth rates became negative, exit rates increased – an issue to which we shall return.

8 See Economic Council of Canada, *The Bottom Line: Trade, Technology, and Income Growth* (Ottawa: Supply and Services Canada, 1983), pp. 115-18; the results presented in that report were based on Baldwin and Gorecki, "Entry and exit," p. 30. All the results reported in the text refer to entry and exit rates measured over the period 1970-79, using shipments as an indicator. In *Structural Change and the Adjustment Process*, Baldwin and Gorecki recorded similar results when estimating entry and exit rates, using employment as the size indicator.

9 This is an important result. The layoff data come from a data source that is based on administrative records of the Canada Employment and Immigration Commission. The denominator in the separation rates includes all the workers for whom an employer files a T4s tax slip and whose earnings were largely gained in manufacturing. Hence both part-time and full-time workers are included and counted equally. The numerator refers to the number of quits, layoffs, and so on, recorded for the same people. Since a person may be involved in more than one separation during a year, the total separation rate includes some double-counting. The amount of double-counting is probably greater for temporary than for permanent layoffs, since the latter, by definition, involve either a change of employers or withdrawal from the labour force. The data on the subsequent job tenure of workers experiencing a permanent layoff suggest that few separations in this category involve more than one change of employers in a year. Moreover, the fact that the permanent-layoff rate and the gross job-loss rate are similar gives us some indication that any double-counting bias in the permanent-layoff rate is likely to be relatively small.

10 See Baldwin and Gorecki, *Structural Change*, Chapter 6. We do not have data on permanent attritions in manufacturing, but we do have an estimate for all sectors of the economy, which is 72 per cent. In other words, 72 per cent of all attritions were permanent. Applying that proportion to the attrition rate of 21.1 per cent in Table 3-3 yields a permanent-attrition rate of 15.2 per cent in manufacturing.

11 According to data from the longitudinal files of Employment and Immigration Canada for 1976, 1979, and 1982. It would appear that of those who became separated but either did not

draw unemployment benefits or remain continuously employed (but switched employers) are excluded from these data.

12 Reported in ECC, *The Bottom Line*, p. 121.

13 Jahangir Alam, "Cost of dislocation: An investigation into the nature and magnitude of labour adjustment problems in the Canadian footwear industry," Canada Employment and Immigration Commission, Ottawa, 1985; Canada Employment and Immigration Commission, "The adjustment experience of workers separated from the shipbuilding industry," unpublished draft, Ottawa, 1987; Automotive Industry Human Resources Task Force, *Report* (Ottawa: Supply and Services Canada, 1986); Canada Employment and Immigration Commission, "The adjustment experiences of workers separated from the electrical/electronics industry," unpublished draft, Ottawa, 1987; Don Allen, "Analysis of the steel industry labour market and the adjustments facing its work force," a paper prepared for the United Steelworkers of America, for presentation at the Canadian Steel Trade Conference, Sault Ste. Marie, Ontario, 5-7 May 1985.

14 See Alex Grey, "Aspects of labour flexibility in Canada: Patterns of regional, inter-firm, and occupational mobility," Labour Market Studies Division, Strategic Policy and Planning, Employment and Immigration Canada, Ottawa, January 1985. The sample is described in the footnote to Table 3-4. Studies conducted on workers in the automobile and footwear industries provide more detailed information on the degree of geographical mobility; see Automotive Industry Human Resources Task Force, *Report*, and Alam, "Cost of dislocation."

15 See Grey, "Aspects of labour flexibility," pp. 10 and 16.

16 The discussion on layoffs, unemployment, and job tenure draws heavily on data supplied by the Labour Market Studies Division of Employment and Immigration Canada. It includes manufacturing, as well as the nonmanufacturing sectors of the economy. Where separate breakdowns were provided for the manufacturing sector, the patterns were similar to that for all sectors combined. Note that persons who had no employment two years after the layoff were excluded from the sample; hence those who had withdrawn from the labour force were not considered. See Matthew Robertson, "Perspectives on labour adjustment in the Canadian economy," Employment and Immigration Canada, Ottawa, 1987. According to Robertson (p. 22), "for purposes of analyzing the distribution of post-layoff joblessness, the maximum period of joblessness was limited to two-years after layoff, the assumption being that two-years of joblessness is a realistic indicator of labour force withdrawal. The two year cut-off point was employed because after that period of time most persons jobless have in fact withdrawn from the labour force. For older workers (55+) one in five withdraw (retire) while 10 per cent of females and about 5 per cent of males leave the labour force." (In contrast, the data used in Table 3-3 and the discussion on labour turnover refer to all separations.)

17 See Robertson, "Perspectives on labour adjustment," p. 35.

18 These results are consistent with others showing that older workers have considerable difficulty in adjusting; see Alam, "Cost of dislocation"; Jahangir Alam, "The costs of labour dislocation: Experiences from the Canadian automotive industry," Canada Employment and Immigration Commission, Ottawa, 1985; Graham Glenday, "Key factors in the income loss of laid-off workers," a report prepared for the Department of Industry, Trade and Commerce, Ottawa, 1979; and Ernest B. Akyeampong, "Older workers in the Canadian labour market," in Statistics Canada, *The Labour Force* (November 1987), No. 71-001, pp. 85-120.

19 Economic Council of Canada, *Venturing Forth: An Assessment of the Canada-U.S. Trade Agreement* (Ottawa: Supply and Services Canada, 1988), p. 26. For more details and discussion see Sunder Magun, Someshwar Rao, Bimal Lodh, Laval Lavallée, and Jonathan Peirce, "Open borders: An assessment of the Canada-U.S. Free-Trade Agreement," Economic Council of Canada, Discussion Paper 344, April 1988, pp. 72-74.

Chapter 4

1 This chapter is largely based on Donald G. McFetridge, *Trade Liberalization and the Multinationals*, Economic Council of Canada (forthcoming).

2 This point of view is present in, for example, Patricia Lush, "Going, going, gone," *Report on Business* (magazine of *The Globe and Mail*, Toronto), January 1987, pp. 36-40. The author writes (p. 36):

> Canadian branch plants are under pressure from every direction, especially from their parents, most of them multinationals based in the United States. In dealing with the pressures, the subsidiaries are closing plants, cutting product lines, chopping jobs. A few companies have left Canada altogether and that trickle could become a flood if the attractions that keep the multinationals in Canada – such as the 30-cent discount on the dollar – diminish further.

3 *Business Week*, 3 March 1986, p. 57.

4 John P. Jarrett, "Offshore assembly and production and the internalization of international trade within the multinational corporation: Their causes and effects on U.S. manufacturing industry wage and profit rates," unpublished Ph.D. dissertation, Harvard University, Cambridge, Mass., 1979.

5 Peter J. Williamson, "Multinational enterprise behaviour and domestic industry adjustment under import threat," *Review of Economics and Statistics* 68, no. 3 (August 1986):359-68.

In this study, imports are measured as a share of the domestic market.

6 Kenneth Flamm, "The volatility of offshore investment," *Journal of Development Economics* 16 (1984):231-48.

7 See, for example, Joseph Grunwald and Kenneth Flamm, *The Global Factory: Foreign Assembly in International Trade* (Washington, D.C.: The Brookings Institution, 1985).

8 Bruce Kogut, "Designing global strategies: Profiting from operational flexibility," *Sloan Management Review* 27 (Fall 1985):27-38.

9 John R. Baldwin and Paul K. Gorecki, with John McVey and John Crysdale, "Entry and exit to the Canadian manufacturing sector: 1970-1979," Economic Council of Canada, Discussion Paper 225, Ottawa, February 1983, p. 25.

10 See, for example, William H. Davidson and Donald G. McFetridge, "Recent directions in international strategies: Product rationalization or portfolio adjustment?", *The Columbia Journal of World Business* 19, no. 2 (Summer 1984):95-101.

11 See Daniel Shapiro, "Entry, exit and the theory of the multinational corporation," in *The Multinational Corporation in the 1980's*, ed. Charles Kindleberger (Cambridge, Mass.: MIT Press, 1983); and Paul K. Gorecki, "The determinants of foreign and domestic enterprise diversification in Canada: A note," *Canadian Journal of Economics* 13, no. 2 (May 1980):329-39.

12 Donald J. Daly and Donald C. MacCharles, *Canadian Manufactured Exports: Constraints and Opportunities* (Montréal: Institute for Research on Public Policy, 1986), p. 77.

13 It is fair to point out that some evidence to the contrary was reported in an unpublished study by I. MacLachlan, "Foreign direct disinvestment in Ontario: Industrial plant closings as a disinvestment instrument," a paper presented to the Annual Meeting of the Association of American Geographers, Minneapolis, 4 May 1986. The paper referred to plant closures in Ontario over the period 1981-85. The author found that while closure rates of both foreign- and Canadian-owned firms in Ontario were higher in industries experiencing greater rates of growth of imports and in industries with higher proportions of unionized workers, a given rate of growth of imports raised the closure rate of foreign-owned plants by an amount greater than that evidenced for Canadian-owned plants. Given the nature of the statistical techniques employed, however, MacLachlan's study must be regarded as preliminary in nature.

14 See the two studies by John R. Baldwin and Paul K. Gorecki, with John McVey and John Crysdale: "Trade, tariffs and relative plant scale in Canadian manufacturing industries: 1970-1979," Economic Council of Canada, Discussion Paper 232, Ottawa, May 1983; and "Trade, tariffs, product diversity and length of production run in Canadian manufacturing industries: 1970-1979," Economic Council of Canada, Discussion Paper 247, Ottawa, November 1983.

