



*Domestic Policies and the International
Economic Environment*



LIBR-00204

This is Volume 12 in the series of studies commissioned as part of the research program of the Royal Commission on the Economic Union and Development Prospects for Canada.

The studies contained in this volume reflect the views of their authors and do not imply endorsement by the Chairman or Commissioners.

JOHN WHALLEY, Research Coordinator

Domestic Policies and the International Economic Environment





Domestic Policies in the International Economic Environment

JOHN WHALLEY
Research Coordinator

with

RODERICK HILL

*Published by the University of Toronto Press in cooperation with
the Royal Commission on the Economic Union and Development
Prospects for Canada and the Canadian Government Publishing
Centre, Supply and Services Canada*

University of Toronto Press
Toronto Buffalo London

Grateful acknowledgment is made to the following for permission to reprint previously published and unpublished material: British North American Committee; Chief Statistician of Canada; Economic Council of Canada; *Financial Post*; James Lorimer & Company Limited, Publishers; Minister of Supply and Services Canada.

© Minister of Supply and Services Canada 1985

Printed in Canada
ISBN 0-8020-7254-2
ISSN 0829-2396
Cat. No. Z1-1983/1-41-12E

CANADIAN CATALOGUING IN PUBLICATION DATA

Main entry under title:
Domestic policies and the international economic environment

(*The Collected research studies / Royal Commission on the Economic Union and Development Prospects for Canada*,
ISSN 0829-2396 ; 12)
Includes bibliographical references.
ISBN 0-8020-7254-2

1. Canada — Foreign economic relations — Addresses, essays, lectures. 2. Canada — Commercial policy — Addresses, essays, lectures. 3. Foreign exchange — Addresses, essays, lectures. I. Whalley, John. II. Hill, Roderick. III. Royal Commission on the Economic Union and Development Prospects for Canada. IV. Series: The Collected research studies (Royal Commission on the Economic Union and Development Prospects for Canada) ; 12.

HF1479.D65 1985 382'.3'0971 C85-099108-0

PUBLISHING COORDINATION: Ampersand Communications Services Inc.
COVER DESIGN: Will Rueter
INTERIOR DESIGN: Brant Cowie/Artplus Limited

CONTENTS



FOREWORD *vii*

INTRODUCTION *ix*

ACKNOWLEDGMENTS *xiii*

1. **Domestic Policies and the International Economic Environment:
An Introduction**
Roderick Hill and John Whalley 1
2. **Government Control of Foreign Business Investment**
A.E. Safarian 7
3. **Immigration Policy and Canadian Economic Growth**
W.L. Marr and M.B. Percy 57
4. **Export Insurance and Financing in Canada**
André Raynauld 111
5. **Domestic Adjustment to Trade Policy Changes and External Shocks:
Summary of the Proceedings of a Research Symposium**
Roderick Hill 151
6. **Factor Market Adjustment Policies in Response to Shocks**
J. David Richardson 171
7. **Trade-Related Worker Adjustment Policies: The Canadian Experience**
Matthew Robertson and Alex Grey 183
8. **The Political Economy of Business Bailouts in Canada**
Michael J. Trebilcock 199
9. **Canada's Industrial Adjustment: Federal Government Policies and
Programs**
Department of Regional Industrial Expansion 215

10. **Exchange Rates, Financial Markets and Trade Liberalization:
Summary of the Proceedings of a Research Symposium**
Roderick Hill 243
11. **Exchange Rate Misalignments, Trade and Canadian Policy**
John Williamson 261
12. **Some Links Between Exchange Rates and Trade Policy**
J. David Richardson 269
13. **Some Exchange Rate Policy Considerations When Trade Is
Liberalized**
David Longworth 281

ABOUT THE CONTRIBUTORS 288



When the members of the Rowell-Sirois Commission began their collective task in 1937, very little was known about the evolution of the Canadian economy. What was known, moreover, had not been extensively analyzed by the slender cadre of social scientists of the day.

When we set out upon our task nearly 50 years later, we enjoyed a substantial advantage over our predecessors; we had a wealth of information. We inherited the work of scholars at universities across Canada and we had the benefit of the work of experts from private research institutes and publicly sponsored organizations such as the Ontario Economic Council and the Economic Council of Canada. Although there were still important gaps, our problem was not a shortage of information; it was to interrelate and integrate — to synthesize — the results of much of the information we already had.

The mandate of this Commission is unusually broad. It encompasses many of the fundamental policy issues expected to confront the people of Canada and their governments for the next several decades. The nature of the mandate also identified, in advance, the subject matter for much of the research and suggested the scope of enquiry and the need for vigorous efforts to interrelate and integrate the research disciplines. The resulting research program, therefore, is particularly noteworthy in three respects: along with original research studies, it includes survey papers which synthesize work already done in specialized fields; it avoids duplication of work which, in the judgment of the Canadian research community, has already been well done; and, considered as a whole, it is the most thorough examination of the Canadian economic, political and legal systems ever undertaken by an independent agency.

The Commission's Research Program was carried out under the joint direction of three prominent and highly respected Canadian scholars: Dr. Ivan Bernier (*Law and Constitutional Issues*), Dr. Alan Cairns (*Politics and Institutions of Government*) and Dr. David C. Smith (*Economics*).

Dr. Ivan Bernier is Dean of the Faculty of Law at Laval University. Dr. Alan Cairns is former Head of the Department of Political Science at the University of British Columbia and, prior to joining the Commission, was William Lyon Mackenzie King Visiting Professor of Canadian Studies at Harvard University. Dr. David C. Smith, former Head of the Department of Economics at Queen's University in Kingston, is now Principal of that University. When Dr. Smith assumed his new responsibilities at Queen's in September, 1984, he was succeeded by Dr. Kenneth Norrie of the University of Alberta and John Sargent of the federal Department of Finance, who together acted as co-directors of Research for the concluding phase of the Economics research program.

I am confident that the efforts of the Research Directors, research coordinators and authors whose work appears in this and other volumes, have provided the community of Canadian scholars and policy makers with a series of publications that will continue to be of value for many years to come. And I hope that the value of the research program to Canadian scholarship will be enhanced by the fact that Commission research is being made available to interested readers in both English and French.

I extend my personal thanks, and that of my fellow Commissioners, to the Research Directors and those immediately associated with them in the Commission's research program. I also want to thank the members of the many research advisory groups whose counsel contributed so substantially to this undertaking.

DONALD S. MACDONALD



At its most general level, the Royal Commission's research program has examined how the Canadian political economy can better adapt to change. As a basis of enquiry, this question reflects our belief that the future will always take us partly by surprise. Our political, legal and economic institutions should therefore be flexible enough to accommodate surprises and yet solid enough to ensure that they help us meet our future goals. This theme of an adaptive political economy led us to explore the interdependencies between political, legal and economic systems and drew our research efforts in an interdisciplinary direction.

The sheer magnitude of the research output (over 280 separate studies in 72 volumes) as well as its disciplinary and ideological diversity have, however, made complete integration impossible and, we have concluded, undesirable. The research output as a whole brings varying perspectives and methodologies to the study of common problems and we therefore urge readers to look beyond their particular field of interest and to explore topics across disciplines.

The three research areas, *Law and Constitutional Issues*, under Ivan Bernier, *Politics and Institutions of Government* under Alan Cairns, and *Economics* under David C. Smith (co-directed with Kenneth Norrie and John Sargent for the concluding phase of the research program) — were further divided into 19 sections headed by research coordinators.

The area *Law and Constitutional Issues* has been organized into five major sections headed by the research coordinators identified below.

- Law, Society and the Economy — *Ivan Bernier and Andrée Lajoie*
- The International Legal Environment — *John J. Quinn*
- The Canadian Economic Union — *Mark Krasnick*
- Harmonization of Laws in Canada — *Ronald C.C. Cumming*
- Institutional and Constitutional Arrangements — *Clare F. Beckton and A. Wayne MacKay*

Since law in its numerous manifestations is the most fundamental means of implementing state policy, it was necessary to investigate how and when law could be mobilized most effectively to address the problems raised by the Commission's mandate. Adopting a broad perspective, researchers examined Canada's legal system from the standpoint of how law evolves as a result of social, economic and political changes and how, in turn, law brings about changes in our social, economic and political conduct.

Within *Politics and Institutions of Government*, research has been organized into seven major sections.

- Canada and the International Political Economy — *Denis Stairs and Gilbert Winham*
- State and Society in the Modern Era — *Keith Banting*
- Constitutionalism, Citizenship and Society — *Alan Cairns and Cynthia Williams*
- The Politics of Canadian Federalism — *Richard Simeon*
- Representative Institutions — *Peter Aucoin*
- The Politics of Economic Policy — *G. Bruce Doern*
- Industrial Policy — *André Blais*

This area examines a number of developments which have led Canadians to question their ability to govern themselves wisely and effectively. Many of these developments are not unique to Canada and a number of comparative studies canvass and assess how others have coped with similar problems. Within the context of the Canadian heritage of parliamentary government, federalism, a mixed economy, and a bilingual and multi-cultural society, the research also explores ways of rearranging the relationships of power and influence among institutions to restore and enhance the fundamental democratic principles of representativeness, responsiveness and accountability.

Economics research was organized into seven major sections.

- Macroeconomics — *John Sargent*
- Federalism and the Economic Union — *Kenneth Norrie*
- Industrial Structure — *Donald G. McFetridge*
- International Trade — *John Whalley*
- Income Distribution and Economic Security — *François Vaillancourt*
- Labour Markets and Labour Relations — *Craig Riddell*
- Economic Ideas and Social Issues — *David Laidler*

Economics research examines the allocation of Canada's human and other resources, how institutions and policies affect this allocation, and the distribution of the gains from their use. It also considers the nature of economic development, the forces that shape our regional and industrial structure, and our economic interdependence with other countries. The thrust of the research in economics is to increase our comprehension of what determines our economic potential and how instruments of economic policy may move us closer to our future goals.

One section from each of the three research areas — The Canadian Economic Union, The Politics of Canadian Federalism, and Federalism and the Economic Union — have been blended into one unified research effort. Consequently, the volumes on Federalism and the Economic Union as well as the volume on The North are the results of an interdisciplinary research effort.

We owe a special debt to the research coordinators. Not only did they organize, assemble and analyze the many research studies and combine their major findings in overviews, but they also made substantial contributions to the Final Report. We wish to thank them for their performance, often under heavy pressure.

Unfortunately, space does not permit us to thank all members of the Commission staff individually. However, we are particularly grateful to the Chairman, The Hon. Donald S. Macdonald, the Commission's Executive Director, Gerald Godsoe, and the Director of Policy, Alan Nymark, all of whom were closely involved with the Research Program and played key roles in the contribution of Research to the Final Report. We wish to express our appreciation to the Commission's Administrative Advisor, Harry Stewart, for his guidance and advice, and to the Director of Publishing, Ed Matheson, who managed the research publication process. A special thanks to Jamie Benidickson, Policy Coordinator and Special Assistant to the Chairman, who played a valuable liaison role between Research and the Chairman and Commissioners. We are also grateful to our office administrator, Donna Stebbing, and to our secretarial staff, Monique Carpentier, Barbara Cowtan, Tina DeLuca, Françoise Guilbault and Marilyn Sheldon.

Finally, a well deserved thank you to our closest assistants, Jacques J.M. Shore, *Law and Constitutional Issues*; Cynthia Williams and her successor Karen Jackson, *Politics and Institutions of Government*; and I. Lilla Connidis, *Economics*. We appreciate not only their individual contribution to each research area, but also their cooperative contribution to the research program and the Commission.

IVAN BERNIER
ALAN CAIRNS
DAVID C. SMITH

ACKNOWLEDGMENTS



Many people were involved in the trade policy research effort in the economics branch of the Commission's research program and we would like to acknowledge their help. The Commission's Research Advisory Group on Trade Policy (Economics) provided valuable assistance in selecting the topics to be covered and in commenting on papers and on the issues before the Commission. They also participated extensively in the research symposia held by the Commission on trade policy topics.

The following were the members of the group: Peter Cornell (Economic Council of Canada), John Curtis (Institute for Research on Public Policy), Richard G. Harris (Queen's University), Gerald K. Helleiner (University of Toronto), James Markusen (University of Western Ontario), Ronald McKinnon (Stanford University), A. Edward Safarian (University of Toronto), Ronald Shearer (University of British Columbia), Rodrigue Tremblay (University of Montreal), Bruce W. Wilkinson (University of Alberta) and Ronald Wonnacott (University of Western Ontario).

We are grateful for the assistance of the Commission's economic research staff, particularly Dr. I. Lilla Connidis, Barbara Cowtan, Tina DeLuca, Donna Stebbing and Marilyn Sheldon, and Donald Wilson of the Institute for Research on Public Policy. We also acknowledge the support and guidance of David Smith, John Sargent and Kenneth Norrie, co-directors of research in economics for the Commission. We are particularly grateful to Ruth Crow, the editor of the economics volumes on trade policy.

JOHN WHALLEY

Domestic Policies and the International Economic Environment: An Introduction

RODERICK HILL AND JOHN WHALLEY

This volume of research papers of the Research Advisory Group on Trade Policy (Economics) contains summaries of two research symposia held by the group, seven papers presented at the symposia, and three other studies commissioned separately.

The three non-symposium studies presented here examine the relationship of domestic policies to the external environment. They cover three policy areas: foreign business investment in Canada, studied by Edward Safarian; Canadian immigration policy, studied by William Marr and Michael Percy; and export insurance and finance, studied by André Raynauld. The three studies all reflect the need for policies to be designed to take account of the ways in which Canada's external environment influences the domestic economy. This may be taken as a central theme of this collection of studies.

Canadian Policies Toward Foreign Investment in Canada

The relatively high level of foreign direct investment by multinational enterprises (MNEs) in Canada has an important effect on the domestic economy. In his paper on government policies toward foreign investment, Edward Safarian notes that the level of foreign investment in Canada has been changing significantly over the last two decades. Both foreign control and foreign ownership of Canadian industry have declined and Canadian direct investments abroad as a percentage of direct investments by foreigners in Canada have risen from 25 percent in 1974 to 54 percent in 1983. Canada therefore has an interest in the activities of MNEs both as a home and as a host country.

Edward Safarian reviews both theoretical developments and empirical evidence concerning the benefits and costs of foreign direct investment to developed host countries such as Canada. He concludes that macroeconomic benefits are both possible and likely, especially through a gain in tax revenue. Microeconomic issues are also examined. The effects of MNEs on competition, productivity, exports, imports and the generation and diffusion of innovations are reviewed. Safarian suggests that many of the unfavourable conclusions often reached about the impacts of MNEs seem unwarranted.

Sovereignty issues such as extraterritoriality or the intervention of MNEs in domestic political activity are also discussed. Safarian finds that it is not possible to draw general conclusions; instead, these questions must be considered case by case.

While Safarian concludes that net benefits to Canada are likely to result from foreign investment, their size depends on the policies followed. He therefore examines the efficacy of policies directed toward MNEs by successive Canadian governments. Experience with the Foreign Investment Review Agency and the National Energy Program is summarized, and issues involving ownership policies and review mechanisms are analyzed.

Safarian argues that Canada's policy stance needs rethinking. In place of policies aimed specifically at foreign-owned firms, he believes more general policies aimed at improving the market and cost environment of all firms are more beneficial. Such an approach would be consistent with the results of studies showing that the poor performance of firms is due largely to underlying environmental factors. It would also be consistent with Canada's changing investment position.

Canadian Immigration Policy

Immigration policies have influenced the nature of modern Canadian society and the rate of economic growth in Canada. The paper by William Marr and Michael Percy reviews the effects of immigration policy on Canada's growth performance, and particularly on growth rates of income per capita of Canadian residents.

The general stance of Canadian immigration policy has been expansionary for most of the country's history. This has reflected the prevailing view over many decades that immigration has positive effects. In recent years, however, this view has changed, and immigration policy has become more restrictive.

Marr and Percy survey the literature on the question of whether immigration improves the well-being of Canadian residents, and they conclude that there are no simple answers. It has been claimed, for example, that economies of scale may be better exploited by having a larger population. But as Marr and Percy point out, these benefits may be more simply and effectively captured through increased trade liberalization. Marr and Percy

also examine the effects of immigration rates on labour force participation rates, educational expenditures, the age structure of the population, and other variables.

The authors conclude that any realistic change in the rate of immigration is likely to have a small impact on Canada. They note, for example, that the consequences of varying the rate of immigration on per capita incomes may not be particularly great. The authors point out that this conclusion does not imply that immigration policy is unimportant. Humanitarian and social considerations have been and will continue to be significant determinants of the stance of Canadian policy.

Canadian Programs for Export Insurance and Finance

The key role in the financing of Canadian trade is played by commercial banks. Ninety percent of this trade relies on short-term financing, an area dominated by commercial bank activity. Government agencies such as the Canadian Wheat Board and Crown corporations extend credit to purchasers of Canadian exports, especially those in developing countries. The Export Development Corporation (EDC), established in 1969 by the federal government to replace the earlier Export Credit Insurance Corporation, is also a notable participant in export finance.

The insurance and loan programs of the EDC are the focus of the paper by André Raynald. The insurance activities of the EDC are modest compared with those of other countries. This is attributed to the high level of trade with the United States as well as to the high level of intra-firm trade.

The EDC also provides subsidized credit to certain foreign purchasers. Raynald estimates this subsidy, on average, at about 5 percent of the value of loans, based on 1982 data. He then estimates the economic cost of these loans at between \$318 million and \$443 million, the actual value of the estimate depending on the assumptions used. The overall cost of EDC activity is estimated at \$500 million for 1982. Raynald examines the rationale for such export subsidies and finds them somewhat unconvincing. A number of suggestions are made for changes in the role played by the EDC.

Internal Policies and the External Environment

Adjustments take place in labour, capital and financial markets in response to a wide variety of shocks. These shocks may be of domestic or external origin and may originate from changes in policies or a variety of other causes. As the focus of the research program was on Canada's linkages to its external environment, attention was directed toward adjustment to

changes in both domestic and foreign trade policy and those from other external sources.

The first research symposium dealt with the adjustment of workers and firms to changes in trade policies and external shocks, and issues surrounding the design of adjustment policies. Four of the papers presented at that symposium are included in the present volume, along with a staff paper summarizing the proceedings. A symposium paper by John Baldwin and Paul Gorecki on the nature and causes of the industrial adjustment experienced by the Canadian manufacturing sector in the 1970s is included in *Canada - United States Free Trade*, Volume 11 of the Commission's research series.

A staff paper by Roderick Hill reviews the issues raised at the symposium. The various sources of pressures for structural adjustment are explained, and the experience with adjustment policies in both Canada and the United States is summarized. The rationale for and the design of adjustment policies toward both workers and firms are also outlined.

The trade adjustment assistance experience in the United States is assessed in a paper by David Richardson. He argues that the U.S. program is not as ineffective in facilitating adjustment as is often claimed. The arguments for directing adjustment policies toward workers or firms are evaluated. Richardson finds the case for providing adjustment assistance to workers more compelling.

Matthew Robertson and Alex Grey provide estimates of the impact of trade changes on employment in Canada. Their intent is to give some indication of the magnitude of the adjustments with which trade-related worker adjustment programs have to cope. They provide an overview of the programs that have been used in Canada and evaluate their effectiveness. As structural and cyclical factors are difficult to separate in layoff situations, experience in Canada seems to indicate that adjustment assistance programs have proved difficult to target.

Adjustment policies in Canada have also been directed toward firms. One aspect of this is intervention by governments to bail out failing firms. Michael Trebilcock investigates the circumstances under which government intervention to save a firm could be justified. He then analyzes the alternative bailout instruments among which governments must choose if a course of intervention is invoked. A number of suggestions are made concerning ways to reduce the numbers of firms becoming candidates for bailouts.

Finally, a paper by the Department of Regional Industrial Expansion (DRIE) reviews DRIE adjustment programs. These programs, directed primarily toward firms, come in universal, sector-specific, community and regional forms.

A second symposium focussed on the adjustment of foreign exchange and financial markets to various shocks, including both changes in fiscal policy and changes in trade policies. The implications of adjustments in

foreign exchange markets for trade flows and pressures for changes in trade policy were discussed. A symposium summary and three symposium papers are included in this volume. A paper by David Burgess on the response of foreign direct investment flows to a bilateral trade liberalization, which was presented at this symposium, appears in *Canada – United States Free Trade*.

The nature of exchange rate misalignments and their effects on trade flows are explored in a paper presented by John Williamson. The paper analyzes the options open to policy makers in dealing with misalignments. Williamson concludes that there is little that Canada can do on its own; instead, other countries would have to cooperate by changing their behaviour.

David Richardson's paper explains the ways that exchange rate movements can create increased pressures for protection as a result of their effects on employment, profits and resource allocation. While temporary protection may seem attractive, there is a danger that it could become permanent — an outcome that would result in added resource misallocation costs. Like Williamson, Richardson sees asset market policies as the best approach for dealing with exchange rate misalignments.

Trade liberalization, such as the creation of a free trade area with the United States, would also require adjustments in the foreign exchange market. David Longworth examines the nature of the long-run and short-run movements in exchange rates that might occur. While one cannot say a priori which way the exchange rate would move, there is no reason to expect any instability in the long run. Longworth discusses the exchange rate policy considerations that would face the Bank of Canada in the event of such a trade policy change.



Government Control of Foreign Business Investment

A.E. SAFARIAN

Introduction

Governments in Canada and elsewhere have responded in many different ways to the challenges posed by inward foreign direct investment (FDI) and foreign-owned multinational enterprises (MNEs).¹ More recently, some concerns have arisen about the effects of domestically controlled MNEs. This paper examines the effects of MNEs and of the various types of policy instruments used to control them. After considering the international literature on these issues, particularly for the more developed countries, it assesses Canada's policy position.

Internalization theory suggests that there are important advantages from the firm's viewpoint in developing and transferring techniques through the organizational form of the MNE rather than through markets or contract. This strategy is particularly useful in the case of newer or more complex techniques.

From the viewpoint of a developed host country such as Canada, both theory and evidence suggest that the most likely consequences for national welfare of such investment are macroeconomic benefits, the size depending on the policies followed by the host country, in particular in terms of taxation and competition. Sovereignty issues, although not clear-cut, may be an offset to such gains in some circumstances. General conclusions on the microeconomic impact of MNEs are more difficult to sustain on present evidence. In particular, there is no strong evidence for a view widely held in Canada that foreign control in itself leads to "truncated" subsidiaries with negative welfare effects.

Two types of policy instruments are analyzed in detail. Ownership policies close a sector partly or wholly, and may involve purchase of existing foreign-owned assets. Domestic ownership and control are achieved, economic rents accrue to domestic owners, and there is probably more

policy leverage over the firms involved. The costs of such an approach can be substantial, depending on how it is financed, the response of domestic entrepreneurship, and the risks of retaliation. The importance of good policy design is underlined by contrasting the experience of Australian natural resources policy with the much riskier approach adopted in Canada's National Energy Program. Some of the objectives of such an approach, it may be noted, can be achieved by tax and subsidy policies.

Review of the performance of MNEs in Canada is based on the concept of truncation noted above. Experience in Canada and abroad suggests that it is extremely difficult to assure net benefit by such detailed review procedures. Moreover, other countries are likely to protest that this is being done at their expense. Canada's procedures have been sharply modified as a result of these and other problems, but the law remains intact.

An alternative approach to such discretionary policies aimed at foreign-owned firms would be to concentrate more on the general policies aimed at all firms which meet the specifications of the law. This could be applied to such policies as those on competition, trade, taxation and expenditures on research. The objective would be to better the performance of all firms by improving their market and cost environment. Such an approach would be more consistent with Canada's changed position as a significant home country for MNEs and a relatively less attractive host country. It would also allow Canada to pursue MNE issues in a more convincing way in various bilateral and international settings and organizations.

Strategies of Multinational Enterprises

In devising appropriate policies for any particular country, it is of some importance to understand, among other factors, the strategies of the MNEs with respect to their decision to invest abroad rather than at home, the foreign locations in which they make their investment, and the organizational form in which techniques are transferred. Without such understanding, it is difficult to comment on the feasibility and/or trade-offs involved in any particular policy decision, since the reactions of different types of firms cannot be predicted. The theory of FDI and of MNE operation is not in a fully defined form, but some points are worth noting.

The Evidence from Recent Trends

There are a number of statistical problems in measuring stocks and flows of direct investment capital, notably the extent to which retained earnings are included in the latter. Certain points stand out, nevertheless.

Both inward and outward flows and stocks are highly concentrated. About 95 percent of recorded outward flows of FDI in the 1970s were from member countries of the Organization for Economic Cooperation and

Development (OECD). While MNEs from developing countries have increased in size, many are still relatively small. Tables 2-1 and 2-2 show stock and flow data for 13 of the major developed market economies. Seven of these countries accounted for 92 percent of the total outward flows shown in the late 1970s — the United States, West Germany, Japan, the Netherlands, Britain, France, and Canada, in descending order. Data on the stock of direct investment abroad confirm this concentration, adding Switzerland to this group. The U.S. share of total outward flows for the 13 countries shown has fallen sharply from 61 percent in the early 1960s to 29 percent in the late 1970s and 22 percent in the early 1980s, while shares for West Germany, the Netherlands, Japan, and Canada have risen considerably.

At the same time, the OECD countries as a whole have accounted for about three-quarters of the recorded global inward flows of capital. The top seven recipients among these had 88 percent of the flows for such developed market economies during the late 1970s. The distribution of the stock of inward direct investment was wider, however, reflecting earlier patterns of flows and retained earnings. There are quite dramatic changes in the distribution of such inward flows between the early 1960s, the late 1970s, and the early 1980s. The U.S. share rose from 3 to 27 to 41 percent during the respective periods, making that country by the far the largest recipient of such flows. Canada's share, by contrast, fell from 16 percent in the early 1960s to 3 percent in the late 1970s, from almost the largest share to among the smallest for the countries shown, before turning to a negative figure in the early 1980s. As for direct investment in the developing countries, ten of them (Brazil, Mexico, Argentina, Peru, Malaysia, India, Hong Kong, Singapore, Taiwan, and the Philippines) had almost two-thirds of the inward stock of such investment in 1978, excluding here the tax havens, major petroleum producers, and southern Europe. Most of the ten are among the higher-income developing countries.

Foreign ownership of industry now is significant in a wide variety of countries. Canada is in an unusual situation in this respect, having a high level of ownership of capital in industry according to international standards, but one which has undergone a considerable decline during the 1970s.² Data for other countries vary in coverage and timing, but a few observations can be made.³ Only a few of the relatively high-income market economies (Australia, Belgium, Ireland) have as much as 40 percent of their manufacturing capital in companies owned by non-residents. Such firms in Australia during the late 1970s, for example, accounted for about half of the reserves of crude oil, natural gas and natural gas liquids, 86 percent of petroleum refining, 40 to 50 percent of various base metals and black coal, and about two-thirds of aluminum and aluminum processing (Australia, Foreign Investment Review Board, 1982, pp. 65-67). Several developed countries (Italy, France, West Germany and Britain) have between 20 and 30 percent of the capital in their manufacturing owned

TABLE 2-1 Stock of Direct Investment from and in Developed Market Economies, 1957, 1973 and 1978^a

	Stock of Direct Investment Abroad						Stock of Inward Direct Investment					
	1967			1973			1978			1967		
	\$	Bill	Percent	\$	Bill	Percent	\$	Bill	Percent	\$	Bill	Percent
North America	60.3	53.7	53.7	109.1	52.7	181.7	48.9	29.1	40.4	53.5	38.1	84.0
of which:												34.4
Canada	3.7	3.3	3.3	7.8	3.8	13.6	3.7	19.2	26.6	32.9	23.4	43.2
United States	58.6	50.4	50.4	101.3	48.9	168.1	45.2	9.9	13.7	20.6	14.7	40.8
												16.7
Western Europe ^b	48.2	42.9	42.9	84.8	41.0	158.1	42.5	28.7	39.8	66.1	47.1	133.8
of which:												54.9
Belgium and Luxembourg	1.3	1.1	1.1	2.2	1.1	4.7	1.3	1.4	1.9	3.8	2.7	9.6
Federal Republic of Germany	3.0	2.6	2.6	11.9	5.8	31.8	8.5	3.6	5.0	13.1	9.3	29.2
France	6.0	5.3	5.3	8.8	4.3	14.9	4.0	3.0	4.2	5.8	4.1	14.9
Italy	2.1	1.9	1.9	3.2	1.5	3.3	0.9	2.6	3.6	6.8	4.8	10.1
Netherlands	11.0	9.8	9.8	15.4	7.4	23.7	6.4	4.9	6.8	7.5	5.4	12.8
Sweden	1.7	1.5	1.5	3.0	1.4	6.0	1.6	0.5	0.7	1.0	0.7	1.3
Switzerland	3.7	3.3	3.3	10.2	4.9	27.8	7.5	0.4	0.5	2.2	1.6	7.7
United Kingdom	17.5	15.6	15.6	26.9	13.0	41.1	11.0	8.2	11.4	17.4	12.4	32.5
												13.3
Japan	1.5	1.3	1.3	10.3	5.0	26.8	7.2	0.6	0.8	1.2	0.8	2.2
												0.9
Southern Hemisphere ^c	2.4	2.1	2.1	2.7	1.3	5.2	1.4	13.7	19.0	19.7	14.0	23.9
of which:												9.8
Australia	0.4	0.4	0.4	0.5	0.2	1.1	0.3	5.4	7.5	10.2	7.3	10.9
South Africa	1.9	1.7	1.7	2.1	1.0	3.8	1.0	7.2	10.0	8.1	5.7	10.8
												4.4
Total	112.4	100.0	100.0	207.0	100.0	371.8	100.0	72.1	100.0	140.5	100.0	243.9
												100.0

Source: Compiled by the United Nations Centre on Transnational Corporations, and cited in A.E. Safarian, *Government and Multinationals: Policies in the Developed Countries* (Washington, D.C.: British - North American Committee, 1983).

a. The estimated stock figures for the Federal Republic of Germany, Italy, Norway, Portugal (until 1975), Spain and the United Kingdom exclude reinvested earnings.

b. Stock estimates for Austria, Denmark, Finland, Norway, Portugal and Spain are included in the estimated stock for Western Europe.

c. Stock estimates for New Zealand are included in the estimated stock for the Southern Hemisphere.

TABLE 2-2 Distribution of Flows of Direct Investment to and from 13 Developed Market Economies, 1961-82

	Outward Direct Investment Flows			Inward Direct Investment Flows		
	1961-67	1968-73	1974-79	1961-67	1968-73	1974-79
						1980-82
				(percent)		
Canada	2.3	4.5	6.2	16.2	12.1	3.2
United States	61.1	45.8	29.3	22.3	11.4	26.7
Japan	2.4	6.7	13.0	11.2	1.7	1.2
Australia	0.7	1.4	1.6 ^a	1.6	12.9	9.5 ^a
Belgium	0.3 ^b	1.4	2.5	15.6	6.1	9.4
Federal Republic of Germany	7.2	12.5	17.0	4.5 ^b	16.4	14.7
France	6.9	5.2	7.8	21.3	8.2	15.2
Italy	3.6	3.3	2.0	8.2	8.3	5.0
Netherlands	4.4	6.8	9.6 ^c	11.5	8.5	6.0 ^c
Sweden	2.0	2.4	3.7 ^d	4.7	1.7	0.5 ^d
United Kingdom	8.7	9.1	9.2	2.1	7.4	6.1
Spain	0	0.3	0.6	20.0	3.7	3.7
Norway	0	0.3	0.9	9.7	1.4	4.1
				2.7		1.8
				0.8		

Source: *International Investment and Multinational Enterprises: Recent International Direct Investment Trends*, Paris: (OECD, 1981), pp. 40-41; *Balance of Payments Yearbook*, Washington, D.C.: International Monetary Fund, 1982). Following the OECD method, U.K. and U.S. date exclude reinvested earnings to place the data on a more comparable basis. Some columns total over 100 percent, perhaps because of the different years used for some countries.

a. from 1974 to 1976.

b. from 1965.

c. from 1974 to 1978.

d. from 1974 to 1977.

abroad, and others such as Sweden and Norway are at or over the 10 percent level, while the United States and Japan record around 5 percent foreign-owned. There is a wide variation in foreign ownership of manufacturing in developing countries, as the flow and stock data noted earlier might suggest. Percentages of 40 percent and more of assets or sales for one or more years during the 1970s have been reported for Malaysia, Nigeria, Colombia, Brazil, Ghana, Turkey and South Africa; and shares of at least 30 percent are reported for Argentina, Singapore and Mexico; but most others are far below these figures.

It may be noted that MNEs tend to concentrate in some high technology industries within manufacturing such as electrical machinery, transport and chemicals, as well as in some raw material and a few service sectors. In such cases, the foreign ownership of an industry will frequently be much higher than the data above indicate, even for countries where overall foreign ownership of industry is low.

Internationalization appears to have increased during the 1970s. One measure is the data on the foreign content of the 382 largest industrial MNEs, as noted in Table 2-3. One consequence is the increase in the share of international trade accounted for by intra-firm trade. Importing firms related by ownership to exporting firms in 1977 accounted for about half of U.S. imports from all countries. This figure is heavily affected by U.S. petroleum imports and by the Canada-United States Automotive Products Agreement. Nevertheless, among several other Canadian industries, more than half of U.S. imports from Canada are intra-firm (Lavergne and Helleiner, 1983; Economic Council of Canada, 1983a, p. 95). A survey covering about half the sales of foreign-owned firms in Canada shows that about four-fifths of both exports to and imports from the United States by the late 1970s were intra-firm transactions (Economic Council of Canada, 1983b, p. 22). Such intra-firm trade may be less responsive than arm's-length trade to changes in relative prices (Goldsborough, 1981).

One interpretation of the data noted above is presented by Michalet (1983). His examination of the data suggest that multinational investment (including retained earnings) has resisted the slow economic growth of the 1970s far better than domestic investment, and that the profitability of MNEs appears to have exceeded that of domestic firms. All of this corresponds with a selective pattern of MNE investment by country and sector, with relatively few industrial countries and six developing countries dominating the flows. He sees the strategy of the MNE as a search for sectors of efficient specialization and rapid growth on a world market but within the MNE, a strategy geared to remaining competitive and, in some cases, to surviving. Hence the relatively good growth and profit performance to date.

TABLE 2-3 Average Foreign Content of the Operations of the World's Largest Industrial Corporations, 1971, 1976 and 1980

	Total	Foreign	Foreign Share
	(Millions of U.S. Dollars)		(Percent)
Sales			
1971	1,769	527	30
1976	3,797	1,339	35
1980	7,084	2,822	40
Net assets			
1971	956	300	31
1976	1,475	423	29
1980	2,417	803	33
Net earnings			
1971	83	41	49
1976	150	65	43
1980	266	140	53
Employment			
1971	61,318	23,958	39
1976	63,297	27,002	43
1980	68,669	31,914	46
Exports			
1971	271	—	—
1976	695	—	—
1980	1,344	—	—

Source: United Nations, *Transnational Corporations in World Development: Third Survey* (New York: Centre on Transnational Corporations, 1983) p. 48.

The Evidence from Theory

One of the central issues in the theory of FDI is why the firm goes abroad through subsidiaries instead of using markets (exports, for example) or a form of contract (such as licences). These other means of transferring the knowledge of the firm have the advantage of avoiding many of the costs of learning to cope with a different environment or with a geographically decentralized management.

The answer provided by "internalization" theory is that the specific advantages a firm has, especially in its less tangible factors of production, are often best exploited through other firms rather than through markets or contracts.⁴ These intangible assets involve quite specific property rights, such as patents, but can extend to knowledge in any aspect

of its activities. The markets for transferring these assets are often imperfect, where they exist. They may involve training or transfer of personnel or other forms of activity which are costly even within firms but more so outside them.⁵ In other cases, the firm may fear opportunistic behaviour by others, such as imitation of its knowledge by a licensee. In principle, both horizontal and vertical integration can be encompassed in such an approach. The possible advantages of internalization can extend to the use of differential pricing by markets, avoiding the costs of bilateral bargaining or of buyer uncertainty, and the use of transfer pricing to minimize the effects of tariffs, tax differences, exchange controls, and other government policies. It would be far more difficult, if not impossible, to get agreement on such matters among independent parties in different countries, much less to assure that they are carried out when the interests of such parties differ. There are costs to internalization, such as communication and administrative problems, as well as an increased likelihood of government intervention when internalization across national frontiers creates a foreign-owned firm. Where the interdependence between buyers and sellers in different countries is substantial but these costs are not, wealth-maximizing behaviour by firms is likely to lead to internalization by merger, expansion in the form of new subsidiaries or through existing ones, preference for majority joint ventures, and similar organizations where the equity is controlled.

It is important to note that from the viewpoint of national or international welfare (as distinct from that of the firm), one cannot predict *a priori* whether internalization leads to positive outcomes. The presumption that it might not do so is evident in the work of Hymer (1960) who emphasizes the ways in which firms might create imperfections — for example, by restricting international competition — in order to increase the returns on their intangible assets. The presumption that it might increase welfare is evident in the work of a number of writers who regard MNEs as a response to imperfections in either the markets for the factors transferred and/or those created by government policies (Buckley and Casson, 1976; Rugman, 1982). In particular, Johnson (1970) emphasizes the incentives, by way of temporary monopoly, which are considered necessary for the creation of knowledge. He also underlines the dilemma that, once created, rapid distribution is usually socially desirable. This work is related to Vernon's (1979) use of the product cycle, which suggests that innovations are tested close to home, transmitted abroad first through export and then through direct investment, imitated as the technology is standardized, and imported to the originating country. While a later version of Vernon's study emphasizes more rapid maturing and imitation, the MNE is seen as continuing to play an important role in developing and transmitting technology.