15 Daly and MacCharles, *Canadian Manufactured Exports*, p. 41. Full details of the sample and its representativeness may be found on pp. 35-38.

16 Daly and MacCharles, *Canadian Manufactured Exports*, p. 74.

17 In the two papers cited in note 14, Baldwin and Gorecki did find that the plants of U.S.-owned enterprises were often more specialized than Canadian-owned plants of similar size.

18 David L. Balcome, *Choosing Their Own Paths: Profiles of Export Strategies of Canadian Manufacturers* (Ottawa: The Conference Board of Canada, 1986).

19 The proportion of system-manufactured exports accounted for by foreign majority affiliates rose by 2.3 per cent annually between 1966 and 1977 and by 0.5 per cent per year between 1977 and 1984; see McFetridge, *Trade Liberalization*.

20 This conclusion would appear to be at variance with the view of the Council of Canadians, as expressed in a statement by its director, John L. Orr, "The incredible myth of bilateral free trade with the United States," Victoria, B.C., 7 October 1987.

The position of the Council of Canadians is that, because in the period 1978-85 foreign (including U.S.) -owned firms experienced a decline in their employment in Canada while Canadian-owned firms increased their employment, a Canada-U.S. free-trade agreement would not result in foreign firms increasing their employment in Canada. There are a number of problems with this view. In the period 1978-85, small firms in the goods-producing industries experienced a growth in employment, while employment in medium-sized and large firms underwent a decrease. This result obtained *regardless* of whether the small, medium-sized, or large firms were Canadian-owned or foreign-owned (i.e., by either U.S. or other interest). Because foreign-owned firms are concentrated in the larger-size categories and Canadian firms in the smaller-size categories, however, foreign firms experienced a decline in employment while domestic firms saw an increase. Thus the differing performance of domestic and foreign firms would appear to result from a combination of a firm-size effect and the distribution of employment in foreign and domestic firms across the various size categories.

That is essentially the view taken by Statistics Canada, which provided the data on job change to the Council of Canadians; see, for example, John S. McVey, "Notes on employment change of domestic and foreign-controlled firms, 1978-1985," unpublished paper, Statistics Canada, Ottawa, 25 November 1987. Indeed, in a letter to *The Globe and Mail*, Toronto ("Statistics don't say it all," 20 January 1988, p. A7),

in which he commented on the conclusions of the Council of Canadians, the Chief Statistician of Canada stated that they were "based on a statistical analysis that is totally misleading." Finally, it should be pointed out that in a survey of the reactions of a sample of larger U.S. (with subsidiaries in Canada) and Canadian multinationals, both sets of firms said that extra investment would be forthcoming as a result of a Canada-U.S. free-trade agreement. For details see Alan Rugman, "Trade liberalization and international investment," a background paper prepared for the Economic Council of Canada, May 1988.

21 Changes in Canadian trade barriers are defined as: 1) the change in the proportion of imports subject to duty; and 2) the change in duties collected as a proportion of the value of dutiable imports. Variable 1 was statistically significant while variable 2 was not. The interindustry statistical analysis reported in this and the following paragraphs is confined to a subsample of manufacturing industries for which the requisite data are available. The number of observations in the sample as a whole was 18. For further details, see McFetridge, *Trade Liberalization.*

22 The employment share of Canadian affiliates tended to decline, other things being equal, in the industries in which intracorporate trade was the most important in 1977. That is, increased trade improved the position of Canadian affiliates, but the improvement was less marked in industries characterized by intracorporate trade. It is not immediately apparent how this result should be interpreted. For further details, see McFetridge, *Trade Liberalization.*

Chapter 5

1 For a discussion of this provision, see Frank Stone, *Canada, the GATT and the International Trade System* (Montréal: Institute for Research on Public Policy, 1984), pp. 35-36 and 185; see also External Affairs Canada, *A Review of Canadian Trade Policy* (Ottawa: Supply and Services Canada, 1983), pp. 134-36; and John H. Jackson and William J. Davey, *Legal Problems of International Economic Relations, Cases, Materials and Text*, second edition, American Casebook Series (St. Paul, Minn.: West Publishing Co., 1986), pp. 538-609.

2 The actual wording of Article XIX states that the surge should be the result of "unforeseen developments" and the effect of "obligations incurred by a contracting party under this Agreement [GATT] including tariff concessions." However, this appears to have been ignored in the interpretation of Article XIX for the purposes of Canada's trade legislation. In this connection, it might be noted that the U.S. trade legislation did have an explicit link to previous concessions, which was removed in 1973 however. For details, see Jackson and Davey, *Legal Problems*, pp. 546-47.

3 This paragraph is based on Department of Finance, *Proposals on Import Policy* (Ottawa: Supply and Services Canada, 1980), pp. 19-20; on External Affairs Canada, *Review of Canadian Trade Policy*, pp. 137-38; and on information provided by the Tariffs Division of the Department of Finance.

4 If, however, the initial recommendation of the Minister of Finance is accompanied by a report from the Canadian Import Tribunal or the Textile and Clothing Board that finds serious injury, then the Governor in Council may impose surtaxes up to three years, not 180 days, without going to both Houses of Parliament for approval. However, most surtaxes are temporary and are applied after a report from the Minister of Finance.

5 The surtax imposed on certain stainless steel products from the United States in 1983 was a retaliatory measure.

6 The Governor in Council may, at his/her discretion, take no action, or he/she may issue import permits for the purpose of collecting information, even though the intent of this action is not to restrict imports.

7 The *Special Import Measures Act* is administered by the Canadian Import Tribunal, known until 1984 as the Anti-dumping Tribunal; Philip Slayton, *The Anti-dumping Tribunal* (Ottawa: Law Reform Commission of Canada, 1979).

8 Robert J. Bertrand, Q.C., "Injury determination," an address to the UNCTAD regional seminar for Latin America, Rio de Janeiro, Brazil, 4-8 November 1985, p. 14.

9 Textile and Clothing Board, *Report on Textiles and Clothing, 1987* (Ottawa: Supply and Services Canada, 1987), pp. 39 and 74-75. Most of the agreements were made pursuant to the MFA, but a small number were not, such as those with North Korea and Vietnam. All but one of the agreements run to 1991.

10 General Agreement on Tariffs and Trade, *Textiles and Clothing in the World Economy* (Geneva: GATT, 1984), pp. 106-107.

11 Michael M. Hart, *Canadian Economic Development and the International Trading System* (Toronto: University of Toronto Press, 1985), p. 117. For the background to this decision, see David R. Protheroe, *Imports and Politics: Trade Decision Making in Canada, 1968-1979* (Montréal: Institute for Research on Public Policy, 1980), pp. 59-63.

12 Government of Canada, "Backgrounder" to the "New textile and clothing import policy," news release 137, Ottawa, 30 July 1986, p. 4.

13 Section 5(1)(c). This interpretation is based on External Affairs Canada, *Summary of Canada's Bilateral Restraint Arrangements – Textiles and Clothing*, revised (Ottawa: Supply and Services Canada, 1983), p. 2.

14 Jackson and Davey, *Legal Problems*, pp. 572-86.

15 Anti-dumping Tribunal, *Report Respecting the Effects of Footwear Imports on Canadian Production of Like Goods* (Ottawa: Information Canada, 1973), p. 104. This report was the first of four on footwear by the tribunal; it contains (pp. 103-106) the most extensive discussion of the meaning of the term "serious injury."

16 Anti-dumping Tribunal, *Report Respecting the Effects of Imports on the Canadian Footwear Industry* (Ottawa: Supply and Services Canada, 1977), p. 1.27.

17 Anti-dumping Tribunal, *Report* (1977), p. 1.21.

18 Canadian Import Tribunal, *Report Respecting The Canadian Footwear Industry* (Ottawa: Supply and Services Canada, 1985), p. 30.

19 External Affairs Canada, "Government announces change in footwear import policy," news release, 9 July 1982, Ottawa, p. 1.

20 In a press release concerning footwear policy in 1985, it was stated that the Minister for International Trade said that,

> Continued quotas could jeopardize jobs in Canada. For example, last year when quotas were extended to November 1985, the European Economic Community threatened to exercise their right to retaliate. They threatened to raise tariffs to prohibitive levels on Canadian petrochemicals, steel products, kraft paper, furs and other products. This could have cost us $150 million in sales to Europe – and in industries that had nothing to do with footwear. 'We managed to stave off this threat only by agreeing to forego duties on a range of European imports, at a cost of $12 million to the Canadian treasury. Had we not done so a great many jobs would have been lost.'

See External Affairs Canada, "New footwear policy," news release 173, 20 November 1985, Ottawa, p. 2.

21 Department of Industry, Trade and Commerce, "Footwear imports limited for three years," news release, Ottawa, 1 December 1977, p. 1.

22 CIT, *Report* (1985), p. 53.

23 CIT, *Report* (1985), p. 53. One difference worth noting between the late 1970s and early 1980s, in terms of providing relief to the industry, was the favourable/unfavourable movement in exchange rates.

24 Anti-dumping Tribunal, *Report Respecting the Canadian Footwear Industry* (Ottawa: Supply and Services Canada, 1981), p. 106.

25 CIT, *Report* (1985), p. 32. Later in the report, the tribunal goes as far as to say (p. 53): "In many respects, the quotas have been ineffective in the limitation of import volumes."

26 C. Fred Bergsten, Kimberly Ann Elliott, Jeffrey J. Schott, and Wendy E. Takacs, *Auction Quotas and United States Trade Policy* (Washington, D.C.: Institute for International Economics, 1987), p. 24.

27 CIT, *Report* (1985), p. 31.

28 For details, see Charles Pearson, *Emergency Protection in the Footwear Industry*, Thames Essay 36 (London: Trade Policy Research Centre, 1983), pp. 41-46. See also U.S. Congressional Budget Office, *Has Trade Protection Revitalized Domestic Industries?* (Washington, D.C.: Government Printing Office, 1986), pp. 59-71.

29 CIT, *Report* (1985), p. 36.

30 CIT, *Report* (1985), p. 40.

31 Andrew Moroz and Gerry Salembier, "A quantitative assessment of the costs and benefits of the footwear import quota," Institute for Research in Public Policy, Ottawa, 1985. The results of other studies on this question are generally consistent with those of the IRPP study. On the question of prices, for example, see CIT, *Report* (1985), p. 39.

32 CIT, *Report* (1985), p. 35.

33 The Honourable Jean-Luc Pépin, "Statement to the House of Commons on the Textile Policy," Ottawa, 14 May 1970, pp. 9-10.

34 Canada, "Government policy for the textile and clothing sectors," news release, Ottawa/Montréal, 19 June 1981, p. 1. Although not explicitly mentioning the 1970 Textile Policy, the federal government's 1986 statement follows the pattern set by the 1970 statement; see Canada, "New textile and clothing import policy," news release 137, 30 July 1986.

35 Organisation for Economic Co-operation and Development, *Costs and Benefits of Protection* (Paris: OECD, 1985), p. 107.

36 The fibres produced by the textile industry become fabrics. In some instances, this is performed in the textile industry itself. In other instances, where the fibre or yarn is knitted into fabric, it is classified under knitting mills. Hence, when reference is made to all three industries – textiles, knitting mills, and clothing – textiles is broken down into these two components, knitting mills and textiles (sometimes referred to as primary textiles in this context). For more details on the technology and stages of production of the industry, see Organisation for Economic Co-operation and Development, *Textiles and Clothing Industries: Structural Problems and Policies in OECD Countries* (Paris: OECD, 1983), pp. 18-22.

37 For a discussion of the foreign experience, see William R. Cline, *The Future of World Trade in Textiles and Apparel* (Washington, D.C.: Institute for International Economics, 1987), pp. 113-43; and OECD, *Textiles and Clothing Industries*, pp. 133-46.

38 Jaleel Ahmad, "Trade-related sector-specific industrial adjustment policies in Canada: An analysis of textile, clothing and footwear industries," Economic Council of Canada, Discussion Paper 345, March 1988, p. 82. The discussion on textiles and clothing draws extensively on this paper, as well as on Textile and Clothing Board, *Textile and Clothing Inquiry* (Ottawa, 1985), vol. 1.

39 TCB, *Inquiry* (1985), vol. 1, p. 47; Ahmad, "Industrial adjustment policies," pp. 112-13.

40 Ahmad, "Industrial adjustment policies," pp. 85-86.

41 TCB, *Inquiry* (1985), vol. 1, p. 49.

42 TCB, *Report* (1987), p. 14. Note that for textile workers the figure is approximately 80 per cent. According to Ahmad ("Industrial adjustment policies," p. 61), "considerable upgrading of skills and wages has taken place in the textile labor force, which is directly attributable to rising capital-labor and capital-output ratios in the industry."

43 For details, see Shirley B. Seward and Kathryn McDade, "Immigrant women in Canada: A policy perspective," background paper, Canadian Advisory Council on the Status of Women, Ottawa, 1988, pp. 15-18; and TCB, *Inquiry* (1985), vol. 1, p. 62.

44 Ahmad, "Industrial adjustment policies," p. 87.

45 GATT, *Textiles and Clothing*, p. 85; and TCB, *Report* (1987), pp. 74-75.

46 TCB, *Report* (1987), pp. 17-26 and Table 2-2 of this report. For an example of how sources of new supply from non-restrained countries arise, see Textile and Clothing Board, *Trousers, Slacks, Shorts, Jeans, Overalls, and Coveralls*, a report to the Minister of Regional Industrial Expansion (Ottawa, 1985), p. 23; and Textile and Clothing Board, "Report on an inquiry respecting men's and boys' shirts," Ottawa, 1971, p. 2.

47 The shift from textiles to clothing has been commented on by the TCB (*Annual Report on Textiles and Clothing, 1981*, Ottawa, 1981, p. 1). With respect to upgrading within clothing, see Glenn P. Jenkins, *Costs and Consequences of the New Protectionism: The Case of Canada's Clothing Sector*, second edition, revised (Ottawa: North-South Institute, 1985) pp. 7-14; Tim Hazledine, "The costs of protecting jobs in 100 Canadian manufacturing industries," Task Force on Labour Market Development, Technical Study 16, Ottawa, 1981, Appendix D, pp. 17-18; and various reports of the TCB such as those on shirts, one of which is cited in note 46 above. See also TCB, *Inquiry* (1985), vol. 1, p. 87, which offers a different view.

48 TCB, *Inquiry* (1985), vol. 1, p. 52.

49 See, for example, Caroline Pestieau, *The Canadian Textile Policy: A Sectoral Trade Adjustment Strategy?* (Montréal: C. D. Howe Research Institute, 1976) pp. 26-27; and more recent TCB reports.

50 TCB, *Inquiry* (1985), vol. 1, p. 91. In considering the question of viability with respect to clothing, the board seemed prepared to continue protection until at least 1995. It believed that, by then, the technology that removed the labour-cost advantage of the NICs and LDCs would be commercially viable. This would probably result in some, perhaps considerable, reduction in the size of the labour force; see TCB, *Inquiry* (1985), vol. 1, p. 49.

51 The figures are drawn from TCB, *Report* (1987), p. 22.

52 Jenkins, *Costs and Consequences*, p. 38. Another study of the combined effects of tariffs and bilateral restraints in clothing comes up with a much lower figure – less than 2,300 jobs in 1978 – which does not break out the effect of bilateral restraints and tariffs separately (Hazledine, "Costs of protecting jobs," Appendix D, p. 15). Since our interest is on bilateral restraints, our text discussion refers to Jenkins' results. The difference between Jenkins and Hazledine in the impact of clothing restraints and tariffs on employment is discussed in Hazledine (pp. 14-16).

53 See Chapter 3 of this report; and Jenkins, *Costs and Consequences*, pp. 40-41.

54 U.S. International Trade Commission, *A Review of Recent Developments in the U.S. Automobile Industry, Including an Assessment of the Japanese Voluntary Restraint Agreements*, USITC Publication 1648 (Washington, D.C., 1985), p. 1.

55 Different institutional arrangements explain why an investigation took place in the United States but not in Canada. In the United States an investigation to determine serious injury can be requested by private individuals, whereas in Canada only the Governor in Council can do so. In the case at hand the Ford Motor Co. and the United Auto Workers filed a joint petition for relief under the U.S. *Trade Act* of 1974 in June 1980. Proposed changes to Canada's trade laws (see discussion under "new developments" in this chapter) will mean greater access for producers.

56 House of Commons, Standing Committee on External Affairs and International Trade, *Minutes of Proceedings and Evidence . . . Respecting Consideration of the Impact on the Canadian Automotive Industry Caused by the Influence of Imports Pursuant to S.O. 96(2)*, Issue No. 17 (Ottawa, 1987), p. 17:5. This committee is commonly referred to as the

Winegard Committee, after its chairman. The last formal renewal expired on March 31, 1987 (see "Car quota talks are in low gear," *The Globe and Mail*, Toronto, March 30, 1987, p. B3).

57 Winegard Committee, *Minutes*, p. 17:5.

58 As the VERs continued, their objectives did change somewhat. Greater emphasis was placed on using them as an instrument, combined with duty-remission programs, to encourage Japanese and later South Korean automobile producers to locate in Canada. While there has been some investment by producers from those two countries, it is a moot point whether it can be attributed to VERs and to duty-remission programs or to the prescience of Japanese producers in forecasting the rise of the yen and entering that part of the production cycle that is accompanied by foreign investment, after exports have successfully established the product in the new market. Government policy probably accelerated or brought forward the Japanese and South Korean investment. To the extent that it did, the policy has exacerbated the problem of overcapacity in the North American industry. For further details, see Department of Regional Industrial Expansion, *Report on the Canadian Automotive Industry in 1985* (Ottawa: DRIE, 1987), Table 14; and Paul Wonnacott, *The United States and Canada: The Quest for Free Trade – An Examination of Selected Issues* (Washington, D.C.: Institute for International Economics, 1987), pp. 79-82.

59 National Academy of Engineering and the National Research Council, *The Competitive Status of the U.S. Auto Industry* (Washington, D.C.: National Academy Press, 1982), p. 94.