A number of tests tend to confirm the internalization approach to explaining MNE behaviour. Vernon (1979) and Davidson (1979) use a large

set of data on U.S. parents and subsidiaries covering 30 years to look at where and when new investments are made, as well as the forms in which they are made. Their studies suggest a process where uncertainty is reduced and information costs are minimized — for example, by expansion in lines with which they are most familiar at home and to countries with which they are already familiar abroad. Davidson and McFetridge (1984) use this material to show that the international transfer of techniques is more likely to be through subsidiaries when the market alternative is relatively costly — for example, where the technology is relatively new or more sophisticated.

These studies suggest also that the probability of internal transfer declined after 1970. There is evidence elsewhere also, though not as complete as one would wish, that there has been some spread in recent years in non-equity forms of international association, such as arm's-length licences, turnkey projects, and minority-controlled joint ventures (United Nations, 1983a, pp. 40–46). In such cases, however, the MNEs remain the main sources of the transfers, while acting through forms other than wholly owned or majority-controlled firms. This development probably reflects several factors: the preferences of many host country governments; the widening set of home countries and of the industries involved; and the desire of many MNEs in some industries to spread risk and acquire access to the technologies of other MNEs.

As noted above, the question of the form of organization is distinct from the question of the countries in which to locate. More information on the latter comes from a series of surveys summarized in Dunning (1973) and Grosse (1980, p. 48). Not surprisingly, market potential plays a major role in these studies. This includes the size and growth of the national market and the attempt to maintain market share in the face of a threat to home-market exports and/or competition in the host country. Again not surprisingly, various cost factors also play a role, such as the availability and cost of labour and raw materials. In terms of direct public policy, such variables as the general attitude to foreign investment, the degree of political stability, and the question of exchange controls or financial restrictions are significant. Tax rates or structure show up on a number of tests. In Root and Ahmed (1978), the corporation tax rate is the strongest policy variable among a number of developing countries, once one standardizes for the economic potential of the country. Financial inducements to invest do not show up strongly in the general studies, but are significant in a number of the country or regional studies. They may have played a larger role during the recent years of slower economic growth.

Some hypotheses about the responsiveness to national policies are developed in the Steuer et al. (1973, ch. 8) report, with emphasis on the various types of MNEs. Briefly, these hypotheses suggest that the greater the international division of labour for an MNE, the more centralized its

control structure, the less likely it is to respond to host country directives, and the more the governments of the latter will have to invest in "persuasion costs." In practice, parent/subsidiary and MNE/government relations are more complex than this, as Steuer et al. recognize and as other studies bear out. Nevertheless, the authors find some limited support for the hypotheses. Doz (1980) more recently finds that there is also more resistance to national policies within firms which have undergone rationalization on an international basis than in those which largely serve national markets. It may be added that Safarian (1966, p. 93) finds that the subsidiaries with the narrowest range of products (both fully processed and manufactured) relative to the parent were the most closely supervised.

The Consequences for National Welfare

Given the objective of global wealth maximization and assumptions about competition and information, economic theory generally supports the free movement of goods and factors. Standard exceptions in the case of goods involve optimal tariff and tax intervention and infant industry subsidies, all within certain assumptions. FDI, however, includes non-competitive assumptions concerning imperfections in markets for intangible assets which are exploited by oligopolistic firms. The MNE may be looked at as a way to overcome these imperfections or it may simply add to them, as noted earlier. In this latter case, policy intervention against the MNE can be justified on the usual anti-monopoly grounds, but it may be necessary to invoke it at an international level if it is to be effective. In the former case, if the imperfections are due to government policies such as tariffs, we are into a world of second best. Markusen and Melvin (1979) show formally that, given a distortion such as a tariff in the investing country, capital movement can reduce world real income as well as the income of one or both of the countries considered.

This particular argument could apply to either portfolio or direct investment. In the case of FDI, three other arguments have been made. First, it is claimed that significant foreign ownership can affect national sovereignty. Second, benefits from firm activity can be captured by the firm or can fall outside the country, rather than accrue to domestic factors or to the host government. This is perhaps most clearly seen in the case of natural resource investment, where the existence of considerable uncertainty suggests a range for bargaining over rents rather than a single supply price for each level of investment. Johnson (1970) suggests that this is a more general case, while warning that it may be very difficult to translate into clear policy gains. Markusen (1981) shows that when the MNE does raise world real income, the distribution of monopoly profits determines the distribution of gains between countries. At one limit, where the MNE can enter the host country costlessly and all profits are

repatriated, the host country can lose, since the MNE and the home country, rather than host country entrepreneurs, are the ones who capture the monopoly rents.⁶ Third, it has been argued that continued reliance on MNE investment leads to a structure of industry which serves the interests of the home countries more than those of host countries.

This paper can consider only briefly the evidence on these issues. Before doing so, three caveats are in order. First, it is difficult to sort out the effects of FDI from other determinants of economic activity, yet necessary to do so where policy issues are to be addressed. This is all the more so when the MNE has become the touchstone for an extraordinary range of claims. It is particularly important to sort out what may be the effects of the firms' behaviour from what may be the effects of the economic and social environment or of public policy. Second, when one has decided that public policy is necessary, the choice of appropriate instrument still remains and, as will be underlined below, is critical to the welfare outcomes. Third, some have argued that the protection of groups competing with MNEs is often a more important influence on policy than are the broader questions of national interest, which are addressed below. These latter two points will be examined below in considering the choice of policy instrument.

The Question of Sovereignty

The most important concern in sovereignty has been extraterritoriality — that is, the extension of law and policy abroad through MNEs. There have been many such examples, including the U.S. Trading with the Enemy Act, the application of anti-trust decisions to corporations abroad, and restrictions by the United States on the export of gas pipeline technology to the U.S.S.R. via subsidiaries and licensees located abroad. While U.S. examples are most frequently cited, this is by no means a U.S. monopoly. West German cartel law, for example, explicitly applies to non-residents if German interests are affected.

The issue has proven intractable because both sides are trying to protect what they consider vital interests. The United States argues that its own law or policy interests would be subverted if it could not reach subsidiaries abroad, while host governments are adamant that such subsidiaries be responsive to their law or policy interests. It should be noted that this is a quarrel between sovereigns, with the MNE in the position of not being able to accede to both demands. Nevertheless, it has not escaped the resulting criticism. Such overlapping of jurisdictional problems is usually settled by treaty, as with taxation. In this case, the problem has been too complex for such resolution to date, and countries have resorted to unilateral prohibitions to the firms involved.⁷

A different but related issue is the lessening of public decision-making capacity given a large MNE presence or certain kinds of MNE activity. This

can occur in a variety of ways. The most direct is through intervention by foreign governments or MNEs in domestic political activity, going well beyond the lobbying in which all governments and many firms engage. This is rare in Canada so far as one knows, but is more frequent in some developing countries.⁸ There is no question that the MNE has become a major aspect of the interdependence between Canada and the United States and as a result it has become involved in many controversies, whether as an instrument of interstate conflict or as an autonomous actor. Leyton-Brown (1974) examines in detail 21 such cases of conflict involving MNEs between 1945-71, and concludes that the Canadian government has been satisfied with the outcome of a majority of the most important cases. Unfortunately, no comparable study exists for the more recent years, when relations between the two countries became less predictable.

There is clearly a whole range of regulatory, fiscal, and monetary policies where governments rely on the responses of firms to achieve their objectives. Some writers argue that some types of MNEs may be less responsive to such national policies and hence require higher investment in persuasion costs by government for attaining any given objective. The reasoning is that MNEs plan their investments to some extent on a global basis, as distinct from those companies whose markets or factors are largely domestically based. They may also be more mobile, if only at the margin, because information costs for other locations are already known or are easier to acquire. There are counter-arguments to take into account. MNEs may be more responsive to some policies if in fact they are more mobile. Regional development incentives are a case in point. The choices offered by enhanced wealth, where this occurs, are clearly not unrelated to definitions of independence. Where domestic firms also are becoming more multinational, one needs increasingly to ask whether the deciding factor is based on the market or factor source of the firm or on its ownership. Some growing concerns of home countries about excessive investment abroad are noted below. In brief, it is difficult to consider this question without citing specific circumstances or policy instruments.

Macroeconomic Effects

The major economic concerns of host governments, as noted earlier, are that the gains from multinational production may accrue more to the firm or abroad, and that continued reliance on MNEs may lead to a structure of industry that is more favourable to home countries. These related issues are conveniently discussed under the familiar headings of macroeconomic and microeconomic issues. The most important macro issues include growth, taxation and the balance of payments.

Turning to growth issues first, it is well to begin by emphasizing the potential net benefits available from FDI for a relatively developed host country such as Canada. If that were not the case, the policy issue would

be much simpler — in fact, the great majority of non-communist countries accept and even encourage such investment, albeit conditionally. The question is an empirical one of how much FDI contributes to the traditional sources of economic growth by way of capital flows and retained earnings; by access to better techniques of production, distribution, and finance; by scale economies and spillovers to domestic firms; and by less risky market access (MacDougall, 1960). The direct costs are income paid out in dividends, royalties, and other forms. Unlike portfolio investment, there is no set term for direct investment. So long as the subsidiary succeeds and some of its profit is retained locally, the liability to foreigners will increase (as will its domestic base) without an inflow of capital.⁹ The actual net domestic gains from FDI can appear as higher real wages or employment, lower prices or better quality, and more tax revenue. How far the gains are realized in practice depends on the reactions of private agents of production and on domestic policy. The technical improvements could be contained in the firms when competition is weak, for example, and tax revenue could be handed back as subsidies. In brief, public policy is critical to the domestic welfare outcome. Moreover, the fact of net gains, if demonstrable, does not necessarily mean they could not be achieved in other ways at lower economic or non-economic cost.

Several studies in Canada have used basically neoclassical growth models to measure such net gains (Penner, 1966; Helliwell and Broadbent, 1972; Powrie, 1978). All conclude they are positive, although Powrie in particular finds that they are relatively small. All of the estimates make strong assumptions — for example, that one can buy on the market at no extra cost what one receives through MNE investment. Much of the theory and evidence presented elsewhere in this study challenges this assumption.

Other studies have confirmed that the tax revenue gain is potentially a substantial one. The reason is that the tax laws of many countries allow a foreign tax credit so as to avoid double taxation. In such circumstances, the taxes paid by a subsidiary to a host country can be credited in the home country up to the tax rate levied by that country on income earned abroad. Tax on the latter, moreover, is usually deferred until the income is actually paid to the parent. Not surprisingly, tax rates have tended to converge in many countries. Also not surprisingly, this has become an issue in countries such as the United States which have much investment abroad and relatively little investment from abroad. Grubel (1974) presents evidence which indicates that U.S. investments abroad in manufacturing in the 1960s “do not clearly raise United States welfare and may have lowered it” (p. 486). In his model, the United States gains from foreign investment if the foreign rate of return exceeds the domestic rate by a percentage in excess of the foreign tax rate. In the case of U.S. investment abroad, close to 90 percent of the tax is taken by the host countries (Musgrave, 1975, 107–108). Estimates by Jenkins (1979) of the tax gain to Canada from foreign investment between 1965 and 1974 varied between

1.5 percent and 2.5 percent of GNP, depending on the assumptions made on how far foreign capital inflow either leads to capital outflow and/or displaces imports.

Taxation questions loom large in policy issues relevant to MNEs. They are an important aspect of the Canadian government's view on appropriate policy toward foreign-owned oil and gas firms. One particular issue — the opportunities for transfer pricing — deserves further comment. As noted earlier, economic activity between related parties offers opportunities for minimizing the effects of government intervention in ways which go far beyond those possible between unrelated parties. For example, Horst (1971) shows that, subject to certain assumptions, an MNE which is maximizing global profits can minimize customs duties on exports to a host country through a low transfer price to the subsidiary, except when the tax difference between the host and home countries exceeds the tariff rate. A number of studies for both developing and developed host countries confirm significant transfer pricing practices, often in an attempt to limit the impact of such policies as constraints on the payment of profits abroad and price ceilings, but also to exploit less competitive situations (Lall, 1973; Kopits, 1976).¹⁰ It is worth noting that home countries also have such concerns — for example, with regard to the tax revenue effects of underpricing of technology exports. Using a series of simulations, Quirin and Mathewson (1979) conclude that the scope for transfer pricing practices in current Canadian circumstances is limited. But they believe that the scope would increase, given the present corporate tax systems in Canada and the United States, should further moves to freer trade be made. U.S. and Canadian tax authorities have been cooperating since 1977 in making their tax audits of MNEs in an attempt to diminish serious problems with information and other matters. These joint audits appear to apply only when an MNE has operations in both Canada and the United States and uses a tax haven elsewhere: in other words, they do not extend to transfer pricing involving only Canada and the United States (Brean, 1984, pp. 112–13).

In an attempt to deal with a lack of reliable information and/or transfer pricing, and to increase local tax revenues, 12 U.S. states have used unitary taxes. In contrast with conventional accounting to allocate corporate income among jurisdictions, the unitary method applies the proportion of the corporation's activities in the state (such as percentage of sales, payroll, and sales) to the corporation's overall income. This method has been upheld by the U.S. Supreme Court, so far as U.S.-based MNEs are concerned, in a test case involving California. It has been strenuously opposed by the United States and foreign governments because of concerns about double taxation and for other reasons. The U.S. government is attempting to deal with the issue by proposing that there be more corporate disclosure to state governments (Brean, 1984, pp. 121–23).

As noted above, tax in the home country is generally deferred until actual payment. This gives an incentive to reinvest subsidiary earnings abroad, so as to postpone paying home country tax. In effect, capital export is encouraged since reinvested earnings are a relatively low-cost source of finance. There are some potentially important consequences from such a bias to capital export: host countries gain more capital and home countries less, production processes are more capital intensive, and subsidiaries enjoy a capital cost advantage relative to their competitors. There has been some difference of opinion, however, on the extent of the tax loss to the United States from the deferral provisions.¹¹

One more concern can be mentioned briefly, and that is the balance of payments effects of direct investment. Unlike debt investment, where there is a discrete point at which payment or refinancing becomes due and where the monetary cost is fixed, equity investment involves continued growth so long as the subsidiary is profitable and some earnings are retained. Hence, the question arises of the ability to finance transfers abroad, as well as related issues such as the income and employment effects of direct investment. Two comprehensive examinations of this issue are made by Hufbauer and Adler (1968) and by Reddaway et al. (1968). In both cases, the critical question turns out to be whether foreign direct investment substitutes for or supplements investment in the home and host countries. If one assumes that, from a home country perspective, such outward direct investment is defensive in nature (because it displaces home exports, but could be matched by host or third country investment before long), then the home country's balance of payments shows favourable effects within reasonably short periods from direct investment abroad. When a plant is built abroad which would not have existed otherwise for some time, however, the balance of payments effects are negative from the home country's viewpoint. We may note that the second case, which corresponds more to investment in developing countries, is examined also by Lall and Streeten (1977) with pessimistic conclusions from a host country viewpoint. Their model is less complete, however. Perhaps the most recent and detailed study of the issue is by Frank and Freeman (1978), who make estimates of the substitution issue noted above for 21 U.S. industries. They conclude that FDI abroad does lead to a net job loss in the United States, though it is small as a percentage of total unemployment. However, they believe that less lenient tax treatment of outward FDI is the correct policy, rather than restriction of such investment, if only because of the risk of retaliation. Despite the longstanding importance of inward FDI for Canada and the growing importance on the outward side, no models comparable to those above have been developed specifically for Canada.

The longer-term outcomes noted here can be considerably modified by the nature of the host country's fiscal and monetary reaction to capital

inflows. More specifically, criticism in recent years has occurred over the desirability of net inflows of capital in periods of sustained excess capacity, the argument being that, in such circumstances, there is a domestic alternative to borrowing foreign savings (Wilkinson, 1979). In considering what would be necessary to exploit this alternative, it is important to distinguish portfolio from direct investment. The latter can occur without capital transfers, in the sense that the foreign firm may borrow capital in Canada to use with its techniques; developing substitutes for such techniques is not the same thing as developing or using substitutes for foreign savings.

Microeconomic Issues

Three issues have received considerable attention in terms of the effects of MNEs on economic performance of industry — namely, competition effects, productivity, and the effects on foreign trade and the development of innovative capacity.

Competition effects are obviously of interest since the entire theory of FDI is built around oligopolistic interdependence. The welfare effects cannot be predicted in any general sense, as noted above. But there is some evidence that MNEs are very effective in overcoming barriers to entry where these are large. Thus, one study shows that foreign enterprises enter industries with low or high entry barriers to the same extent, whereas domestic firms concentrate more on industries with low entry barriers (Gorecki, 1976b). It may be noted, however, that where entry is by merger, the effects on competition are harder to predict for either set of firms. The relationship between foreign ownership and concentration (not necessarily a good proxy for welfare results) is ambiguous: concentration in U.S. industry appears to encourage foreign investment in Canada, but size of firms appears to explain much of the existence of foreign ownership in concentrated Canadian industries (Caves et al., 1980, pp. 87–92; Rosenbluth, 1970). None of this, it should be emphasized, demonstrates that there are no issues of competition policy which are especially relevant to MNEs. Extraterritoriality in the area of antitrust, as noted earlier, is but one example, and some industries are composed very largely of MNEs. The available evidence simply does not point to a general case across industries, one way or the other, as Caves et al. conclude after detailed analysis (pp. 377–99).

If one turns to the effects of foreign ownership on productivity, the existing tests show a positive association, although this is not a uniform conclusion. Caves et al. (1980, ch. 10) conclude that the relationship between foreign ownership and Canadian technical efficiency is positive but weak. Caves (1974) and Globerman (1979a) find some evidence that productivity in subsidiaries spills over into the independent firms. These results have been partially contradicted by Saunders (1980) and Wilkinson (1982). More detailed estimates have confirmed a positive link between

foreign ownership and productivity. Baldwin and Gorecki (1983c, pp. 54-65, 108-16) correct some of the earlier findings which appeared to show that foreign ownership contributed to product diversity and to lack of specialization, with consequently high unit costs of production. Their work shows that, when allowance is made for other variables, U.S.-owned plants are more specialized than Canadian-owned ones in most cases. MacCharles (1978) finds a significantly lower cost of administrative organization for foreign-owned firms than those which are Canadian-owned. This difference reflects purchases of knowledge by the former from parent firms at prices which are low because the economies of scale associated with its production have been exhausted. However, the difference is concentrated in the smaller Canadian-owned firms.

Much attention has been paid in Canada and elsewhere to the effects of MNEs on exports, imports, and innovation capacity, all of which play an important part in the processes of economic adjustment and growth. In Canada, the concept of "truncation" has come to play a significant role in policy on FDI and MNEs. It was given currency by Levitt (1970), played a central role in the Gray Report (1972), which laid the basis for the Foreign Investment Review Act, and is emphasized in several studies for the Science Council of Canada. Briefly, the argument is that substantial and continued foreign ownership leads to heavy reliance on imported managerial and technical inputs, either directly or through imports of goods embodying these. The results are important gaps in Canada's capacity to produce these items and a dampening of innovation and of entrepreneurship generally.

This argument is similar to the concept of dependency, which plays an important role in Latin American literature on foreign investment and trade. There are a number of ways to test it. In Canada, various writers focus on exports, imports, and research and development spending in Canada as proxies for the variables involved, despite the ambiguities in welfare terms of changes in these. The ideas were first tested by Safarian (1966) who, while emphasizing a number of important differences in other respects, concludes that average performance on exports and on research and development is not statistically different between domestic and foreign-owned firms, but that imports are higher for the latter. There have been many tests since, some with more sophisticated data and models, which tend to confirm the results on exports and on imports, but give mixed results on research and development.¹² The debate has been much advanced by a series of studies by the Economic Council of Canada (1983a), which has shifted the emphasis from research and development to the much broader issue of the generation and diffusion of innovations. The Council's work gives a more optimistic view of technical capacity and activity in Canada than do earlier studies. This flows in part from recognition of the differences in industry structure here and abroad, the importance of access to knowledge (including that from abroad) and its rapid

dissemination, and the different roles played by domestic and foreign-owned firms in the process of producing and distributing knowledge.

That being said, it is important to add that some of the results noted can be interpreted as evidence of inferior performance by both sets of firms. Moreover, evidence about the same U.S. firms in Europe would not support a claim of poor economic performance compared with domestic firms: often the contrary is the case (Safarian, 1979, p. 325). Finally, there is other evidence that Canada may not have optimized the potential gain from technology diffusion which arises from a large MNE presence, probably in part for reasons noted in the next paragraph. Mansfield and Romeo (1980) show for a sample of technology exports by U.S. parent companies that the average lag is 6 years for subsidiaries in the developed countries, 10 for subsidiaries in developing countries, and 13 for technology export to joint ventures or independent licensees. Similarly, the Economic Council of Canada's work on the spread of innovations shows that lags tend to be greater for internal development or acquisition outside the firm, compared with intra-firm transfer between affiliates (Economic Council of Canada, 1983a, pp. 56-57; McMullen, 1982). Despite this, the Council believes, on the basis of case studies, that technical change diffuses more slowly into (and through) Canada than in other western developed nations (p. 61).

One of the more serious problems with the "truncation" approach is that there is an alternative explanation for the observed problems of economic performance, which has had substantial and usually positive tests over time. What is often called the Eastman-Stykolt (1967) hypothesis indicates that oligopolistic decision making in a small protected market with weak competition policies is likely to encourage entry at an inefficient scale, the multiplication of product lines, and high unit costs.¹³ Such firms are likely to have problems in competing internationally and to have less incentive to introduce innovations. Inappropriate industrial policies rather than FDI are seen in this case as the primary reason for poor economic performance by all firms, domestic and foreign-owned. There is a long list of tests one can cite leading to these conclusions, apart from that by Eastman and Stykolt: for example, the Economic Council of Canada (1975, ch. 6), Daly and Globerman (1976), Gupta (1979) and, most recently and comprehensively, Harris and Cox (1983) and Baldwin and Gorecki (1983c, pp. 108-16). The last of these is particularly emphatic in rejecting foreign ownership as a reason for the excessive product diversity and short production runs in Canadian industry.

Home Country Interests

The assumption running through much of the above is that the host country's overall economic interest is the issue, subject to sovereignty ques-

tions. In fact, home countries voice concerns that are often the reverse of the above.

One need hardly underline the argument that home countries may question the gains from (excessive) outward direct investment. The argument has long since been made that if new investment abroad reduces the return to existing foreign owners — something that private investors may overlook — the home country can gain by a tax on capital exports. Where there is concern about domestic employment effects of FDI abroad, and on the important assumption that an investment opportunity abroad would not otherwise be pre-empted by others, some home countries attempt to persuade their MNEs to continue exporting for a time. As noted above, the balance of payments effects (and the income and employment effects) of FDI for a home country depend heavily on the question of whether such

TABLE 2-4 Flows of Foreign Direct Investment to and from Canada, 1960-83^a

	Foreign Direct Investment in Canada ^b	Canadian Direct Investment Abroad	Difference
	(Millions of Canadian Dollars)		
1960	670	50	620
1961	560	80	480
1962	505	105	400
1963	280	135	145
1964	270	95	175
1965	535	125	410
1966	790	5	785
1967	691	125	566
1968	590	225	365
1969	720	370	350
1970	905	313	592
1971	925	230	695
1972	620	400	220
1973	830	770	60
1974	845	810	35
1975	725	915	-190
1976	-300	590	-890
1977	475	740	-265
1978	85	2,150	-2,065
1979	675	2,350	-1,675
1980	800	3,150	-2,350
1981	-4,400	6,900	-11,300
1982	-1,425	200	-1,625
1983	200	2,525	-2,325

Source: Statistics Canada *Quarterly Estimates of the Canadian Balance of International Payments*, (Ottawa: Supply and Services Canada, Various issues).

a. Data exclude retained earnings.

b. Includes both gross flows of such direct investment and gross outflows by Canadians to buy foreign-owned subsidiaries in Canada. A similar interpretation applies to Canadian direct investment abroad.

investment is defensive or not. Moreover, under present taxation arrangements, one can argue that too much investment occurs abroad or, alternatively, that the host countries gain most in tax and other terms. There are also political consequences for home-country relations with host countries that are sometimes useful and sometimes painful from a foreign policy viewpoint.

What may need emphasis is that Canada's interests in this regard are changing. Foreign ownership of Canadian industry, while relatively high, has been falling for a decade or more. Retained earnings will keep these figures up for some time. Canada's share of inward FDI flows from the OECD has fallen from about 16 percent to a negative figure over the past 20 years, and for almost a decade the outward flows have significantly exceeded inward flows (Tables 2-2 and 2-4). As noted below in the conclusions section, the stock of Canadian direct investment abroad is now over half of the amount of foreign investment in Canada, and the outward stock is heavily concentrated in the United States. About half of our manufactured exports go through intra-firm trade. Developing and protecting that growing stake will have to command more attention as time goes by.

Summary

Internalization theory suggests there are important advantages from the firm's viewpoint in developing and transferring techniques through the organizational form of the MNE rather than through markets or contract. This is particularly so for newer or more complex techniques. From the viewpoint of a developed host country such as Canada, both theory and evidence suggest that the most likely outcome of such investment is macroeconomic benefits, with their size depending on the policies of the host country regarding taxation in particular. Sovereignty issues, although not one-sided, may be an offset to such gains in some circumstances. In terms of economic performance at a micro level, general conclusions on the impact of MNEs (often seen as negative in Canada) seem unwarranted. In particular, the view that subsidiaries are "truncated" when compared with independent firms does not stand up well in statistical terms. It also suffers from serious ambiguities in welfare terms which suggest, for example, that it is always better to do research or to produce in Canada than to import technology or goods. More convincing is evidence that, where both sets of firms can be defined to perform poorly, much of the responsibility lies with long-term policies.

In brief, macroeconomic analysis suggests that gains are likely and microeconomic analysis that gains are possible, while sovereignty costs are not inevitable. In assuring net gains, in other words, everything depends on the appropriateness of the policy response to FDI and to MNEs and to business activity in general. The rest of this study deals with this question.

Canada's Policies

Foreign ownership of Canadian industry remains high by world standards, although it has declined considerably over the past decade. U.S.-based firms account for most of that ownership. The fact that foreign ownership of Canadian industry is unusually high is due in part to the fact that Canada's sole neighbour for practical economic purposes was for a long time the source of most of the world's direct investment capital. As the studies by Vernon and Davidson (1979), and Davidson and McFetridge (1984) show statistically, such U.S. parent firms preferred investing in Canada and parts of Latin America at first, which accounts for the relatively high foreign ownership figures one sees in a number of those countries. More recently, as the data flows suggest, they have preferred investing in Europe, Asia, and Africa.

Concerns about the political and economic effects have been voiced persistently since the late 1950s in Canada, as well as in some earlier periods of Canadian history. During the 1960s and early 1970s, a wide range of legislation was adopted by the federal and provincial governments. A major further policy was enacted in the National Energy Program announced in 1980. In this section, the major Canadian policies are outlined. In the following section, the different types of policy instruments are compared and some brief comparisons are made with policies in other countries. Two types of policies that are potentially the most important in their overall effects for Canada — review mechanisms directed to economic performance, and ownership and control measures — are given most emphasis.

Summary of Policies

There are a considerable number of federal and provincial measures in effect which are explicitly directed to the performance of foreign-owned firms or to influencing their ownership or control.¹⁴ The attempt to increase the capacity of Canadians to undertake more of the investment which takes place in Canada has been a motive for many types of policy. Sometimes it is voiced indirectly or as an accompaniment to other objectives: for example, investment in education and skills, improvements in capital markets, and general support for technical improvements. On occasion, these measures to increase Canadian capacities are linked fairly directly to the desire to limit non-resident ownership or to increase that by residents. The arguments for dividend tax credits, and the limitations on investment abroad by pension funds, in each case reflected such objectives. The abolition of federal estate taxes was partly in response to the view that its payment often compelled sale of businesses to foreign corporations, among others.¹⁵ An even more direct link to an attempt to reduce foreign takeovers was the decision to allow the deduction, as an

expense for purposes of taxation, of the interest paid on funds borrowed to finance the purchase of shares in other firms — a procedure permitted in the United States well before it was allowed in Canada. The easing of rules on equity investments by various types of financial institutions in recent decades was partly for similar reasons. The establishment of institutions such as the Canada Development Corporation was predicated in part on the view that there were deficiencies in Canadian capital markets — namely, a scarcity of large-scale venture capital vehicles under Canadian control. This type of measure overlaps with those explicitly directed to increasing domestic ownership and control, as noted below.

A wide range of measures specifically aimed at ownership and control are in effect. By far the most important device is to partly or wholly close a sector to foreign ownership, sometimes with a grandfather clause for existing firms. There is now a significant number of such “key” sectors. In the case of the federal government, there are limitations on the foreign ownership of companies in broadcasting, newspapers, insurance, trust and loan companies, and chartered banks. In the last of these, an attempt was made to limit foreign ownership of any one bank to 25 percent, but this legislation gave way to legislation limiting the size and growth of the foreign-owned bank sector and also subjecting it to central bank regulations. Limitations on foreign ownership are written into legislation in a number of other industries: for example, mining leases in the Northwest Territories are restricted to Canadians and to firms with 50 percent share ownership by Canadians, and fishing licences or leases are not given to foreign-owned firms.

The provinces have also instituted ownership policies in a number of areas under their jurisdiction. Examples are book and magazine distribution in Ontario and Quebec, transportation companies in Ontario, financial sectors under provincial jurisdiction in most provinces, and access to public land in some cases. Several provinces restrict “foreign” ownership of land, or levy higher taxes on transfers of land to or between foreign owners, including both individuals and foreign-owned subsidiaries: in some cases the restriction on ownership is extra-provincial and not simply non-Canadian. Foreign investment is limited in many public corporations.

Domestic ownership can be influenced by tax measures also. The 1963 budget gave a modest boost in this direction by lowering the withholding tax on investment income paid abroad for companies with a degree of Canadian ownership, namely, 25 percent or more. Limitation of advertising expense deductions for periodicals deemed not to be Canadian issues, along with other measures, were used in a protracted effort to support Canadian-owned periodicals. Federal policies in energy will be considered more fully below.

It should be emphasized that much of the legislation noted above, including that on energy, is aimed at achieving effective control of the organization by residents, and not simply ownership of shares.

The major legislation on economic performance is the Foreign Investment Review Act, which will be considered later. Improved information and voluntary guidelines of behaviour were developed prior to enactment of this legislation particularly through the Corporations and Labour Unions Returns Act. This latter act is applicable to all non-financial firms above a certain size but gives some detail on those owned abroad. One can note also the federal and some provincial requirements that, with some qualifications, a majority of the directors of a business corporation must be resident Canadians. The governments hoped that this would influence decisions on subsidiary behaviour to Canada's advantage.

Some examples of differential treatment toward an MNE after it is established in the host country include higher tax on transfers of real estate to non-residents and to foreign-controlled firms in Ontario and Quebec, and the treatment of licences for fisheries. Other examples are measures to exclude foreign-owned firms from enjoying a lower rate of federal tax for small business, or grants for mineral exploration in northern federal territories or government advertising contracts in Ontario. The most important case, however, is the National Energy Program, noted below.

In the past, Canada has attempted to work out with the United States agreed procedures on some issues involving extraterritoriality. One agreement was for prior notification when anti-trust rulings would affect the other country's residents. Another was an arrangement whereby a subsidiary's officers could apply to the U.S. government, through the parent, for approval of a particular export order where the United States did not allow its own residents to export to the country involved. Not much is known about how these procedures have worked in practice, but the eruption of the issues from time to time suggests that they have remained unsolved. Amendments to Canada's Combines Investigation Act in 1975 empowered the relevant Commission to nullify the effect in Canada of decisions by foreign courts or tribunals which adversely affect Canadian interests. In May 1984, the federal government introduced legislation which would allow it to prohibit a Canadian subsidiary of a foreign-owned firm from complying with extraterritorial measures more generally. The proposed law would also empower the government to seize records in Canada for safekeeping if deemed necessary. This legislation is aimed in part at prohibiting in Canada a fact-finding process, which is an important part of U.S. anti-trust law. Several other countries have similar laws. Britain, for example, has passed legislation to prohibit disclosure of information in foreign anti-trust cases and to allow recovery of treble damage awards in British courts.¹⁶

Many governments are not interested in keeping FDI out, beyond the often important use of closed sectors. They are interested rather in influencing its form, as with encouragement for joint ventures, or in enhancing its development effects. In keeping with this emphasis, particularly in periods of slower growth, a wide variety of fiscal incentives are available

to MNEs. Neither the federal nor provincial governments design such investment incentives solely with FDI in mind. MNE reactions are likely to be important at times, however, since they can be the sole or main potential recipients in some sectors or provinces, because discretion exists in awarding some types of incentives, and because international subsidy competition (especially with U.S. states) is often present.

An important aspect of international policy is the taxation agreements with other countries regarding the treatment of income paid abroad. The growing cooperation between Canada and the U.S. is noted above in the case of transfer pricing practices as they affect tax revenue. Canada and the United States agreed to revision of the 1942 tax treaty in 1980 after many years of negotiation, but the treaty was not ratified until 1984. The delay in ratification was due in part to unrelated problems in Canada-U.S. relations during the early 1980s. Bird and Brean (1984) note that Canada's position in these negotiations was based to a considerable extent on its historical position as a large net capital importer, namely, to maintain the right to levy relatively high taxes on income paid abroad and to increase domestic ownership. They go on to note that this position may need rethinking in view of growing capital exports (pp. 5, 12).

There has long been a concern among OECD countries to reduce impediments to capital flows, as witnessed by the OECD Code on Liberalization of Capital Movements, adopted in 1961. Unlike all but a few other member countries, Canada delayed signing this code until 1984. In 1976, a set of concerns more closely related to MNEs was addressed in the OECD's adoption of a Declaration and Decisions on International Investment and Multinational Enterprises. Essentially, this established guidelines for MNE activities reflecting the concerns of national entities, and also recommended non-discriminatory treatment of MNEs by national governments. The provisions are not binding, except in regard to the OECD's decisions on notification and consultation. Canada signed the declaration but maintained a qualification on the issue of non-discriminatory treatment.

FIRA and NEP¹⁷

The major policy instruments in effect in Canada, with the possible exception of the general tax position vis-à-vis the United States, are the Foreign Investment Review Act and the legislation comprising the National Energy Program. The central argument for the former is the concept of "truncation" of subsidiaries as outlined and analyzed in the preceding section. The Foreign Investment Review Agency (FIRA) was established under the act, and is responsible to the Minister of Industry, Trade and Commerce. The Minister must recommend to Cabinet on all reviewable applications for FDI. Essentially, this covers all acquisitions and every establishment of a new business in Canada by foreign-controlled entities except

- where the acquired business is in a field related to an established business of the acquiror in Canada and has gross assets not exceeding \$250,000 and gross revenues not exceeding \$3 million; or
- in the case of a new business in a line related to an established Canadian business.

It will be noted that the agency does not review the major activity of such firms, namely, their expansion in existing lines of business: the exceptions are where merger occurs beyond the size limits noted, or where the ownership of the parent changes. Review is conducted in order to assess whether significant benefits occur for Canada as defined in a published set of criteria, and includes consultation (but not a veto power) with the relevant province or provinces.¹⁸ Allowances and disallowances are published individually, as are the principal factors of assessment indicating benefit in the case of the former only. The agency is required to monitor the plans and undertakings provided by the investors in their proposals for review. In some cases these have been renegotiated, but it does not appear that prosecutions have been launched for non-compliance with undertakings, as distinct from prosecutions for alleged failure to submit to the review process.

The government in 1980 announced that it planned both to allow the agency to advertise intended acquisitions and to subsidize competing bids by Canadian owners. Plans were also announced to monitor the performance of existing foreign-owned firms which, except as noted above, are not subject to review. All of this was set aside during the course of the tensions which developed with the United States and other countries over the National Energy Program, the growing criticism of the agency's procedures, and perhaps doubts about the feasibility of the plans. The agency's operations during 1982-83 were substantially changed to clarify the bases of its decisions and to simplify and speed up its procedures, among other ways. In the process, the rate of rejection of proposals for resolved new business and acquisition cases has fallen from 10 percent and 12 percent respectively during 1980-82, to about 5 percent in 1982-83.¹⁹

Both federal and provincial government participation in the resources sector have a long history in Canada. The establishment of the Canada Development Corporation in the early 1970s, for example, was partly to encourage Canadian public and private investment in natural resource development. The provinces, which have jurisdiction over management of natural resources in their public domain, have developed various forms of public ownership, participation, and regulation. The turbulence in energy markets in the 1970s led to several federal initiatives in this area, notably the decisions to maintain Canadian oil and gas prices well below world levels and to establish Petro-Canada and the Petroleum Monitoring Agency. All of this culminated in the National Energy Program of 1980, a program with a variety of major objectives including a substan-

tial increase of Canadian ownership and control of oil and gas revenues.