60 North American manufacturers did produce domestically built small cars in the 1970s. However, available evidence suggests that this was marginally profitable, and with increasing competition in the 1980s not only from Japan but South Korea and other suppliers, this was unlikely to change. In the higher price ranges there was far less offshore competition. One commentator singles out wage compensation in the United States as the reason small cars could not be profitably produced in the U.S. by North American manufacturers, but quality differences would also seem to be important. (For details, see William A. Niskanen, "Current practices and possible alternatives to automobile safety, emissions and fuel economy regulations," paper prepared for the Conference on Reforming Government Regulation: Alternative Strategies to Social Regulatory Policy, conducted by Public Policy Continuing Education Program, University of Los Angeles Extension, Santa Barbara Biltmore, 12-13 February 1981; and Canadian Import Tribunal, "Finding of inquiry, under Section 42 of the Special Import Measures Act respecting: cars produced by or on behalf of Hyundai Motor Company, Seoul, Republic of Korea and by companies with which it is associated, and originating in or exported from the Republic of Korea," Inquiry No. CIT-13-87, Ottawa, 23 March 1988, pp. 18-20, 23, and 27.

61 Winegard Committee, *Third Report*, Issue No. 27 (Ottawa, 1987), p. 27:21.

62 Winegard Committee, *Minutes*, p. 17:5. The understanding with South Korea expired on 31 December 1986. As of 1 January 1987, the zero General Preferential Tariff rate on exports from South Korea of automobiles and other motor vehicles was fixed at two-thirds that of the MFN rate, or about 6 per cent.

63 Jeffrey A. Hunker, *Structural Change in the U.S. Automobile Industry* (Lexington, Mass.: D. C. Heath, 1984). For a summary of Hunker's results, see Organisation for Economic Co-operation and Development, *Costs and Benefits of Protection*, pp. 138-39. Similar conclusions have been drawn for Canada in Peter Fortura, "Canada's trade in automobile products," *Bank of Canada Review*, July 1987, pp. 3-16.

64 John F. Krafcik, "Comparative analysis of performance indicators at world auto assembly plants," unpublished M.Sc. thesis, Sloan School of Management, Massachusetts Institute of Technology, Boston, Mass., 15 January 1988, pp. 10-11. Honda introduced its Acura entry in 1986 to much success.

65 Department of Industry, Trade and Commerce/Regional Economic Expansion, news release, 30 December 1982, reprinted in The Federal Task Force on the Canadian Motor Vehicle and Automotive Parts Industries, *An Automotive Strategy for Canada* (Ottawa: Supply and Services Canada, 1983), pp. 141-42, commonly referred to as the Lavelle-White report, after its co-chairmen.

66 It may be, of course, that the Canadian and U.S. automobile industries are quite different with respect to absenteeism, but, given the common ownership of the firms and the similarity of union settings, that is unlikely. Moreover, reports (including the Lavelle-White report) have suggested that the two industries are similar.

67 Lavelle-White, *An Automotive Strategy*, p. 55.

68 For a discussion of the protectionism implicit in the Lavelle-White report's Canadian-content proposals, see Ronald Wonnacott, "The Canadian content proposals by the Task Force on the Automobile Industry," *Canadian Public Policy* 10, no. 1 (March 1984):1-9.

69 Winegard Committee, *Third Report*, p. 27:17.

70 For a discussion of a contrasting view of the problem presented by a U.S. Department of Commerce study published in 1983, see Andrew R. Moroz, "Canada/US automotive trade and trade policy issues," in eds. D. Fretz *et al.*, *Canada/United States Trade and Investment Issues* (Toronto: Ontario Economic Council, 1985) pp. 278-332.

71 Tim Hazledine and Ian Wigington, "Protection in the Canadian automobile market: Costs, benefits and implications for

industrial structure and adjustment," in Organisation for Economic Co-operation and Development, *The Costs of Restricting Imports: The Automobile Industry* (Paris, 1987), p. 84. On the gain to Japanese producers, see p. 90. The magnitude can be estimated by using the figures in footnote 21, p. 98 and the sales data in Table 3, p. 80.

72 See Vinod Aggarwal, Robert O. Keohane, and David B. Yoffie, "The evolution of cooperative protectionism," paper prepared for the Conference on the Political Economy of International Trade, sponsored by the NBER, Endicott House, Dedham (Mass.), 10-11 January 1986, pp. 26-27. Their definition of cooperative protectionism is the following (p. 6): "1) the restrictions are negotiated rather than unilaterally imposed; and 2) as a result of this bargaining process, parties to the agreement adjust their policies, in ways that they would otherwise not have done, in order to conform more closely to their partners' preferences, and in such a way that gains or losses are shared, even if unequally."

73 See Hazledine and Wigington, "Protection in the Canadian automobile market." The employment effect and cost per job are from p. 80.

74 Coopers and Lybrand Consulting Group, *The Five Years since the Introduction of the Voluntary Export Restraints (Quotas) on the Importation of Japanese Cars into Canada* (Willowdale, Ont.: Canadian Association of Japanese Automobile Dealers, 1986), p. 24.

75 In some instances, these estimates are adjusted to take into account two factors: some of the consumer costs accrue to domestic producers and there are economic losses generated by the adoption of special import measures. The first factor will lower the cost per job, the second raise the cost. In all cases, the central conclusion that the cost per job, because of special import measures, is greater than the average earnings in the industry concerned holds where these adjustments have been made (see sources listed earlier in the chapter for details). For results of other countries, see Michael J. Trebilcock and Marsha Chandler, "Adjusting to trade: A comparative perspective," a background paper prepared for the Economic Council of Canada, December 1987, Chapter II.

Chapter 6

1 These figures are taken from André Blais, *A Political Sociology of Public Aid to Industry* (Toronto: University of Toronto Press, 1986), p. 34. For an industry breakdown, see Gerry E. Salembier, Andrew R. Moroz, and Frank Stone, *The Canadian Import File: Trade, Protection and Adjustment* (Montréal: Institute for Research on Public Policy, 1987), pp. 37-38.

2 See, for example, Canada, Department of Regional Industrial Expansion, "Canada's industrial adjustment: Federal government policies and programs," in *Domestic Policies and the International Economic Environment*, ed. John Whalley (Toronto: University of Toronto Press, 1985), pp. 215-42; and H. H. Binhammer, L. C. McDonough, and G. Lepore, "Government grants to private sector firms," Economic Council of Canada, Discussion Paper 227, Ottawa, 1983. Only a small proportion of total subsidies went toward sector-specific programs of the sort dealt with in this chapter.

3 One of the other subsidy programs that were aimed at adjustment because of trade pressures was the Automotive Adjustment Assistance Program, which was rather minor in comparison. The AAAP lasted from 1965 to 1973 and saw total disbursements of $83 million in low-interest loans. For details, see Michael J. Trebilcock, *The Political Economy of Economic Adjustment* (Toronto: University of Toronto Press, 1986), pp. 70-72.

4 For further discussion on incrementality, see Dan Usher, "The benefits and costs of firm-specific investment grants: A study of five federal programs," Queen's University, Institute for Economic Research, Discussion Paper 511, Kingston, Ont., 1983; Dan Usher, "A critique of the Canadian program of subsidizing investment in the less developed regions," Queen's University, Institute for Economic Research, Discussion Paper 145, Kingston, Ont., 1974; and Abraham Tarasofsky, *The Subsidization of Innovation Projects by the Government of Canada*, Economic Council of Canada (Ottawa: Supply and Services Canada, 1984).

5 Tarasofsky, *Subsidization*, p. 13.

6 This section is based on K. E. Arnold de Silva, "The Pulp and Paper Modernization Grants Program: An assessment," Economic Council of Canada, Discussion Paper 350, 1988.

7 Fred J. Anderson and Norman C. Bonsor, *The Ontario Pulp and Paper Industry: A Regional Profitability Analysis*, Ontario Economic Council (Toronto: Ontario Economic Council, 1985), p. 17.

8 Canada-Quebec, *Subsidiary Agreement on Modernizing the Pulp and Paper Industry, 1979-84* (Ottawa/Québec: Department of Regional Economic Expansion/Office de planification et de développement du Québec, 15 May 1979), section 3.

9 Forest Products Industry Consultative Task Force, *Report* (Ottawa: Department of Industry, Trade and Commerce, 1978), Appendix I, p. 11. On the issue of whether an overvalued exchange rate, which could have led to this lack of investment, provided a rationale for assisting the industry, see Anderson and Bonsor, *The Ontario Pulp and Paper Industry*, pp. 88-89; they conclude that it did not.

10 See Someshwar Rao and Ross S. Preston, "Inter-factor substitution, economies of scale and technical change: Evidence from Canadian industries," *Empirical Economics* 9 (1984):87-111; G. Stuber, "The slowdown in productivity

growth in the 1975-83 period: A survey of possible explanations," Bank of Canada, Technical Report 43, Ottawa, 1986; and Andrew Sharpe, "Explanations for productivity slowdown," unpublished paper, Department of Finance, Ottawa, 1984.

11 Economic Council of Canada, *Intervention and Efficiency: A Study of Government Credit Guarantees to the Private Sector* (Ottawa: Supply and Services Canada, 1982), pp. 29-41.

12 Anderson and Bonsor, *The Ontario Pulp and Paper Industry*. It should be noted that PPMP applied to the modernization of existing mills whereas Anderson and Bonsor discussed the building of entirely new plants; however, they consider that their evidence is relevant to the PPMP (pp. 19-20).