The stated major reason for the planned increase in Canadian ownership of the industry was the desire to capture more of the economic rent in Canada. The government's position was that the major planned price increases would give substantial rent to an industry which was largely foreign-owned. It was also argued that the existing system of depletion allowances, which was available to all firms but utilized mainly by integrated MNEs with downstream profits, meant that the latter were the major beneficiaries. A further objective was greater domestic control of petroleum firms as distinct from ownership; specifically, the government wished to have more influence on the direction and speed of development of the industry, and to have assurance of more domestic purchasing and research than it believed would otherwise occur (Canada, Dept. of Energy, Mines and Resources, 1980).

The specific objective set was to reduce foreign ownership of oil and gas revenues from about 70 to 50 percent by 1990.²⁰ This was to be achieved partly by expanding the public sector, specifically by introducing a special energy tax to be used by Petro-Canada or other public firms to buy some of the MNEs. In addition, the system of depletion allowances for exploration and development was largely replaced by incentive grants. In areas of federal jurisdiction, these grants increase for companies having more than 50 percent Canadian ownership, to the point where a company with 75 percent Canadian ownership can get 80 percent of exploration and development expenses paid by the government. There must be 50 percent Canadian ownership at the production stage in the case of such federal lands. Finally, provision was made to reserve a 25 percent Crown interest in all petroleum rights for all firms on federal lands (including those held by private Canadian interests) with some payments for work done to date. These provisions are basically unchanged, despite modification or deferment of some other parts of the program.

The Choice of Policy Instruments

In this section, the policy instruments which have been used in Canada are analyzed with emphasis on two major types — namely, closed sectors or ownership-oriented policies and performance review. In each case, a few international comparisons are also made. These are kept brief since they are analyzed in other studies.²¹ It is well to note that differences among countries might limit the relevance of such comparisons. Governments tend to be sensitive of their status as capital exporters and importers, for example, both in general and with respect to FDI.²² Canada has long pointed to her role as the major host country for FDI, reserving her right to regulate it, to increase tax revenue from it, and so on. The United States, as the major home country, has attempted to persuade others not to discriminate against such firms, and favours lower withholding taxes on

income paid out, and so on. Neither country takes a single stance, of course; Canadian governments are conscious of the benefits, and U.S. governments of the costs, of their inward and outward sides, respectively. Moreover, their roles as net importer and net exporter of FDI are changing, as noted earlier.

Ownership Policies

The decision to close a sector or activity completely to FDI and to buy out any existing foreign-owned firms is the strongest position a country can take. In some countries, such sectors or activities are fairly well defined in law: Canada, the United States, Switzerland, Norway, and Sweden are examples. Many other states rely on review mechanisms and other methods to define these, sometimes in an ad hoc manner. It is important to note that public ownership of industry, while not necessarily directed at foreign ownership, can restrict access by both foreign and domestic private firms. There may be a monopoly for publicly owned firms in some cases and, where this is not so, private firms are often unwilling to compete against what may be favoured public firms.

In closing a sector to foreign-owned firms, a government achieves its objectives of domestic ownership and control of firms while allowing for any exceptions made for existing firms or partial buy-outs. It thus has more assurance that economic rents accrue to domestic owners, and it can probably secure more leverage in persuading firms to carry out its policies. The qualifications in the previous sentence are not unimportant: locally owned firms may also use transfer pricing if tax and other circumstances so indicate, and they cannot disregard other aspects of their economic environment, for example. Let us grant that a government may secure some advantages as noted. Such a policy, however, does not recognize any trade-off between the benefits from domestic ownership on the one hand, and the possible economic gains to be derived from foreign investment on the other. It removes competition from foreign firms and, if it is in a non-traded sector, from imports as well. The equivalent in policy on foreign trade would be a zero quota on imports. Whether economic costs are substantial will depend on how quickly and efficiently the supply of domestic private and public entrepreneurship responds in this sector, specifically in terms of filling any resulting gap in access to techniques.

Some important policy issues arise with such an approach (Safarian, 1983b, pp. 55–62). First, the economic argument is similar to the infant industry argument, but the protection is for domestic ownership rather than for domestic production. Whether the limited economic argument one can make for infant-industry-type protection can win out over all the pressures which build up in the process — such as problems of monopolization and pressures to keep protection where inefficiency results — is a moot point, but tariff history is not encouraging. Second, where a sector

is reserved or MNEs are required to share ownership, large rents can be created for domestic owners, rents which the government may attempt to tax away. Third, achieving ownership is not the same thing as achieving control. Where reliance on imports, techniques, markets, and so forth continues, as it often does, not much may have changed beyond acquiring an equity position on the one hand and, to finance it, a debt position on the other, assuming compensation is paid. Finally, when firms in the closed sectors go abroad, some questions of reciprocal market access can arise in other countries.

The sector need not be closed fully, of course. Some existing foreign-owned firms may be allowed to stay. The domestically owned firms may be encouraged to import techniques through capital goods and a variety of forms of contract, which could be imperfect substitutes for techniques imported through MNEs. The latter tend to be newer and/or more complex products and technologies and to be transmitted earlier. MNEs are unlikely to transfer these through licences or minority joint venture positions.

Such reserved sectors tend to be concentrated in certain sectors such as defence industries, closely regulated industries such as transport and finance, industries related to cultural identity such as media, and some natural resource sectors. They go well beyond these to cover a wide variety of sectors not easily classified. The reasons for government policies are complex, involving situations where private ownership may be considered unworkable, as well as arguments for national independence and identity and pressures by local interests to minimize competition. What also stands out, however, is that none of the developed countries except Japan has attempted to keep MNEs out of the sectors in manufacturing where they concentrate most heavily, namely, chemicals, electrical machinery, non-electrical machinery, and some specific areas such as automobiles. Where exceptions exist in these sectors, as in the British and French computer industries, they have tended to be by partial exclusion or by subsidies to domestic firms. It may be that the cost of nationalization and of developing local substitutes in these sectors is high, as internalization theory suggests.

Governments often take a different view to the field of natural resources where MNEs also cluster. Sometimes they believe the benefits offered through MNEs can be matched relatively quickly and at less cost at home or abroad; sometimes they attempt to capture more rent or to develop larger internal linkages, often because they believe a firm has little resistance to offer, once it has developed the resource. Vernon (1971, ch. 2) calls this the "obsolescing bargain" between state and firm in the development of natural resources. There was a wave of nationalizations during the 1960s and early 1970s, notably in the developing countries. Increasingly, except for the oil nationalizations, governments have turned to tax-

ation, increased developmental requirements on processing and other factors, and more domestic participation in ownership and/or control (Caves, 1982, pp. 121-25).

Australia and Canada developed policies on ownership of resources only in the 1970s and 1980s, and in ways which provide some interesting contrasts in policy design. The Canadian government's approach, as noted earlier, involved substantial fiscal incentives for both public and private firms to purchase foreign-owned assets. The overall costs of so doing depend on a number of variables, specifically: the price paid for the asset; the likely expected value of the income from the asset; the interest cost of capital used for the purchase; resources used directly to administer the policy; and retaliation or other forms of disruption in relations with other governments, including those of the provinces. Against these must be set the expected gains — specifically, more domestic ownership and control (private and public) in what was expected to be a rising rent sector, and the leverage on such matters as sourcing for the major projects, which was expected to follow. The domestic share of ownership has risen quite significantly since the program began and is likely to continue rising, given the incentives already noted to purchase foreign-owned assets and to encourage more participation by Canadian-owned firms. While none of the major integrated MNEs has sold the major part of its Canadian assets to date, Petro-Canada's purchases have turned it into an important integrated firm.

The other variables noted above are all negative in the short term, however, and the economically depressing effects of some will linger for years. Prices paid for the firms appear in a number of cases to have been well over the premiums on stock market prices which are customary for such mergers. The expected value of income from the assets fell as the recession deepened and oil prices declined. Interest rates shot up in 1981 in real and nominal terms, and have stayed high in real terms. It has turned out to be quite complex to administer the detailed ownership requirements and some other aspects of the program. While the U.S. government finally decided against direct retaliation, relations between the two countries deteriorated significantly for a time in the face of a very hostile press and opposition from Congress. Federal-provincial relations also deteriorated sharply, but more because of other aspects of the NEP than the one discussed here. The Canadian government has not changed the fundamental aspects of this part of the program, but it did modify payments for the 25 percent Crown interest. It also underlined that this was a special program designed to cope with problems in a major sector and not to be repeated elsewhere, and it set aside plans to strengthen FIRA. Increased leverage on sourcing for major projects had to be modified also, partly because these melted away with the declining price of oil and partly because the General Agreement on Tariffs and Trade (GATT) now limits such

leverage by governments. Like other countries, however, Canada does require that Canadian sources of supply be considered on a competitive basis.

In 1981, the cost of identified takeovers was \$7.5 billion. Canadian ownership of petroleum revenues rose almost 7 percentage points in one year, with 60 percent of this increase in the public sector. The effects of these takeovers on the foreign share of net rent may have been negligible, however, if one assumes a real after-tax opportunity cost of 7 percent. In other words, the prices paid for the takeovers were too high to allow such a return in the years afterward (Helliwell et al., 1983, p. 28).

At least some of the problems which arose may be due to the way in which this policy was introduced, namely, as part of a budget process, which involved secrecy. There was little or no substantive input to the specific measures from other departments of the federal government, provincial governments, or from private interests, although the broad directions of federal government policy were certainly clear for some time beforehand.

Australia is an example of a country which also developed policy rather late in this area. Because it concentrated only on ownership of future projects rather than purchase of existing assets, however, it had more downside protection in the event forecasts went wrong. It would also work more slowly in terms of decreasing foreign ownership, and thus would not increase domestic ownership as quickly as the Canadian government had wished. Briefly, policy evolved over the first half of the 1970s with the reservation of a number of sectors for Australian control, the establishment of an Australian Resources Development Bank and an Industry Development Corporation, and the gradual development of screening for both takeovers and new businesses. A clear policy has been in effect since 1976. Except for the smallest projects, those involving foreign-owned firms in the natural resources sector must pass two tests: they must not be against the national interest; and there must be at least 50 percent Australian equity and voting power on the board. If it can be demonstrated that Australian participation is not available and/or would delay the development seriously, the project can go ahead, but the 50 percent participation must be achieved within a few years. This participation rule does not apply to exploration, though it is encouraged. In the case of uranium, 75 percent Australian participation is generally the norm. It may be noted that in 1982, in 20 of the 55 new projects where approval was given, it was conditional on meeting the participation requirement later. Where takeovers are involved, and especially if other benefits are deemed to be low, retention of some Australian ownership is often recommended. In addition to Australian ownership, some care is taken to assure that export pricing is consistent with Australian tax law. The states have the constitutional power to make deals in resource development, but the federal government's powers on

export prices, grants, and foreign borrowing strongly influence the terms.²³

It is well to add that concentration on the new projects is not costless, since capital used for this purpose does have an opportunity cost, and it must be imported in non-equity forms when Australians cannot supply it. Particularly during earlier years, the 50 percent rule may have created significant windfall gains for the Australian private interests involved — gains only partially shared with government since there is no capital gains tax.

A new Labour government in 1983 has been reviewing these policies and has tightened up in some areas, notably in rejecting some proposed mergers which might have been approved earlier and in allowing fewer deferrals on the 50 percent participation rule. The new government is also introducing a resource rent tax, but how this will work and how far it will serve as a substitute for private sector participation is not clear. In the meantime, one can note that Australia has had substantial net capital inflows for much of the past decade while foreign ownership appears to have declined (Safarian, 1983b, pp. 9–14).

Review Mechanisms

The economic case for some sort of review was noted earlier: it is deemed a corrective for the distortions to markets resulting from the decisions in large oligopolistic firms, particularly since these are multinational. Hence, benefits may spill out of national jurisdictions and costs spill in. The evidence on “truncation” is not particularly convincing, as noted above and as suggested by studies on the economic performance of nationally owned and foreign-owned firms in Canada. Moreover, there is support for an alternative and much stronger explanation of performance.

Even if one does not agree with that conclusion, however, two problems remain. The first is just how far a bargaining process is likely to succeed with such firms. In the case of natural resources, once establishment has occurred and proven successful, governments have had some success in reopening the terms because the firm is to some extent hostage to its environment. This is far less likely to be the case in manufactures and services, especially where relatively new or advanced technologies are involved. It was noted earlier that governments have been careful not to close sectors where substitutes for MNEs are harder to develop. The same reasoning from internalization theory would suggest a variety of reactions from MNEs faced with the kind of review process described earlier: for example, such firms would be reluctant to decentralize some aspects of their operations such as research and development, which are closely related to the innovation process; they would resist sharing control where such processes or products are involved, because it would mean diluting

valuable property rights and/or making a complex process less effective; and they would hesitate to export from a host country if ownership of the subsidiary must be shared, given the possibility of exports from other host countries or the home country where such is not the case. To put it differently, one would expect that the review process would succeed in extracting more benefits where the firms were already prepared to accede to decentralizing some of these headquarter functions or activities, that is, for mature products or processes where emulation by others was already possible.

The second and related problem is the implementation of a review process. This particular approach to assuring net benefit from FDI and from a high degree of foreign ownership demands very detailed and skilled analysis and a high degree of policy coordination if it is to clearly succeed. It is also likely to attract the attention of private groups and governments in other countries which believe the net benefits are being increased at their expense.

The practical difficulties of such an approach are well exemplified in Canada by the experience of FIRA. It has been criticized for the wide degree of discretionary power involved combined with a lack of explicitness on how it applied the criteria of benefit — which criteria were the more important, how trade-offs were made among them, or what account was taken of the macro effects of such micro review, for example. Part of this opaqueness clearly results from a failure by the cabinet to clarify the priorities for FIRA. However, there is also concern that a detailed review of a large number of cases each year and the continuing monitoring of a substantial number of undertakings by the firm is an unworkable process. It does not clearly increase social benefits; it invites game playing by the firms or their lawyers; it discourages some firms from new investments or mergers; it occasionally exacerbates federal-provincial relations, and generally it gives both investors and foreign governments too negative a view of the Canadian government's position (Safarian, 1978; Schultz et al., 1980; Globerman, 1979b; MacDowall, 1984; Conference Board and Beckman, 1984). MacDowall notes that 11 percent of the foreign firms which had seriously considered investment in Canada claimed to have been deterred by foreign investment controls. Half of the firms interviewed in the study by Beckman (mainly the larger ones and/or those in "sensitive" sectors) stated that FIRA hindered their investment plans in Canada by delays or its apparent rigidity and for other reasons. At least some of these problems have been alleviated by the reforms in the organization and operation of the agency, which are noted above in the section on Canada's FIRA policies. One might infer from this earlier discussion that some members of the Liberal government clearly did not accept these criticisms as valid or important, and were prepared in 1980–81 to give the agency a much broader role.

The resistance from other countries finally took the form of a reference to the GATT with respect to the undertakings on exports and on imports which are given by firms to FIRA. The United States argued that these trade-related investment measures were similar to tariffs, quotas, or subsidies in that they distorted trade. Canada, however, argued that they were not requirements, but were necessary to offset the bias against Canadian production believed to exist in MNE activity. It was found that the undertakings were contradictory to the GATT obligations in the case of imports but not for exports. Canada has accepted this recommendation and is modifying the agency's procedures accordingly.

It is unlikely that the issue of trade-related investment measures will be resolved by this case. A number of governments, most particularly the United States, have argued for some time that many countries require increases in exports and decreases in imports as a condition of receiving a subsidy for investment or for approval to invest in a country or to merge. The GATT does not explicitly cover such trade-related investment measures, although some parts of it have been interpreted to apply to the case just noted. The United States has argued that such measures cost it jobs, while many others argue that they are an aspect of development planning in a world where MNEs might favour other sources. Efforts to have the GATT consider extending its coverage to these measures have met with considerable resistance. Meanwhile, pressure continues in the U.S. Congress for retaliation through "reciprocity" legislation against countries which use such measures, whether they result from review mechanisms or investment incentives (Safarian, 1983a).

Experience elsewhere, at least among the developed countries, is not much of a guide for possible improvements to FIRA. Some countries require no authorization, except for that necessary for domestic firms when a new investment or merger occurs. They may still have much law on the subject, of course, notably in the case of merger provisions and anti-trust policy in general, where some governments, such as the United States and West Germany, are far more active than Canada. Such countries may also have other forms of policy on FDI and MNEs: the United States has a well-defined set of closed sectors, for example. Many countries require at least information on establishment, often through exchange control provisions which will alert other agencies of government to any particular problems which may arise with FDI. Regular review agencies or committees exist in countries such as Australia, France, Norway, Sweden, Japan, and many developing countries. Some other developed countries attempt this less formally. The literature on this topic mentions many problems in attempting to arrive at relatively clear and expeditious social cost-benefit analyses. These problems arise partly because of the unwillingness or inability of governments to define and rank their objectives clearly and to maintain some consistency over time, and partly because evaluating large numbers

of cases in relatively short periods has proven cumbersome, even in countries with a high level of administrative skills. It may be added that the criteria in many countries are not made public, the review is by interdepartmental committees, outcomes are not published, and much appears to be done in an ad hoc manner — all this despite the existence in some of them of more economic planning, more centralization of government power, and more public ownership than in Canada. It may well be that all of this reflects a desire to maintain flexibility and an advantage in bargaining with firms, and perhaps also to avoid the retaliation from others which more explicit procedures could bring. Most of the literature suggests strongly, however, that both the political process and the technical problems prevent fine tuning in this area beyond major project analyses.²⁴

The major exception to this position is the experience of Japan. Alone among the developed countries, it followed a policy of allowing licensing agreements, then joint ventures preferably controlled by Japanese firms. At the same time, Japan enjoyed a rapid rate of growth and industrialization. On the surface, this experience would seem to contradict previously mentioned problems in substituting efficiently for MNE investment. However, the discussion above notes that the form of technology transfer is only one of a number of issues involved in economic growth. It is well recognized by now that Japanese society has characteristics which may be difficult for others to emulate, assuming they wish to do so. In recent years, Japan has taken a far more liberal approach to inward and outward FDI, with the result that the number of such firms in Japan has started to rise rapidly from a very low base. Japan has also begun to do far more of its own research and development, rather than rely on other countries for technology, as its industrial output has become more technology-intensive (Safarian, 1983b, pp. 24–29, 60).

Some Alternative Policy Approaches

The analysis in the preceding section suggests that closing a sector in whole or part, or purchasing many of the existing firms, are blunt instruments with many drawbacks. They should be used only where the strongest arguments can be made for establishing or extending a Canadian-owned presence. Even then, there are alternative and often superior techniques to be considered. One is a subsidy to firms owned nationally so that they can maintain or increase their role. To the extent that the foreign-owned firms stay, this policy has the effect of preserving the international price and other conditions of sale, and also of preserving options for consumers in other respects. The direct cost of the policy, via subsidies, is also apparent. The subsidy has to be financed, however; hence, there may be negative effects elsewhere. The form of the subsidy is important to its further effects. Discrimination occurs against MNEs, though perhaps more acceptably, from their viewpoint, than a prohibition on entry. Still another alter-

native for governments concerned about foreign owners capturing (rising) rents is to tax more fully, perhaps by a tax designed for the resource sector, as suggested by Garnaut and Clunies-Ross (1983). Higher taxes for all petroleum and gas firms were an integral part of the NEP, though some taxes had to be postponed when prices fell. This instrument would not be sufficient for a government wishing direct public control or influence on the exploration and other decisions in the industry, as the government felt was necessary with the NEP. The existence of Petro-Canada and a large degree of regulation presumably supplies much of this control.

Turning to review mechanisms, the obvious question for most advanced countries is why they do not use general policies — via taxes, expenditures, regulation, or cooperation — to reach all firms, whatever their ownership. This is especially of interest in an age when more domestic firms are going multinational and are gradually presenting to governments some of the same policy issues as are presented by foreign-owned MNEs, as the discussion of home-country issues above noted. To the extent that firms tend to respond to the economic setting, including policy, in broadly similar and predictable ways, why should governments not rely more on across-the-board fiscal policies or regulatory procedures designed to secure general responses? Where ownership is given a high weight, this might be considered inappropriate but, as noted earlier, even here one can rely more on subsidy to domestic firms or joint venture requirements, and less on outright prohibition. The one general question which could arise is whether MNEs would respond to such policies as fully as firms with largely national bases; that is, would the costs of implementing such a policy be larger where there are many MNEs? The discussion above concludes that no general position can be taken on this. Implementation costs would be greater in some cases with MNEs, for example with transfer pricing problems. In other cases, the reverse could be true — for example, they are likely to be more responsive to some types of geographically oriented tax incentives. Moreover, as domestic firms become more multinational, the force of this argument weakens. Too much of the empirical evidence suggests rational economic behaviour by firms (albeit sometimes not optimal from a national viewpoint) to sustain the view that fiscal policies would not work in many cases.

What such an approach would involve is targetting policies toward the objectives now set for the review agency, perhaps reserving a residual power to assess on a more integrated basis some larger or more sensitive projects. (Many of the latter are unlikely to escape such attention in any case, except perhaps for ownership questions, given the host of regulatory bodies involved in natural resources and some other sectors.) Thus, competition policy, especially on mergers, would apply to all relevant takeovers, perhaps strengthened to take further account of monopoly issues relating to MNEs. Canada already has fiscal policies of various kinds to encourage exports. If more such stimulus is considered desirable, it can be considered

within the usual constraints for policies in this and other areas — what reasoning supports such a move, what costs and benefits accrue, which tax and/or expenditure instruments to use, which measures would be inconsistent with the GATT obligations, and so on. No doubt, particular institutional problems will remain to be addressed in other ways. Many Canadians have long been concerned about the limited export franchises of many subsidiaries, for example. That has more to do with the allocation of patents (and the accompanying protection against imports) than some seem prepared to admit. A study should therefore examine to what degree Canada's interests lie in supporting the present system of patent protection (see Berkowitz and Kotowitz, 1982, for example). One can make the same point on research and development policy. Federal and provincial governments in Canada now have a number of research and development programs in place, which operate under similar checks on the effectiveness of public expenditure and which also address particular institutional issues such as research and product specialization within MNEs. Similar questions can be raised about each of the objectives or criteria of performance set for the Foreign Investment Review Agency. The issues can be addressed by general tax and expenditure policies, by regulatory bodies addressing all firms, or by research and action on underlying institutional problems.

It is interesting to note that the Gray Report (1972) did not take exception to such an approach. On the contrary, its analysis led to the recommendation that some of the objectives set — for example, to improve net benefits from FDI — could be advanced through changing competition policy, tax policy, tariff policy, research policy, and patent policy in ways that advanced economic efficiency. The policies which were criticized were ones which would increase Canadian ownership across all or large parts of the Canadian economy, including both large-scale repatriations and fixed rules on joint ventures or share ownership (pp. 431–32, ch. 27). The reason for recommending administrative intervention on a case-by-case basis was the belief that the above approach would not go far enough in dealing with the issue of truncation. However, it was emphasized in the report that the outcome of case-by-case interventions might be more protection for both foreign and Canadian-controlled firms unless both general policy measures and selective ones were geared to creating “a more effective and more efficient Canadian economic environment” (p. 449).

In any event, there was fairly quick enactment of the review process, probably stronger or earlier than originally planned by the government, as part of the price for support of a minority government (Fayerweather, 1973, pp. 163–65). A decade later, most of the general policies could only be considered to have been partially reformed, at best, so as to address the objectives noted above. Indeed, a major extension of direct intervention through the review process was considered in 1980 but was set aside, in part because of the controversy over the energy program.

Consideration of general policies raises many issues. The choice between tax incentives and subsidies is complex, both in economic and political terms. Company reactions are not always as expected, and there is a revenue loss to be considered. Nevertheless, much of the evidence presented at the beginning of this study suggests that firms are highly responsive to market and cost opportunities, and also to the policy positions of governments. The latter includes the stability of policy and its general stance with regard to FDI, but also extends to some specific instruments such as corporate income tax (for example, OECD, 1983, ch. 2). However, it is also fair to say that not enough is known about the likely responses of different types of firms to policies, although considerable study has been carried out recently using industrial organization theory and related fields of business literature (Caves, 1982).

At the same time as it pursues such generalized tax, expenditure and regulatory approaches, Canada could play a more convincing role in the international institutions such as the GATT and the OECD in resolving problems with regard to direct investment. The discussion above on Canada's policies notes that Canada did not sign the 1961 OECD Code on Liberalization of Capital Movements until 1984, and that Canada has maintained a qualification on the issue of non-discriminatory treatment with regard to the 1976 OECD Declaration and Decisions on International Investment and Multinational Enterprises. Canada was roundly criticized within the OECD by a number of governments for the way in which it implemented the National Energy Program. Some of the undertakings to the Foreign Investment Review Agency served as the test case in the GATT for trade-related investment issues. Whatever the justification for such positions by Canada in the past, neither the effectiveness of the policies described in the section above nor Canada's changing investment position as described in the section on MNE strategies above would seem to warrant the continuation of such a policy stance. By a fuller commitment to international policies on FDI and MNEs, Canada could work toward developing more effective multinational policies in areas where national policies do not work or are resisted by other countries, and also toward supporting its increasingly important position as a source of direct investment.

Reasons for Regulatory Failure

Why governments insist on applying regulatory approaches to foreign owners, rather than the more generalized approaches just noted, remains to be explained. To this point, it has been assumed that national wealth maximization and a degree of policy independence were the objectives of national policy. There is a significant body of opinion which questions whether the former is the case and puts a particular interpretation on the latter. This literature on public choice theory ascribes regulatory failure

in general to the motives of the principal parties involved.²⁵ MNEs affect private and public interests in the home and host countries in very different ways. Assume that those who lose by such investments are relatively few and can organize easily, such as some domestic private firms (owners, managers, technical personnel), state corporations, and public officials, all of whom may suffer economic loss or a diminished capability to use power in certain ways or both. Assume also that those who gain by such investments are relatively many and cannot organize effectively. Governments which must be elected presumably do not worry as much about foreign investors who do not vote, or who are perceived negatively by significant interest groups. It is not difficult then to imagine that governments may take actions which benefit the smaller groups noted but which have negative growth and regressive income distribution effects. The predictive power of such an approach becomes even stronger if one adds that, while most people have some interest in maintaining a degree of national independence, some have a far more direct economic interest. Also, those who favour more public ownership or direct regulation of business are obviously concerned about how the growth of MNEs will affect these instruments. Such persons can cover a spectrum of interests, some quite influential, such as those opposing private business as such, for example, or public servants who believe it is harder to make effective policy in a world of MNEs.

It is not apparent that the electoral and group interest models have yet been adequately tested with regard to policy on foreign investment, specifically in relation to other possible explanations such as national economic welfare or (to the extent this is considered separately in the above models) various concepts of independence. Certainly it is not difficult to find considerable evidence of major income redistribution effects in the choice of instruments noted above. Both the closed sector approach and the review process create substantial potential rents for domestic private owners. In limiting competition, in requiring joint venture participation, in uncertainty about merger approval, and so on, the review agencies and programs such as the National Energy Program created a potentially rich vein for domestic interests to exploit. This point is not invalidated by the failure of some domestic interests to exploit these opportunities wisely in the early 1980s. The apparent preference for such instruments, rather than general fiscal approaches directed to all firms, can also be explained in terms of such models. The very nature of the procedures involved, such as the lack of clear rules and the capture of benefits via various kinds of undertakings rather than through revenue, may also lend support to such explanations (Caves, 1982, p. 291). Whatever weight one ultimately gives to them, they should be kept in mind as possibly significant explanatory variables for the policies observed, as well as possible obstacles to fundamental reform of those policies.

Conclusions

The conclusions can be put briefly in four points. First, there is a considerable imbalance between what the weight of theory and evidence would support and what in fact is done by way of policy in this area. Second, policy design leaves much to be desired. Third, there are aspects of policy which deserve more attention, sometimes as alternatives to what is now being done. Finally, Canada's policy stance on this set of issues needs rethinking.

There is a considerable contrast between the available systematic evidence on the economic effects of FDI and MNEs and what governments have attempted to do by way of policy.²⁶ One case in point is the concept of truncation, where the evidence on it is uneven, the welfare effects are not one-sided where it exists, and there is a better explanation than the one that emphasizes MNEs. In other cases also, negative general welfare conclusions do not stand up to much scrutiny. The question of independence itself is not clear-cut: there are a limited number of situations where the nation-states involved are prepared to treat it as an absolute with no trade-offs of any kind, and the issues are not one-sided where MNEs are involved. Even the important issue of extraterritoriality is fundamentally a conflict between sovereign states with MNEs generally caught in the middle.

There are some important economic issues, nevertheless, and one may wish to give a larger weight to non-economic issues in some cases. The problem which then arises is that the policy instruments used and the design of those instruments are far from optimal. They do not appear to clearly realize the domestic policy objectives set for them, or they do so in ways which conflict significantly with other objectives. They may also be deemed by other countries to be discriminatory, and draw retaliation or serious threats of it. The review agency in Canada, for example, leaving aside the original economic justification given for it, was far too ambitious in its terms of reference and cumbersome in terms of the procedures involved. It has since been substantially changed in its operations, but it can be just as readily turned around again. The energy program introduced important elements of discrimination against established foreign-owned firms and took large macroeconomic risks in the processes involved in establishing more Canadian ownership and control.

There were and are alternatives to such approaches, which, among other things, lessen significantly the international consequences for a country interested in retaining foreign trade and investment access. Where considered necessary, policies can be directed to the performance of all relevant firms. This can be done in a generalized way through fiscal policy and through the operation of existing regulatory policies, or by reform directed to a particular sector or issue. Major project analysis is likely

to occur in any case, given government financial and regulatory involvement in such projects, but it is not clear what is gained by having large numbers of smaller firms go through a review process, even one that is simplified. As for the energy program, governments can tax rents and they do so, and a substantial regulatory presence as well as several public corporations exist. If further domestic ownership is a high priority, concentration on major new projects would limit the considerable downside risk involved in the exercise and bring ownership ratios down, albeit more slowly. If the present incentives continue, a repetition of the events of 1981 (hopefully on a less damaging scale) is not unlikely in any period when recovery is under way and oil prices are stable or rising. There is a considerable built-in incentive between NEP and FIRA, as presently constructed, for Canadian-owned firms to buy out foreign-owned assets. Whether that occurs through net capital export or substitution of foreign debt for equity, the effect is likely to be downward pressure on the exchange rate and upward pressure on interest rates. Periods of economic upswing during the 1980s, in brief, are likely to be dampened with present policies.

There are a number of policy areas which deserve more attention, sometimes as alternatives to present instruments. Two of the more important ones may be noted. First, the gains from taxation of MNEs stand out strongly in the literature on possible net benefits. There are a number of problems here. Canada and the United States now cooperate on some transfer pricing issues, but it is not clear that Canada has made the substantial investment that the United States has made in looking at these issues from its perspective. The U.S.-Canada tax treaty of 1942 was under renegotiation for almost 12 years before it was ratified in 1984, and in any case does not cover such important newer issues as the unitary tax problem, which is of major interest in federal systems (Bird and Brean, 1984, pp. 17-23). A critical issue — the taxation of resource rents — apparently still needs more research if one considers that governments are prepared to undertake major policies on ownership, partly in order to internalize such rents. The competition for investment by way of tax subsidies has become acute in some sectors, especially among provincial and U.S. state governments, probably often leading to little change in the level or allocation of investment but to quite significant increases in the public subsidy involved. Second, Canada and other countries have a major stake in resolving problems of extraterritorial extension of law and policy through MNEs. Blocking of other countries' laws may apply some relief, but it is unlikely to be a lasting solution. Some further attempts at international agreement among countries with similar legal and other structures may be the best way to proceed in this difficult but important area (Hermann, 1982, ch. 7).

It is high time to consider a new approach to Canadian policy. Canada's position on the issues covered in this paper has been significantly influenced in the past by the fact that foreign ownership of industry is unusually large and that one other country accounts for most of it. Policy has been directed particularly to the concerns of an unusual host country, including the maintenance in the OECD and elsewhere of some national capacity to address those concerns. There are at least four reasons why this position should be changed.

First, the analysis above strongly suggests that existing policies geared to foreign-owned firms fail to attack the basic reasons for poor industrial performance, they involve important macroeconomic costs when they do reduce foreign ownership, and they invite retaliation.

Second, Canada's position with regard to FDI seems to reflect the concerns of the 1960s more than the realities of the 1980s. Partly because of the unfortunate lag in the publication of data in this field — a lag which should be remedied — neither policy makers nor the public appear to have grasped the substantial shift in Canada's experience with FDI.²⁷ Its share of the OECD total of inward FDI flows dropped from 16 percent during the early 1960s to 3 percent during the late 1970s and to a negative figure during the early 1980s, while the share of outward flows rose from 2 percent to 6 percent and then to 9 percent over these periods (Table 2-2). At the same time, the absolute stock of direct investment in Canada continues to rise because of retained earnings and increased activity in some sectors such as energy. Nevertheless, foreign control of Canadian industry as a whole (excluding agriculture and finance) has fallen from 34 percent in 1974 to 26 percent in 1981, with that in manufacturing declining from 58 percent to 50 percent and that in petroleum and natural gas from 75 percent to 44 percent. The stock of Canadian direct investment abroad, measured by book value, has nearly doubled from \$20 billion at the end of 1979 to \$39 billion at the end of 1983, while the stock of FDI in Canada rose from \$54.3 billion to \$72.5 billion in the same period. Put otherwise, Canada's stock of direct investment abroad as a proportion of the stock of direct investment in Canada has risen rapidly from 25.3 percent in 1974 to 36.8 percent in 1979 and to 53.8 percent in 1983. Canada has become, in brief, relatively less attractive as a host country while also developing a significant home country status. The developments on the outward side in particular are so rapid that there has been insufficient study of the economic and political effects for Canada.

Third, both of the above points suggest that Canada should be shifting more to general policies designed to improving the performance of all firms, rather than to discriminatory and often highly discretionary policies aimed at foreign-owned firms. Whether it is competition policy, tax policy, expenditure policies such as research support, or foreign trade policies,

such generalized policies offer ways of altering the basic market and cost environment in which both foreign-owned and Canadian-owned MNEs operate, as well as the many Canadian firms which are affected by foreign trade. Moreover, such policies run less risk of retaliation or the threat of retaliation.

Fourth, such an approach would also permit Canada to play a more convincing role in various bilateral and international settings and organizations in pursuit of her national interests. The discussions on sectoral trade arrangements with the United States, for example, are unlikely to have proceeded far without raising questions about the appropriateness of our foreign investment policies for such arrangements. Multinational policies on transfer pricing and on the international aspects of competition policy allow for more effective ways of dealing with MNEs than purely national approaches. Consistent with our general support for the principles of the GATT, we could pursue more vigorously the control of various non-tariff barriers, such as trade-related investment measures, which governments often apply through MNEs.

Special Note on New Legislation (added December 1984)

After this study was completed, the Government of Canada proposed to replace the Foreign Investment Review Act with the Investment Canada Act. The objective of the new Act is to encourage both Canadians and non-Canadians to make investments in Canada which contribute to economic growth and employment. The important changes in coverage are that review will no longer take place for new investments from abroad, acquisitions by non-residents of Canadian companies with assets under \$5 million, or indirect acquisitions (of parent companies outside Canada) under \$50 million. However, Investment Canada must be notified about those investments and acquisitions which are not reviewable, and review will take place in all cases which involve culturally sensitive sectors, regardless of size. Acquisitions will be allowed if they are likely to be of "net benefit" to Canada, a change from the present wording which refers to "significant benefit." The minister of Regional Industrial Expansion, rather than the cabinet as at present, will be authorized to make decisions, under firm deadlines and clearer rules for deciding the status of corporations.

The proposed Act takes a substantial further step toward meeting a number of the objections regarding the present Act which are noted in this study. It is important to note that larger acquisitions and all foreign investment in culturally sensitive sectors will continue to be reviewed; that the list of factors taken into account in such reviews remains virtually unchanged; and that undertakings regarding such factors will still be necessary where acquisitions are approved. It is estimated that one-tenth of the number of transactions and two-thirds of the value of transactions

which are subject to review under present procedures will be subject to review under the new Act.

The government has also announced that major revisions will be made to the National Energy Program.

Notes

This paper was completed in October 1984. While accepting full responsibility for this study, I would like to acknowledge the helpful comments of members of the Research Advisory Group on International Trade, particularly Professors J. Markusen, R. Shearer, and J. Whalley, as well as those by two anonymous referees. I am grateful also for the support of the Social Sciences and Humanities Research Council of Canada.

While the more recent preliminary projections shown in the text, which were supplied by courtesy of Statistics Canada, are gratefully acknowledged, it seems clear that more resources should be involved in this process in order to allow earlier publication of at least the preliminary data.

1. Foreign direct investment refers to the inward or outward flows of capital and, in principle, also to retained earnings, during a given period of time, where the operating companies located in each country are affiliated by control of the voting shares in a multinational enterprise. The stock of FDI refers to the total past investment, measured at a given point of time. The country in which the parent company is located is commonly referred to as the home country, that of the subsidiary as the host country. See also note 27 and notes to Table 2-4.
2. According to the Statistics Canada *Bulletin* for January 26, 1983, the proportion of equity controlled from abroad in 1981 accounted for 50 percent of the capital in Canadian manufacturing, 44 percent (51 percent in 1980) of that in petroleum and natural gas, 46 percent of that in mining and smelting, and 26 percent of the total capital in all industry outside agriculture and finance. These figures compare with shares of control of 58, 75, 58, and 34 percent, respectively, in 1974. The United States accounts for about 80 percent of the foreign direct investment in Canada.
3. The figures that follow in the text apply to different years during the 1970s and are sometimes measured in relation to sales or production. Hence, they should be taken only to indicate the relative positions of different countries. See United Nations (1978, pp. 263-74); United Nations (1983b, pp. 350-54); Safarian (1983b, p. 8), and individual country studies.
4. One can explore these issues also by examining economies of firm size and especially of multi-plant operation. Where plants are extended abroad, an MNE is created. I have used the internalization approach so as to highlight the policy choice faced by governments in attempting to substitute markets and contract for the firm. See Scherer et al. (1975) and Markusen (1981).
5. Studies by Teece (1977) show the average costs of transferring 26 processes were 19 percent of the total costs of the project receiving it, with the range varying from 2 to 59 percent.
6. It is also of interest to note the positions of Bhagwati and Brecher (1980) and Burgess (1980). They show that the argument for welfare improvement from liberal trade policy implicitly assumes domestic ownership of factors of production. Where that is not so, it can be shown that the income redistribution effects of trade liberalization, by shifting domestic income between resident and non-resident owners, can reduce the income of domestic capital and labour. Measures to offset such redistributive effects may be necessary when governments favour trade liberalization.
7. For an analysis of the various types of conflicts involved and of solutions, see Hermann (1982).
8. For example, only one or two formal diplomatic protests concerning policy on U.S.-owned firms in Canada have been received in recent years in Ottawa from the U.S. government. Informal protests are quite another matter.

9. It is worth adding, especially in the present context of high real interest rates, that equity financing may offer an unknown and expanding liability when growth occurs, but debt financing abroad gives a very onerous liability when growth ceases.
10. Brean (1983) emphasizes that an MNE can achieve virtually the same objectives as does transfer pricing by adjusting its financial strategy on such matters as the proportion of debt and equity.
11. See Brean (1984, ch. 7) for a development of these points as well as a discussion of other aspects of the taxation of FDI. For an analysis of the U.S. tax loss and other home-country issues, see Bergsten et al. (1978).
12. These tests and the debate more generally are summarized in Safarian (1979).
13. The market is small, it may be noted, both because of barriers to exports and because of the fragmentation effect just noted.
14. For a detailed statement of the legislation, see Foreign Investment Review Agency (1977), Parts I and II. The laws relating to the National Energy Program are the major addition to this statement since its preparation.
15. It should be added that capital gains tax is payable on the death of the owner in such cases.
16. For a thorough discussion of U.S. antitrust law in this context, see Thomas (1983).
17. See the Special Note on New Legislation at the end of this study.
18. The benefits reviewed are listed in the data on individual allowances as increased employment, new investment, increased resource processing or use of Canadian parts and services, additional exports, Canadian participation (as shareholders, directors, managers), improved productivity and industrial efficiency, enhanced technological development, improved product variety and innovation, beneficial impact on competition, and compatibility with industrial and economic policies.
19. It should be added that 18 percent and 12 percent respectively, of the proposals were withdrawn in the period 1980-82. These would be for a variety of reasons not all related to the review process, and some would be allowed in subsequent applications.
20. The figures given earlier for foreign ownership of this sector are much lower because they are based on a more comprehensive definition of the industry, including sectors (reserves, transmission and distribution) where Canadian ownership is higher.
21. See Safarian (1983b), especially Part 2, for parts of what follow.
22. Table 2-2 gives data on inward and outward stocks. The stock of (outward) direct investment as a percentage of the stock of (inward) direct investment for 1978 was as follows: Australia, 10 percent; Belgium, 49 percent; Canada, 32 percent; France, 100 percent; West Germany, 109 percent; Italy, 33 percent; Japan, 1,218 percent; Sweden, 462 percent; Switzerland, 361 percent; Britain, 127 percent; and the United States, 412 percent. As noted in the conclusions, the proportion for Canada had risen to 54 percent by 1983.
23. One other feature of Australian policy is worth noting. A "naturalized" foreign investor is one where there is at least 51 percent Australian ownership and a majority of the board are Australians, a "naturalization" investor has the same board and only 25 percent Australian equity but has committed itself to reach 51 percent equity. These two types of firms can proceed with new projects, alone or with others, so long as the ownership mix in these is 50 percent.
24. It would take a great deal of space to demonstrate this conclusion fully. From my own research, it is clear that it is a view widely shared by both officers of governments and of MNEs in the developed countries. There is some support for it in the literature on the developing countries in the sense that emphasis on a few criteria appear to bring more convincing outcomes than attempts to apply a wide set of criteria. See, for example, Safarian (1978, 1983b); Boddewyn (1974); Bonnard and Bosser (1973); Lall and Streeten (1977); Robinson (1976); United Nations (1983a, part 2); and Lombard (1978).
25. Breton (1964) and Johnson (1965) gave the strongest early statements to the effect that economic nationalism amounted to protectionism which, while it can raise real income in narrowly defined circumstances, was more likely to redistribute it given the political processes involved. Their model has been sharply criticized by Watkins (1978) but also applied by Migué (1979) to explain various policies in Quebec and Canada. The public

- choice literature is covered by Hartle (1976) and by Trebilcock et al. (1982). Vernon (1971, ch. 6) notes the effects of MNEs on group interests, and Caves (1982, ch. 10) applies these ideas to policy issues regarding MNEs.
26. As Caves (1982), put it, "I know of no subject in economic policy in which the issues that excite public discussion bear so little relation to the welfare issues identified by normative economists" (p. xi).
 27. Canadian data on the stock of direct investment and on foreign ownership and control of Canadian industry have a long and distinguished history. Nevertheless, the task is of such a magnitude that a substantial lag exists in publication. In mid-1984, the latest published data on the outward and inward stock of FDI were for the end of 1981 and 1980, respectively, while the latest published data on foreign ownership and control were for the end of 1981. A related problem is that the data on the balance of international payments show retained earnings on FDI in Canada and abroad with a considerable lag. Hence, the current data on direct investment flows understate substantially what is happening to international indebtedness.

Bibliography

- Australia. Foreign Investment Review Board. 1982. *Report*. Canberra: FIRB.
- Baldwin, J.R. and P.K. Gorecki, with J. McVey and J. Crysdale. 1983a. "Entry and Exit to the Canadian Manufacturing Sector: 1970-1979." Discussion Paper 225. Ottawa: Economic Council of Canada.
- . 1983b. "Trade, Tariffs and Relative Plant Scale in Canadian Manufacturing Industries: 1970-1979." Discussion Paper 232. Ottawa: Economic Council of Canada.
- . 1983c. "Trade, Tariffs, Product Diversity and Length of Production Run in Canadian Manufacturing Industry." Discussion Paper 247. Ottawa: Economic Council of Canada.
- Beckman, C.M. 1984. *The Foreign Investment Review Agency: Images and Realities*. Study 84. Ottawa: Conference Board of Canada.
- Bergsten, C.F., T. Horst, and T.H. Moran. 1978. *American Multinationals and American Interests*. Washington, D.C.: Brookings Institution.
- Berkowitz, M.K., and Y. Kotowitz. 1982. "Patent Policy in an Open Economy." *Canadian Journal of Economics* 15 (1): 2-17.
- Bhagwati, J., and R.A. Brecher. 1980. "National Welfare in an Open Economy in the Presence of Foreign-Owned Factors of Production." *Journal of International Economics* 10: 103-115.
- Bird, R.M., and D.S. Brean. 1984. "Canada-U.S. Tax Relations: Issues and Perspectives." Paper presented to the Second Annual Workshop on U.S.-Canadian Relations, University of Western Ontario, London. Mimeographed.
- Boddewyn, J.J. 1974. "Western European Policies Towards U.S. Investors." *The Bulletin* (Institute of Finance, New York University): 7-95 (March)
- Bonnaud, J.J., and A. Bosser. 1973. "La politique économique des pouvoirs publics et les grandes firmes internationales en France." in *La croissance de la grande firme internationale*, edited by G. Y. Bertin. Paris: Centre national de la recherche scientifique.
- Brean, D.S. 1983. "Financial Dimensions of Transfer Pricing". Paper presented to a conference on multinationals and transfer pricing, Dalhousie University, Halifax. Mimeographed.
- . 1984. *International Issues in Taxation: The Canadian Perspective*. Tax Paper 75. Toronto: Canadian Tax Foundation.
- Breton, A. 1964. "The Economics of Nationalism." *Journal of Political Economy* 72 (4): 376-86.
- Buckley, Peter J., and Mark Casson. 1976. *The Future of the Multinational Enterprise*. London: Macmillan.
- Burgess, D.F. 1980. Protection, Real Wages, Real Incomes and Foreign Ownership." *Can-*

- dian Journal of Economics* 13(4): 549–614.
- Canada. Department of Energy, Mines and Resources. 1980. *The National Energy Program, 1980*. Ottawa: EMR.
- Caves, R.E. 1982. *Multinational Enterprise and Economic Analysis*. Cambridge: Harvard University Press.
- . 1974. "Multinational Firms, Competition and Productivity in Host-Country Markets." *Economica* (May): 169–93.
- Caves, R.E., H. Crookell, and J.P. Killing. 1982. "The Imperfect Market for Technology Licenses." Discussion Paper 903. Cambridge: Harvard Institute for Economic Research, Mimeographed.
- Caves, R.E., M.E. Porter, A.M. Spence, and J.T. Scott. 1980. *Competition in the Open Economy: A Model Applied to Canada*. Cambridge: Harvard University Press.
- Cohen, B.I. 1975. *Multinational Firms and Asian Exports*. New Haven: Yale University Press.
- Daly, D., and S. Globerman. 1976. *Tariff and Science Policies: Applications of a Model of Nationalism*. Toronto: Ontario Economic Council and University of Toronto Press.
- Davidson, W.H., and D.G. McFetridge. 1984. "International Technology Transactions and the Theory of the Firm." *Journal of Industrial Economics* 3: 253–64.
- Doz, Y.L. 1980. "Strategic Management in Multinational Companies." *Sloan Management Review* 21 (Winter): 27–46.
- Dunning, J. 1973. "The Determinants of International Production." *Oxford Economic Papers* 25 (3): 289–336.
- Eastman, H.C., and S. Stykolt. 1967. *The Tariff and Competition in Canada*. Toronto: Macmillan.
- Economic Council of Canada. 1975. *Looking Outward: A New Trade Strategy for Canada*. Ottawa: Information Canada.
- . 1983a. *The Bottom Line: Technology, Trade and Income Growth*. Ottawa: Minister of Supply and Services Canada.
- . 1983b. *On the Mend: Twentieth Annual Review*. Ottawa: Minister of Supply and Services Canada.
- Fayerweather, J. 1974. *The Mercantile Bank Affair*. New York: New York University Press.
- Foreign Investment Review Agency. 1977, 1978. *Selected Readings in Canadian Legislation Affecting Foreign Investment in Canada*. Part I: *Federal Laws and Regulations as of October 1977*. Part II: *Provincial Laws and Regulations as of November 1977*. Ottawa: FIRA.
- Frank, R.H., and R.T. Freeman. 1978. *Distributional Consequences of Direct Foreign Investment*. New York: Academic Press.
- Garnaut, R., and A. Clunies-Ross. 1983. *Taxation of Mineral Rents*. Oxford: Oxford University Press.
- Globerman, Steven. 1979a. "Foreign Direct Investment and "Spillover" Efficiency Benefits in Canadian Manufacturing Industries." *Canadian Journal of Economics* 12 (February) 42–56.
- . 1979b. *U.S. Ownership of Firms in Canada*. Montreal: C.D. Howe Research Institute.
- Goldsborough, D.J. 1981. "International Trade of Multinational Corporations and Its Responsiveness to Changes in Aggregate Demand or Relative Prices." *IMF Staff Papers* 28 (3): 573–99.
- Gorecki, Paul H. 1976a. *Economies of Scale and Efficient Plant Size in Canadian Manufacturing Industries*. Ottawa: Consumer and Corporate Affairs.
- . 1976b. "The Determinants of Entry by Domestic and Foreign Enterprise in Canadian Manufacturing Industries." *Review of Economics and Statistics* 58: 485–88.
- Gray Report. 1972. *Foreign Direct Investment in Canada*. Ottawa: Information Canada.
- Grosse, R.E. 1980. *Foreign Investment Codes and Location of Direct Investment*. New York: Praeger.
- Grubel, Herbert G. 1974. "Taxation and the Rate of Return from some U.S. Asset Holdings Abroad, 1960–1969." *Journal of Political Economy* 82: 469–81.

- Gupta, V.K. 1979. "Suboptimal Capacity and Its Determinants in Canadian Manufacturing Industries." *Review of Economics and Statistics* 61 (4): 506-12.
- Harris, R.G. with David Cox. 1983. *Trade, Industrial Policy and Canadian Manufacturing*. Toronto: Ontario Economic Council.
- Hartle, D. 1976. *A Theory of the Budgetary Expenditure Process*. Toronto: Ontario Economic Council.
- Helliwell, J.F., and Jillian Broadbent. 1972. "How Much Does Foreign Capital Matter?" *B.C. Studies* 13 (Spring): 39-42.
- Helliwell, J.F., M.E. MacGregor, and A. Plourde. 1983. "Changes in Canadian Energy Demand, Supply and Policies, 1974 - 86." *Natural Resources Journal* 24 (Special Issue, April 1984): 297-324.
- Hermann, A.H. 1982. *Conflicts of National Laws with International Business Activity: Issues of Extraterritoriality*. Washington, D.C.: British - North American Committee.
- Horst, I. 1971. "The Theory of the Multinational Firm: Optimal Behaviour under Different Tariff and Tax Rates." *Journal of Political Economy* 79 (5): 1059-72.
- Hufbauer, G.C., and F.M. Adler. 1968. *Overseas Manufacturing Investment and the Balance of Payments*. Tax Policy Research Study No. 1. Washington, D.C.: United States Treasury Department.
- Hymer, S. 1960. *The International Operations of National Firms: A Study of Direct Foreign Investment*. Ph.D. Dissertation. Massachusetts Institute of Technology, Cambridge. (Also published in 1976 under this title by MIT Press, Cambridge, Mass.)
- Jenkins, Glen P. 1979. "Taxes and Tariffs and the Evaluation of the Benefit from Foreign Investment." *Canadian Journal of Economics* 12 (3): 410-25.
- Johnson, H.G. 1965. "A Theoretical Model of Economic Nationalism in New and Developing Countries." *Political Science Quarterly* 80 (2): 109-85.
- . 1970. "The Efficiency and Welfare Implications of the International Corporation." In *The International Corporation*, edited by C.P. Kindleberger. Cambridge: MIT Press.
- Kopits, G.F. 1976. "Intrafirm Royalties Crossing Frontiers and Transfer Pricing Behaviour." *Economic Journal* 86: 791-805.
- Krueger, A.O. 1978. "Alternative Trade Strategies and Employment in LDCs." *American Economic Association Papers* (May).
- Lall, S. 1973. "Transfer Pricing by Multinational Manufacturing Firms." *Oxford Bulletin of Economics and Statistics* 35: 179-95.
- . 1978. "Transnationals, Domestic Enterprises, and Industrial Structure in Host LDCs: A Survey." *Oxford Economic Papers*, 30: 217-48.
- Lall, S., and P. Streeten. 1977. *Foreign Investment, Transnationals and Developing Countries*. London: Macmillan.
- Lavergne, R., and G.K. Helleiner. 1983. "U.S. Transnational Corporations and the Structure of U.S. Trade Barriers: An Empirical Investigation." A study for the UN Centre on Transnational Corporations. Mimeographed. New York: United Nations.
- Levitt, Kari. 1970. *Silent Surrender: The Multinational Corporation in Canada*. Toronto: Macmillan.
- Leyton Brown, David. 1974. "The Multinational Enterprise and Conflict in Canadian-American Relations." *International Organization* 28 (4): 733-53.
- Lombard, F.J. 1978. "Screening Foreign Direct Investment in LDCs: Empirical Findings of the Colombian Case, 1967 - 75." *Journal of International Business Studies* (Winter).
- MacCharles, D.C. 1978. "The Cost of Administrative Organization in Canadian Secondary Manufacturing Industries." Ph.D dissertation, University of Toronto.
- MacDougall, G.D.A. 1960. "The Benefits and Costs of Direct Investment from Abroad: a Theoretical Approach." *Economic Record* 36.
- MacDowell, D. 1984. *A Fit Place for Investment?* Study 81. Ottawa: The Conference Board of Canada.
- Mansfield, E., and A. Romeo. 1980. "Technology Transfer to Overseas Subsidiaries by U.S.-Based Firms." *Quarterly Journal of Economics* 95: 737-50.

- Markusen, J.R. 1981. "Multinationals and the Gains from Trade: A Theoretical Analysis Based on Economies of Multi-Plant Operation." London: University of Western Ontario. Mimeographed.
- Markusen, J.R., and J.R. Melvin. 1979. "Tariffs, Capital Mobility and Foreign Ownership." *Journal of International Economics* 9 (August): 395-409.
- McMullen, K. 1982. "A Model of Lag Lengths for Innovation Adoption by Canadian Firms." Discussion Paper 126. Ottawa: Economic Council of Canada.
- McQuaig, L. 1984. *Globe and Mail*, Toronto, March 10, pp. 1 and 3.
- Michalet, C.-A. 1983. "Strategies des firmes multinationales dans la crise économique." Paper read at the Seventh World Economic Congress of the International Economic Association, September, Madrid. Mimeographed.
- Migué, J.-L. 1979. *Nationalist Policies: An Economic Approach*. Montreal: C.D. Howe Research Institute.
- Musgrave, P. 1975. "Direct Investment Abroad and the Multinationals: Effects on the United States Economy." Subcommittee on Multinational Corporations of the Committee on Foreign Relations, U.S. Senate. Washington, D.C.
- Organisation for Economic Co-operation and Development. 1983. *Investment Incentives and Disincentives in OECD Member Countries and the International Investment Process*. Paris: OECD.
- Penner, R.G. 1966. "The Benefits of Foreign Investment in Canada, 1950 - 1956." *Canadian Journal of Economics and Political Science* 32 (2): 172-83.
- Powrie, T. 1978. *The Contribution of Foreign Capital to Canadian Growth*. Edmonton: Hurtig.
- Quirin, G.D., and G.F. Mathewson. 1979. *Fiscal Transfer Pricing in Multinational Corporations*. Toronto: Ontario Economic Council.
- Reddaway, W.B. et al. 1968. *Effects of U.K. Direct Investment Overseas. Final Report*. Cambridge: Cambridge University Press.
- Robinson, R.R. 1976. *National Control of Foreign Business Entry: A Survey of Fifteen Countries*. New York: Praeger.
- Root, F.R., and A.A. Ahmed. 1978. "The Influence of Policy Instruments on Manufacturing Direct Foreign Investment in Developing Countries." *Journal of International Business Studies* 9: 81-83.
- Rosenbluth, G. 1970. "The Relation Between Foreign Control and Concentration in Canadian Industry." *Canadian Journal of Economics* 3 (1): 14-38.
- Rugman, Alan M. 1982. *New Theories of the Multinational Enterprise*. London: Croom Helm.
- Safarian, A.E. 1966. *Foreign Ownership of Canadian Industry*. Toronto: McGraw Hill.
- . 1978. "Policy on Multinational Enterprises in Developed Countries." *Canadian Journal of Economics* 11 (4): 641-55.
- . 1979. "Foreign Ownership and Industrial Behaviour: A Comment on The Weakest Link." *Canadian Public Policy* 3: 318-35.
- . 1983a. "Trade Related Investment Issues." In *Trade Policy in the 1980s*, edited by W.R. Cline. Washington, D.C.: Institute for International Economics.
- . 1983b. *Governments and Multinationals: Policies in the Developed Countries*. Washington, D.C.: British-North American Committee.
- Saunders, R.S. 1980. "The Determinants of Productivity in Canadian Manufacturing Industries." *Journal of Industrial Economics* 29: 167-84.
- Scherer, F.H. et al. 1975. *The Economics of Multi-Plant Operations*. Cambridge: Harvard University Press.
- Schultz, R., F. Swedlove, and K. Swinton. 1980. "The Cabinet as a Regulatory Body: The Case of the Foreign investment Review Act." Regulatory Reference, Working Paper 6, Ottawa: Economic Council of Canada.
- Steuer, M.D. et al. 1973. *The Impact of Foreign Direct Investment in the United Kingdom*. London: HMSO.

- Teece, D.J. 1977. "Technology Transfer by Multinational Firms: The Resource Cost of Transferring Technological Know How." *Economic Journal* 87: 241-61.
- Thomas, J.C. 1983. "Conflict over Extraterritorial Application of United States Antitrust Law: A Canadian Perspective." Paper presented to a conference of the UBC Institute for International Relations and the Institute for Research on Public Policy, Vancouver. Mimeographed.
- Trebilcock, M.J., D.G. Hartle, J.R. Prichard, and D.W. Dewees. 1982. *The Choice of Governing Instrument*. Study prepared for the Economic Council of Canada. Ottawa: Minister of Supply and Services Canada.
- United Nations. 1978. *National Legislation and Regulations Relating to Transnational Corporations*. New York: Centre on Transnational Corporations.
- . 1983a. *National Legislation and Regulations Relating to Transnational Corporations*. New York: Centre on Transnational Corporations.
- . 1983b. *Transnational Corporations in World Development: Third Survey*. New York: Centre on Transnational Corporations.
- Vernon, Raymond. 1971. *Sovereignty at Bay*. New York: Basic Books.
- . 1979. "The Product Cycle Hypothesis in a New International Economic Environment." *Oxford Bulletin of Economics and Statistics* 41 (November): 255-67.
- Vernon, Raymond, and W.H. Davidson. 1979 "Foreign Production of Technology-Intensive Products by U.S.-Based Multinational Enterprises." A Study for the National Science Foundation, Boston. Mimeographed.
- Watkins, M. 1978. "The Economics of Nationalism and the Nationality of Economists: A Critique of Neoclassical Theorizing." *Canadian Journal of Economics* 11 (4), (supplement): 87-120
- Wilkinson, B.W. 1979. "Long-Term Capital Inflows and Balance of Payments Policy." A paper in the Walter Gordon Lecture Series. Mimeographed. Winnipeg: University of Manitoba.
- . 1982. "Foreign Ownership and Canadian Manufacturing." Paper presented at a conference on economic policies for Canada in the 1980s, University of Manitoba, Winnipeg. Mimeographed.
- Williams, M.C. 1975. "The Extent and Significance of the Nationalization of Foreign-owned Assets in Developing Countries, 1956-72." *Oxford Economic Papers* 27: 260-73.



Immigration Policy and Canadian Economic Growth

W.L. MARR AND M.B. PERCY

Introduction

It is impossible to draw any generalizations about the relationship between growth of population and the growth of economic wealth merely from history.

Joan Robinson, *Collected Economic Papers*

Nevertheless, one cannot repress the thought that perhaps the whole industrial revolution of the last two hundred years has been nothing else but a vast secular boom, largely induced by the unparalleled rise in population.

J.R. Hicks, *Value and Capital*

In 1973, the Canadian government undertook a fundamental review of immigration policy that culminated, after the issuance of a green paper (Employment and Immigration, 1975) and subsequent public debate, in the introduction in Parliament in 1976 of a new immigration act that became law in 1978. The legislation adopted a relatively restrictive posture toward increased immigration and was in sharp contrast to the expansionist approach that had characterized much of the period since Confederation. For the first time, Canadian immigration policy, as expressed in section 7 of the act, explicitly required authorities to set target levels or quotas for immigrant admissions and linked the volume and composition of the flow to economic conditions and demographic requirements in Canada. Immigration regulations continued and further strengthened policies formalized in 1962 that linked the admission of economic immigrants (as opposed to those admitted on humanitarian and social grounds) to narrowly defined labour market criteria. The economic objective set out for immigration policy in section 3 of the act is "to foster the development of a strong and viable economy and the prosperity of all regions in Canada." (See Appendix A for the statement of objectives in the act.)

The shift of Canada to a more restrictive and less flexible immigration policy in this period is consistent with the acceptance by many in the early 1970s of the view that population growth in general and the component due to immigration in particular entailed greater costs than benefits to society. Perhaps the clearest expression of this perspective is found in the green paper:

Through much of Canada's history, the arguments supporting rapid population expansion seemed compelling, and coloured national attitudes towards immigration. Forcible as they were in the past, and although they still have support from many, the validity of these arguments in contemporary circumstances is now being questioned. To many Canadians living in a modern industrialized and increasingly urbanized society, the benefits of high rates of population growth appear dubious on several grounds.

Canada, like most advanced nations, counts the costs of more people in terms of congested metropolitan areas, housing shortages, pressures on arable land, damage to the environment — in short, the familiar catalogue of problems which most prosperous and sophisticated societies are currently endeavouring to overcome.

(Employment and Immigration Canada, 1975, p. 5)

The resurgence of this Malthusian perspective on growth within developed economies had a number of causes. The Club of Rome literature, particularly *The Limits to Growth* (Meadows et al., 1972), and other popular works such as the *Population Bomb* (Ehrlich, 1968), whether correct or not, focussed popular attention on worst-case scenarios of the consequences of rapid population growth. In the United States, for example, a Presidential Commission on Population (1972) recommended among other things that zero population growth be the demographic target for the country, that immigration not be increased, and that its demographic consequences be assessed. Economic pressures also contributed to this pessimistic appraisal of the benefits of population growth. The energy crisis in particular and apparent structural weaknesses, including the productivity slowdown observed in most industrialized economies and the persistence of both high rates of inflation and unemployment, created immense pressures on governments to protect the living standards of domestic residents. An obvious stopgap measure in the face of the apparently intractable nature of the underlying problems was to restrict international immigration or, in the case of Western Europe, to repatriate "guest workers."

The basic philosophy that underlies the current act and accompanying immigration regulations appears to be that the economic effects of immigration are small and would be negative were not the magnitude of immigration and admission criteria closely linked to short-run labour market conditions such as vacancy and unemployment rates in specific occupations. This perspective represents a major break with previous immigration policy, and is certainly not consistent with the basic premise of the earlier white paper on immigration that "... immigration tends to increase

the real income per person available to all Canadians'' (Canada, 1966, p. 8). This latter policy document was unabashedly in favour of greater immigration, though with selection criteria linked more closely to the state of the Canadian labour market.

This paper examines the two competing perspectives (white paper versus green paper) on the contribution of immigration to per capita income growth to determine which forms the most realistic basis for regulation. In addressing this topic, the paper stresses conflicts that arise between a global and a national perspective in setting criteria for regulation of immigration.

The paper consists of five sections. The first is essentially descriptive and begins with an outline of the 1976 Immigration Act and the accompanying regulations, giving particular attention to the demographic and labour market provisions. Appendix B provides a brief statistical overview of the main features of immigration to Canada since the 1960s.

The second section analyzes the tensions between global and national perspectives in regulating immigration. This section reviews predictions based on theory and the empirical evidence regarding immigration and per capita income levels in the receiving countries. The empirical evidence suggests that significant income gains could be realized from pursuing a global perspective in immigration policy and moving toward a regime of unrestricted international mobility of labour. Domestic considerations in the receiving countries, especially the implications of large-scale immigration for income distribution, make it unlikely that these countries would adopt such a policy.

The third section focusses on three aspects of Canadian immigration policy. First, it assesses the implications of a restrictive immigration policy on per capita income in Canada and considers the possibility that aggregate growth can have a positive effect on per capita income. Second, it examines the consequences of basing economic immigration on domestic labour market requirements and asks whether domestic residents gain from an emphasis on "absorptive capacity" in the long run. Third, it analyzes the potential role for immigration policy in achieving domestic economic goals such as balanced regional growth and demographic targets, asking how much scope really exists for the use of immigration as a policy instrument.

The fourth and fifth sections focus on the content of potential policies. The fourth section outlines alternative immigration policies that span the range from those that embody little altruism and maximize the benefits of immigration to the original residents of the receiving country, to those that are highly altruistic. The final section summarizes the major conclusions of the paper and the implications for potential Canadian immigration policy.

The Immigration Act of 1976

Structure and Context

The Immigration Act of 1976 that was proclaimed law in 1978 represents a significant departure from previous immigration policy in two important respects.¹ First, it sets out a statement of objectives for policy and second, it requires the minister responsible for immigration to set target levels of immigration. The new legislation adopted the suggestion of the green paper (*Manpower and Immigration*, 1975, p. 16) that legislation move from a "gatekeeper stance" that emphasized the exclusionary provisions of policy to one that emphasizes the reasons for the admission of immigrants. For the first time, Canadian immigration legislation clearly sets out the goals of immigration policy. Section 3 of the act lists ten objectives (see Appendix A), of which four are of particular interest because they deal with three broad issues of policy that span demographic, social and economic goals and have significant implications for aggregate and per capita income growth in Canada. The first of these objectives, stated in paragraph (a), specifically links immigration policy to demographic goals that the government might set with respect to size, rate of growth, structure, and regional distribution of the Canadian population. Family reunification and humanitarian considerations with respect to the admission of refugees are dealt with in paragraphs (c) and (g) and represent a second major focus of immigration policy based on social considerations. The third major objective, expressed in paragraph (h), is purely economic in content: "to foster the development of a strong and viable economy and the prosperity of all regions in Canada."

The other objectives assigned to immigration policy under the act fall into two basic categories. Some, such as the principle of non-discrimination on the basis of race, national or ethnic origin, colour, religion, or sex stated in paragraph (f), are desirable attributes of policy but influence the composition of immigration rather than its magnitude. Other objectives represent the standard gatekeeper or exclusionary principles for denying entry of immigrants into Canada.

The legislation also requires, in section 7, that the Minister of Employment and Immigration announce each year the total number of immigrants that Canada will accept from all sending countries. This target level of immigration is to be related to Canada's labour market needs and long-term size, rate of growth and regional distribution of population.

The process of setting planned levels of immigration has undergone revision since first introduced in 1978 (*Employment and Immigration Canada*, 1982, p. 3). The initial focus was on the total level of immigration rather than specific targets for the three categories of social, humanitarian and economic immigration. In 1981, however, the government adopted a "bottom-up" procedure, with the planned number of immigrants in each of the categories being set first, and their totals defining the planned

volume of total immigration. It also introduced a three-year planning cycle for the intake of immigrants. This long term horizon was aimed specifically at permitting close links between the economic component of immigration and domestic labour market developments (Employment and Immigration Canada, 1981, p. 10).

The new act introduced three new categories of immigrants — family class, convention refugees and designated classes, and economic or independent classes. These replaced the three categories of immigrants set out in the 1967 regulations — independent applicants, sponsored dependents and nominated relatives.

Since the objective of family class immigration — family reunification — is social, such immigrants are not assessed according to their suitability for the Canadian labour market. Rather, the definition of family ties guides their admission, and they are subject to medical and background checks. Canadian citizens of at least 18 years of age may sponsor certain close relatives so long as they agree to meet the financial needs of an applicant for a period of up to ten years. Permanent residents (landed immigrants) may sponsor close relatives who are 60 years of age or more.

The refugee class is based on the UN Convention and Protocol Relating to the Status of Refugees. Convention refugees are assessed according to the same factors used to select independent applicants, but instead of establishing a point rating, the assessment is used to evaluate their ability to adapt to Canadian life. Since many persecuted and displaced people around the world do not qualify as refugees under the UN definition, the act authorizes their entry in time of crisis as designated classes under relaxed selection criteria.

The economic or independent category of immigrants includes selected workers, entrepreneurs, self-employed persons, and assisted relatives. Applicants in this category must obtain a certain number of points (which varies according to the category of economic immigrant) to be eligible for admission. The economic category is the most heavily regulated of the three streams of immigration defined by the legislation, and its admission is tightly linked to labour market requirements, as will be discussed in more detail shortly.

In many respects, the act is more evolutionary than revolutionary. The legislation retains the flexibility that has historically characterized Canadian immigration policy.² It does not set the annual planned levels of immigration, and they can be revised if circumstances warrant at home or abroad. Similarly, the three-year planning horizon is flexible and “. . . [the levels] are not ‘targets’ which must be reached without regard to changing conditions” (Employment and Immigration Canada, 1981, p. 11). The continuing Canadian emphasis on bureaucratic discretionary authority remains in sharp contrast to immigration policy in the United States, where legislated quotas, changed very infrequently, have determined the volume and origin of immigration since 1921.³

The new Canadian legislation continues the process begun in 1962 of removing discrimination on the basis of race, religion, colour, nationality and gender as an element of immigration policy.⁴ The discriminatory aspects of Canadian immigration policy are well documented and will not be elaborated upon here. The available evidence does suggest, however, that discrimination on these lines is no longer a major issue with regard to Canadian immigration policy. The composition of immigration by geographic area and country has shifted markedly since 1962. (See the statistical overview in Appendix B.) Canada has the highest ratio of refugees to total population among countries accepting refugees for resettlement (Employment and Immigration Canada, 1981, p. 5).

The continuity of Canadian immigration policy is most evident in the effort of the current legislation and regulations to link the volume and occupational composition of immigrants to labour market requirements. This focus on "absorptive capacity" has been an important element of Canadian immigration policy since the late nineteenth century but formal regulatory mechanisms only emerged in the 1960s.⁵ The unit assessment or point system was formally introduced into immigration regulations in 1967 as a means of ensuring that the immigrant selection process would be non-discriminatory with respect to sex, colour, race, nationality, and religion and yet still link the admission decision to domestic labour market requirements. The new act and regulations have retained the use of the point system and further strengthened the labour market focus to the degree that it now dominates the admission decision for economic immigrants.

The assessment scheme is outlined in some detail here because its operation has profound implications for the Canadian labour market, which are discussed in the third section of this paper. The point system evaluates economic or independent immigrants according to as many as ten separate criteria, worth up to 100 points in all depending on the specific category — self-employed, entrepreneurs, assisted relative, or independent — an applicant falls under. Table 3-1 sets out these criteria along with the maximum points awarded to each. Most are self-explanatory but some aspects of the education and training, occupational demand and arranged employment criteria should be noted.

While the education component is worth a maximum of 12 points, with a point awarded for each year of primary and secondary education, a new factor introduced in the 1978 regulations is specific vocational preparation, worth up to 15 points. The points are related to the length of training that would be required in Canada to obtain the specific trade, technical or professional certificate the applicant holds.

Occupational demand and arranged employment are the critical factors in the point system. The maximum awarded in the occupational demand category is 15 points. The number awarded for a particular occupation and skills varies with the state of the labour market. Occupations

with high vacancy rates and low unemployment rates receive more points than those in the reverse situation. Prior to restrictions imposed in May 1982, all economic immigrants except entrepreneurs and the self-employed were required to obtain at least one point in this category; otherwise, admission was refused. In May 1982, a change in immigration regulations set all occupation demand ratings at zero because of the severity of the recession and high unemployment rates. Now, only an applicant who has arranged employment in advance of arrival and obtained the approval of the job offer by a Canada Employment Centre is eligible for entry. Prior to these revisions, arranged employment was worth ten points for a migrant with a validated offer; ten points were deducted, on the other hand, if the migrant had no firm job offer.

To be admitted to Canada as permanent residents, entrepreneurs need to obtain at least 25 points out of a possible 75 for factors other than arranged employment and must receive approval by the appropriate federal and provincial authorities of a proposed business that will create or maintain at least five jobs in Canada. Self-employed economic applicants must obtain at least 50 points out of a possible 90 and receive the approval of the appropriate federal and provincial authorities of a proposed business that will employ at least one Canadian resident. Assisted relatives must obtain from 20 to 35 points out of a possible 70, depending on their family relationship to the Canadian sponsor; all other economic immigrants must receive at least 50 points to qualify for entry.

Current government policy emphasizes the recruitment and selection of entrepreneurs and self-employed workers. To this end, the government has stressed selection procedures, provided a higher processing priority for entrepreneurs, stationed specially trained entrepreneurial development officers at key locations abroad, and permitted provisional admission decisions (Employment and Immigration Canada, 1983, pp. 3-4). The object of these procedures is to encourage job creation, the inflow of venture capital, growth in exports, and the reduction of regional economic disparities (p. 4).

An explicit Canadians-first policy for actual and anticipated job vacancies has resulted in an increasingly restrictive posture regarding economic immigration per se (Employment and Immigration Canada, 1981, p. 26). Manpower policy is directed to the training and retraining of Canadian workers and to promoting their mobility in response to regional labour market developments. The role assigned to immigration in the context of manpower needs is to prevent the emergence of bottlenecks in the supply of specific skills that could threaten domestic employment. The Task Force on Labour Market Developments, for example, concluded that:

The principal objective of immigration policy for labour market purposes in the 1980s should be to direct the supply of workers to productive enterprises by admitting from abroad those skilled workers who cannot be obtained from domestic sources in the short term.