13 Anderson and Bonsor, *The Ontario Pulp and Paper Industry*, p. 90.

14 Canada-Quebec, *Subsidiary Agreement*, section 16.

15 Canada-Quebec, *Subsidiary Agreement*, section 28.

16 Minister of Regional Industrial Expansion, "Pulp and Paper Modernization Program," DRIE Discussion Paper, Ottawa, 18 July 1980, p. 7.

17 One of the arguments frequently mentioned in favour of modernization grants is that, without them, some communities would suffer severe problems of unemployment, declining property values, and so on. Indeed, in the Canada-Ontario subsidiary agreement, one of the eligibility conditions for receiving assistance was that "the applicant's proposed project [make] a significantly improved contribution to the economic well-being of the local community"; see Ontario and Canada, *Canada-Ontario Subsidiary Agreement: Pulp and Paper Industry Facilities Improvement* (Ottawa/Toronto: Department of Regional Industrial Expansion/Ministry of Treasury and Economics, 15 May 1979), section 6 (d).

The existence of communities heavily dependent on pulp and paper mills is a well-known fact. If such mills were to be closed down, that would undoubtedly exacerbate the economic hardships experienced in those communities. Thus a valid case can be made for government intervention based on "congestion externalities" in the labour market, as discussed in Chapter 1. But the problem lies in labour markets and thus calls for labour-market adjustment policies. Modernization grants are probably not an optimal solution to this problem. Nevertheless, to the extent that modernization grants are aimed at solving those issues, their allocation should be based, to some extent, on the percentage of the local labour force employed by the mill. In other words, a mill that provides employment to a large proportion of individuals in a community should receive a larger grant than a mill that employs a smaller number of persons, other things being equal. But our statistical results suggest that the allocation of grants was not linked in any systematic way to the employment objective.

18 Anti-dumping Tribunal, "Finding of inquiry under Section 16 of the Anti-dumping Act respecting: Papermaking machines of a wire width exceeding 130 inches and components thereof originating in or exported from Finland," Inquiry No. ADT-7-81, Ottawa, 23 December 1981, pp. 5-6.

19 Department of Industry, Trade and Commerce, *Pulp and Paper Mill Equipment* (Ottawa: IT&C, 1982), p. 8.

20 This discussion of SIAP is based on K. E. Arnold de Silva, "An economic analysis of the Shipbuilding Industry Assistance Program," a background paper prepared for the Economic Council of Canada (in preparation). There were other forms of assistance to the shipbuilding industry. These included a decision in 1966 "restricting coasting movements in the Canadian Great Lakes to Canadian vessels only." See Transport Canada, "New coasting trade policy," Ottawa, 1982, p. 2. The Transport Canada background paper contains an extensive discussion of this and related measures.

21 Department of Regional Industrial Expansion, "The Canadian shipbuilding and repair industry sector profile," May 1987, p. 20. The more recent price differentials quoted in the paragraph are also from this source.

22 For details of the wage differentials, labour demarcation, and the domestic marine industry, see DRIE, "Canadian shipbuilding," pp. 1 and 21-22. According to a study undertaken for DRIE, the construction cost of a typical merchant ship might be made up as follows: direct labour, 24 per cent; overhead, 19 per cent; and direct materials, 57 per cent; see A&P Appledore Limited, "Shipbuilding, shiprepair and offshore market investigation," Document No. DRIA:0002, Ottawa, September 1984, vol. 2, p. 802.

23 Department of Industry, Trade and Commerce, "Minister's statement on shipbuilding assistance program," news release, Ottawa, 5 March 1975, p. 1.

24 Real output in the shipbuilding industry, which had declined at an average annual rate of 2.2 per cent during the period 1965-69, showed an annual increase of 3.5 per cent during the period 1970-74. Employment, which had declined at an average annual rate of 2 per cent during the second half of the 1960s, declined by much less (0.3 per cent per year) during the first half of the 1970s. Internationally, too, the period 1970-74 was one of relative prosperity for the shipbuilding industry. World gross tonnage launched grew at an average annual rate of 12.4 per cent – only slightly lower than the 13.6 per cent experienced during the period 1965-69. The improvement in output and employment in shipbuilding was considerably less than in total manufacturing, however. From 1970 to 1974, annual growth in real output and employment in manufacturing was 5.4 and 1.3 per cent, respectively.

25 See, for example, The Honourable Edward Lumley, Minister of Industry, Trade and Commerce/Regional Economic Expansion, *Canada's Shipbuilding Industry: Performance, Prospects, and Policy Options* (Ottawa, 1982), pp. 7-11; and DRIE, "Canadian shipbuilding," p. 1.

26 Canadian Shipbuilding and Ship Repairing Association, "A brief by CSSRA to the Legislative Committee on Bill C-92 – The Canada Petroleum Resources Act – presented June 10, 1986," Ottawa, 1986, p. 5. Details of the subsidies may be found in DRIE, "Canadian shipbuilding," Annex 1; and in Carl Hamilton, "Public subsidies to industry: The case of Sweden and its shipbuilding industry," Staff Working Paper 566, World Bank, Washington, D.C., 1983.

27 IT&C, "Minister's statement on shipbuilding," p. 5.

28 IT&C, "Minister's statement on shipbuilding," p. 3.

29 See Task Force on Labour Market Development, *Labour Market Development in the 1980s*, a report prepared for Employment and Immigration Canada (Ottawa: Supply and Services Canada, 1981), p. 196.

30 "Shipbuilding Industry Assistance Regulations," P.C. 1976-1164, *Canada Gazette*, Part II, vol. 110, no. 11 (18 May 1976):1603.

31 The program administrators believed that the main difference between subsidies for new vessel construction and the PIG was that whereas the former was given to all shipbuilders who applied for assistance, the latter were much more selective, aimed at benefiting only the stronger and more efficient firms that were capable of improving their efficiency and international competitiveness. However, to the extent that the stronger firms were able to finance projects without recourse to government assistance, the subsidies paid to them may have been redundant.

32 Lumley, *Canada's Shipbuilding Industry: Performance*, p. 49.

33 The February 1979 extension was part of a package of assistance that included advance procurement of government vessels and assistance for the expansion of dry-dock facilities. The aims of that assistance were: to maintain the industry's capacity during a period of worldwide difficulty; to help the industry to specialize and innovate; and to help workers who wished to leave the industry. For details, see Board of Economic Development Ministers, "Board of economic development ministers announces national development policy for shipbuilding industry," news release, Ottawa, 1 February 1979. Little seems to have come of the special assistance to workers beyond one designation under the Industry Labour Adjustment Program (discussed in Chapter 7 of this report).

34 Estimates by the federal Department of Defence, as quoted in Paul Koring, "$7-billion far too low for submarine fleet, British experts say," *The Globe and Mail*, Toronto, 15 June 1987, p. A2.

35 Task Force on Program Review, *Economic Growth: Services and Subsidies to Business* (Ottawa: Supply and Services Canada, 1985), p. 137.

36 DRIE, "Canadian shipbuilding," p. 52.

37 For further details, see de Silva, "An economic analysis."

38 See DRIE, "Canadian shipbuilding," p. 54. The figure in the text refers to direct subsidies, mainly from SIAP.

39 According to these studies, the calculated benefits were equal to about 11 per cent of vessel construction costs, whereas the subsidies ranged between 30 to 50 per cent of those costs; see Lumley, *Canada's Shipbuilding Industry: Performance*, p. 49.

40 Lumley, *Canada's Shipbuilding Industry: Performance*, p. 49.

41 The account of the experience of other countries is based on Michael J. Trebilcock and Marsha Chandler, "Adjusting to trade: A comparative perspective," a background paper prepared for the Economic Council of Canada, December 1987, Chapter III, and on DRIE, "Canadian shipbuilding," pp. 31-34.

42 See de Silva, "An economic analysis."

43 Canada Employment and Immigration Commission, "The adjustment experience of workers separated from the shipbuilding industry," Ottawa, 1987.

44 DRIE, "Canadian shipbuilding," p. 34.

45 This section is based on Jaleel Ahmad, "Trade-related sector-specific industrial adjustment policies in Canada: An analysis of textile, clothing and footwear industries," Economic Council of Canada, Discussion Paper 345, March 1988, and on Price Waterhouse, "Canadian Industrial Renewal Board: An evaluation study of the Sector Firms Program and the Business and Industrial Development Program – Final report," Ottawa, 1986.

46 Government of Canada, "Government policy for the textile and clothing sectors," news release, Ottawa/Montréal, 19 June 1981, p. 1. The footwear industry was not included in the initial announcement of CIRP. For details on the addition of footwear, see Government of Canada, "Government announces footwear and tanning policy," news release, Ottawa, 24 November 1981. When this announcement was made, footwear quotas were expected to continue for another three years; for details, see Chapter 5 of this report.

47 Canada, "Government policy," p. 4. A similar statement appears in CIRB's Third Annual Report: "It was hoped . . . that

reliance on special measures of border protection could be reduced and eventually eliminated" (p. 9). In its evaluation of CIRB, Price Waterhouse also stated: "It was hoped that after a period of five years these industries would be sufficiently renewed and restructured to allow a reduction and eventual elimination of special measures of trade protection"; see Price Waterhouse, "Canadian Industrial Renewal Board," p. 3.

48 Economic Council of Canada, *For a Common Future: A Study of Canada's Relations with Developing Countries* (Ottawa: Supply and Services Canada, 1978), pp. 52-64.

49 Canada, "Government policy," p. 2.

50 Canadian Industrial Renewal Board, *Fourth, and Final, Annual Report* (Montréal, 1986), p. 4. Similar language was used in CIRB, *Second Annual Report* (Montréal, 1984), p. 3.