(Employment and Immigration Canada, 1981)

TABLE 3-1 Immigration Selection Criteria: A Summary of the Point System

Factors	Criteria	Maximum Points	Applicable to:			
			self-employed	entrepreneurs	assisted relatives	others
1. Education	One point for each year of primary and secondary education successfully completed.	12	•	•	•	•
2. Specific Vocational Preparation	To be measured by the amount of formal professional, vocational, apprenticeship, in-plant or on-the-job training necessary for average performance in the occupation under which the applicant is assessed in item 4.	15	•	•	•	•
3. Experience	Points awarded for experience in the occupation under which the applicant is assessed in item 4 or, in the case of an entrepreneur, for experience in the occupation that the entrepreneur is qualified for and is prepared to follow in Canada.	8	•	•	•	•
4. Occupational Demand	Points awarded on the basis of employment opportunities available in Canada in the occupation that the applicant is qualified for and is prepared to follow in Canada.	15	•	•	•	•
5. Arranged Employment or Designated Occupation	Ten points awarded if the person has arranged employment in Canada that offers reasonable prospects of continuity and meets local conditions of work and wages, <i>providing</i> that employment of that person would not interfere with the job opportunities of Canadian citizens or permanent residents, and the person will likely be able to meet all licensing and regulatory requirements: <i>or</i> the person is qualified for and is prepared to work in, a designated occupation and meets all the conditions mentioned for arranged employment except that concerning Canadian citizens and permanent residents.	10				•

Factors	Criteria	Maximum Points	Applicable to:			
			self-employed	entrepreneurs	assisted relatives	others
6. Location	Five points awarded to a person who intends to proceed to an area designated as one having a sustained and general need for people at various levels in the employment strata and the necessary services to accommodate population growth. Five points subtracted from a person who intends to proceed to an area designated as not having such a need or such services.	5	•	•		•
7. Age	Ten points awarded to a person 18 to 35 years old. For those over 35, one point shall be subtracted from the maximum of ten for every year over 35.	10	•	•	•	•
8. Knowledge of English and French	Ten points awarded to a person who reads, writes and speaks both English and French fluently. Five points awarded to a person who reads, writes and speaks English or French fluently. Fewer points awarded to persons with less language knowledge and ability in English or French.	10	•	•		•
9. Personal Suitability	Points awarded on the basis of an interview held to determine the suitability of the person and his/her dependants to become successfully established in Canada, based on the person's adaptability, motivation, initiative, resourcefulness and other similar qualities.	10	•	•	•	•
10. Relative	Where a person <i>would</i> be an assisted relative, <i>if</i> a relative in Canada had undertaken to assist him/her, and an immigration officer is satisfied that the relative in Canada is willing to help him/her become established but is not prepared, or is unable, to complete the necessary formal documentation to bring the person to Canada, the person shall be awarded five points.	5	•	•		•
Minimum points needed for admission			50	25	20	50

Source: Employment and Immigration Canada, *New Directions: A Look at Canada's Immigration Act and Regulations* (Ottawa: Supply and Services Canada, 1978).

The Task Force also recommended that immigration not be used to promote general labour force expansion. The procedure suggested (which reflects the process in practice) is for employers to demonstrate a need for particular occupations and for the Immigration Commission to determine that qualified Canadians are unavailable. Therefore, the May 1982 revisions of the immigration regulations effectively make arranged employment a prerequisite for the admission of most economic immigrants to Canada (the self-employment and entrepreneur categories excepted), as well as for assisted relatives.

The current legislation also maintains the Canadian equivalent of a guest-worker program through the issue of employment visas or authorizations. These visas, first issued in January 1973, permit the holder to come to Canada and take a job for a specified period of time and then depart. The visas serve as a mechanism for alleviating short-term labour shortages and drawing upon the specialized skills of non-residents for short periods of time. In most cases, the employer in Canada applies for employment authorizations and the Immigration Commission approves the offer after confirming that no qualified Canadian citizens or landed immigrants are available. Persons with employment visas or non-immigrants fall into five groups (Marr, 1977, p. 519):

- members of an approved group based on an agreement between Canada and another country;
- persons recruited abroad by Canadian employers;
- some foreign students;
- visitors to Canada who take temporary work; and
- certain people involved in judicial proceedings.

The most radical and restrictive aspect of the new act is the manner in which demographic considerations influence the planned volume of immigration. Explicit in the analysis is the perception that there is an optimum population level for Canada. The planned levels of immigration under the act are supposed to be based on both demographic and labour market considerations. With respect to demographic variables, the *Annual Report to Parliament on Immigration Levels* notes:

If emigration from Canada continues to be estimated at about 75,000 per year, the immigration intake announced in Chapter VI will, in combination with continuing fertility at the current low level, result in a turn-of-the-century population in the range of 27 to 28 million. This outcome is being perceived as likely at all levels of government, and there appears to be an emerging determination that it should be adjusted to. (Canada, 1981a, p. 48).

The 1983 report on immigration levels reiterated this claim. After reviewing a range of population scenarios based on varying assumptions about future fertility and net migration (from 65,000 to 115,000), the document notes that “. . . the range of possible populations at the turn of the century (28.4 to 31.3 million) does not seem inconsistent — particularly at

the lower, and more probable, end of the range — with recent perceptions about the ‘carrying capacity’ of the country in terms of such factors as food supplies and energy resources” (Employment and Immigration Canada, 1983, p. 28). This discussion can be interpreted to mean that the planned or “optimum” population level for Canada in the year 2000 is between 27 and 28 million, and that the volume and demographic characteristics of the immigrant flow chosen should ensure that this target is reached.

The other aspect of the new act that distinguishes it from previous legislation is the statement of the objectives of immigration policy found in section 3. The act provides, as has been suggested, a blend of old and new objectives. It is an attempt to provide a longer-term planning framework while retaining the high degree of flexibility or discretionary authority inherent in earlier legislation. In many respects, the legislation merely makes explicit the objectives that had been implicit in earlier legislation and regulations. The focus on family reunification, the humanitarian aims regarding refugee resettlement and the effort to regulate the occupational mix of immigration according to the needs of the Canadian labour markets had all been elements of previous policy. Similarly, other objectives represent standard exclusionary provisions common to most immigration acts and regulations or statements of basic principles such as non-discrimination that had emerged as policy goals in 1962. The explicit link between immigration policy and demographic considerations is the major new objective assigned to immigration policy.

Immigration Policy — An Overview

The structure of Canadian immigration policy has evolved in response to the constraints on a small, open economy. It also reflects domestic economic and political considerations.

The Canadian labour market is small in comparison with the supply of labour available from potential sending countries and in comparison with its largest competitor for immigrants (and historically for Canadian residents), the United States.⁶ Consequently, shifts in the volume of immigrants that appear small from the perspective of sending countries could have large effects on employment and incomes in Canada. The pressures for admission to Canada, stemming from increasing population growth elsewhere, relatively high real incomes and low unemployment rates in Canada, disturbances in the labour markets of sending countries, political and social considerations, and shifts in the immigration policies of other receiving countries, have forced Canada to adopt a highly flexible institutional framework for immigration policy to cope with rapid shifts in the volume and composition of immigration.

Domestic economic considerations also play a major role in the structure of immigration policy. Canada, as a country of recent settlement,

has relied extensively upon immigration in certain decades to promote economic development and more rapid growth than domestic labour force growth would permit. The wheat boom period from 1896 to World War I and the decade of the 1950s are two cases in point. Yet, as will be noted later, the volume of immigration and value of migrants' human and non-human capital can have a significant effect on income levels and the distribution of income among domestic or original residents of Canada. Some of these original domestic residents will gain from immigration and others will lose. Economic self-interest will lead competing groups to advocate increased migration or further restrictions through political means, depending on their perception of how their incomes are affected.

Finally, people are altruistic by nature and do attach some weight to the welfare of those living elsewhere in the world. This weight is probably less than they assign to the welfare of fellow residents or themselves but is still sufficient to lead them to desire immigration on non-economic grounds. Consequently, immigration policy must also accommodate immigration that is justified on non-economic considerations but carries with it some distribution of costs and benefits across domestic residents.

The objectives set out for immigration policy in section 3 of the 1976 act are an effort to balance the external constraints, domestic economic and political pressures, and non-economic considerations within one regulatory framework. The remarkable vagueness of the stated objectives, particularly in the three main areas noted above — demographic, social-humanitarian and economic — is indicative of their competitive and in some instances mutually exclusive character.

The fundamental problem in developing immigration policy is that it is selfish by its very nature. A prime objective is to limit entry of non-residents, and so protect the living standards of large groups of residents of the receiving country. While welfare would improve through unrestricted international migration (see the second section), the distribution of gains and losses that would result within and between countries makes it highly unlikely that developed economies either individually or collectively would move toward liberalized international labour mobility. As the focus of immigration policy moves from concern over global welfare to concern over domestic welfare, the problem of coping with the distributional consequences of immigration still remains, but mechanisms within a country such as progressive tax systems and transfer schemes provide at least a possible mechanism through which domestic "winners" from immigration can compensate "losers."

Immigration policy still has to balance the interests of these competing groups (domestic winners and losers) against the impact of immigration on some broad measure of economic well-being such as income per capita. If income per capita rises as a result of immigration, it would be feasible in theory though difficult in practice to redistribute the gains from immi-

gration among domestic residents who are adversely affected. There are two problems with this type of redistributational idea. The first is that the population base changes as a result of immigration. The new population base includes both original residents and immigrants. It is quite possible, as will be noted in the following section, that average income would fall (as compared with the average income of the original population) as a result of immigration but with average incomes of both original residents and immigrants rising! Consequently, linking immigration to its impact on average income could be potentially misleading. The second problem is that average income is a poor proxy for economic well-being if it is accepted that people are altruistic. People may be willing to accept higher levels of immigration than warranted by strictly domestic economic considerations because of the weight they attach to the economic welfare of others. Income per capita might fall while the economic well-being of domestic residents rose because of the improvement in welfare of recent immigrants. The decline in income per capita (ignoring which population and income base, original residents or original residents plus migrants, is relevant) would represent the price paid for accommodating altruism. But again, distributional concerns come to the fore. It is not self-evident that those whose altruism led to greater immigration are the groups that bear the burden.

What criteria can be used to assess immigration policies in light of the above considerations? First, it must be acknowledged that economists have little concrete to say regarding the level of immigration justified on social and humanitarian grounds. Economists can note that this category of immigration imposes costs and benefits that are not equitably distributed, but they cannot say how much immigration is justified on these grounds. It must therefore be assumed that government policy in this regard reflects society's collective preferences. In the case of economic or independent immigration, however, it is possible to adopt some criterion to assess the consequences of immigration policy. Here, economists should be concerned with the impact of this category of immigration on the per capita income of domestic residents, and ask whether the magnitude and occupational composition of this component of immigration increase the per capita income of domestic residents. Although this criterion appears selfish, it should be recalled that the existence of immigration restrictions per se implies that global welfare is not a policy concern. Similarly, permitting certain immigration on social and humanitarian grounds clearly defines the extent to which altruism explicitly enters immigration policy. Virtually by a process of elimination, we are left evaluating economic immigration in terms of its impact on the domestic welfare of the original residents.

The next issue is whether immigration is used to influence global welfare or Canadian welfare, or both. The following section of the paper examines some theoretical notions and empirical evidence on that issue.

Immigration, Per Capita Income and Income Distribution

The Economic Impact of Immigration

The economic consequences of immigration policy are pervasive. The volume of immigration and its composition by sex, age and occupation can, through their impact on supply and demand, affect industrial structure, the level of aggregate and per capita income, and the distribution of income both between various occupations within the labour force, and between workers and owners of capital and resources (including land). The effects are not restricted to the period immediately following arrival and adjustment. The demographic consequences of immigration, operating through shifts in the age-sex structure of the population, will continue to influence economic variables such as savings, capital formation and labour force participation rates through time as the immigrant cohort ages. Immigration justified on social and humanitarian grounds also has economic ramifications because immigrants admitted on this basis contribute to aggregate supply and demand, and so define a stream of costs and benefits even if their admission criteria are based on non-economic considerations.

Global Issues

The fundamental issue that must be addressed when considering the economic consequences of immigration policy is whether the focus is on global or domestic welfare. If the perspective is global, the policy prescription that must follow is for the removal of all immigration restrictions on an international basis. The complete international mobility of labour would ensure that all opportunities for the profitable re-allocation of labour across countries and between sectors would be exhausted, and higher global aggregate and average incomes would result. Regions in which the productivity of labour is above the global average as measured by the social value of labour's contribution to production would experience large-scale immigration, growth of aggregate population and income, and a fall in income per capita. Conversely, low-wage regions would undergo a decline in aggregate population and income, but obtain a rise in per capita income. Global welfare as measured by average income per capita would increase because of the more efficient allocation of labour.

The estimates of the global efficiency gains from removing all restrictions on the international flow of labour are large. Hamilton and Whalley (1984), for example, provide estimates for 1977 that the gain from removing all restrictions on international migration could exceed worldwide GNP in that year. More realistic simulations lower the gains, but still yield estimates that constitute a significant proportion of world GNP and probably exceed the gains predicted from moves to freer trade (Hamilton and Whalley 1984, pp. 73-75).

The distributional consequences of international migration in the receiving regions lie at the heart of why the global income gains from removing immigration restrictions are not realized. Hamilton and Whalley (p. 73) find that liberalization of immigration policies and the labour market adjustments that result cause wages of non-migrating labour to decline and the return to capital to rise in the receiving regions, while the reverse holds in sending countries. The predicted magnitude of the changes is substantial. Consequently, it is in the perceived self-interest of the public in receiving countries, especially of labour in many instances, to promote restrictions on international migration. While many residents of "have" regions might favour in principle institutional changes that could increase global incomes significantly, in practice such altruism does not extend to incurring real income losses to achieve this end, at least for most people.

Immigration policies (short of unrestricted immigration) may not be the most appropriate tool for those concerned with the economic welfare of residents of less developed countries. Only a small portion of the potential number of immigrants can be accommodated without a significant fall in the real income of large numbers of domestic residents. Moreover, the potential costs of promoting greater immigration are often not equitably distributed. The owners of specific factors or skills may be in favour of increased immigration and receive higher incomes because of the impact of greater immigration on the returns to fixed factors. Since the adverse distributional consequences of immigration often lead to limits on its magnitude, relatively few immigrants will gain access to higher real incomes. Moreover, their emigration from less developed countries could lower incomes of the remaining residents, especially if the immigration policies of receiving countries are similar to Canada's and harvest the rich and skilled immigrants from the sending countries.⁷

The incomes of labour and capital can also be equalized among countries through international trade instead of factor migration. In theory, commodity flows and factor flows are perfect substitutes for one another for factor price equalization. In practice, many of the requirements for the two mechanisms to serve as perfect substitutes do not hold. Nevertheless, a strong case can be made on several grounds for using trade policy as the major tool for addressing concerns over international income equality. The first consideration is that moves to greater trade liberalization would improve income per capita in all countries because of improved internal resource allocation. There will still be winners and losers in each country, but higher average incomes make internal transfers to compensate losers a more realistic possibility.

A second consideration is that the potential gains are large. Whalley (1984, pp. 231-32) finds that the removal of protection by the North alone in the context of North-South trade would result in an annual gain to the South of \$30 billion or 2½ percent of the GNP of the newly industrialized and less developed countries. The value of annual aid flows to the

South from the North is approximately \$20 billion. The removal of all tariff and non-tariff barriers by all countries would increase worldwide income by \$33 billion (p. 231). The gains from trade liberalization are far less than those from unrestricted international labour flows, reported earlier. However, the latter mechanism is not politically feasible despite the large global welfare gains in light of the distributional consequences, whereas the former option of trade liberalization is more realistic.

A combination of Canadian trade and immigration policies that emphasizes trade liberalization and non-selectivity, respectively, would be likely to yield the greatest benefits to residents of less developed countries while at the same time ensuring higher average incomes in Canada. Trade liberalization would have benefits in Canada and in the less developed countries through improved domestic resource allocation. The removal of tariffs and non-tariff barriers by Canada alone, however, would have little impact on global welfare in comparison with a collective reduction in trade barriers by industrialized countries. Steps to greater trade liberalization, especially by the more industrialized economies, provide one mechanism to increase the real income of residents of less developed countries who do not emigrate. Foreign aid is, of course, another tool.

The point was made earlier, and should be reiterated, that in a restrictive set of circumstances the incomes of labour and capital can be equalized among countries through trade or factor flows. The same income distributional consequences may ultimately materialize whether policy makers opt for greater immigration or for freer trade. Yet it is likely that the necessary conditions that permit trade and factor flows to be perfect substitutes will not be met. Moreover, the tendency to factor price equalization through trade policies would take longer to achieve and thereby permit policy makers more time to derive strategies that compensate losers and so reduce domestic antagonism to trade policies that improve global welfare.

It is also worth noting that although countries find it relatively easy to restrict the international mobility of labour, it is far more difficult to restrict capital mobility. The effort to protect domestic incomes and employment through restrictions on immigration ignores the mobility of capital and the possibility of shifts in investment and hence jobs to those countries whose residents are most adversely affected by immigration restrictions in receiving countries. Capital mobility alone may serve as a force for promoting the equalization of factor prices. Yet one should not place too much emphasis on the role of capital mobility in achieving factor price equalization. Gerking and Mutti (1983) find, for example, that capital mobility combined with the international migration of unskilled labour could lead to a widening rather than a narrowing of differences in unskilled wage rates across countries in certain circumstances.

As previously noted, immigration may have adverse effects on the income of the residents who remain in the sending country. The "brain

drain" debate (Bhagwati 1976, 1977, 1979, 1982; Bhagwati and Partington 1976; Grubel and Scott 1977) focusses on one aspect of this problem. It examines the welfare implications of the immigration of highly skilled and trained persons from less developed to more developed economies. The current immigration policies of many developed economies encourage the immigration of highly skilled workers and restrict the entry of unskilled workers. A significant portion of the educational costs of the highly skilled migrants may have been subsidized by taxpayers in the country of origin. The migrant, however, obtains the full return on the investment in human capital, while the sending country is left with sunk and replacement costs. Meanwhile, the residents of the receiving country may benefit directly from the migration of skilled workers in two ways. There may be a saving in investment costs in education if government and individuals reduce expenditure in this field in light of the influx of skilled workers. Second, the receiving economy may also benefit if there are externalities (i.e., unpriced benefits) that arise from having greater numbers of educated and highly trained individuals in the population. Conversely, the sending country would experience a loss of these external benefits as a consequence of emigration. Much of the brain drain literature is concerned with the magnitude of the costs to the sending country and benefits to the receiving country, and with the design of institutional mechanisms (i.e., taxes on migrants, exit fees, etc.) through which the beneficiaries of the brain drain could compensate losers.

The importance of income distributional considerations can be illustrated by noting how differently internal migration and international migration are viewed by policy makers. Both types of migration lead to higher incomes and a more efficient allocation of capital and labour among regions, but countries may vigorously promote internal migration while restricting international migration. There are three explanations for this difference.

The first explanation for a preference for internal migration relates to the distribution of the income gains resulting from the two mechanisms of labour market adjustment. In the case of internal migration, many of the income gains are internalized within the country. Consequently, institutional mechanisms such as progressive tax systems and transfer programs ensure that some income gains are used to compensate those adversely affected by migration. At present, no mechanisms exist that would permit gainers from international migration in sending countries to compensate income losers in receiving countries. Moreover, it is unlikely that any international distributional agency could cope with the task if the gains and losses are anywhere in the neighbourhood of the Hamilton and Whalley (1984) estimates.

Secondly, residents of a country attach greater importance to the economic welfare of other residents than that of non-residents. The welfare

of non-residents may matter somewhat to them, but this concern is often expressed in the form of "altruism at a distance," and can be accommodated through more liberal trade policies or foreign aid.

Finally, an element of xenophobia may lie behind immigration restrictions. Regardless of the benefits of international immigration to residents, migration might still be highly restricted because of a fundamental fear or dislike of foreign cultures and races. In many countries, even internal migration invokes significant social tensions when it involves different cultural groups, but the strains are of a lower degree than those caused by international immigration.

Restrictions on the international mobility of labour may reduce world income levels significantly, but they do increase the real income of labour in the protected labour markets. In this sense, the effects of immigration restrictions do not differ from those of entry barriers erected in internal labour markets by professional groups such as doctors or, for that matter, tariffs imposed on imports into a country. These restrictions create economic rents that accrue to the protected groups as higher incomes or, in the case of tariffs, as higher returns to specific factors in the protected sector.⁸ The magnitude of the rents to the existing labour force that arise from immigration restrictions depends on the differences between observed wages and those that would exist in a regime of global labour mobility. They are, however, likely to be very large if the global social price of labour is close to wages that exist in the larger, less developed countries today. Conversely, for the owners of productive factors in the developed economies that are fixed in supply, such as land or capital in the short run, the gains from relaxing restrictions on immigration might be very high.

The link between these rents and policy decisions inevitably makes immigration a contentious issue of public policy.⁹ Labour groups will have a vested interest, for example, in devoting economic resources to protecting the institutional status quo or further restricting immigration, while those groups that stand to gain have incentives to press for expansionary changes in immigration policy. Consequently, a portion of the actual or anticipated rents is dissipated through these socially unproductive rent-seeking activities. Policy decisions may relate more to the success of narrow pressure groups in promoting policies that are to their own self-interest than to the magnitude of the aggregate income gains (regardless of distribution) that occur in the domestic economy.

The gains for more liberal immigration policies adopted on a global basis are likely to be large but unrealized because of the distributional consequences of immigration and any effects on the culture or society in receiving countries. A more detailed examination of the economic consequences of immigration in the receiving regions suggests that the distributional issue becomes even more complex as more realistic models are developed. But since global welfare is unlikely to drive Canada's immigration policy, attention should be focussed primarily on domestic welfare.

Domestic Issues

The simplest migration case is that of an individual migrant in the context of "perfect markets" (Lucas, 1981).¹⁰ In this scenario, the migrant possesses no capital, wages equal the social value of the migrant's contribution to output, and the process of migration does not generate any effects not reflected in market prices or externalities observed in sending or receiving regions. In these circumstances, immigration has no impact on per capita income in either region. In the sending region, aggregate income falls precisely by the value of the immigrant's wage, which also equals the migrant's contribution to national income. Consequently, the departure of the single migrant leaves per capita income of the remaining residents unchanged. The same result holds for the original residents of the receiving region. There the immigrant obtains a wage that just equals the social value of his or her contribution to output, so that income per capita of the original residents is unchanged. The immigrant is better off, however, since it may be assumed that higher wages in the receiving country motivated the migration decision in the first place.

Global income does increase as a result of the individual's move. The increase in aggregate income of the receiving region more than offsets the fall in aggregate income of the sending region. Immigration in this scenario is unambiguously beneficial from a global perspective, as the economic welfare of one person increases without anyone else being made worse off. In general, under the perfect markets assumption, immigration will always increase global incomes when it is in response to differences between regions in the social value of labour's contribution to output. Unfortunately, once the assumption regarding the volume of immigration and migrants' ownership of capital is relaxed, the discussion quickly and unavoidably becomes more complex.

Large-scale immigration has a significant effect on income distribution and income levels in the receiving country.¹¹ The labour force expands because of immigration, and since the capital stock is treated as fixed in the short run, the amount of capital available to each worker declines. The decline in the capital-to-labour ratio causes wages to fall and the return to capital to rise. The impact on factor shares is more difficult to predict, because it depends upon the elasticity of demand. The impact of immigration on average income depends upon which of the two population sets — the original residents or the original residents plus immigrants — is under consideration. The average income of the original set of residents will increase as a result of immigration, and the welfare of immigrants must improve or they would not have moved. It appears that both groups that form the new, larger population set are better off in comparison with the no-immigration case. Yet average incomes may show a decline in the receiving country as a result of immigration. This paradox is explained by observing that the wage of immigrants has increased in comparison

with the lower level of wages prevailing in the sending country. Their welfare still improves, even though they cause wages to decline in the receiving country. The original residents gain on average because of the increase in the return to capital over and above that due to the redistribution of income from labour to capital.

The increasing scarcity of capital and other fixed factors such as land will lead to an increase in their rents over and above the increase that comes from the redistribution of income from labour to capital. However, this result is sensitive to the ownership of the stock of fixed factors. If the level of foreign ownership is high, the repatriation of these rents could reduce the average income of the original residents. Similarly, the ability of immigrants to share in the returns to domestic capital in public use could also reduce the average income of the original residents (Usher, 1977). The average income of the new set of residents — original plus immigrants — will fall in comparison with that of the original set of residents. In the static framework of our standard case, diminishing returns to labour ensure that the average incomes of the larger population are lower than those of the original residents prior to immigration. The presence of fixed factors of production means that although production will increase because of immigration, the change will be proportionately smaller than the increase in the labour force.

When immigrants are permitted to bring a portion of their capital stock with them (again assuming exclusive domestic ownership of the returns to capital), the original residents of the receiving country will still gain on average in every instance except one. Should the ratio of capital to labour held by immigrants be identical to that of the original residents of the receiving country, no change will occur in the average income of the latter. The reason for this is noted by Usher (1977). When the factor proportions of the two groups differ, there will always be gains from trade (i.e., labour services versus capital services) for the original residents. In general, as Lucas (1981, p. 91) notes, original residents who are capitalists (high capital-to-labour ratio) will gain from importing immigrant workers (low capital-to-labour ratio), while original residents who are workers will gain from importing immigrant capitalists.

When immigrants do bring a portion or all of their capital stock with them, it expands the domestic tax base. If the value of personal and corporate taxes paid by the immigrants exceeds the costs of government services they consume, the tax burden on domestic residents could fall, because of the net fiscal surplus contributed by the migrant. Government programs which skew the composition of immigrants in favour of those with capital will generally cause government tax revenues to increase more than government expenditures. Domestic residents could benefit through either a reduction in taxes or expansion of government services.

Unfortunately, on turning to more realistic models involving heterogeneous labour — unskilled and skilled labour, for example — it

is no longer possible to make even qualitative predictions regarding the impact of immigration on incomes.¹² Apparently perverse results can occur, such as, for example, the case that the immigration of one type of labour may lead to an increase in the real income of that same type of labour in the receiving country. Some types of labour may be substituted for capital while others are complements to it. Similarly, categories of labour may be substitutes for or complements to each other. It is worth stressing the conclusion of Epstein (1974, p. 187), who in this context notes:

This emphasizes, once again, that, in general, and even in the Canadian context, a simple one-sector model like that of Mishan and Needleman (1968b) may not enable us to draw correct qualitative, not to mention quantitative, conclusions regarding the effects of immigration on wages.

For many domestic observers, perception of the impact immigration has on income levels and income distribution is based on the prediction of a simple two-factor model with a fixed capital stock and mobile labour and a focus on average income inclusive of migrants. In this scenario, wages fall relative to the return to capital — a “regressive” income change according to Mishan (1970, p. 106) — and average income falls. In a perfect market world and assuming exclusive domestic ownership of the returns to capital, average incomes of the original residents increase. While labour loses, internal transfers from the owners of capital could be made that would leave all original residents better off. When immigrants are permitted to bring capital with them, it is quite possible that the domestic labour force gains as a result of immigration while the owners of capital lose. In this scenario, transfers from labour to capital could still make all original residents better off than prior to the influx of immigrants. With more complex but realistic models, qualitative predictions regarding the identity of domestic winners and losers are no longer possible. It still remains the case, however, that the average income of original residents inclusive of all sources of income is higher than before immigration.

Empirical Evidence

There are a number of studies for Canada that have used econometric models to simulate the short- to medium-term impact of increased levels of immigration on the domestic economy.¹³ The studies differ in the structure of the models employed, the assumptions regarding the level of immigration and the economic and demographic characteristics of the migrants, but their conclusions are not very different. The broad consensus is that higher levels of immigration will increase aggregate variables such as labour force, investment and real gross expenditure, but cause measures of intensive growth such as real income per capita and real wages to decline. Other effects of increased migration include a slowdown in inflation and a rise in unemployment. The magnitude of these effects is

small. Davies (1977), for example, employed three separate well-known Canadian econometric models (CANDIDE, TRACE and RDX2) to simulate the impact of increased levels of immigration. An increase in annual net migration from 100,000 to 200,000 per annum would have caused the annual average growth of real gross national expenditure per capita for the period 1961–74 to fall from 3.57 percent to 3.43 percent for the CANDIDE model, from 3.80 percent to 3.34 percent for TRACE, and from 3.80 percent to 3.72 percent for RDX2. A more recent simulation exercise using a revised version of the Candide model (Rao and Kapsalis, 1982) found that an increase in net immigration from 50,000 to 100,000 per year beginning in 1980 would reduce real per capita GNP in 1980 by 0.24 percent and in 1990 by 1.50 percent below the corresponding base case simulation value.

There are two reasons why the simulation results of these studies should be interpreted with considerable caution, especially those concerning the impact of immigration on per capita income. The first is that short- to medium-term simulation models may not be capable of capturing all the potential positive links between immigration, population growth and per capita income. This possibility is explored in greater detail below. Second, the simulation models incorporate a number of offsetting biases that make it difficult to determine the net impact of immigration on the per capita income of the region. The level of immigration is often modelled as an exogenous shift in the labour supply rather than a response to employment or income variables in the receiving country. Were immigration modelled with a portion that was responsive to domestic economic variables such as real wages and unemployment, net immigration would fall if a component of it had an adverse effect on the economy.¹⁴ This decline in net migration would offset some of the negative effects of the exogenous component of immigration. The possibility of economies of scale in production or in the provision of social overhead capital is often ignored in the specification of the underlying production framework of the simulation models. Were scale factors present, a larger population and market size due to immigration would cause an increase in production efficiency and rising real incomes per capita. The evidence is not that strong, however, in support of the presence of significant scale economies that have not yet been exploited.

It is also difficult to incorporate in simulation exercises the specific economic and demographic characteristics of economic immigrants to the extent that they differ from those of the residents of the receiving country. The models necessarily operate at a high level of aggregation. Some models can incorporate the demographic aspect of immigration — a large proportion of economically active participants in the labour force. The major problem is the failure of most simulation exercises to take into account the distinct occupational composition of the flow of economic immigrants. The unit assessment scheme ensures that economic immigra-

tion includes a high proportion of highly educated and trained persons, including entrepreneurs and self-employed persons who possess considerable financial assets. The neglect of the human and financial capital of the immigrant flow necessarily leads to an underestimate of the contribution of this component of immigration to per capita income. This result is especially true if immigration is in response to specific skill shortages and alleviates bottlenecks in production. On the other hand, the humanitarian and social streams of immigration to Canada may include many who possess far less education, training and wealth than either the resident population or the economic immigrants. Other aspects of this issue of the value of skills to Canada are discussed in more detail later.

The emphasis of these simulation studies on the impact of immigration on average income of all residents including the migrants ignores the possibility that the average income of the original residents may rise because of immigration while the average for all residents falls. It also overlooks the income redistributive consequences of immigration. Both of these economic variables for the original residents — the level of income per capita and the distribution of income — should be the major focus when evaluating the economic consequences of immigration. Unfortunately, data on these variables are not easily retrieved from the simulation results. The basic problem is that the studies never make clear whose welfare is important when assessing immigration, that of the original residents or that of the immigrants.

Imperfect Markets, Technological Change and Per Capita Income

Many of the arguments in favour of more expansionary immigration policies rely on the existence of imperfect markets and dynamic effects linking the pace of technological change to population growth. The white paper (Department of Manpower and Immigration, 1966), for example, emphasized the potential for economies of scale in production and in the provision of social overhead capital to be realized because of the rapid growth of market size due to immigration. However, there are a number of criticisms of the argument. The sectors where such scale effects might be important constitute a small proportion of aggregate output on employment. Accordingly, it would take unrealistically large estimates of the potential savings in production costs to have much of an impact on per capita income of the country.¹⁵ Moreover, an increased volume of exports through moves to bilateral or multilateral free trade would capture whatever scale economies remained unexploited and reduce costs through more efficient production. Trade liberalization would cause the cost structures of many industries to shift down because of increased competition from imports leading to intra-industry rationalization. Creating larger domestic markets through increased immigration ignores the major

reason for low levels of productivity in Canadian manufactures — lack of competitive pressure on cost structures. Cox and Harris (1983) estimate that multilateral free trade would increase GNP from 8 to 10 percent above its 1976 level. On the other hand, the possible income gains from the link between greater immigration and scale economies are “insignificant” (Starr 1975, p. 330). Historically, the provision of urban infrastructure and a transportation network may have benefitted from a larger population but the sharing of overhead costs is unlikely to be an important issue today.

The imperfect markets argument can also be used against greater immigration. The green paper, for example, argued (Canada 1975, p. 5) that “Canada . . . counts the costs of more people in terms of congested metropolitan areas . . . damage to the environment. . . .” Here the claim is that population growth has negative externalities or spillovers in increasing urban congestion and degradation of the environment. This argument really concerns the costs of market failure and is equally applicable to internal rural-to-urban migration and natural increase, not just to international migration. The appropriate solution is to correct the sources of market failure rather than to limit economic growth. The latter solution merely treats the symptom and distracts policy makers from the real issue of addressing the sources of market failure.

The most interesting and potentially the strongest arguments in favour of an expansionary immigration policy link the pace of technological change to population growth. Kuznets (1960, pp. 328–29) postulates that there are increasing returns in the population size. The argument and supporting evidence is discussed in detail in Kelly (1973, pp. 18–19). The implication of Kuznets’ hypothesis is that population growth per se, whether through immigration or natural increase, leads to increases in income per capita. Many models that yield increases in income per capita because of population growth do so through incorporation of variants of Kuznets’ hypothesis as an assumption of their models. Simon (1977, 1982) has models that link population growth and productivity growth. The productivity effect includes learning-by-doing effects, stock-of-knowledge effects and various scale effects in production whereby income per capita rises with increases in aggregate output. Brain et al. (1979) also include such effects for Australia and find that immigration increases income per capita. Simon (1982) finds that the time path of the contribution of immigration to per capita income is not constant. Initially, for the first two or three decades, immigration has a negative effect on per capita income of original residents, but thereafter a significant positive effect results.¹⁶ The results of Brain et al. (1979) are similar.

The link between population growth and income per capita may exist in the form hypothesized by Kuznets. Certainly, its incorporation into simulation models as an operating assumption does, not surprisingly, generate a positive link between extensive growth and intensive growth. On the face of it, this relationship would seem to be a strong argument

in favour of an expansionary immigration policy, especially one that screens on the basis of the skills possessed by migrants. Yet there is no need for Canada to generate these external effects through adoption of an expansionary immigration policy. So long as there are other countries larger than Canada and with more rapid population growth rates, and investments in innovation earn the same return as investments elsewhere in the economy, Canada can draw upon the consequences of increasing returns to scale by population in inventive activity in these countries by leasing their technologies or purchasing capital goods that embody the new innovations. Canada can obtain the benefits of technological change through international trade without bearing any of the risks should the link between extensive and intensive growth not materialize.

In the case of Canada, the oligopolistic structure of industry and a reputed conservatism on the part of financial intermediaries could inhibit the link between increasing population and innovative activity, or the effect, if present, could be too small to offset other negative effects of population growth on income per capita. The evidence for Canada in any case (Economic Council of Canada, 1983) suggests that the diffusion of new innovations and technologies into production is where Canada really lags. Simply increasing the pool of new innovations generated in Canada would not ensure that firms adopted them.

There is an extensive and complex theoretical literature that examines the consequences of slower population growth for economic variables such as investment demand and per capita income in the longer term.¹⁷ Papers by Phelps (1973), Hieser (1973) and Neal (1978) provide excellent surveys of the main issues in the context of the growth theory literature. Much of this literature deals with the attributes of stationary states (unchanging growth rates in all economic variables) and of the transition from one stationary state to another when an exogenous variable such as the population growth rate changes. In a variety of these models, a slowdown of population growth for a given level of capital intensity will lead to a higher level of income per capita in the new stationary state. The growth, as opposed to the level, of income per capita will be the same in the new stationary state as it was in the old. It is the rate of technological change (which is assumed to be independent of the growth rates of capital and labour force) that determines the growth rate of output per capita. During the transition between stationary states, income per capita does grow more rapidly but, as noted, its stationary state growth is determined by the pace of technological change. The results of these models are sensitive to assumptions regarding fiscal and monetary policies (Phelps, 1973) and the bias of technological change (Hieser, 1973). The bottom line remains that the growth of income per capita is the same in each of the stationary states, but the level of income per capita will rise with a slowdown in population growth.

However, the relevance of these models for small open economies is

questionable. The mobility of capital fixes the return to capital, and so locks the open economy into the capital-to-labour ratio prevailing in the rest of the world. The level of income per capita in an open economy is now effectively set in the rest of the world, and its growth rate depends both on the rate of technological change and changes in the exogenously set capital-to-labour ratio. There is no longer scope in this scenario for the regional economy to use a positive population policy (more immigrations or greater fertility) as a mechanism to private growth or income per capita, should the links between population and technology suggested by Kuznets (1960) exist. A further criticism of this framework is that population and labour force are treated as exogenous and the labour force participation rate as invariable with respect to changing economic circumstances.

Immigration may have a positive impact on savings and labour force participation rates and in turn may increase average income in the receiving region.¹⁸ Economic immigration usually contains a heavy concentration of young, economically active workers. Since labour force participation rates are higher for these age groups, the average labour force participation rate of the flow should exceed that of the receiving population. The age-specific participation rates of migrants may also exceed those of the domestic population. Both of these effects will increase average labour force participation rates and cause output per capita to rise. Life-cycle considerations may also lead the migrant flow to have a higher savings rate than that of the domestic population. This larger pool of domestic savings will lead to either reduced borrowing from abroad or increased foreign investment by domestic residents. In either case, the interest on these savings will represent a net gain in income to the economy. These demographic effects, however, are "one shot" and persist only during the migrants' generation. Moreover, as the immigrant cohort ages, labour force participation rates and savings rates decline. Also, immigration does not necessarily generate these positive initial effects. When immigration policy shifts its focus to social and humanitarian considerations, the demographic characteristics of the flow may in fact reduce income per capita of the receiving country.