51 Price Waterhouse, "Canadian Industrial Renewal Board," p. 9.

52 Price Waterhouse ("Canadian Industrial Renewal Board") noted (p. 25) that

> those opposed to the criterion [of selecting strong firms] had two major concerns:
>
> Strong firms would do it anyways — The primary concern was that the government was assisting firms who would have made the same expenditures on their own. If similar projects would have taken place in roughly the same time frame the implication is that taxpayers' dollars have been wasted. To address this concern the program must demonstrate that it had an impact on the level, nature and/or scope of a firm's expenditures. . . .
>
> Strength is hard to assess — Some interviewees thought that promising young firms might be rejected because they appear financially weak. On the other hand, financially strong firms with serious weaknesses in areas hard to assess such as management and marketing are accepted. The result is that the government distorts the free market by directly or indirectly hurting the strong and/or promising firms.

53 CIRB, *Third Annual Report*, p. 6. On the selection of the special areas, see CIRB, *Second Annual Report*, pp. 2-3.

54 Price Waterhouse, "Canadian Industrial Renewal Board," p. 29. It would appear, however, that the BIDP was not limited to manufacturing, according to program officials. It was also able to assist, and did assist, firms in the service industries.

55 See, for example, R. S. Woodward, "The effectiveness of DREE's new location subsidies," *Canadian Public Policy* (Spring 1975):217-30; and Dan Usher, "Some questions about the Regional Development Incentives Act," *Canadian Public Policy* (Autumn 1975):557-75.

56 Price Waterhouse, "Canadian Industrial Renewal Board," p. 9.

57 This was also noted by the Task Force on Program Review in *Economic Growth* (p. 141): "CIRB recognizes that its policy of selecting and backing strong companies will lead to the demise of weaker companies. This is seen as necessary to rationale [sic] TCF industries but in turn has led to complaints by companies forced out of business." According to one official of CIRB, it is surprising that there was as much incrementality as the Price Waterhouse study found, given the emphasis on supporting strong firms rather than incrementality itself.

58 Norman Moyer, "Beyond CIRB: The CIRB program and current and proposed adjustment programs," in *Canadian Adjustment Policy: Beyond the Canadian Industrial Renewal Board*, ed. Douglas Williams (Ottawa: North-South Institute, 1987), p. 22.

59 As a result, much less than 100 per cent of firms in the targeted industry received funding; textile firms receiving CIRP assistance accounted for 65 per cent of industry sales; in the clothing industry, the figure was 40 per cent. See Douglas Williams, "Assessing the Canadian Industrial Renewal Board: Issues for Discussion," in *Canadian Adjustment Policy*, p. 5.

60 Government of Canada, "Backgrounder" to the "New textile and clothing import policy," news release 137, Ottawa, 30 July 1986, p. 2.

Chapter 7

1 For a discussion and description of these programs, see the annual reports of the Canada Employment and Immigration Commission and the Department of Employment and Immigration; see also Task Force on Program Review, *Job Creation, Training and Employment Services* (Ottawa: Supply and Services Canada, 1985). The total expenditure on these three types of programs is measured in billions of dollars, while that expended on the sector-specific labour programs for trade-sensitive industries is measured in tens of millions of dollars.

2 Thus one can think of Canada's labour adjustment policies as a two-tier approach: general or universal policies; and sector-specific, trade-related adjustment programs. For a further discussion of this distinction, see Employment and Immigration Canada and U.S. Department of Labor, "The effectiveness of trade-related worker adjustment policies in Canada and the United States," a paper prepared for the OECD, 1984.

3 We do not consider here the Transitional Adjustment Benefits program for autos, which was in effect during the period 1965-76, although it became redundant in 1972 (see Figure 7-1 for details). The TAB program was little used because the automobile industry enjoyed good times in the late 1960s and early 1970s. Altogether, only 3,100 workers took advantage of its provisions. For details, see Michael J. Trebilcock, *The*

Political Economy of Economic Adjustment (Toronto: University of Toronto Press, 1986), pp. 70-72.

4 For further discussion of the rationale for intervention with respect to labour, see Charles Pearson and Gerry Salembier, *Trade, Employment and Adjustment* (Montréal: Institute for Research on Public Policy, 1983), pp. 13-18; Graham Glenday, Glenn P. Jenkins, and John C. Evans, *Worker Adjustment Policies: An Alternative to Protectionism* (Ottawa: North-South Institute, 1982); and Michael J. Trebilcock and Marsha Chandler, "Adjusting to trade: A comparative perspective," a background paper prepared for the Economic Council of Canada, December 1987, Chapter IV.

5 The *Labour Adjustment Benefits Act* is expected to be superseded by the Program for Older Worker Adjustment; see Figure 7-1 for details. The act certified both the layoff- and the worker-certification procedures.

6 The Honourable Jean-Luc Pépin, "Statement to the House of Commons on the Textile Policy," Ottawa, 14 May 1970, p. 10.

7 Note that if a worker is certified to receive benefits under the *Labour Adjustment Benefits Act*, the benefits continue to flow even if the designation ceases. Full details of the designation time periods may be found in Labour Canada, "Designations under the LAB Act" (Ottawa: Labour Canada, 1986).

8 Details of this program may be found in Employment and Immigration Canada, *The Industry and Labour Adjustment Program (ILAP)* (Ottawa: Supply and Services Canada, 1982).

9 ILAP designations were often made on the basis of information submitted by local CEIC offices. Although no formal criteria for ILAP were published concerning industry/community designations, MILAP – the successor to ILAP – apparently had a set of criteria for industry/community designation, as outlined in Task Force on Program Review, *Job Creation*, p. 148:

> a. the net loss of permanent jobs in small communities must be 100 or more and represent at least 50 per cent of the total labour force of the area or, in larger communities, must number at least 500 representing no less than 10 per cent of the total labour force;
>
> b. the community area(s) must be in a region with an unemployment rate averaging at least five per cent above the national unemployment rate over the last twelve-month period;
>
> c. the community area(s) must be distant from more buoyant labour markets;
>
> d. the community dislocation must be of a long-term character with little potential for economic recovery in the foreseeable future; and
>
> e. unless there has been significant employment deterioration since the original ILAP designation expired, former ILAP communities will not be redesignated under MILAP.

10 According to some commentators, the latter criterion was an important precedent, because it establishes the fact that protection and adjustment assistance are often alternative solutions to the same problem; see Caroline Pestieau, *The Canadian Textile Policy: A Sectoral Trade Adjustment Strategy?* (Montréal: C. D. Howe Research Institute, 1976), p. 38.

11 For example, in introducing the government's textile policy in 1970, the Minister of Industry, Trade and Commerce stated that "*textiles and clothing have been major exceptions to the postwar pattern of significant tariff reduction and trade liberalization under GATT*" [emphasis in the original], see Pépin, "Statement . . . on the textile policy," pp. 5-6; see also, Appendix Tables A-1 and A-2 in this report.

12 Another change permitted an applicant who was employed in more than one nationally designated industry to sum his/her years of employment in all of the designated industries. This had only a small impact on program utilization. See Labour Canada, "Labour adjustment benefits policy review," Ottawa, 1985, pp. 23-24. Also, the *Labour Adjustment Benefits Act* contained a provision to the effect that each person receiving benefits should have his/her eligibility reviewed every six months.

13 See Labour Canada, "Policy review."

14 See, for example, James A. Dorn, "Trade adjustment assistance: A case of government failure," *Cato Journal*, no. 3 (Winter 1982):865-905.

15 Robertson Nickerson Limited, "Evaluation of Industry Labour Adjustment Program: CEIC measures overview report," Canada Employment and Immigration Commission, Ottawa, 1984.

16 Among the eligible workers who used an ILAP program, approximately one in 10 had exhausted his/her UI benefits – a rate that was nearly four times as great as among non-users; see Robertson Nickerson, "Evaluation of ILAP," p. 40.

17 Robertson Nickerson, "Evaluation of ILAP," p. 36. This raises the question whether assistance should be given to the firm rather than to the worker. Most discussions of the use of firm subsidies as a method of sustaining employment conclude that they are of limited usefulness: see, for example, Glenday, Jenkins, and Evans, *Worker Adjustment Policies*; and Task Force on Labour Market Development, *Labour Market Development in the 1980s*, a report prepared for Employment and Immigration Canada (Ottawa: Supply and Services Canada, 1981), p. 196.

18 Task Force on Program Review, *Job Creation*, p. 155. Note that the expenditures on labour programs reported here are

not those in this source, but rather the final expenditure figures as supplied by CEIC.

19 The discussion in this paragraph is based upon: Canada Employment and Immigration Commission, "A preliminary assessment of the role of federal labour market adjustment measures under the Canadian Industrial Renewal Program," Program Evaluation Branch, Strategic Policy and Planning, Ottawa, November 1984; Employment and Immigration Canada, "Canadian Industrial Renewal Program labour adjustment measures, Annual Report 1984-1985," Labour Market Planning and Adjustment Branch, Labour Adjustment Programming, Ottawa, September 1985; and Douglas Williams, *Canadian Adjustment Policy: Beyond the Canadian Industrial Renewal Board* (Ottawa: North-South Institute, 1987). In discussing this aspect of CIRP, Williams writes (p. 11):

> It has been suggested that the programs may not have been widely known to workers and that more [workers] would have taken advantage of them had they been more widely advertised or in place for a longer period of time. A more basic question is whether the additional assistance provided was sufficient to overcome factors that obstruct labour adjustment in these sectors more generally. Workers in smaller communities may lack access to appropriate training programs, or be forced to travel long distances to participate. Many may lack the necessary educational prerequisites or language skills to take part in training. Women comprise over half of the labour force in these industries and may face particular obstacles to participation in labour adjustment programs. Perhaps training and mobility programs are only effective at the margin, primarily for younger workers.

20 For example, the frequent certification of workers employed by a small number of firms raises the question whether their layoff behaviour was affected by the program.

21 The experience of other countries is described fully in Trebilcock and Chandler, "Adjusting to trade," Chapter IV.

22 For details, see Pradeep Kumar with Mary Lou Coates and David Arrowsmith, *The Current Industrial Relations Scene in Canada, 1986* (Kingston, Ontario: Industrial Relations Centre, Queen's University, 1986), p. 261; Economic Council of Canada, *One in Three: Pensions for Canadians to 2030* (Ottawa: Supply and Services Canada, 1979); and Morley Gunderson, "Alternative mechanisms for dealing with permanent layoffs, dismissals and plant closings," in *Adapting to Change: Labour Market Adjustment in Canada*, ed. W. Craig Riddell (Toronto: University of Toronto Press, 1986).

Chapter 8

1 The principle embodied in Recommendation 2 has gained much acceptance in the recent past. See, for example, Donald G. McFetridge, "The economics of industrial policy: An overview," in *Canadian Industrial Policy in Action*, ed. D. G. McFetridge (Toronto: University of Toronto Press, 1985), pp. 1-47; J. David Richardson, "Factor market adjustment policies in response to shocks," in *Domestic Policies and the International Economic Environment*, ed. John Whalley (Toronto: University of Toronto Press, 1985), pp. 171-81; Gary Clyde Hufbauer and Howard F. Rosen, *Trade Policy for Troubled Industries* (Washington, D.C.: Institute for International Economics, 1986), pp. 71-73; Royal Commission on the Economic Union and Development Prospects for Canada (Macdonald Commission), *Report* (Ottawa: Supply and Services Canada, 1985), vol. 2, p. 386; and Michael J. Trebilcock, *The Political Economy of Economic Adjustment* (Toronto: University of Toronto Press, 1986), pp. 338-40. However, while there is much agreement on the general principle, there is some disagreement as to the nature of appropriate labour adjustment policies.

2 Economic Council of Canada, *Responsible Regulation: An Interim Report* (Ottawa: Supply and Services Canada, 1979).

3 For further discussion of this issue, see C. Fred Bergsten, Kimberley Ann Elliott, Jeffrey J. Schott, and Wendy E. Takacs, *Auction Quotas and United States Trade Policy* (Washington, D.C.: Institute for International Economics, 1987); Bruce Stokes, "Selling quotas," *National Journal*, no. 7 (14 February 1987):370-73; C. Fred Bergsten, "Reform trade policy with auction quotas," *Challenge* 30, no. 2 (May/June 1987):4-10; M. Pickford, "A new test for manufacturing industry efficiency: An analysis of the results of import licence tendering in New Zealand," *International Journal of Industrial Organization* 3, no. 2 (June 1985):153-77; and Deloitte Haskins & Sells Associates, "Allocation of global import quotas to importers: Assessment of the current system and alternatives," a paper submitted to the Department of External Affairs, Ottawa, 1986.

4 This use of tariffs instead of global or bilateral quotas in granting relief pursuant to Article XIX has been strongly argued by Robert Z. Lawrence and Robert E. Litan, *Saving Free Trade: A Pragmatic Approach* (Washington, D.C.: The Brookings Institution, 1986), pp. 97-101.

5 Deloitte Haskins & Sells Associates, "Allocation of global import quotas," p. 36.

6 William R. Cline, *The Future of World Trade in Textiles and Apparel* (Washington, D.C.: Institute for International Economics, 1987), p. 23. However, Cline prefers a tariff rate quota (pp. 21-22). See also Gary Sampson and Wendy Takacs, "Returning textile trade to the normal workings of GATT: A practical proposal for reform," Institute for International Economic Studies, Seminar Paper 404, Stockholm, January 1988.

7 The idea of greater transparency has gained much currency. See, for example, Fritz Leutwiler *et al.*, *Trade Policies for a Better Future: Proposals for Action* (Geneva: GATT, 1985); Michael J. Trebilcock and Marsha Chandler, "Adjusting to trade: A comparative perspective," a background paper

prepared for the Economic Council of Canada, December 1987, Chapter VI; Olivier Long *et al., Public Scrutiny of Protection*, Special report no. 7 (London: Trade Policy Research Centre, 1988); Gary Banks and Jan Tumlir, *Economic Policy and the Adjustment Problem*, Thames Essay 45 (London: Trade Policy Research Centre, 1986); and I. M. Destler and John S. Odell, assisted by Kimberly Ann Elliott, *Anti-Protection: Changing Forces in United States Trade Politics* (Washington, D.C.: Institute for International Economics, 1987).

8 Bimal K. Lodh and Sunder Magun, "Non-tariff barriers in bilateral trade between Canada and the United States: Approaches to measurement and a quantitative update of the 1980s," paper presented to the Annual Meeting of the Canadian Economics Association, Hamilton, Ontario, 7 June 1987; and Andrew R. Moroz and Stephen L. Brown, "Grant support and trade protection for Canadian industries," a report prepared for the Department of Finance, the Department of External Affairs, and the Department of Regional Industrial Expansion, Institute for Research on Public Policy, Ottawa, 1987.

9 Economic Council of Canada, *Looking Outward: A New Trade Strategy for Canada* (Ottawa: Information Canada, 1975), pp. 178-79.

10 Commission of Inquiry on Unemployment Insurance, *Report* (Ottawa: Supply and Services Canada, 1986). See also the sweeping proposals of the Macdonald Commission in its *Report*, vol. 2, pp. 814-16.

11 Standing Senate Committee on Social Affairs, Science and Technology, Sub-Committee on Training and Employment, *In Training, Only Work Works* (Ottawa: Supply and Services Canada, 1987). See also House of Commons, Standing Committee on Labour, Employment and Immigration, *A Review of the Canadian Jobs Strategy*, Second Report, Ottawa, April 1988 and Ontario Ministry of Skills Development, "The Canadian Jobs Strategy: Policy and implementation," a discussion paper, Toronto, 1987.

12 Economic Council of Canada, *Making Technology Work* (Ottawa: Supply and Services Canada, 1987), p. 31; Macdonald Commission, *Report*, vol. 2, pp. 757-60; and Trebilcock, *The Political Economy of Economic Adjustment*.

13 Canada, Department of Finance, *Securing Economic Renewal: Budget Papers* (Ottawa, 1986), pp. 24-25.

14 This example raises the issue of an appropriate policy towards immigrants (see the discussion in Chapter 5) and women. These matters are discussed in, respectively, Task Force on Labour Development, *Labour Market Development in the 1980s*, a report prepared for Employment and Immigration Canada (Ottawa: Supply and Services Canada, 1981), pp. 179-90, and ECC, *Making Technology Work*, pp. 24-27. Shirley B. Seward and Kathryn McDade, "Immigrant women in Canada: A policy perspective," a background paper, Canadian Advisory Council on the Status of Women, Ottawa, 1988, address the issue of appropriate public policy toward immigrant women.

15 Task Force on Program Review, *Job Creation, Training and Employment Services* (Ottawa: Supply and Services Canada, 1985), p. 142.

16 Task Force on Economic Adjustment and Worker Dislocation, *Economic Adjustment and Worker Dislocation in a Competitive Society*, a report of the Secretary of Labor (Washington, D.C.: Department of Labor, 1986), p. 30, and p. 12 of the Task Force's Report of the Subcommittee on the Foreign Experience, reproduced in *Economic Adjustment*; Abt Associates of Canada, "Evaluation study of the Industrial Adjustment Service (IAS) program," prepared for the Program Evaluation Branch, Employment and Immigration Canada, Ottawa, 1984; and Jonathan Peirce, "The Industrial Adjustment Service: An historical and quantitative overview," a background study for the Economic Council of Canada (in preparation).

17 Based on discussion with CEIC officials and on Organisation for Economic Co-operation and Development, Manpower and Social Affairs Committee, "Measures to assist workers displaced by structural change," Paris, 1986. The OECD paper states (p. 13): "Since workers discharged because of structural adjustment are likely to have higher seniority than average job leavers, they are probably less experienced in job seeking. This indicates that there may be a need for intensified counselling, guidance and instruction in job seeking activities."

18 This should not be interpreted to mean that other mechanisms might not also usefully supplement the IAS. In particular, programs such as that initiated in the Canadian Steel Trade Conference Inc. seem to hold out much promise. (The Steel Conference is, according to its "Mission/Philosophy Statement," "comprised equally of union and company representatives, is committed to address joint concerns and search for solutions which will ensure a strong and healthy steel industry in Canada.") In this case, under the National Labour Market Innovations Program, which is part of the Canadian Jobs Strategy, funds have been allocated to the Steel Conference to design better adjustment programs for displaced workers. The Steel Conference also undertook studies of the adjustment process for workers who are laid off in the industry, as seen in Chapter 3.