It is often argued that the human capital of migrants also represents a net gain in income to the residents of the receiving country. This argument must be interpreted with some caution. The income earned by migrants does not represent a net gain, because migrants are assumed to receive the value of their contribution to society. The gain arises from the savings in investment costs of child rearing and education that are borne in the sending country of the migrants. In the case of Canada, for example, DeVoretz and Maki (1980, p. 787) estimate that between 1967 and 1973 the replacement value of human capital (based on post-secondary expenditures only) transferred from the less developed countries alone ranges from \$1.0 billion to \$2.4 billion. If the upper-bound value or the

value at one extreme of the human capital transfer had been produced domestically, the cost to Canadian taxpayers would have been \$1.4 billion. If, on the other hand, the observed level of investment expenditures on education had been made even in the absence of the inflow from less developed countries, there would be no saving in investment costs. There is a net gain only if the capital inflows displace domestic capital formation.

Aspects of Canadian Immigration Policy

The Effects of an Expansionary Immigration Policy

The first issue to be examined is whether population growth promotes growth of income per capita. The discussion that follows ignores the distinction made earlier between income of original residents and migrants. If population growth does lead to higher average incomes for all residents, many of the distributional issues are more tractable and the possibility of internal transfer schemes to compensate losers from immigration becomes far more likely. The previous section of the paper suggested that there are two basic mechanisms through which population growth could increase income per capita of the receiving country — economies of scale in production, and increased returns from population growth with respect to knowledge. From the perspective of Canada as an open economy, neither of these arguments provided a compelling case for a positive population program through an expansionary immigration policy. Therefore, a restrictive immigration policy does not seem to carry economic costs.

However, one reason for the public perception of a strong positive link between extensive and intensive growth is that periods of rapid extensive growth in Canada and the provinces have been associated with high rates of intensive growth. The wheat boom era of 1896 to 1913 and the energy boom of 1973 to 1980 in Alberta are two examples. There is a perception that a growth in population through migration caused these economic booms. In the case of the energy boom, a sharp rise in the relative price of energy increased the demand for labour and capital in the energy and complementary sectors. In the short run, before labour and capital could be re-allocated among regions, wages and rental rates on capital rose in Alberta relative to other regions. The differential in returns to labour and capital induced investment and interregional migration.

The influx of population led to additional investment in population-sensitive capital formation, urban infrastructure and residential and commercial construction that further increased the demand for labour and capital.¹⁹ A combination of falling real energy prices and unrealized expectations regarding returns to investments caused the boom to collapse. Net out-migration occurred, and construction activity and investment plummeted and caused further out-migration as the contracting sectors

released labour. From the perspective of the casual observer, the pattern of net migration — positive during the boom, negative during the collapse — is suggestive of causality from migration to per capita income. In the case of the owners of specific factors — urban land, for example — net positive migration has increased real income just as out-migration reduces it. It was, however, changed economic circumstances initiated mainly by external factors (the influence of OPEC on oil prices) that initiated the boom. Labour and capital flows were only responding to differential returns between the province and the rest of Canada and not creating them in the long run (except in the case of specific factors). Net migration will continue until rates of return (net of transfer costs and risk premium) have been equalized. The small regional economy may be larger as a result of net migration, but income per capita is not.

Immigration Policy and Absorptive Capacity

An enduring aspect of Canadian immigration policies has been the effort to link the magnitude and occupational composition of immigration to the requirements of the domestic labour market. The flow of immigrants has been regulated where possible according to the “absorptive capacity” of the domestic economy.²⁰ Absorptive capacity in this context refers to the ability of the labour market to increase employment of immigrants without “crowding out” domestic labour (whether native-born or previous immigrants).

The potential for crowding out in a static framework depends critically on two parameters — the elasticities of the domestic labour supply curve and those of the derived demand for labour. The more elastic or responsive the domestic supply curve is to changes in real wages, the greater the potential for immigrant arrivals crowding out domestic residents from employment. The elasticity of the domestic labour supply depends on two factors — the ease with which residents can shift between Canadian and foreign (mainly U.S.) labour markets in response to real wage differentials, and the responsiveness of labour force participation rates to real wage changes. American immigration policy with respect to immigrants from Canada has been a major factor in influencing the elasticity of the domestic (Canadian) labour supply. On the demand side, the greater the elasticity of the derived demand for labour, the smaller the decline in real wages required to absorb a given flow of immigrants into domestic employment, and therefore the smaller the likelihood of crowding out.

Evidence of crowding out could take a variety of forms depending on the period under consideration. The “displacement” debate of the 1920s and 1930s, for example, dealt specifically with the issue of the absorptive capacity of the Canadian labour market.²¹ Canada historically has experienced large two-way flows of population — gross immigration to Canada concurrent with emigration of Canadian-born and foreign-born residents

from Canada to the United States. Even today, emigration is a significant proportion of immigration to Canada. Some observers such as Lower (1930) viewed emigration from Canada as indicative of crowding out caused by immigration. Lower's analytical framework implicitly incorporated a labour market scenario of a highly elastic domestic labour supply curve combined with an inelastic derived demand for labour (1930, pp. 565-568). Other participants in the debate (Timlin, 1951; Whitton, 1924; Thomas, 1973) viewed immigration and emigration as being unrelated to a large extent and responding to different factors in highly segmented labour markets. Much of this debate consisted of hypothesis testing by assertion, but it did serve to highlight fears that in an open economy "too much" immigration would be accommodated by an employment response on the part of original residents. In this period, when Canadian-born migration to the United States was not subject to legislated quotas, emigration was seen as the equilibrating mechanism and the factor that ensured a highly elastic domestic labour supply curve.

Present immigration policy embodies the same concern that migrants should not crowd out domestic participants in the labour market. The Canada-first policy actively pursued by the Immigration Commission and the major role that occupational demand and arranged employment play in the point system, outlined in detail in the first section of this paper, reflect these fears. Evidence of crowding out of domestic employment would now take the form primarily of higher unemployment rates and to a lesser extent of withdrawal from the labour market rather than emigration. Consequently, the labour market focus of immigration policy has adopted vacancy and unemployment rates as measures of absorptive capacity. High vacancy rates or low unemployment rates are taken as evidence that immigration will not crowd out domestic employment. Similarly, in the case of arranged employment, firms must demonstrate to the satisfaction of the Immigration Commission that qualified Canadian residents are not available.

There can be a number of unanticipated consequences of linking economic immigration to labour market requirements in this fashion. The first is that this immigration policy has a strong potential for setting the relative prices of various categories of skilled labour in Canada. Effectively, the government policy links the volume of immigration by skill or occupation to measures of excess labour demand in those markets.²² When vacancy rates increase or unemployment rates fall in a particular labour market or it is easy to demonstrate that no qualified residents are available, points are awarded for occupational demand, designated occupations and arranged employment increase (ignoring the May 1982 revisions), and the number of immigrants with skills specific to the occupations rises. Government policy effectively provides a perfectly elastic supply of labour at some relative price consistent with equilibrium in the domestic labour market at some time in the past. One could argue that the volume

of economic immigration is certainly small, relative to the size of the domestic labour market, but this argument is misleading. First, it is the margin of employment that is important; the relevant issue is how much immigration contributes to additional employment in an occupation. Second, one cannot neglect immigrants with employment authorizations, the Canadian equivalent of guest workers. The annual volume in person-years of immigrants in this category is large in relation to permanent economic immigration, as noted in the first section of this paper. Together, these two points suggest that immigration could have a significant effect in setting the relative price of certain categories of labour in Canada.

No basis is available for assessing whether economic immigration results in the "correct" prices, but the impact of this policy on the domestic investment in skills could be considerable. In the absence of economic immigration, the increase in labour demand that initially led to the rise in vacancy rates would cause wages to rise in the particular market. The increase in wages would act as a signal for entry by domestic residents, who would invest in acquiring the necessary skills. Since the full social cost of education, especially for post-secondary institutions, is not borne by students, society as a whole and taxpayers in particular would incur the costs of equipping domestic residents with the skills required to enter the occupation whose relative income has risen.²³ The potential savings for taxpayers (especially low-income taxpayers) and residents from drawing on foreign labour markets instead of investing domestically to produce the skills are significant, as DeVoretz and Maki (1980) have demonstrated.

There are implications of this policy that some might find disturbing. If government policy takes the consequence of this immigration policy into account, it will redirect expenditures away from post-secondary education and technical and vocational schools, and into other areas. Similarly, the private sector will tend to reduce investments in on-the-job training programs and apprenticeship schemes because it will be cheaper to import the skills rather than generate them domestically. Collectively, society will invest less in education and, as was noted before, there is a net gain to society if the funds saved are invested productively elsewhere in the economy. Yet new entrants into the labour market will find their opportunities for training in the new technology-driven skills foreclosed or at least restricted. Some of these new entrants may enter less desirable (i.e., less skilled) occupations, become unemployed or leave the work force. Others may still enter the skilled labour market, because of their comparative advantages or tastes for non-wage attributes of jobs.

However, the welfare of domestic residents may not be lowered as a result of this shift in occupational mix. The funds saved from not investing domestically in education clearly represent a net gain to all residents, especially those who do not gain from higher education. The influx of skilled workers has other effects. In the context of the static models of

the second section, the average incomes of domestic residents will increase (assuming that they capture all returns to the domestic capital stock) as a result of this immigration. Moreover, the returns to unskilled labour may increase as a consequence of the influx of skilled labour. New domestic entrants into the labour market forced into unskilled occupations because of lower domestic investment in skills will benefit as a consequence.

Immigration as a Tool of Domestic Economic Policy

As discussed in the first section, the Immigration Act requires the Minister of Employment and Immigration to set planned target levels of immigration for each year and to do so in light of demographic considerations and labour market conditions. It also sets out various objectives for policy that include meeting the demographic goals set by government policy and "... the development of a strong and viable economy and the prosperity of all regions in Canada."

There are problems of internal consistency and operational content with these provisions of the legislation. The demographic goals of immigration policy are a case in point. First, it is not at all clear why a demographic goal is a valid objective except insofar as economic criteria are provided that the demographic goal should satisfy. As noted earlier in this paper, there is no compelling reason to pursue a positive immigration policy on the basis of anticipated gains in income per capita. A similar argument holds with respect to demographic goals if they are simply framed in terms of acceptable growth rates for population or some desired population level.

There appears to be no valid reason for a demographic goal to be a policy objective. It would only seem to be an acceptable goal of government policy if income per capita of the original residents is expected to increase as a result of the demographic goal. At present, however, we do not have reasonable criteria to define the optimal growth rates or levels for the population. Kalbach (1975, pp. 3-7) has suggested that enlightened immigration and demographic policies for Canada that would not appear self-serving in the eyes of the international community would favour growth of the Canadian population at the world average growth rate. Immigration policy to ensure the growth of the domestic population inclusive of net migration and natural increase would achieve this desired population growth rate. But an operational rule of this kind has no economic content and would have to be adopted on moral grounds alone, as Kalbach suggested.

There have been suggestions that one demographic objective to assign to immigration policy should be to offset some of the consequences of the aging of the baby boom cohort. Fertility rates have been declining and as the baby boom cohort ages, a decreasing proportion of the popula-

tion will be in the labour force. An aging population will increase the tax burden on the economically active population for the funding of pensions and the provision of social services. Kalbach notes that:

The only solution, in the face of a consistent decline in fertility, is the use of immigration to stabilize the "old dependency" ratio by maintaining the relative sizes of the over-65 population and the labour force. (p. 308)

Overbeek (1980, p. 71) has similar concerns, and argues that:

By 2030, the Canadian age pyramid will almost have taken on the shape of a lightbulb, unless of course, present fertility conditions change again. With relatively small economically active groups and a relatively large burden of oldsters, the existing welfare arrangements will experience enormous pressure and could actually collapse.

The policy prescription that this author offers is to reduce immigration now, as the aging of migrant cohorts will only exacerbate the sharp rise in dependency rates in the future. Once the baby boomers retire, however, immigration policy would become expansionary and so reduce the dependency ratio.²⁴

The estimates of Foot (1982, p. 131) for a variety of net migration and fertility scenarios suggest that the total dependency ratio (defined as the number of persons aged 0 to 14 years and 65 years and over divided by the number of persons aged 15 to 65 years) will decline until 2011. For much of the period until then, the dependency ratio will remain at historically low ratios as the decreasing proportion of the young in the population more than offsets the increasing proportion of the elderly. Table 3-2 provides a simulation time path of the total dependency ratio (Foot, 1982). These projections clearly suggest that concern over rising dependency rates should not lead to an expansionary immigration policy now. Moreover, Foot finds that the simulation estimates are quite insensitive to alternate net immigration assumptions (i.e., from 0 to 65,000).

Long-term demographic concerns in any case would be difficult to incorporate into the present mechanisms that regulate the volume of immigration. The planning exercise is geared closely to short-term labour market considerations, and this results in strong cycles in the economic component of immigration that are related to domestic business cycles. The flux of immigrants permitted to enter for humanitarian and social reasons may be less cyclical, but its demographic characteristics — high dependency rates in particular — run counter to the demographic objective of offsetting the aging of the baby boom cohort.

The vague objectives in the 1976 legislation of promoting "a strong and viable economy and the prosperity of all regions" are expressed in words that possess little economic content. The objective can be interpreted to mean that immigration should be used as a tool to promote either extensive or intensive economic growth. In light of the discussion to this point,

TABLE 3-2 Historical and Projected Total Dependency Ratio and Inverse Total Dependency Ratio for Canada, 1851-2051

Year	Total Dependency Ratio ^a	Total Inverse Dependency Ratio ^b
1851	.909	1.10
1861	.834	1.20
1871	.828	1.21
1881	.749	1.34
1891	.692	1.44
1901	.651	1.54
1911	.603	1.66
1921	.644	1.55
1931	.592	1.69
1941	.526	1.90
1951	.615	1.62
1961	.712	1.41
1971	.604	1.65
<i>Projections</i>		
1981	.475	2.10
1991	.489	2.55
2001	.464	2.15
2011	.446	2.24
2021	.519	1.92
2031	.593	1.69
2041	.586	1.71
2051	.590	1.69

Source: David K. Foot, *Canada's Population Outlook*. (Toronto: Lorimer, 1982), Table 4-1, p. 129.

a. Number of dependants per person of working age (persons aged 0 to 14 years and 65 years and over divided by number of persons aged 15 to 64 years).

b. Number of persons of working age per dependent person (number of persons aged 15 to 64 years divided by number of persons aged 0 to 14 years and 65 years and over).

the appropriate objective is that immigration policy be used to promote growth of income per capita in the national and regional economies. But this presents a dilemma: should the focus be on income per capita of the original residents or on income per capita of all residents, including immigrants? Immigration will increase the average income of the original residents (assuming that original residents capture all of the returns to capital) while redistributing income from labour to capital. In theory, domestic losers, or labour, could be compensated but in practice this does not occur, or if it does, policy cannot distinguish between original members of the labour market and immigrant labour; citizens and landed immigrants have the same economic rights. Similarly, as Usher (1977) argues, immi-

grants do share in the public capital stock. For these two reasons — the inability to redistribute the gains (if any) from immigration among original residents and the inability to maintain exclusivity to the public capital stock — we view income per capita of all residents after immigration as the appropriate benchmark. An increase in income per capita or the absence of a decline in its value as a result of immigration makes it far more feasible to consider internal institutional mechanisms to compensate losers from immigration, especially labour, by taxing the now higher incomes of the owners of capital.

In this context, we wish to note that we have serious reservations regarding the efficacy of immigration policy as a tool of regional development. Our discussion regarding the possible links between extensive growth and income per capita concluded that such links are elusive and in most cases could be obtained for Canada through trade rather than an expansionary immigration policy. Even if this conclusion were different, there are two reasons for our concern.

The first reason for concern is that international migration is a substitute for internal migration. International migrants have incurred all the psychic costs of a long-distance move and have all their assets in easily transferable forms. Thus, they are highly mobile and will choose a destination on purely economic grounds, seeking the location that yields the highest income stream. In the absence of international migration, residents of slow-growth or low-income regions would have responded to the incentives for inter-regional migration. Their responsiveness is slower than that of international migrants because they have yet to incur the psychic costs of long-distance moves or liquidate assets such as housing. Internal migration will still occur, but at a lower level. A large-scale expansionary immigration policy could have a significantly negative effect on internal resource allocation, and effectively lock the spatial distribution of original residents into its current pattern. Consequently, efforts to reduce regional disparities by increasing mobility of the domestic population may be offset by the impact of international migrants on domestic labour markets.

The second reason for concern is that some observers view international migration as a tool for promoting development in less desirable areas of Canada. The point system, for example, awards points on the basis of destination, and less desirable areas are worth more points. This approach, however, treats symptoms, not the problem, and is doomed to failure in any case. The reason why internal migration to these regions does not occur is that returns to labour do not include a sufficient premium to compensate residents for enduring whatever makes their region less desirable than others. International migrants may locate in such regions initially, but they too will respond to real-income differentials and move once they are in a legal position to do so. It is not possible to constrain the internal mobility of landed immigrants.

A Menu of Immigration Policies

We have suggested throughout this discussion that immigration policy is by its very nature a contentious issue for any society. Governments attempt to achieve multiple and often inconsistent objectives within a single framework and in the process ignore the fundamental issue that must be addressed — deciding whose welfare is relevant, that of residents or of non-residents of the country, in evaluating and setting policy. The role of immigration policy in creating economic rents and the distributional consequences of altering the status quo lead groups to promote their economic self-interest through political means. Public policy discussions inevitably reflect a mix of positions, ranging from those that are self-serving but cloaked in the public interest to those that are altruistic or based on non-economic considerations. It is obviously difficult to reconcile such diverse views.

The discussion that follows provides a range of policies, from those that are fundamentally national in perspective and have the sole objective of maximizing the benefits of immigration for domestic residents to those that embody varying degrees of concern for the welfare of non-residents. Our discussion will be restricted to regulation of economic or independent immigration. On the other hand, the volume of immigration justified purely on humanitarian and social grounds is not a concern of this paper; the Canadian federal government's policy in this regard reflects our collective preferences. In the case of economic immigration, the government regulates the magnitude and occupational mix according to various criteria. Our concern is really with examining whose welfare is best served by various policies.

Present policy with respect to economic immigration is basically to harvest the rich and the skilled from the foreign labour pool. The business program for entrepreneurs and the self-employed is obviously aimed at attracting wealthy immigrants to Canada. It is argued that such immigrants will provide additional employment and investment in Canada. But such an argument presupposes some failure of capital markets. That is, for some reason profitable opportunities for investment remain unexploited until the arrival of immigrants. However, such market failure is unlikely for Canada, given the mobility of capital and the wide array of domestic and foreign financial intermediaries that can be drawn upon.

The point system clearly values skills and occupational training highly, and immigrants possessing skills in demand in Canada have a much higher probability of admission than others. The difference in occupational composition of the "selected worker" and "non-selected worker" streams in Table 3-B3 (see Appendix B) suggests the success of the point system in skewing the composition of migration to professionals and highly skilled workers.

One possible immigration policy would ensure the maximum benefits of immigration to Canadian residents and satisfy many of the objections to current policy (i.e., selection criteria, "brain drain" costs borne by the Third World, distributional consequences in the receiving country). This would be to set quota levels for immigration to Canada, allocate a proportion of these to immigrants whose entry is justified on humanitarian and social grounds, and auction off the remaining quota to the highest bidders. Such a policy would not discriminate on the basis of race, religion or origin, and would be consistent with the objective of maximizing the benefits of immigration for domestic residents. In any case, Canadian immigration policy embodies an element of the auction mechanism through the ability of entrepreneurs and the self-employed virtually to purchase entry into Canada simply through possession of sufficient funds to purchase or establish a business in Canada.

The revenue collected could be used to address the objections to current policies. It could be used to compensate those within the country who could demonstrate that they bear identifiable costs from immigration, or could be distributed to less developed countries in return for loss of the return to human and physical capital through its emigration to Canada. Similarly, firms that required specific skills not available in the domestic labour market would not face the decision of whether to invest in the skills domestically through training and apprenticeship programs or purchase them by paying for the entry of skilled immigrants. Obviously, the skilled workers would have to have a contractual relationship with the firms for some period of employment or it would not be in the interest of firms to import labour. The auction mechanism would also prevent immigration policy from possibly setting the relative prices of various skills in the Canadian labour market, as could occur under the present point system and through the employment authorization program.

Many will object to the above immigration policy because it is so unabashedly narrow and parochial in terms of regulating economic immigration solely for the benefit of the domestic population. Current immigration policy, however, has strong elements of this proposed policy, though without the revenue collection mechanism — the auction — that permits a redistribution of the possible gains from migration to compensate losers in the domestic economy. The policy could also permit Canada to address the issue of compensation for the brain drain to this country from less developed countries. DeVoretz and Maki (1980, p. 793) found that for the period 1967–73 the value of Canadian foreign aid was about equal to their upper-bound estimates of the human capital transfers from the less developed countries to Canada. In these circumstances, the net impact of Canadian foreign aid expenditures is not clear. The revenue from the auction mechanism would make it at least feasible to separate foreign aid from the narrower issue of potential compensation for the brain drain.

It should be noted, however, that no country has created explicit markets

for citizenship rights, despite the apparent benefits of such a policy, to both immigrants and domestic residents. The explanation is that citizenship involves membership in a community with shared values, goals and obligations that the price mechanism could not take into account when called upon to value citizenship rights.

The other extreme in immigration policies would be unrestricted entry into Canada. Since the size of the Canadian labour market is small relative to the potential pool of immigrants, wages would fall significantly in Canada without much of a corresponding increase in wages in less developed countries. The change in wages and hence relative factor prices in Canada would shift our area of comparative advantage into more labour-intensive commodities. International commercial policy is restrictive with regard to many of these commodities. Hence it is unlikely that the new larger population of Canada could increase wages through international trade. In this scenario, original residents would still gain on average (again assuming that domestic residents capture the returns to the existing capital stock, public and private). Original residents of Canada whose income derived solely from wages would be the big losers under this policy.

It is possible to transform this apparently altruistic policy to one that would unambiguously benefit all the original residents of Canada. All that is required is first to "privatize" all the unalienated Crown lands, federal and provincial, among the original residents. Distribution of ownership rights in the form of shares is one approach. The next step would be to permit unrestricted immigration. The immediate result would be a sharp jump in the returns to fixed factors, which would then be reflected in higher share values held by domestic residents. This scenario, though fanciful, clearly suggests why the owners of fixed or specific factors are often the most vociferous advocates of extensive growth policies. In most instances, this group unambiguously gains during periods of extensive growth. The basic problem with this scenario is that immigrants at some point may outnumber domestic residents and unilaterally change the property rights regime — through expropriation, for example.

Yet, as noted in the second section of this paper, immigration policy by itself might not be the most appropriate tool for addressing concerns about global welfare or, for that matter, national welfare. A shift to trade liberalization combined with revisions of current immigration policy probably is the best approach Canada could adopt. Commercial policy, particularly a reduction of tariff and non-tariff barriers on imports from less developed countries, is one mechanism that would be mutually beneficial to Canada and less developed countries.²⁵ Trade liberalization on Canada's part would lead to improved resource allocation within the economy and would increase the volume of export earnings of the less developed countries, potentially improving the welfare of residents of those countries.

Canadian immigration policy at present skims off the cream of the potential migrant flow — the wealthy and the highly skilled. This policy has the potential to impose real costs on non-migrating residents of Third World countries. A non-selective immigration policy would base acceptance on the ability of candidates to satisfy medical requirements and other general screening characteristics, such as years of school or age, chosen by immigration authorities. A quota consistent with the planned level of immigration would be set, with shares in the target disbursed among the social, humanitarian and economic streams of immigrants as currently defined in the immigration regulations. The benefit to less developed countries of this shift in policy is that Canada would no longer select for admission only their most productive citizens and those whose departure is most likely to reduce incomes of those who remain behind.

For Canada, there would be costs and benefits in adopting a less selective immigration policy. The costs would be the foregone savings in investment expenditures on education and training. Yet it is not clear that these savings are now being realized or that it is desirable to do so. Domestic residents want their children to enter the professions and acquire the new technology-intensive skills, and expect government to provide the necessary facilities. That is, domestic residents do not seem to value the saving in investment costs if it means foreclosing the array of occupational opportunities available to their children. Severing the link between permanent economic immigration and occupational demand would also preclude the possibility that currently exists of immigration policy inadvertently fixing the relative prices of skills in Canada at some arbitrary level. Shortages of specific skills in Canada that could lead to bottlenecks in production and unemployment could be addressed as they now are, through issuance of employment authorizations of limited duration. This would provide time for the private and public sectors to invest in producing these skills domestically, while maintaining income in Canada in the interim.

Conclusions

We find that concerns raised by the green paper (Manpower and Immigration, 1975a) are exaggerated on two grounds. First, the paper ignores a number of links between immigration and population growth and income per capita that operate through an impact on the rate of technological change and savings levels. We note, however, that many of these benefits could be obtained through trade, and that it might be less costly to do so. Second, arguments concerning quality of life and environmental damage are misdirected at population growth. The problem here is the failure of the price mechanism to reflect the social cost of economic activity rather than population growth itself. We find that the focus of immigration policy on vacancy and unemployment rates in the labour market as a tool for defining admissions criteria is understandable as a bureaucratic

device but likely to have unanticipated consequences for income distribution, job opportunities and the economic welfare of domestic residents.

Immigration policies have a significant effect on the distribution of income, but these effects are not as straightforward as conventional wisdom suggests, especially when the models employ more realistic assumptions such as different types of labour. The distributional consequences of immigration anticipated by conventional wisdom, however, do go a long way to explaining how immigration policy has evolved and why it is such a contentious issue in public policy. Finally, we find that while there is some scope for using immigration policies to contend with the economic consequences of shifts in the structure of the Canadian population, it is not a feasible tool in other areas, i.e., regional growth.

Immigration policy attempts to reconcile economic, humanitarian and social considerations within a single framework. Consequently, the objectives of immigration policies are often inconsistent and in some cases mutually exclusive. There is a range of possible immigration policies that embody varying degrees of altruism to non-residents. These policies range from auctioning off quota spots to immigrants, to unrestricted immigration. More realistic scenarios regarding Canadian immigration policy and global welfare would include commercial policy as an integral element of any policy to help improve global welfare and income distribution. The bottom line with respect to Canada's role in promoting higher world incomes or a more equitable distribution of income is that in isolation, Canada can do little. Canada cannot possibly absorb enough immigrants to influence average incomes in the Third World. Similarly, Canada's share of world trade is too small for trade liberalization by this country alone to have an appreciable effect on income in less developed countries. Collective action, as in the North-South dialogue, is the best approach. Unfortunately, the distributional issues discussed throughout much of this paper make it difficult for such a forum to come to concrete proposals or achieve more than marginal changes in the status quo.

Appendix A

Immigration Selection Criteria of the Immigration Act of 1976

3. It is hereby declared that Canadian immigration policy and the rules and regulations made under this Act shall be designed and administered in such a manner as to promote the domestic and international interests of Canada recognizing the need

- (a) to support the attainment of such demographic goals as may be established by the Government of Canada from time to time in respect of the size, rate of growth, structure and geographic distribution of the Canadian population;
- (b) to enrich and strengthen the cultural and social fabric of Canada, taking into account the federal and bilingual character of Canada;
- (c) to facilitate the reunion in Canada of Canadian citizens and permanent residents with their close relatives from abroad;
- (d) to encourage and facilitate the adaptation of persons who have been granted admission as permanent residents to Canadian society by promoting cooperation between the Government of Canada and other levels of government and non-governmental agencies in Canada with respect thereto;
- (e) to facilitate the entry of visitors into Canada for the purpose of fostering trade and commerce, tourism, cultural and scientific activities and international understanding;
- (f) to ensure that any person who seeks admission to Canada on either a permanent or temporary basis is subject to standards of admission that do not discriminate on grounds of race, national or ethnic origin, colour, religion or sex;
- (g) to fulfill Canada's international legal obligations with respect to refugees and to uphold its humanitarian tradition with respect to the displaced and the persecuted;
- (h) to foster the development of a strong and viable economy and the prosperity of all regions in Canada;
- (i) to maintain and protect the health, safety and good order of Canadian society; and
- (j) to promote international order and justice by denying the use of Canadian territory to persons who are likely to engage in criminal activity.

Appendix B

Statistical Overview of Immigration Since the 1960s

The object in this section is to provide some statistical context for the discussions of the welfare implications of current immigration policy for domestic residents and immigrants. It is difficult to determine the impact of the new legislation on the total number of immigrants coming to Canada. If the total number of applicants for admission to Canada were known, the ratio of admissions to total applicants would provide some measure of the stringency of the legislation and the effects of planned immigration levels and selected worker restrictions. Also, the volume of immigration is sensitive to employment and income levels in the sending and receiving regions, and so it is difficult to disentangle the influence of the legislation from changing domestic and external economic conditions. The volume of economic immigrants coming to Canada would have fallen in 1982 even in the absence of immigration restrictions on selected workers, because of the severe recession in Canada. Similarly, the volume of family and assisted relative immigrations is also sensitive to domestic economic conditions. The ability of sponsors of family stream and assisted relative immigrants to satisfy their legal commitment to the sponsored migrants depends on their expected domestic incomes. Finally, the binding constraint may in fact be the capacity of the immigration authorities to process immigrants rather than the planned level of immigration. For example, the 1982 Annual Report on Immigration Levels notes:

The announced immigration level for 1981 was in the range of 130,000 to 140,000; actual 1981 intake is expected to be slightly under the end of the range owing to the continuing pressures on the processing system abroad, which has been, and continues to be, working above capacity.

Table 3-B1 shows total immigration by class or stream from 1966 to 1983. One feature of the data is the variability of the total flow, which ranges from a high of 218,000 in 1974 to 86,000 in 1978. Both the annual level of immigration and its variability appear to be lower since 1978, but for the reasons discussed earlier, care must be taken in attributing this entirely to the new legislation. Yet the evidence does suggest that the restrictive posture of immigration policy and the emphasis on planning levels have had some impact on immigration to Canada. Only a little over 6,000 selected workers entered Canada in 1983, compared with more than 18,000 selected workers admitted in 1982.

The most dramatic shifts in the composition of immigration by class, shown in Table 3-B1 occurred before the proclamation in 1978 of the new immigration act, with its emphasis on family reunification and humanitarian considerations. The importance of the economic independent and assisted relative classes in absolute and share terms declines

significantly in 1975 and remains around this new lower level thereafter, while the importance of the family class of immigration increases. The big surge in refugee and designated classes in 1979 and 1980 represents an influx of refugees from Southeast Asia under the sponsorship of the government, private individuals and groups.

TABLE 3-B1 Immigration by Class, 1966-83 (percent)

	Family Class	Assisted Relatives	Economic	Refugees and Designated Class	Total Number of Immigrants (Persons)
1966	34.2	—	65.8	—	194,743
1970	21.8	23.8	54.4	—	147,713
1971	27.4	24.1	48.5	—	121,900
1972	27.1	25.2	43.5	4.2	122,006
1973	22.6	24.0	52.1	1.3	184,200
1974	24.8	24.3	50.1	0.8	218,465
1975	34.1	24.3	38.6	3.0	187,881
1976	40.7	21.8	29.6	7.9	149,429
1977	44.7	22.7	26.2	6.4	114,914
1978	52.8	19.9	22.4	4.9	86,313
1979	41.7	10.2	23.2	24.9	112,096
1980	35.7	9.4	26.7	28.2	143,117
1982	41.3	44.8		13.9	121,147
1983*	54.6	29.7		15.7	89,034

Sources: *Annual Report to Parliament on Immigration Levels*, Employment and Immigration Canada (Ottawa: 1981), Table 11, p. 42.

Background Paper on Future Immigration Levels, Employment and Immigration Canada (Ottawa: 1983), p. 20.

Immigration Levels, 1985-1987: Analytical Considerations, Employment and Immigration Canada (Ottawa: 1984), p. 9.

* Preliminary.

The major shifts in the origin of immigration to Canada date from 1962, when the ethnic origin of the migrant ceased to be an important factor in the admission decision. The 1967 immigration regulations formalized non-discrimination as an integral element of Canadian immigration policy, through the adoption of the point system. In the period 1956-61, Europe including the United Kingdom accounted for 86.0 percent of immigration to Canada. By the period 1968-72, the proportion had declined to 52.0 percent and by 1982-83 to 36.7 percent. Immigration from Asia and Oceania rose from a 2.7 per cent share of total immigration in 1956-61 to 13.9 percent in 1968-72, and stood at 31.9 percent in 1982-83. The share of immigration from Latin America and the Caribbean stood at 2.2 percent of total immigration in the period 1956-61, jumped to 11.6 percent in 1968-72, and increased slightly to 14.9 percent in 1982-83.

Table 3-B2 provides estimates of the intended occupations of immigrants to Canada. The evidence in this table, like the data for the origin of immigrants, suggests that the major shifts in structure of the occupational flow

predate the current legislation. This is not surprising, since the point system of 1967, with its emphasis on skills and employability, remains basically intact under the new act. Between 1961 and 1971, the managerial and professional categories increased their share of the total from 21.8 to 32.2 percent and the labourers and service category of intended occupations declined from 18.8 to 10.4 percent over the same decade.

Table 3-B3 provides greater detail on the occupational composition of the flow of selected workers and the gross flow to Canada in 1980. Less than one-third of selected workers admitted to Canada had arranged employment, and those that did appear to be more heavily concentrated in professional and highly skilled occupations. The flow of selected workers constituted 46.3 percent of the total immigrant flow destined for the labour market, while the remainder were members of the family and refugee classes of migrants and spouses and dependants of selected workers. The admission of these "non-selected workers" is not related to the point system and its emphasis on occupational demand and labour force characteristics of the migrants. Consequently, the flow contains a lower proportion of skilled and professional workers. The point system appears to be successful in steering the occupational composition of the economic immigrants toward professional and skilled occupations.

TABLE 3-B2 Intended Occupations of Immigrants to Canada (percent)

	1981	1976	1971	1961	1951
Managerial	6.3	9.2	5.7	2.6	—
Professional	24.6	23.4	26.5	19.2	3.6
Clerical	12.3	15.2	16.2	12.2	4.8
Transport/Communication	1.2	1.3	1.2	1.6	1.9
Commerce/Finance	3.8	4.3	4.1	3.6	2.7
Service	7.4	9.4	10.4	18.8	6.3
Agriculture	5.1	1.9	3.5	6.7	23.4
Logging/Fishing/Hunting/ Trapping	.3	.1	.1	.2	4.4
Mining/Quarrying	.1	.2	.4	.3	2.7
Manufacturing/Mechanical/ Construction	.5	1.5	2.2	11.4	12.0
Others/Not Stated	15.9	6.6	3.3	.2	2.0

Sources: 1951: Department of Manpower and Immigration, *Immigration Statistics* (Ottawa: M&I, 1951), Table 5.3

1961, 1971, 1976: F.H. Leacy, ed., *Historical Statistics of Canada*, 2nd ed., Series A351-368, (Ottawa: Statistics Canada).

1981: Employment and Immigration Canada, *1981 Immigration Statistics*, Table 11.

**TABLE 3-B3 Labour Market Migration to Canada for
Selected Occupations, 1980 (percent)**

	Selected Workers		Non-Selected Workers	Gross Worker Immigration by Occupation
	Arranged Employment ^a	Without Arranged Employment ^b		
Managerial, Administrative	12.8	9.9	2.6	6.4
Natural Sciences, Engineering and Mathematics	16.9	14.8	5.9	10.3
Social Science and Related	0.9	0.6	1.3	1.0
Religion	3.5	0.9	0.2	0.9
Teaching and Related	4.7	0.7	3.7	2.8
Medicine and Health	6.6	3.4	5.3	4.8
Artistic, Literary	2.0	2.0	2.0	2.0
Sport and Recreation	0.5	0.2	0.2	0.2
Clerical and Related	2.5	12.7	17.8	14.0
Sales	1.6	5.0	4.3	4.2
Service	9.4	9.5	8.2	8.8
Farming, Horticulture	1.9	7.1	3.8	4.7
Fishing, Hunting	0.4	0.1	0.1	0.1
Forestry, Logging	0.1	— ^c	0.1	0.1
Mining and Quarrying	0.5	— ^c	0.1	0.1
Processing	1.5	2.4	1.5	1.8
Machinery and Related	9.6	6.9	2.7	5.0
Product Fabrication	19.4	13.4	9.5	12.1
Construction Trades	3.6	4.5	5.2	4.7
Transport Equipment	0.5	0.7	1.9	1.3
Material Handling	0.1	0.5	0.9	0.7
Other Crafts and Equipment				
Operating	0.8	0.6	0.6	0.7
All Other	— ^c	2.5	21.9	12.6
Entrepreneurs	0.1	1.6	0.1	0.6
Unknown	— ^c	— ^c	— ^c	— ^c
Total	100.0	100.0	99.9	100.0
(Number)	(6,233)	(15,239)	(24,737)	(46,209)

Source: Canada, Department of Employment and Immigration, *Annual Report to Parliament on Immigration Levels*, (Ottawa, 1981), p. 32.

a. Includes workers with specific job offers, as well as a small number admitted for an occupation designated by federal-provincial agreement.

b. Includes principal applicants in entrepreneur, self-employed and retiree categories.

c. Less than 0.1 per cent.

d. Excludes Indochinese refugees destined for labour market; includes spouses and dependants of selected workers.