Appendix A

1 Details of other data sources may be found in the references supplied in the tables. One exception is Table A-2. Here, the reader is referred to J. Baldwin and P. Gorecki, *The Role of Scale in Canada-U.S. Productivity Differences in the Manufacturing Sector, 1970-1979* (Toronto: University of Toronto Press, 1986), p. 178.

2 The data are not available from the International Trade Division for earlier years. Extensive and expensive recording would be required. There is another source of imports and exports that is published by the federal Department of Regional Industrial Expansion. This data source uses the commodity import and export data published by Statistics Canada. While it has an advantage over the data from International Trade Division in that it starts in 1966, not 1971, it also has the disadvantage of providing no tariff data; see Department of Regional Industrial Expansion, *Manufacturing Trade and Measures, 1966-1984* (Ottawa: DRIE, 1985).

3 An industry is defined in terms of a set of principal products or commodities.

4 The finer import classification is probably a reflection of two factors: the detailed import data required for assessing duty; and some noncompeting imports that require separate classification categories.

5 The International Trade Division provided, separately, a matching or concordance of the commodity codes, together with a very brief description of imports (MCC) and exports (XCC), with the SIC. The MCC and XCC were at the five-digit level of classification; the SIC, at the four-digit level. The concordance referred to all traded goods, not just manufacturing. The total length of the MCC/SIC concordance was 58 pages; the XCC/SIC concordance, 27 pages.

6 At the beginning of the period, some commodity groupings were very small, and these were included with another industry. Part of the reason may have been problems of confidentiality.

7 On the import side: 1830 (1831, 1832); 1891 (1871, 1891); 1899 (1880, 1899); 2390 (2391, 2392); 2510 (2511, 2513); 2593 (2520, 2593); 2730 (2731, 2732); and 3540 (3541, 3542, 3549). On the export side: 1830 (1831, 1832); 1899 (1872, 1880, 1891, 1893, 1899); 2390 (2391, 2392); 2599 (2599, 2593); 3399 (3330, 3399, 2680); 2731 (2731, 2732); 3090 (3020, 3090); 3240 (3241, 3242, 3243); 3510 (3511, 3512); 3540 (3541, 3542, 3549); 3790 (3799, 3791); 3999 (3999, 2580); and 2950 (2950, 2960). The SICs in brackets are those which are combined; in Baldwin and Gorecki, *The Role of Scale in Canada-U.S. Productivity Differences*, Table A-2, pp. 210-15, the authors provide definitions of each industry. It should be noted that while SIC 2950 and 2960 were listed separately, there was some misclassification of a commodity between the two industries, necessitating the combining of the two industries. This was verified in a discussion with officials in the International Trade Division of Statistics Canada.

8 In 13 instances, two or more four-digit SICs had to be combined; see note 7 for details.

9 In eight instances, two or more four-digit SICs had to be combined; see note 7 for details.

10 Defined as total duties collected divided by the total value of *all* imports, excluding duties; defined as total duties collected divided by the total value of *dutiable* imports, excluding duties; and the percentage of all imports (excluding duties) that entered Canada duty-free.

11 SICs 2432, 2442, 2591, 2611, 3080, 3550, and 1894. Both imports and exports were set at zero.

12 SIC 1510. It would be possible to get the data for this industry by rerunning the original tapes; however, the gain seemed marginal, the cost nonmarginal.

13 Hence it would appear that preferential access to Canada's markets under the "general preferential tariff" is of little importance concerning imports from the NICs; see Organisation for Economic Co-operation and Development, *The Impact of the Newly Industrialising Countries on Production and Trade in Manufactures* (Paris: OECD, 1979), pp. 36-38, for further details.

Appendix D

1 National Academy of Engineering and National Research Council, *Competitive Status of the U.S. Auto Industry* (Washington, D.C.: National Academy Press, 1982), p. 94; and John F. Krafcik, "Comparative analysis of performance indicators at world auto assembly plants," unpublished M.Sc. thesis, Sloan School of Management, Massachusetts Institute of Technology, Boston, Mass., 15 January 1988, pp. 46-55.

2 These include Krafcik, "Comparative analysis"; and Lieberman discussed in note 7 below.

3 Krafcik, "Comparative analysis," p. 13.

4 The measure does not take into account differences in capital intensity, nor did Krafcik provide data to enable them to be taken into account.

5 Krafcik, "Comparative analysis," pp. 89-90; and James B. Treece, Mark Maremont, and Larry Armstrong, "Will the auto glut choke Detroit?", *Business Week*, 7 March 1988, p. 56.

6 The Krafcik study, on which the discussion of productivity in the text is based, did not extend back to earlier years. Because of the sample selected and the methodology used, it is difficult to compare Krafcik's study with earlier plant-level studies; however, those earlier studies showed the Japanese with a larger advantage than suggested by the data in Table D-1 for 1987. The latter were discussed in Krafcik, "Comparative analysis," pp. 46-50.

7 Marvin B. Lieberman, "Learning, productivity and U.S.-Japan industrial competitiveness," in ed. Kasra Ferdows, *Managing International Manufacturing* (Amsterdam:

North-Holland, forthcoming). Lieberman compares the labour productivity of three U.S. automobile manufacturers – GM, Ford, and Chrysler – and three Japanese automobile manufacturers – Toyota, Nissan, and Mazda – over the period 1950-85 (1965-85 for Mazda), with the only adjustment being for vertical integration. The results show, for 1980 to 1985, that the number of vehicles per employee increased for GM, Ford, and Chrysler by 26, 49, and 19 per cent, respectively. The corresponding percentages for Toyota, Nissan, and Mazda were 3, –15, and 23 per cent. Lieberman comments on the source of these numbers as follows: "All data are from company annual reports. The data cover the consolidated domestic operations of each firm, except in the case of Ford and Chrysler which exclude operations of non-consolidated subsidiaries within each company's supplier group. Non-automotive operations account for less than ten percent of total sales for all six firms" [Appendix A].

8 Krafcik, "Comparative analysis," pp. 72-77.

9 Krafcik, "Comparative analysis," p. 92; and Treece, Maremont, and Armstrong, "The auto glut," p. 56.

10 NAE/NRC, *Competitive Status*, p. 189.

11 Krafcik, in "Comparative analysis," finds that a Management Index is a variable that helps to explain the variation in not only productivity but also the quality of automobile-assembly operations. One of the components of the index is absenteeism.

12 The codes are taken from the Labour Force Survey Questionnaire (Form 05), item 17. For details, see Statistics Canada, *Labour Force Survey*, No. 71-001 (monthly).

13 Their calculation is based on B. W. Klein, "Missed work and lost hours, May 1985," *Monthly Labour Review* (November 1986):26-30.

14 NAE/NRC, *Competitive Status*, pp. 189-91.

15 Wilfrid List, "GM raises union hackles with bid to cut absenteeism," in *The Globe and Mail*, Toronto, 2 April 1988, pp. B1 and B4. (This article says [p. B1] that GM's absenteeism in Canada in 1986 was equivalent to "10.9 per cent of total working time among the 38,000 union members at GM, up from 9.9 per cent the previous year"); and "GM hopes deal will bring a drop in absenteeism," *The Globe and Mail*, Toronto, 28 January 1988, p. B16. For an example of how absenteeism was reduced by 50 per cent in GMs Delco Remy division, see David A. Dilts and Clarence R. Deitsch, "Absentee workers back on the job: The case of GM," *Business Horizons* (March-April 1986).

16 It should be pointed out, of course, that the members of the United Automobile Workers took reductions in wages in 1981 and 1982, with respect to Chrysler and then GM and Ford. For details, see U.S. Congressional Budget Office, *Has Trade Protection Revitalized Domestic Industries?* (Washington, D.C.: Government Printing Office, 1986), p. 86; and Jacob M. Schlesinger, "UAW girds for debate on 'cooperation'," *The Wall Street Journal*, 10 April 1987.

17 See, for example, Walter Adams and James W. Brock, *The Bigness Complex* (New York: Pantheon Books, 1986), pp. 323-24; Lawrence J. White, "The automobile industry," in ed. Walter Adams, *The Structure of American Industry*, sixth edition (New York: Macmillan, 1982), pp. 136-90; and Winegard Committee, *Third Report*, Issue No. 27 (Ottawa, 1987), p. 27:21. The evidence available suggests that automobile assembly workers are largely unskilled (Automotive Industry Human Resources Task Force, *Report* (Ottawa: Supply and Services Canada, 1986), pp. 119-26). This, in turn, accords with descriptions of the evolution of production systems in the automobile industry (Krafcik, "Comparative analysis," pp. 16-21). To the extent that Japanese production methods are followed, however, skill levels will increase.

18 Krafcik, "Comparative analysis," pp. 89-90.

19 On auto parts, see Department of Regional Industrial Expansion, *Report on the Canadian Automotive Industry in 1985* (Ottawa: DRIE, 1987), pp. 30-32; and on autos, see Chapter 5 of this report.

20 U.S. International Trade Commission, *A Review of Recent Developments in the U.S. Automobile Industry, Including an Assessment of the Japanese Voluntary Restraint Agreements*, Publication 1648 (Washington, D.C.: USITC, 1985), p. 14.

21 USITC, *Recent Developments in the U.S. Automobile Industry*, pp. 14-15.

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28 Similar results obtained in the United States. See Treece *et al.*, "Auto glut," p. 61.

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