The "intended" labour force participation rate of the immigrant flow is now relatively low. Normally, immigrants are viewed as consisting of younger persons with high labour force participation rates. Yet as Table 3-B4 suggests, the intended participation rate for immigrants is less than that of the foreign-born and native-born population in Canada. This phenomenon is not new, however, and relates to the increasing emphasis of Canadian immigration policy throughout the postwar period on family reunification and humanitarian considerations.

**TABLE 3-B4 Labour Force Participation Rates,
Various Years (percent)**

	"Intended" Participation Rate of Immigrants^a	National Participation Rate^b	Native-born Participation Rate^b	Foreign-born Participation Rate^b
1951	74.0	54.2	54.7	51.9
1956	70.8	—	—	—
1961	62.2	53.7	53.7	53.7
1966	68.3	—	—	—
1971	64.2	58.0	57.9	58.5
1976	55.2	—	—	—
1981	56.0	64.8	64.9	64.0

Sources: a. The figure for 1951 is calculated from the *Canada Year Book*, 1952-53. The other data came from various issues of *Immigration Statistics*. All rates are for those 15 years and older.

b. Census of Canada, various years (labour force by nativity/population by nativity, 15 years and older).

The government also heavily promotes the immigration of entrepreneurs and self-employed workers to Canada, particularly those with capital to invest in Canada. Data for 1982 are highly revealing concerning the capital of various categories of immigrants (Employment and Immigration Canada, 1983, p. 50). Total landings of family units in 1982 were 66,978, and their funds were estimated at \$1,834 million or \$27,382 per family. This average is misleading. The entrepreneur and self-employed family units brought in on average \$351,960, while all others (excluding the former category) brought in on average \$17,186. Canadian immigration policy seems quite successful in its goal of selecting immigrants with significant amounts of human and physical capital.

Table 3-B5 provides information on the occupational composition of holders of employment visas for selected years. The occupational mix is more varied than that of the permanent immigrant flow, especially in the early years of the program. The large proportion of visas in the farming, horticultural and animal husbandry category represents mainly migrant labour to accommodate seasonal labour demands. By 1981 this category had declined significantly. The large proportion of visa authorizations for services includes corporate transfers between foreign parents and Cana-

dian subsidiary firms. Visiting performers and entertainers here for short durations account for the large share of visas in the performing arts category.

TABLE 3-B5 Employment Authorizations by Occupational Groups (percent)

Occupational Groups	1973	1974	1981 Short-term ^a	1981 Long-term ^b
Entrepreneurs	— ^c	0.3	0.1	0.1
Managerial, Administrative	5.1	5.2	5.3	8.3
Natural Sciences, Engineering and Mathematics	8.6	8.1	8.1	6.1
Social Sciences and Related	1.9	1.8	1.6	1.0
Religion	0.6	0.5	1.0	3.7
Teaching	6.1	7.5	7.6	22.6
Medicine and Health	3.1	4.0	1.5	4.4
Artistic, Literary, Performing Arts	15.0	14.9	35.8	1.8
Sport and Recreation	1.5	1.4	1.9	0.6
Clerical	4.5	4.0	1.3	4.0
Sales	2.5	1.7	0.9	2.0
Service	13.9	15.7	8.2	29.5
Farming, Horticultural and Animal Husbandry	11.6	12.8	0.9	2.3
Fishing, Hunting, Trapping	0.2	0.1	— ^c	— ^c
Forestry and Logging	0.3	0.3	0.1	0.1
Mining and Quarrying Including Gas and Oil	0.5	0.4	0.3	0.1
Processing	3.7	2.7	1.0	1.5
Machining	3.4	2.8	0.8	1.3
Fabricating, Assembling and Repairing	9.3	8.1	10.5	4.5
Construction	3.7	4.7	2.1	2.7
Transport Equipment Operating	1.2	1.0	0.8	0.6
Material Handling	1.4	0.8	0.2	0.8
Other Crafts and Equipment Operating	0.5	0.6	0.7	0.3
Others and Not Stated	1.3	0.3	0.9	1.8
Total (Number)	100.0 (78,570)	100.0 (81,372)	100.0 (165,560)	100.0 (44,990)

Sources: Department of Manpower and Immigration, *Canadian Immigration and Population Study: Immigration and Population Statistics*, p. 125; Employment and Immigration Canada, 1981 *Immigration Statistics*, p. 78 and p. 80.

a. Persons who were in Canada in 1981 and remained for less than one year.

b. Persons who were in Canada in 1981 and remained for more than one year.

c. Less than 0.1 percent.

The number of employment authorizations is not, however, a good measure of the actual length of employment, since many visas are for very short durations, especially in the case of performing artists. In 1981, the total number of visitors documented under the program equalled 126,581. The duration of the individual visas was equivalent to 48,349 person-years, assuming that the visa holders worked the full duration of the eligibility period. This figure exceeds the volume of permanent economic immigrants admitted to Canada in that year. There are, however, two categories of visas. The validated category includes visas issued after firms have satisfied immigration authorities that domestic skills are unavailable. The visas here represent short-term flows to meet temporary shortages of skills. The person-years of employment in this category amounted to 22,259, based on the eligibility period of the visas. The second category is where the provision that firms obtain the visas for selected workers is waived and non-residents of Canada apply. Foreign students and refugees in Canada form the bulk of this group and account for a possible 26,090 person-years of employment. Persons holding this category of visa are likely to be concentrated in the markets for unskilled labour. The second category or validation-exempt category refers to authorizations that may be approved by an immigration officer without the condition that no Canadians are available to do this job.

Notes

This study was completed in October 1984. The authors would like to thank François Vaillancourt, Alan Green and Dan Usher for many useful and stimulating conversations on the issue of immigration policy. We would also like to thank Lars Osberg and Brenda Dyack for comments on an earlier draft and Meyer Burnstein of Employment and Immigration Canada for providing us with the data on person-year equivalents of employment authorization used in Appendix B.

1. The papers of Hawkins (1975a, 1975b, 1977), Boyd (1976), and Passaris (1979) focus on recent changes in Canadian immigration legislation.
2. Timlin (1951, 1960), Green (1976), Hawkins (1972), and Passaris (1979) stress the high degree of flexibility that has historically characterized Canadian immigration policy.
3. Bennett (1963), Keely and Elwell (1981), and Reimers (1982) provide a thorough discussion of American immigration policy.
4. Green (1976) suggests that non-discrimination became an integral element of Canadian immigration policy when policy changes were introduced in 1962. Chudy (1983) tests for discrimination in Canadian immigration policy from 1952 to 1978.
5. The concept of "absorptive capacity" is discussed in greater detail in the third section of this paper.
6. Buckley (1963, p. 19) finds that until 1901 approximately 80 percent or more of Canadian movers making long-distance moves (across provincial or Canadian-U.S. boundaries) went to the United States. The share of long-distance movers entering the United States remained high at 42.2 percent and 35.2 percent in the decades ending in 1951 and 1961, respectively.
7. The residents of the sending region might gain if immigrants remit a share of their earnings home. The flow of remittances, however, reduces the benefits of the immigrants to the receiving country. Berry and Soligo (1969), Usher (1977), and Lucas (1981) are

among papers that evaluate the impact on average income and income distribution of immigration on the non-migrants in the sending region.

8. Economic rent is the return to a factor of production in excess of its next best alternative use. In the case of specific or immobile factors, their entire return is rent. A barrier to entry can permit mobile factors in the protected market to earn a return above that of their next best alternative use.
9. A large literature has arisen on the economic consequences of rent-seeking behaviour. The paper by Krueger (1974) highlighted the issue. Rent-seeking behaviour concerns the use of real resources by various economic agents to obtain a share of the excess profits or rents that exist in the protected market. Extensions and elaboration of the concept of rent-seeking can be found in Buchanan, Tollison and Tullock (1980), Tollison (1982), and Hartle (1983).
10. The term "perfect markets" refers to large numbers of buyers and sellers in output and factor markets, no externalities or effects not reflected in market prices, and no economies of scale in production. When these conditions hold, factor prices will reflect the marginal contribution of an input, and output prices will reflect the cost to society of producing the item.
11. The papers by Collard (1970), Usher (1977), and Lucas (1981) discuss the impact of large-scale immigration on a receiving economy in a static framework. The dynamic consequences of large-scale immigration are discussed in the "long-swings" literature to which Thomas (1973), Buckley (1963) and Kelly (1968) are major contributors. These authors focus on the interaction of immigration with population-sensitive capital formation, natural increase, and aggregate and per capita income in sending and receiving countries through time. Neal (1978) provides a good overview of the long-swings literature. Papers by Mishan (1970) and Mishan and Needleman (1967, 1968a, 1968b) also look at longer run consequences of immigration but in a very restrictive framework.
12. Lucas (1981, p. 92) emphasizes this point.
13. Among these studies are Davies (1973, 1977), Grant et al. (1975), Rao and Kapsalis (1982), and Fairholm (1984). Parai (1974) finds immigration has a positive effect on income per capita. The methodology employed in the latter analysis differs from the above studies in its use of the "sources of growth" approach.
14. In the limited case of a perfectly elastic supply of labour at a given real wage, an exogenous increase in the labour force due, say, to immigration would be completely offset by a reduction in the endogenous component of the labour supply.
15. Gorecki (1976) provides evidence of scale economies in manufacturing and the cost disadvantage of operating at less than efficient size. His results suggest that for most industries, scale economies in production are exploited at relatively small market sizes, and that the cost disadvantages of operating at less than efficient size are modest. Starr (1975) emphasizes at the level of the aggregate manufacturing sector the unimportance of the impact of immigration on expanding market size and its contribution to higher per capita incomes.
16. The possibility of a variable time path to the costs and benefits of immigration in the receiving economy makes the economics of immigration policy even more difficult for government policy makers. They need knowledge of both the time path of costs and benefits and an estimate of the appropriate social discount rate to evaluate the present value of immigrants to the economy.
17. There is also a literature that links population growth to the possibility of secular stagnation of the economy. Slowing population growth would reduce the need for investment at the extensive margin (i.e., "capital widening"), and possibly lead to a reduction of investment at the intensive margin ("capital deepening"). The decline in capital formation would reduce aggregate and per capita investment, since investment is a significant proportion of aggregate demand. Hansen (1939, 1941) popularized this notion of secular stagnation. Barber (1975, 1978) has discussed this topic with respect to developed countries today as a possible cause of the great depression. Neal (1978) provides an excellent survey of this literature and the economic underpinnings of the argument.
18. Kelly (1973) provides an excellent survey of the linkages of shifts in the age structure of the population and their impact on savings and participation rates to per capita incomes.

19. The long swings literature cited in note 11 is relevant to this discussion.
20. The term "absorptive capacity" was first used officially to describe the goal of Canadian immigration policy by Mackenzie King in Parliament on May 1, 1947, when he stated that "The policy of the government is to foster the growth of the population of Canada by the encouragement of immigration. . . . The essential thing is that immigrants be selected with care, and that their numbers be adjusted to the absorptive capacity of the country." (Cited in Passaris 1979, p. 297.) Papers by Johnson (1980) and Williamson (1982) discuss this partial equilibrium approach to the impact of immigration in detail.
21. The displacement controversy dealt with the nature of the link between immigration to Canada and emigration from Canada to the United States. Authors such as Lower (1930) argued that immigration to Canada caused emigration of domestic residents to the United States. Others such as Whitton (1924) and especially Timlin (1951) and Thomas (1973) viewed the two flows as being virtually independent. Caves and Holton (1961, pp. 53-54) provide an overview of the debate.
22. Dales (1966) postulates such a role for immigration policy in his discussion of tariffs and Canadian economic development. In his analysis, immigration authorities permit a perfectly elastic supply of labour to Canada at a given prevailing money wage.
23. An important issue is the domestic distribution of the costs and benefits of society's investment in higher education. If the costs of education are borne disproportionately by lower income groups and the benefits accrue disproportionately to high income groups, importing human capital from abroad rather than investing in it domestically would lead to a more equitable distribution of income among domestic residents.
24. The problem with this policy prescription is that it attempts to validate a level of welfare and pension benefits that may not be sustainable for a stationary population. In opting for an expansionary immigration policy to increase labour force participation and savings rates to finance welfare and pension schemes for the baby boom cohort when it ages, the government would have to opt for an even more expansionary immigration policy in the next period when the new immigrant cohort ages. The policy advocated by Overbeek (1980) is equivalent to accommodating inflationary expectations by printing more money.
25. Corbo and Havrylyshyn (1980, pp. 75-78) note that Canada's structure of tariffs does discriminate against less developed countries.

Bibliography

- Barber, C.L. 1975. *Some Implications of the Move Towards Zero Population Growth in Developed Countries upon the Level of Capital Expenditures*. Study prepared for the Economic Council of Canada. Ottawa: Information Canada.
- . 1978. "On the Origins of the Great Depression." *Southern Economic Journal* 44: 432-56.
- Bennett, M.T. 1963. *American Immigration Policies: A History*. Washington, D.C.: Public Affairs Press.
- Berry, R.A., and R. Soligo. 1969. "Some Welfare Aspects of International Migration." *Journal of Political Economy* 77: 778-94.
- Bhagwati, J.N., ed. 1976. *The Brain Drain and Taxation*. Amsterdam: North-Holland.
- . ed. 1977. *The New International Economic Order: The North-South Debate*. Cambridge, Mass.: MIT Press.
- . 1979. "International Migration of the Highly Skilled: Economics, Ethics and Taxes." *Third World Quarterly* 1: 17-30.
- . 1982. "Taxation and International Migration: Recent Policy Issues." *The Gateway: U.S. Immigration Issues and Policies*, edited by Barry R. Chiswick, Washington, D.C.: American Enterprise Institute.
- Bhagwati, J.N., and M. Partington, eds. 1976. *Taxing the Brain Drain*. Amsterdam: North-Holland.
- Boyd, Monica. 1976. "Immigration Policies and Trends: A Comparison of Canada and the United States." *Demography* 13: 83-104.

- Brain, Peter J., Rhonda L. Smith, and Gerard P. Schuyeis. 1979. *Population, Immigration and the Australian Economy*. London: Croom Helm.
- Brox, James A. 1983. "Migration Between the United States and Canada: A Study of Labour Market Adjustment." *International Migration* 21: 5-14.
- Buchanan, James, Robert D. Tollison, and Gordon Tullock. 1980. *Toward a Theory of the Rent-Seeking Society*. College Station: Texas A and M University Press.
- Buckley, Kenneth. 1963. "Population, Labour Force and Economic Growth." Banff Business Policies Conference on Canadian Economic Survival, September 1963.
- Canada. 1951. The Department of Manpower and Immigration. *Immigration Statistics*. Ottawa: DMI.
- . 1954. *Canada Year Book, 1952-53*. Ottawa: Queen's Printer.
- . 1966. Department of Manpower and Immigration. *The White Paper*. Ottawa: Information Canada.
- . 1975a. *A Report on the Canadian Immigration and Population Study* (Green paper). Ottawa: Information Canada.
- . 1975b. *Highlights of the Green Paper*. Ottawa: Information Canada.
- . 1975c. Parliament. Special Joint Committee of the Senate and the House of Commons on Immigration Policy. *Report to Parliament*. Ottawa.
- . 1978. *New Directions: A Look at Canada's Immigration Act and Regulations*. Ottawa: Department of Employment and Immigration.
- . 1981a. *Annual Report to Parliament on Immigration Levels*. Ottawa: Department of Employment and Immigration.
- . 1981b. *1981 Immigration Statistics*. Ottawa: Department of Employment and Immigration.
- . 1982a. *Annual Report to Parliament on Immigration Levels*. Ottawa: Department of Employment and Immigration.
- . 1982b. *Immigration Levels: Basic Federal Considerations*. Ottawa: Department of Employment and Immigration.
- . 1983a. *Annual Report to Parliament on Immigration Levels*. Ottawa: Department of Employment and Immigration.
- . 1983b. *Background Paper on Future Immigration Levels*. Ottawa: Department of Employment and Immigration.
- . 1984. *Immigration Levels 1985-87: Analytical Considerations*. Ottawa: Department of Employment and Immigration.
- Caves, Richard, and Richard Holton. 1961. *The Canadian Economy*. Cambridge, Mass.: Harvard University Press.
- Chiswick, Barry R., ed. 1982. *The Gateway: U.S. Immigration Issues and Policies*. Washington, D.C.: American Enterprise Institute.
- . 1983. "An Alternative Approach to Immigration Policy: Rationing by Skill." *Population Research and Policy Review* 2: 21-33.
- Chudy, T.B. 1983. "A Test for Discrimination in Canadian Immigration Policy, 1952-1978." Master's extended essay, Simon Fraser University.
- Cline, William R. 1979. *Policy Alternatives for a New International Economic Order*. New York: Praeger.
- Collard, David. 1970. "Immigration and Discrimination: Some Economic Aspects." In *Economic Issues in Immigration*, edited by Charles Wilson et al. Albuquerque: Transatlantic for Institute of Economic Affairs.
- Corbo, Vittorio, and Oli Havrylyshyn. 1980. *Canada's Trade Relations with Developing Countries*. Study prepared for the Economic Council of Canada. Ottawa: Minister of Supply and Services Canada.
- Cox, David, and Richard Harris. 1983. "Trade Liberalization and Industrial Organization: Some Estimates for Canada." Discussion Paper 523. Kingston: Queen's University.
- Dales, J.H. 1964. "The Cost of Protectionism with High International Mobility of Factors." *Canadian Journal of Economics and Political Science* 30: 512-25.

- . 1966. *The Protective Tariff in Canada's Development*. Toronto: University of Toronto Press.
- Davies, G.W. 1973. *The Role of Immigrants in the CANDIDE I.O. Model*. Special Study for the Canadian Immigration and Population Study. Ottawa: Department of Manpower and Immigration.
- . 1977. "Macroeconomic Effects of Immigration: Evidence from CANDIDE, TRACE, and RDX2." *Canadian Public Policy* 3: 299-306.
- Davies, Gordon W., and Shmuel Sharir. 1976. "Towards 'A Rational Immigration Policy': Comments and a Proposal." *Canadian Public Policy* 2: 492-96.
- DeVoretz, Don, and Dennis Maki. 1975. "The Brain Drain and Income Taxation: Canadian Estimates." *World Development* 3: 705-16.
- . 1980. "The Size and Distribution of Human Capital Transfers from LDC's to Canada: 1966-1973." *Economic Development and Cultural Change* 28: 779-800.
- . 1983. "The Immigration of Third World Professionals to Canada: 1968-1973." *World Development* 11: 55-64.
- Economic Council of Canada. 1983. *The Bottom Line*. Ottawa: Minister of Supply and Services Canada.
- Ehrlich, P.R. 1968. *The Population Bomb*. New York: Ballantine.
- Epstein, L. 1972. *Some Economic Effects of Immigration: A General Equilibrium Analysis*. Ottawa: Department of Manpower and Immigration.
- . 1974a. *Immigration and Inflation*. Ottawa: Department of Manpower and Immigration.
- . 1974b. "Some Economic Effects of Immigration: A General Equilibrium Analysis." *Canadian Journal of Economics* 7: 174-90.
- Espenshade, Thomas J., and William J. Serow. 1978. "The Economics of Declining Population Growth: An Assessment of the Current Literature." In *The Economic Consequences of Slowing Population Growth*, edited by Thomas J. Espenshade and William J. Serow. New York: Academic Press.
- Fairholm, R. 1984. "The Dynamic Impact of a Low-Immigration Shock to the Data Resources Model of the Canadian Economy, 1984-2008." *Data Resources Long-term Canadian Review* 8 (2) : 185
- Foot, David K. 1982. *Canada's Population Outlook*. Toronto: James Lorimer.
- Gerking, Shelby D., and John H. Mutti. 1983. "Factor Rewards and the International Migration of Unskilled Labour: A Model with Capital Mobility." *Journal of International Economics* 14: 367-80.
- Gorecki, Paul. 1976. *Economies of Scale and Efficient Plant Size In Canadian Manufacturing Industries*. Ottawa: Department of Consumer and Corporate Affairs, Bureau of Competition Policy.
- Grant, D. et al. 1975. "The Macroeconomic Impacts of Immigration Policies." Toronto: York University, Department of Economics.
- Green, A. 1976. *Immigration and the Postwar Canadian Economy*. Toronto: MacMillan.
- Grubel, Herbert G., and Anthony Scott. 1977. *The Brain Drain: Determinants, Measurement and Welfare Effects*. Waterloo: Wilfrid Laurier University Press.
- Gunther, Peter. 1975. "Canada's Immigration Policy: Some Comments." *Canadian Public Policy* 1: 580-83.
- Hamilton, Bob, and John Whalley. 1984. "Efficiency and Distributional Implications of Global Restrictions on Labour Mobility: Calculations and Policy Implications." *Journal of Development Economics* 14: 61-75.
- Hansen, Alvin H. 1939. "Economic Progress and Declining Population Growth." *American Economic Review* 29: 1-15.
- . 1941. *Fiscal Policies and Business Cycles*. New York: Norton.
- Hartle, Douglas G. 1983. "The Theory of 'Rent-Seeking': Some Reflections." Working Paper 8313. Toronto: University of Toronto, Dept. of Economics and Institute for Policy Analysis.
- Hawkins, Freda. 1972. *Canada and Immigration: Public Policy and Public Concern*. Montreal: McGill-Queen's University Press.

- . 1974. *Immigration Policy and Management in Selected Countries*. Ottawa: Department of Manpower and Immigration.
- . 1975a. "The Great Immigration Debate: Demographic Studies Needed to Supplement Green Paper." *International Perspectives* (September/October): 3-9.
- . 1975b. "Immigration and Population: The Canadian Approach." *Canadian Public Policy* 1: 285-95.
- . 1977. "Canadian Immigration: A New Law and a New Approach to Management." *International Migration Review* 11: 77-93.
- Helleiner, G.K. 1979. "World Market Imperfection and the Developing Countries." In *Policy Alternatives for a New International Economic Order*, edited by William R. Cline. New York: Praeger.
- Hieser, R.O. 1973. "The Economic Consequences of Zero Population Growth." *Economic Record* 49: 241-62.
- Johnson, George E. 1980. "The Labour Market Effects of Immigration." *Industrial and Labor Relations Review* 33: 331-41.
- Kalbach, W. 1975. *The Effect of Immigration on Population*. Ottawa: Department of Manpower and Immigration.
- Keely, Charles, and Patricia Elwell. 1981. "International Migration: Canada and the United States." In *Global Trends in Migration: Theory and Research on International Population Movements*, edited by Mary M. Kritz, Charles B. Keely, and Silvano M. Tomasi. New York: Center for Migration Studies.
- Kelly, Allen C. 1968. "Demographic Change and Economic Growth: Australia, 1861-1911." *Explorations in Entrepreneurial History* 5: 207-77.
- . 1973. "Demographic Changes and American Economic Development." In *Economic Aspects of Population Changes*, edited by Elliot R. Morss and Ritchie H. Reed. Washington, D.C.: U.S. Government Printing Office.
- Krueger, Anne O. 1974. "The Political Economy of the Rent-Seeking Society." *American Economic Review* 64: 291-303.
- Kuznets, S. 1960. "Population Change and Aggregate Output." In *Demographic and Economic Change in Developed Countries*, edited by S. Kuznets. Princeton: Princeton University Press.
- Leacy, F.H., ed. 1983. *Historical Statistics of Canada*. 2d ed. Ottawa: Statistics Canada.
- Lower, R.M. 1930. "The Case Against Immigration." *Queen's Quarterly* (Summer): 557-74.
- Lucas, Robert E.B. 1981. "International Migration: Economic Causes, Consequences and Evaluation." In *Global Trends in Migration: Theory and Research on International Population Movements*, edited by Mary M. Kritz, Charles B. Keely, and Silvano M. Tomasi. New York: Center for Migration Studies.
- Marr, W.L. 1973. "The Economic Impact of Canadian Inward and Outward Migration and Their Determinants, 1950-1967." Ph.D. diss., University of Western Ontario.
- . 1976a. "Canadian Immigration Policy and Migrant Response to Labour Market Conditions." *Canadian Studies in Population* 3: 29-40.
- . 1976b. *Labour Market and Other Implications of Immigration Policy for Ontario*. Ontario: Ontario Economic Council.
- . 1977. "Employment Visas and the Canadian Labour Force." *Canadian Public Policy* 3: 518-24.
- Meadows, D. et al. 1972. *The Limits to Growth*. New York: Potomac Associates.
- Mishan, E.J. 1970. "Does Immigration Confer Economic Benefits on the Host Country." In *Economic Issues in Immigration*, edited by Charles Wilson et al. Albuquerque: Transatlantic for Institute of Economic Affairs.
- Mishan, E.J., and L. Needleman. 1966. "Immigration, Excess Aggregate Demand and the Balance of Payments." *Economica* 33: 129-97.
- . 1967. "Immigration: Some Economic Effects." *Lloyd's Bank Review* 831 : 33-49.
- . 1968a. "Immigration: Some Long-Term Economic Consequences, Part A." *Economica Internazionale*: 281-300.

- . 1968b. "Immigration: Some Long-Term Economic Consequences, Part B." *Economica Internazionale* 515-24.
- . 1968c. "Immigration: Some Long-Run Economic Effects." *Lloyd's Bank Review* 87: 15-25.
- Neal, Larry. 1978. "Is Secular Stagnation Just Around the Corner? A Survey of the Influences of Slowing Population Growth Upon Investment Demand." In *The Economic Consequences of Slowing Population Growth*, edited by Thomas J. Espenshade and William J. Serow. New York: Academic Press.
- Overbeek, Johannes. 1980. *Population and Canadian Society*. Toronto: Butterworth.
- Parai, Louis. 1974. *The Economic Impact of Immigration*. Ottawa: Department of Manpower and Immigration.
- Passaris, Constantine E.A. 1979. "Absorptive Capacity and Canada's Post-War Immigration Policy." *International Migration* 17: 297-303.
- Phelps, Edmund S. 1973. "Some Macro Economics of Population Levelling." In *Economic Aspects of Population Change*, edited by Elliot R. Morss and Ritchie H. Reed. Washington, D.C.: U.S. Government Printing Office.
- Rao, Someshwar, and Constantine Kapsalis. 1982. "Labour Shortages and Immigration Policy." *Canadian Public Policy* 8: 379-83.
- Reimers, David M. 1982. "Recent Immigration Policy: An Analysis." In *The Gateway: U.S. Immigration Issues and Policies*, edited by Barry R. Chiswick. Washington, D.C.: American Enterprise Institute.
- Simon, Julian. 1977. *The Economics of Population Growth*. Princeton: Princeton University Press.
- . 1982. "The Overall Effect of Immigrants on Natives' Incomes." In *The Gateway: U.S. Immigration Issues and Policies*, edited by Barry R. Chiswick. Washington, D.C.: American Enterprise Institute.
- Starr, Spencer. 1975. "In Search of a Rational Immigration Policy." *Canadian Public Policy* 1 (Summer): 3.
- Thomas, Brinley. 1973. *Migration and Economic Growth: A Study of Great Britain and the Atlantic Economy*. 2d ed. New York: Cambridge University Press.
- Timlin, Mabel F. 1951. *Does Canada Need More People?* Toronto: Oxford University Press.
- . 1960. "Canada's Immigration Policy, 1896-1910." *Canadian Journal of Economics and Political Science* 85: 517-32.
- Tollison, Robert D. 1982. "Rent-Seeking: A Survey." *Kyklos* 35: 575-602.
- Travis, W.P. 1982. "Migration, Income Distribution and Welfare Under Alternative International Economic Policies." *Law and Contemporary Problems* 45: 81-106.
- United States. 1972. *The Report on the Commission on Population Growth and the American Future*. New York: Signet.
- Usher, Dan. 1977. "Public Property and the Effects of Migration upon Other Residents of the Migrants' Countries of Origin and Destination." *Journal of Political Economy* 85: 1001-20.
- Whalley, John. 1984. "The North-South Debate and the Terms of Trade: An Applied General Equilibrium Approach." *Review of Economics and Statistics* 66: 224-34.
- Whitton, Charlotte. 1924. "The Immigration Problem for Canada." *Queen's Quarterly* (May): 388-420.
- Williamson, Jeffrey G. 1982. "Immigration-Inequality Trade-Offs in the Promised Land: Income Distribution and Absorptive Capacity Prior to the Quota's." In *The Gateway: U.S. Immigration Issues and Policies*, edited by Barry P. Chiswick. Washington, D.C.: The American Enterprise Institute.



Export Insurance and Financing in Canada

ANDRÉ RAYNAULD

Introduction

Since World War II, governments in all of the industrialized nations (not to mention those in a number of developing countries) have intervened in various ways to encourage exports. Some of these methods are very old. In recent years, however, the most common approach has been insuring and financing exports. This study will focus on such government programs of financial assistance.

The recent emphasis on exports marks a striking change in trade policy. For a long time, such policies relied on customs tariffs and other import restrictions. The trade strategy underlying such an approach consisted of import substitution in order to encourage domestic production. Government export financing is, in a sense, the reverse policy but with the same objective of encouraging domestic production. Tariffs increase the price of imported goods, while financial assistance to exports reduces the supply price of exported goods.

As a trade strategy, export assistance may be preferable to import substitution to the extent that the production of exportable goods may benefit from economies of scale, and outside competition creates greater pressure. For these reasons, the allocation of internal resources, or industrial structure, is probably more favourable than in the case of import substitution. However, policies designed to assist exports are as protectionist as customs duties. What is true of a free market export ceases to be true of a subsidized one. Goods which benefit from a subsidy equivalent to the customs tariff are neither more nor less competitive than import substitutes.

The renewed importance attached to exports is also attributable to changes in international trade and payment systems. Trade technology

has developed in such a way that the commercial, financial and technical facets of a transaction are often confused. Capital goods have become increasingly important in international trade, as well as the setting up of buildings, factories, and other major projects which require a considerable length of time to complete and to recover the initial investments. Moreover, newly industrialized countries are currently building their infrastructure, thereby creating renewed problems with respect to information, risks, technology and finance that exporting nations must deal with.

Throughout the world, governments have grown into the habit of playing a direct role in trade negotiations and participating actively in international business transactions. The proliferation of government-owned corporations and regulation of domestic markets has had repercussions on international trade, so that all governments are finding it harder to avoid promoting exports whether they want to or not. Every government feels that it must play a role simply because all the other governments do.

The oil crisis in the 1970s, the abandonment of the Bretton Woods monetary system and the ensuing inflation increased international financing needs considerably. As a result, various governments were led to rescue financial institutions and exporters who often faced insurmountable difficulties.

Canada was no exception to the rule. In 1944, the Export Credits Insurance Corporation (ECIC) was established; it was replaced in 1969 by the present Export Development Corporation (EDC). From their rather modest beginnings, the ECIC and EDC developed rapidly; by the end of 1982, the EDC declared assets of more than \$5 billion.

It is thus necessary to examine more closely what has become a major feature of Canadian trade policy. Essentially, the main question to be asked is whether or not government export financing is necessary. What are the benefits of such intervention for Canadian society as a whole, and what are its economic and social costs?

The first section of this study briefly describes government insurance and financing programs and their importance. The second and third sections contain an analysis of the cost of the capital invested and the success or failure of these programs in terms of the objectives pursued. The fourth and final section deals with future directions, based on conclusions drawn beforehand in the study.

Because few studies on export financing have been carried out in Canada, it should be indicated at the outset that the observations which follow are drawn essentially from *Government Assistance to Export Financing*, an earlier study by André Raynauld, Jean-Marie Dufour and Daniel Racette, published in 1984 by the Economic Council of Canada. The Council outlined its own viewpoint on the matter in *Intervention and Efficiency: A Study of Government Credit and Credit Guarantees Through the Private Sector* (1982, chap. 4).

Government Insurance and Financing Programs

This section describes the nature and magnitude of export insurance and financing programs in Canada. Such a description will, above all, enable us to determine whether Canadian exporters receive less or more government assistance than foreign competitors. This question is not as easy to answer as it might appear.

EDC Insurance Programs

The EDC insures commercial and political risks up to 90 percent of the value of transactions. Contrary to the situation which prevails in a number of other countries such as Japan or France (for loans with terms of three years or more), Canadian insurance programs are not compulsory. Similarly, with certain exceptions, exporters may decide which risks to insure, which countries to deal with, and what type of transactions to cover. For example, the EDC insures less than one percent of Canada's exports to the United States, not because there is a lack of available coverage but because exporters see no point in such insurance.

Commercial and political risks are insured. Commercial risks arise from the buyer's potential refusal to pay for the goods, except in the case of a dispute. Political risks concern possible losses attributable to circumstances beyond the importer's control, such as the freezing of funds, the cancellation of import licences, wars, or revolutions.

Although the range of risks covered is fairly extensive and compares favourably with that found in other countries, two important risks are excluded — risk due to inflation in Canada and risk related to the exchange rate when contracts are quoted in foreign currencies. Such risks increase when long-term loans are involved. Since a number of other countries provide some protection in these respects, the Hatch Report (Canada, Department of Industry, Trade and Commerce, 1979) and the Commons Select Committee (Canada, House of Commons Special Committee on a National Trading Corporation, 1981) have both recommended that the EDC offer insurance policies covering both risks. The Economic Council of Canada (1982, p. 59) appears to concur, as it recommends that the government respond to certain foreign programs which have no equivalent in Canada.

The EDC's various insurance policies fall into five categories. The most important one is global comprehensive short-term insurance, under which the exporter insures various goods for a period of 180 days or less. In 1980, such policies accounted for 80 percent of EDC insurance. The second category is medium-term specific transaction insurance, which applies to individual orders. A third type covers production risks from the date financing is approved until the loan is paid to the exporter. The fourth category includes several types of security insurance which the EDC provides against unjustified calls on letters of credit, to protect either the

exporter, a member of a consortium or the bonding companies. Finally, foreign investments may be insured up to a maximum of 15 years and for an amount equal to 150 percent of the initial investment plus retained earnings.

Insured export receivables may be assigned without recourse to banks, which then benefit from the same protection as the initial exporter, i.e., up to 90 percent of the value of transactions.

Table 4-1 shows the value of EDC-insured exports. The EDC's insurance activities expanded very rapidly during the 1970s. Since 1978, the value of new policies has varied between \$2 billion and \$3 billion. Insurance in force at the end of 1982 totalled \$2.2 billion. This volume of business is quite modest compared with that of most other industrialized nations or to total Canadian exports. In 1982, the \$2.3 billion in new insurance accounted for less than 3 percent of Canadian exports to all destinations (\$82 billion). However, these broad comparisons are not significant. As noted earlier, the EDC insures only 1 percent of exports to the United States. The need for insurance depends as much upon the characteristics of the product exported as on the country of destination and the organization of distribution networks. In Canada, for example, a relatively high percentage of exports results from intra-company transactions and it may be assumed that the need for insurance for these is not as great as for arms-length transactions.

**TABLE 4-1 Value of Exports Insured by the EDC, Selected Years
(in millions of dollars)**

Year	Insurance Sold	Insurance in force as of December 31
1972	499	561
1978	2,980	1,985
1980	2,695	1,854
1981	3,191	2,255
1982	2,287	2,197

Source: EDC Annual Reports.

Note: Excluding investment insurance; includes financed and insured exports as well as the Canada account.

The very broad range of coverage ratios according to destination and product confirms these hypotheses. Exports to Africa have a coverage ratio of about 25 percent and those to Latin America about 10 percent. Mineral products, metals and chemical products, which account for 35 percent of overall exports, represent only a limited proportion of insurance coverage (about 3 percent), while 50 percent of industrial and agricultural machinery is insured.

A second aspect in the assessment of an insurance program concerns the cost of premiums. As the EDC does not publish any information on the matter, we have no alternative but to carry out our own calculations

by comparing the premiums collected with the value of exports insured during a given year to arrive at an average cost. Our calculations reveal that EDC insurance cost 0.4 percent during the 1970s. In 1980 and 1981 it cost 0.445 percent and in 1982 its cost increased sharply to 0.721 percent.

In November 1980, a vice president of the EDC stated that the corporation's insurance premiums were "the second lowest in the world, second only to Japanese exporters." Our estimates and figures in Table 4-2 tend to confirm this observation. Canadian exporters benefit from a competitive and advantageous export insurance program even though the value of exports actually insured is relatively low in relation to that of other countries.

TABLE 4-2 Cost of Export Insurance, 1979

Countries	%
France	0.85
West Germany	0.80
United Kingdom	0.60
Italy	0.50
Japan	0.30
Canada	0.53

Source: Canada: author's estimates;

Other countries: Export-Import Bank of the United States.

Note: Premiums and fees earned as a percentage of the value of insured exports.

EDC Loans

The EDC is not just an insurance company; it is also an independent lending agency.

Financing

The EDC provides direct loans to foreign buyers of goods with high Canadian content (60 percent), covering up to 85 percent of the value of exports. The loans are medium or long term and are granted at a fixed price to maturity. Until 1981, the EDC offered loans maturing after five years or more, leaving the field open to commercial banks for shorter-term loans. Since then, it has introduced forfeiting, which consists of discounting notes issued by a foreign buyer in favour of a Canadian exporter. Such notes have terms of two to five years. The formula is very advantageous. The exporter is able to offer supplier's credit to his customers without mortgaging his working capital, since he sells the claim to the EDC. In this way, he is automatically protected from the risk of fluctuations in interest and exchange rates, as the case may be, and automatically benefits from insurance against commercial and political risks. Loans are no longer restricted to exports of goods; they may also apply to sales of engineering, management or survey services.

Another form of long-term financing consists of general lines of credit in favour of foreign countries. Such agreements alert Canadian firms that certain countries are prepared to do business and that credit is available in Canada. By the end of 1982, some 28 lines of credit were outstanding in 16 countries.

In order to meet foreign competition, the Canadian government announced in 1981 that it would allocate \$300 million a year over three years to mixed or parallel credit operations. This encompasses specific subsidies which are intended to counterbalance similar ones offered by other countries.

The foregoing raises the question as to what role commercial banks play in financing exports. They still play a leading role in this area. Ninety percent of Canada's foreign trade requires short-term financing, which is provided almost exclusively by banks. Moreover, they remain the sole agencies for paying or transferring funds through letters of credit, bank drafts and currency transactions. Banks also offer medium-term credits and may compete with the EDC regarding forfeiting for terms of two to five years. Banks may likewise cooperate with the EDC in offering longer-term financing of various types. It should be remembered that EDC loans are restricted to 85 percent of the value of transactions; generally, the EDC seeks the collaboration of the private sector for up to 30 percent of its own financing. The banks' involvement in EDC loans may be direct, with or without recourse against the corporation, or it may take the form of a joint loan under a single agreement or a parallel loan covered by separate agreements. In all instances, banks will endeavour to assume the shortest terms at floating interest rates, while the EDC will cover longer terms at fixed rates.

Since 1980, the banks' participation in EDC loans has become symbolic. It reached \$800 million in 1978; in 1982, it totalled only \$52 million. Skyrocketing interest rates undoubtedly explain the banks' retreat since 1980, although the existence of a more basic malaise between the two parties cannot be excluded.

Loans

Table 4-3 summarizes EDC financing activities. At the end of 1982, outstanding loans receivable totalled \$5.65 billion. Ten years earlier, they barely exceeded \$500 million. Over the ten years, the EDC thus increased its loan assets more than tenfold. As total Canadian exports during the same period increased only fivefold, government export credits are now twice as important as they were in 1972.

On a year-to-year basis, lending is more closely aligned with the general economic situation and varies a great deal more. In 1982, loans approved totalled about \$2.5 billion. These authorizations are also less significant because actual disbursements, shown in Table 4-3, are spread over an average of three years.¹ In 1982, the EDC paid Canadian exporters \$1.2 billion under agreements signed with foreign buyers. Such payments do

TABLE 4-3 EDC Export Credit, Selected Years (in millions of dollars)

Year	Outstanding as of December 31	Authorizations	Disbursements	Repayments	Net Payments
1972	522	283	170	32	138
1978	2,602	1,760	697	191	506
1979	3,706	2,073	956	203	753
1980	4,293	929	1,031	285	746
1981	4,766	1,657	810	297	513
1982	5,635	2,460	1,216	419	797

Source: EDC Annual Reports; includes bank guarantees and transactions charged to the Canada account.

not necessarily require new funds from the corporation, given that other loans which have matured are repaid during the same year. Such repayments totalled \$419 million in 1982, with the result that net disbursements amounted to \$797 million. Gross and net payments are the best indicators of the EDC's current activities; they are used by the OECD in its analyses of financial flows to developing countries.

The interest aroused by the volume of EDC loans focuses on the needs of exporters. Is such financing extensive and adequate or does it fall considerably short of desirable levels? It is impossible to answer this question without completing this study. However, we can present a number of preliminary observations at this point.

As in the case of insurance services discussed earlier, the fact that EDC loans represent only a small proportion of overall exports does not necessarily mean that exporters do not receive what is felt to be the necessary support. EDC lending in 1982 represented only 3 percent of overall exports, which is a very low percentage. However, it should be kept in mind that about 90 percent of Canadian exports require short-term financing, which is readily available from the banks. Requests for intervention in this market are virtually non-existent. For this reason alone, the 3 percent figure just mentioned is of no significance in analyzing the situation.

Among other things, it is also necessary to look at the countries of destination and the nature of the exported products, since the needs for financing appear to vary according to both these factors. Export coverage, shown in Table 4-4, is one useful indicator. Although the geographic areas are too broadly defined, it is nonetheless remarkable that the EDC finances 57 percent of the exports to Africa and only a minimal percentage of exports to Western Europe, the United States and Asia (mainly Japan).

The product breakdowns are also revealing. It is a well-known fact that Canada exports far less manufactured goods than other industrialized nations. Based on the international classification, manufactured goods account for 54 percent of exports in Canada, 68 percent in the United

TABLE 4-4 Geographical Distribution of Exports from Canada and EDC Financing as a Percentage of the Total, 1977-1982 (annual averages)

Country of destination	Total exports %	Loans authorized by the EDC %	Financing as a % of exports in each region
United States	67.2	16.9	0.7
Western Europe	12.3	3.6	0.8
Eastern Europe	2.5	19.1	20.3
Africa	1.3	28.4	57.1
Asia	9.5	7.4	2.1
Middle East	1.7	6.2	9.7
Central America	2.1	4.8	6.1
South America	2.5	12.4	13.2
Oceania	1.1	1.1	2.8
Total	100.0	100.0	
In billions	(66.16)	(1.75)	3.0

Source: EDC Annual Reports and Statistics Canada, International Trade Summary, cat. no. 65-001.

States, 76 percent in EEC-member countries, and 96 percent in Japan.² To the extent that government financing primarily covers manufactured goods, other industrialized countries may have a far greater need for such financing than Canada.

What is clear is that the EDC only makes loans covering manufactured goods or services associated with them. As a result, it supports non-traditional exports and is contributing to a gradual change in Canada's industrial structure. Among manufactured goods, capital goods receive support from the EDC because, as noted earlier, the corporation specializes in long-term credit.

Table 4-5 lists the main categories of products financed by the EDC. As these breakdowns vary considerably from one year to the next, they are presented here for longer periods. In the period 1976-80, industrial equipment³ generally benefited most from EDC credits (41 percent), followed by nuclear equipment and service (25 percent), and transportation and electrical equipment. The range of products financed by EDC is relatively narrow. This can be explained by the very nature of EDC's medium- and long-term financing and the industrial base of the Canadian economy, which is relatively weak with regard to capital goods.

Total exports of capital goods during the 1976-80 period amounted to \$48 billion.⁴ EDC lending, which is limited to 85 percent of financing, totalled \$6.7 billion (see note in Table 4-5). Therefore, the total value of exports financed by the EDC over this period was \$7.9 billion, or 16.4 percent of the total exports of capital goods.

TABLE 4-5 EDC Lending By Commodity, 1971-80

	1971-80		1976-80	
	in millions	as a % of the total	in millions	as a % of the total
Industrial equipment	2,491	32.3	2,094	41.0
Aircraft	474	6.1	297	5.8
Railway rolling stock	348	4.5	117	2.3
Ships	912	11.8	210	4.1
Communications equipment	486	6.3	298	5.8
Electrical equipment	733	9.5	293	5.7
Nuclear equipment and service	1,687	21.9	1,307	25.6
Miscellaneous	585	7.6	490	9.6
Total	7,715	100.0	5,104	100.0

Source: EDC, *Export Financing Services Evaluation*, August 1982, p. 22.

Note: According to our calculations, EDC lending between 1976 and 1980 totalled \$6,705 million, including related bank financing and the Canada account.

The Importance of Government Financing in Other Countries

As in certain theories of consumption, the exporters' level of satisfaction depends less on their own situation than on their perception of the advantages their foreign competitors receive from their respective governments. For the purpose of this analysis, these advantages may be determined in two ways — in terms of exporters' access to government financing as indicated by the volume or importance of existing credits, and in terms of the cost of the credit to exporters or the degree of subsidization associated with it. This section examines the relative importance of government funds allocated to exporting, and the next section deals with subsidies.

It is taken for granted in Canada that government export financing is far lower here than in other countries. This perception is based on the overall ratio between EDC loans and total exports, compared with the situation prevailing elsewhere. For reasons mentioned earlier with respect to countries of destination and the commodity composition of exports, such comparisons are virtually insignificant. The conventional view can also be traced back to statistics established on the basis of total outstanding loans as of a given date, i.e., the volume of loans accumulated over

a certain period of time. In this respect, it must be recognized that Canada was later than other countries in intervening to provide export financing. However, those balance sheet data give too much weight to the past and not enough to the present situation as shown by loan authorizations or disbursements in recent years.

Table 4-6 compares export financing for Canada and the United States. Choosing a recent period, such as 1978-82, and taking total exports into consideration in each country, it is obvious that Canada does more public financing than the United States. Net payments are 2.25 times higher in Canada than in the United States, relatively speaking (0.9/0.4). It might also be mentioned that as the U.S. economy is ten times bigger than Canada's in terms of GNP, the same government financial effort in favour of exports would result in loan payments ten times higher in the United States. In fact, net disbursements are almost the same.

Table 4-6 Export Credits, EDC and EXIM Bank of the United States, 1978-82 (annual averages)

	EDC	EXIM Bank
1. Gross disbursements in millions of dollars	942	2,194
as a percentage of exports	1.25	1.11
2. Net disbursements in millions of dollars	663	769
as a percentage of exports	0.90	0.40

Source: EDC Annual Reports; Export-Import Bank, Annual Reports; International Monetary Fund, *International Financial Statistics* annual, Washington, D.C.

Note: Not corrected for exchange rates; EXIM loans include guarantees.

Another revealing way of establishing international comparisons is to select only loans that mature after five years or more. Table 4-7 provides data for Canada and five other countries. The assumptions are that the EDC only intervenes with regard to long-term loans and that these are the only terms which pose a problem in Canada. Accepting these assumptions, it should be noted that in 1978, Canada loaned the most, without exception, of the six countries mentioned in Table 4-7, bearing in mind the relative size of their economies.

Lending to developing countries is another indicator of the extent of financing available. Indeed it can be argued that exports to those countries are the ones for which government financing is most needed. According to data in Table 4-8 for the period 1977-80, Canada outranked by far the United States, West Germany, Japan and Italy, when the relative size of its economy is taken into account. Where loan disbursements are expressed as a proportion of each country's exports to developing nations, Canada ranks second, just after France.

TABLE 4-7 Loans Approved with Terms of More Than Five Years, 1978 (in millions of U.S. dollars)

	in millions	GNP, Canada = 1
Canada	1,554	1.0
United States	3,882	10.2
France	3,086	2.6
West Germany	2,516	3.2
Japan	2,149	4.1
United Kingdom	1,164	2.1

Source: Joan Pearce, *Subsidized Export-Credit* (London: The Royal Institute of International Affairs, Chatham House Papers, 1980), p. 28.

Note: All lending for Canada is expressed in U.S. dollars. GNP ratios were calculated for 1980.

Despite certain appearances, it thus seems clear that Canada occupies a very respectable position on the international scene in terms of export financing. Yet it must be pointed out that the EDC is not the only source of financing for Canadian exports.

Other Financing Programs

Notwithstanding international comparisons, government financing is available to Canadian exporters outside the EDC. At the federal level, one obvious example is the Canadian Wheat Board, which offers short- and

TABLE 4-8 Net Disbursements to Developing Countries (LDC), Official Export Credits, 1977-80 (annual averages)

	Net disbursements in millions of U.S. dollars Canada = 100		Net disbursements as a percentage of GNP Canada = 100		Net disbursements as a percentage of exports to LDCs ^c Canada = 100	
Canada	459	100	100	9.0	100	
United States	778	169	15	1.3	14	
France ^a	2,054	447	150	10.1	112	
West Germany	137	30	10	0.6	7	
Japan	739	161	40	1.6	18	
United Kingdom ^b	1,085	236	150	5.6	62	
Italy	190	41	30	1.4	16	

Source: OECD, *Development Cooperation*; (Paris: OECD, 1982); International Monetary Fund, *International Financial Statistics* (Washington, D.C.: 1984); United Nations, *The Yearbook of International Trade Statistics*, Vol. 1 (New York: UN, 1981).

a. Credits classified as private.

b. Credits classified as private. With respect to government credit, the figure is -281, which means that, on the average, repayments exceeded gross payments.

c. Exports to developing countries: total exports to LDCs in Africa, America, Asia and Oceania, according to the United Nations' classification. The countries selected are not necessarily the same as those used by the OECD; this does not affect comparisons between creditor nations.

medium-term credit to developing countries. During the fiscal years ending July 31, 1980, and July 31, 1981, the Board authorized loans of \$1,045 million and \$1,113 million, respectively, which are far from negligible.

While official development assistance is not intended to foster Canadian exports, this is undeniably one of its consequences.⁵ We have developed fairly detailed estimates of Canadian exports, by program, that can be attributed to CIDA projects. For the 1979–80 fiscal year, such export assistance represented 60 percent of CIDA's total payments. If the same proportion were applied to aid granted during the following two years, export financing would reach \$781 million in 1980–81 and \$887 million in 1981–82. Several provinces have also introduced export financing programs within the framework of the broader activities of their government corporations. Although such financing is relatively limited, it is not negligible; it totalled about \$60 million in 1980.

According to various calculations, actual disbursements of export credits to developing countries in 1980 reached \$2.2 billion, which is more than twice the amounts granted by the EDC.

The Cost of Capital Invested in the EDC

The preceding section dealt with changes in the level of insurance and loans; however, economic analysis is more concerned with prices, which we will examine in this section. The purpose is to identify and measure the returns on EDC activities and the cost of resources allocated to them.

Return and Cost

There are two basic concepts of returns and costs. The first is financial in nature. A Crown corporation such as the EDC obtains capital from the government and the market. The use of this capital implies a financial cost which can be measured, for example, by the interest the EDC pays on its borrowings. The notion of financial cost finds its counterpart in the notion of financial return on investment. As noted earlier, the EDC lends the funds at its disposal to foreign buyers of Canadian goods. It earns interest income which, as a proportion of capital invested, produces a certain rate of return. When administrative expenses are taken into account, the difference between revenues and costs determines whether or not the EDC is profitable.

The second analytical concept is that of social cost and benefits. The social cost of resources used is equal to the return which society as a whole has foregone by investing capital in the EDC rather than elsewhere in the economy. This concept is called the social opportunity cost. Its counterpart is a notion of social return equal to the financial return above plus benefits derived from external economies which government export financing produces, or is supposed to produce, for society as a whole. Figure 4-1 illustrates these concepts.

FIGURE 4-1 Concepts for Assessing EDC Activities

	FINANCIAL CONCEPTS	ECONOMIC CONCEPTS
Costs:	1 <div>Cost of borrowing capital = cost of the public debt</div>	4 <div>Return on capital in the private sector</div>
Income:	2 <div>Interest income = return on capital invested by the EDC</div>	5 <div>Return on capital invested by the EDC plus external economies, such as job creation, improved economic structure</div>
Income Less Costs:	3 <div>Financial return</div>	6 <div>Social return</div>

The Financial Cost

To determine the financial cost of capital, we will assume that the EDC is an integral part of the federal government and that its contribution to the public debt is marginal. Consequently cost measures that are generally applicable to government investments will also be applicable to EDC loans. The financial cost of capital is thus taken to be the average interest rate on the current federal debt.⁶

The EDC's financial returns would be readily apparent if the interest rates charged to borrowers were made public. Unfortunately, this information is kept secret,⁷ against all conventions, domestic or international. The corporation's financial statements enable us nonetheless to produce estimates of financial returns that will meet the needs of our assessment.

The data are summarized in Table 4-9. The cost of borrowing capital averaged 7.6 percent during the 1970s and rose gradually over that period, reaching 9.9 percent in 1980 and 14.6 percent in 1982.

The interest earned by the EDC did not follow the increase in costs; moreover, gross returns on loans were always slightly lower. During the 1970s, gross returns on loans receivable amounted to 7.2 percent, which was 0.4 percent lower than the cost of borrowing capital. However, it should be noted that the overall return on the EDC's activities is better than the return on loans, suggesting that insurance and short-term investments are more profitable than export loans. The net return is the most relevant factor to be considered in our analysis, i.e., gross return less administrative expenses. On this net basis, during the 1970s, costs exceeded returns by an average of 0.7 percent for loans and 0.5 percent with respect to overall activities. The situation deteriorated appreciably between 1980

TABLE 4-9 Financial Cost of EDC Activities,^a 1970-82

	1970-80	1980	1981	1982
		(percent)		
1. Cost of borrowing ^b	7.6	9.9	11.0	14.6
2. Gross return ^c				
on loans	7.2	8.6	9.1	9.9
overall ^d	7.7	9.9	10.3	10.3
3. Net return ^e				
on loans	6.9	8.3	8.5	9.5
overall	7.1	9.4	9.7	9.7
4. Cost less net return = rate of subsidy (1-3)				
on loans	0.7	1.6	2.5	5.2
overall	0.5	0.5	1.3	4.9
5. Value of annual subsidy in millions of current dollars ^f				
on loans	11.3	46.5	86.7	217
overall	6.7	17.0	51.8	233

a. Corporate account only.

b. Interest paid on federal debt outstanding.

c. Interest and fees earned less annual provision for losses, over loans receivable less the accumulated provision for losses.

d. Total revenues over total assets less provisions, as for loans.

e. Same definitions less administrative expenses.

f. Rate of subsidy multiplied by the corresponding invested capital.

and 1982. For example, in 1982, the net return on loans was 5.2 percentage points lower than the cost of capital invested.

The fact that a corporation such as the EDC lends at rates of interest below its cost of borrowing constitutes one of the recognized measures of subsidization. Based on these calculations, it appears that in 1982 export loans were subsidized by about 5.2 percent, in the financial sense of the word. As these loans generally represent 85 percent of the value of exports,⁸ the latter were subsidized at an estimated rate of 4.4 percent (5.2×0.85).⁹ Multiplying the 5.2 percent rate by loans outstanding yields a total subsidy of \$217 million in 1982 dollars.¹⁰ Such subsidies were much lower during the 1970s; in current dollars, they averaged \$11.3 million per year.

The Social Cost

Funds allocated to exports are obtained by reducing private investment, private consumption or foreign investment. The social cost of the funds is therefore a weighted average of the cost of each alternative, i.e., the rate of return before tax on private investment, the rate of return after tax on domestic savings (corresponding to the drop in consumption), and the rate of return after tax payable to foreign investors. Jenkins (1977, 1980, 1981) sets the economic cost of capital in Canada at 10 percent in real terms. Both Burgess (1981) and McCaughey, Mintz and Carrière (1981) estimate the cost at 7 percent. The two estimates, 10 percent and 7 percent, are used in this study.

The approach is very simple. The EDC earns revenues on its activities, which are expressed in nominal terms in Table 4-9. Such rates of return are first adjusted for inflation, then compared with the above estimates of the social cost. The difference between those rates of cost and return constitutes the rate of social loss on lending, or on the EDC's overall activities. Table 4-10 outlines some of the results obtained. It is immediately apparent that once corrected for inflation (measured by the GNE implicit price index) the EDC's net rates of return are all negative. On export loans, the real return was -1.5 percent during the 1970s, -2.3 percent in 1980, and -0.6 percent in 1982.

If the cost of the capital invested is equal to 10 percent and the rate of return is -1.5 percent, as it was during the 1970s, the effective social loss amounts to 11.5 percent of loans outstanding. In 1980, the rate of loss was 12.3 percent and in 1982 it was 10.6 percent. When the social cost of capital is set at 7 percent, all rates of loss are reduced by three percentage points.

The value of losses is finally established by determining the product of the rates and the relevant stock of capital. For example, in 1982, the loss on loans totalled \$443 million or \$318 million, based on a cost of 10 percent and 7 percent, respectively. Similarly, the social loss on the EDC's overall activities amounted to \$494 million and \$352 million, respectively.¹¹

Numerous methods have been used to establish rates of subsidy and social loss; one author may use several approaches simultaneously. For this reason, it has been impossible until now to arrive at significant international comparisons. In his excellent study on the Export-Import Bank of the United States, Baron (1983) discusses half a dozen different estimates of subsidies related to export financing in the United States. The various options depend on the reference cost of capital. The cost itself may be the Treasury's borrowing rate, short- or medium-term London Inter-Bank Offered Rate (LIBOR), the rate of return on corporate bonds, and so forth. Risk margins may be included and varied according to the different borrowers. Various techniques may be used for calculating the relevant

Table 4-10 Social Cost of EDC Activities, 1970-82

	1970-80	1980	1981	1982
1. <i>Nominal</i> net return	(percent)			
on loans	6.9	8.3	8.5	9.5
overall	7.1	9.4	9.7	9.7
2. <i>Real</i> net return				
on loans	-1.5	-2.3	-2.1	-0.6
overall	-1.2	-1.2	-0.9	-0.4
3. Social cost less real net return = rate of social loss				
on loans:				
(10%)	11.5	12.3	12.1	10.6
(7%)	8.5	9.3	9.1	7.6
overall:				
(10%)	11.2	11.2	10.9	10.4
(7%)	8.2	8.2	7.9	7.4
4. Value of annual social loss, in millions of current dollars				
on loans:				
(10%)	138.0	361.0	420.0	443.0
(7%)	102.0	273.0	316.0	318.0
overall:				
(10%)	149.0	389.0	435.0	494.0
(7%)	109.0	286.0	315.0	352.0

Notes: *Nominal* net return is taken from Table 4-9. *Real* net return is nominal net return adjusted for the GNE price index.

amounts of capital, either outstanding at year end or approved during the year or for typical transactions, and these may or may not be translated into present values. Results vary also depending upon whether subsidies are related to the value of loans or the value of exports, and whether or not the participation of other lenders is taken into account.

The procedure followed until now in this section produced estimates of subsidies and social losses on an annual basis. When calculations are effected with respect to several consecutive years, as in Tables 4-9 and 4-10, it is tempting to add up the subsidies or losses, as EDC loans are long-term ones. However, the cumulative total of these amounts would be inaccurate, as a loss sustained five years hence does not have the same

value as one incurred now. The appropriate approach is rather to calculate the present value of the cumulative subsidy using a discount rate which represents the cost of capital committed for the duration of the loans.

As such calculations are technical in nature, they are covered in an appendix. It will suffice to draw the reader's attention to the results obtained using the most realistic hypothesis, according to which the EDC's total loan portfolio in 1982 had an effective average term of seven years (Table 4-A2). That year, the rate of financial subsidy reached 25 percent and the rate of social loss (at a capital cost of 10 percent) reached 57 percent. The simplest way to interpret this result is to ask the following question: What overall financial and social loss would have had to be sustained had the EDC interrupted its activities at the end of 1982? Given that the social loss is 10.6 percent a year (according to Table 4-10) and that it would take seven years for all loans to be repaid, the answer is 57 percent of the value of the loans, of which 25 percent constitutes a direct financial subsidy. The present value of the social loss involved totalled nearly \$2.4 billion as of 1982 (see Table 4-A2 in Appendix B).

While they are already considerable, these cost estimates are conservative for two reasons. The 10 percent and 7 percent figures that concern the social cost of capital employed do not take into account the fact that loans to foreign countries are often riskier than domestic ones. In his calculations respecting the United States, Baron (1983) adds an average risk premium of 0.77 percent for 1980; according to the borrowing country, the premium may as much as double. In some of its calculations, the EDC may also have used a premium of between zero and 3 percent.¹²

We also have not taken into account the extension of the terms assumed by the EDC when other lenders participate in the loans and are repaid first. This problem has perhaps been negligible in very recent years, although it was an important consideration in the past and may become important again in the future.

As calculated, financial subsidies and social losses on export financing amount to a gross welfare cost. Against this cost, a number of social and private benefits may be produced. For example, part of the subsidies and losses may be recovered by exporters in the form of higher profits. In a comprehensive analysis, both social benefits and costs would be taken into account and lead to a net positive or negative balance. The potential benefits are examined in the next section.

Expected Social Benefits

If the Canadian government allocates more than \$5 billion to insuring and financing exports, knowing full well that in the process it is sacrificing foregone benefits worth a few hundred million dollars a year, one must assume that it is attempting to realize some objectives or obtain advantages that cannot be achieved without its intervention.

It is obvious that if these advantages are to be attributed to EDC initiatives, they must correspond to services or well-being additional to those produced by the market. Otherwise, such intervention would only shift activity from the private to the public sector without a net gain for society as a whole.

Social benefits can be linked to two major considerations — efficiency and redistribution. The efficiency of the market system may be increased by positive externalities or by the removal of various market imperfections or failures. Moreover, governments have often shown in the past that even “efficient” solutions do not always suit them. As a result, they consider as a benefit a change in the distribution of resources or income in favour of certain target groups in society.

The basic objective of the Export Development Act is to encourage Canadian exports. The corporation’s name clearly denotes its purpose; section 10 of the act states that:

The Corporation is established for the purposes of facilitating and developing trade between Canada and other countries by means of the financial and other powers provided in this Act.

Since 1944, this general intention has been clarified and expanded on numerous occasions during parliamentary debates. Several other complementary or peripheral objectives were added in the process. Among the main ones are job creation and improved balance of trade, the diversification of outlets in order to reduce the importance of Canada-U.S. trade, and correction of the country’s industrial structure in favour of manufactured goods. The purpose is also to supply certain services which private financial institutions have not offered, such as long-term, fixed-rate financing or especially advantageous insurance schemes. In recent years, subsidies offered by foreign governments have often been mentioned to illustrate the need to intervene in Canada. As for redistribution, the EDC is supposed to contribute to regional development and to help promote small and medium-sized businesses in international trade.

These are the expected benefits which must be considered in this analysis to assess their relevance and, as the case may be, to find out whether they have been achieved. It will be impossible to respond convincingly to all the questions posed; however, we will examine the evidence such as it is.

Additional Exports

At the outset, one might be tempted to assume that an export order insured or financed by the EDC is an order which the exporter would not have secured without the corporation’s assistance. Then the advantage would be undeniable. However, nothing can be less certain. At least two cases come to mind. Let us assume a product whose international price is 100. In the first instance, the cost of production (marginal cost) in Canada is

110. Thanks to a subsidy, the producer accepts the order, which is a genuine additional activity. However, as the production cost exceeds the selling price, the taxpayers pay the difference and the foreign importers get the benefit. Now let us suppose that the production cost was only 90, but that the producer set a price of 110, either because he was counting on the EDC, or simply because he was aiming at a more comfortable profit margin. The subsidy is paid, but the order would undoubtedly have been accepted without it. The subsidy becomes a free-of-charge contribution to the Canadian seller's profit.

In the United States, two studies assessed by Baron (1983) endeavour to determine the extent of export "additionality" associated with Exim-bank programs. It would appear that the EDC drew inspiration from these U.S. studies in reaching its own conclusions on the matter.

The methodology used in these studies can be summarized in the following manner. The probability is established, between zero and one, that a transaction would not have taken place without a government loan. Probable transactions are then divided by the overall number of loans. Probabilities are set according to a number of criteria, including the following, which illustrate the reasoning involved.

- Access of the borrowing country to private capital markets: if a country does not enjoy ready access, it is deemed that the transaction would not have taken place without a government loan. The loan is therefore supplementary and the probability is equal to 1. Accessibility is measured by the spread of country risk premiums.
- Access to subsidized financing: where the borrowing country can rely on the assistance of a third country, it is assumed that the transaction would not have taken place without an equivalent subsidy $S = 1$.
- Terms: the longer the term, the higher the value of S .
- The competitive nature of the product: where the product is the only one of its kind, $S = 0$.
- New outlets, new exporters: where a transaction is the first of its kind, it is taken for granted that government intervention is essential and $S = 1$.

Once these probabilities have been established, each criterion is weighted to obtain an overall probability applying to individual transactions. Then an average rate of "additionality" can be computed for all loans granted.

An accurate description of the process is sufficient to reveal its major shortcomings. Baron (1983) presents a devastating criticism. Estimates of probabilities and weightings are highly subjective. The criteria selected are debatable in that they are supposed to be unequivocally related to what we are actually looking for — that is, the extent to which an importer paid less for his credit than otherwise, in terms of the rate of interest, maturity, the amount of the loan relative to the value of the transaction and other conditions, if any. Obviously, the other components of the

overall price offered should also be known. Even then, we still do not know whether the product price net of financing is real or imaginary.

Services Not Available on the Market

In economic analysis, a government is justified in offering products or services on a commercial basis when market failures can be found and documented. It is very hard to establish such proof; it has not been established in Canada in the field of export assistance.

However, the situation does raise many questions. It appears to be true that, with regard to export insurance, the EDC has never had competitors except in the case of exports to the United States. The reason is not immediately clear. Private insurers may be reluctant to offer coverage when transactions are not likely to recur, when terms are very long, and when the foreign assets offered as guarantees cannot be seized. Moreover, a number of contingencies for which compensation must be provided — such as inflation — are not so much a risk as a certainty. On the other hand, an examination of EDC insurance activities reveals that between 80 percent and 90 percent of its business involves policies maturing after less than two years, experienced exporters, and what appears to be a satisfactory range of risks. Moreover, this activity is very profitable for the EDC despite the considerable freedom of choice relating to the risks left to insured parties. One would think that such risks could be insured by the private sector. Is this apparent market failure attributable to a lack of competition, restrictive regulations, or a lack of imagination or information? It is not possible to answer this question. In the absence of other hypotheses, there is still the possibility that the very existence of the EDC has created a stumbling block within the industry. If this is the case, it should be noted that some firms have recently expressed their intention to establish themselves in this market. The EDC should then encourage such initiatives.

With regard to export financing, the situation is entirely different: banks have participated in this market for a long time. As early as 1921, the Royal Bank of Canada published *Financing Foreign Trade*, a study by Graham Towers, who later became Governor of the Bank of Canada.

Banks have left to the EDC loans maturing after five years or more, with certain exceptions, and loans with fixed interest rates (as opposed to floating ones). The refusal of banks to provide credit at fixed rates at present can readily be explained — the service is only provided because it is subsidized. However, looking back to the times when business and financial conditions were more stable, the reasons that have led Canadian banks to neglect this segment of the market are not clear. Nothing seemed to prevent them from borrowing for terms identical to their loans, so that a fixed interest rate should not have threatened them with bankruptcy. European investment banks have operated in this way for a long time.

Banks do experience problems that a Crown corporation like the EDC does not encounter. As banks do not benefit from government guarantees, the cost of borrowing on the market is generally higher for them. Similarly, as they have to pay dividends and taxes, they must maintain a higher profit margin. The EDC's advantage with regard to the cost of borrowing is an imaginary one from the point of view of society as a whole, because it is only obtained at the cost of better repayment guarantees, which are actually provided by all taxpayers.

Another source of reluctance on the part of the private sector concerning export insurance and financing arises from its more limited power to negotiate with foreign borrowers compared with the power of a Crown corporation. Borrowers may prefer to deal with public rather than private institutions because they gain special access to government officials from whom they may obtain other concessions, thereby broadening the debate, so to speak. On the other hand, the risk of default may be systematically lower for a Crown corporation because borrowers see a link between loan transactions and their success in other business dealings with the government and may therefore behave differently than they would when borrowing from a private bank.

Externalities

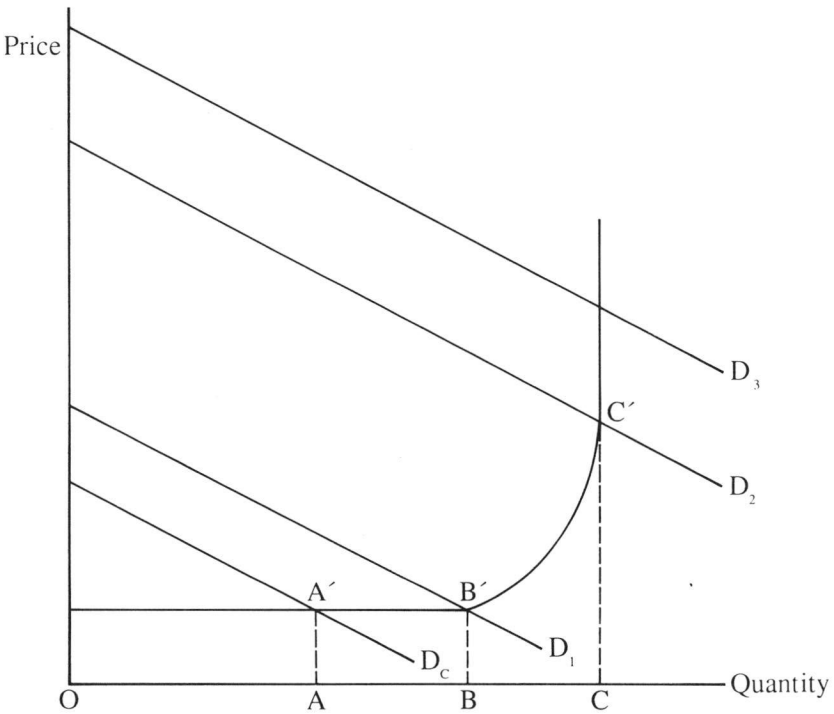
Arguments in support of export financing programs often mention important externalities, i.e., the social costs or benefits, which by definition are neglected in market decisions. The externality which is most frequently noted is job creation. Any new order from a foreign buyer is generally reported in the newspapers in terms of the number of jobs it will create. In Canada, this argument is supplemented by the advantages to be derived from diversifying traditional outlets and transforming the country's industrial structure. Occasionally, it is stated that export credits help reduce pressure on the country to increase development aid.

Job Creation

The discussion above of additionality rates of export financing focussed on the immediate impact on export demand of a drop in the selling price, i.e. finding out the partial elasticities of supply and demand. That analysis must be pursued much further, as these immediate effects may be reinforced or obviated by indirect effects which can only be understood in a macroeconomic context. For example, it may be assumed that a firm which obtains a big order spanning two or three years will have to grant its employees hefty wage increases. Production costs may then rise, and the same firm might lose contracts which it could have won without the first order. The same reasoning applies to a number of other repercussions which risk cancelling the immediate, positive effect — for example, additional exports may increase the value of the currency and cause interest rates and prices to rise.

All of these considerations are taken into account in the shape which is given to the aggregate supply curve (see Figure 4-2). In the segment on the left, where the curve is horizontal and perfectly elastic to price, an increase in demand such as an additional export, D_0D_1 , leads to an increase in output and employment without any inflation. On the other hand, if we are already at point C , the additional export, D_2D_3 , leads to an increase in prices without having any effect on output and employment.

FIGURE 4-2 Aggregate Supply and Demand



These extreme cases rarely occur in the real world, although it is easy to identify them concretely. When domestic output and employment increase, it is because there is a serious depression and all resources are in excess supply. At the other extreme, when the country is enjoying full employment, it is, by definition, impossible to increase output.

Export support programs are special in that they are permanent. In order for them to create the jobs they are supposed to create, the Canadian economy should be in a state of permanent deep depression, which is impossible. Beyond these absolutes, it might be recognized that a certain proportion of the programs contribute to employment, as shown in the

centre of Figure 4-2. However, the evidence in this regard is disappointing.

In a study dated April 5, 1982, the EDC attempted to measure the macroeconomic impact of its export credits,¹³ using the TIM and CANDIDE general equilibrium models. In an initial series of simulations, the increase in exports is not a result but an explicit hypothesis whose impact is compared with an equivalent drop in personal income tax. This exercise does not answer our initial question, which is to determine whether or not total net exports increase as a result of special financing.

In a second series of simulations of the CANDIDE model, the respective impacts of export financing and an increase in government spending were measured. Aside from the fact that these impacts are more favourable to government spending, this simulation still assumes that aggregate supply is perfectly elastic. This is precisely the critical variable whose nature and value we are attempting to determine. The same applies to a simulation carried out by researchers at the Economic Council of Canada.¹⁴ Exports increase by assumption, and government spending is a more effective instrument to create jobs than export financing.

The only other relevant empirical results in this field concern the crowding-out effect. After an examination of a large number of models in this respect, we concluded that government attempts to stimulate demand in Canada led to a crowding-out effect of a minimum of 0.5, starting with the second year of the initial shock (Raynauld, 1984). We must therefore exclude the possibility of a perfectly elastic aggregate supply curve. At best, only half of the apparent direct effects might be attributed to export assistance programs. This means paying a high price for uncertain benefits which are obtained by chance when the international and domestic economic situations permit.

Diversification of Markets

Another objective of export assistance is the diversification of external trade. In this respect, the EDC allocates its resources in a desirable way. About 60 percent of insurance and 70 percent of EDC credits cover countries other than the United States and European nations.¹⁵

The problem raised by this objective is that it does not, in fact, constitute an externality. Left to itself, the market always seeks to minimize risks; producers naturally wish to obtain the most diversified investment portfolios, customers or suppliers possible. Therefore, it might be argued that diversification is already optimal and that the government, by pushing further in this direction, is helping to create new distortions and increasing risks rather than reducing them. This fact may explain the problems encountered by policies fostering a third option for Canada.

Industrial Structure

The keen interest shown by governments in industrial structure, in the degree of processing of exported goods or in innovation, indicates a public

preference for which the individual producer has no use. This is indeed an externality, although opinion is highly divided on the path to follow. To some, industrial strategies are so much hot air; to others, they involve the country's survival.

Without going to the heart of the matter, we can set out at least two verifiable criteria that might constitute an improvement in the industrial structure: labour productivity and the social return on capital invested. Industries aided through EDC financing between 1976 and 1980 achieved an average hourly output of \$23.86 in 1980, while productivity in the manufacturing sector as a whole was \$23.73, a difference of \$0.13 an hour. Looking instead at return on capital before tax, which in our view is a more satisfactory criterion, the results are even less favourable to the EDC. The actual return between 1976 and 1980 was 10.4 percent in sectors aided by the EDC, while the return in the manufacturing sector as a whole was 11.9 percent. Therefore, EDC programs do not contribute to a better allocation of productive resources.

Beyond these objective assessment criteria, it might be argued that government intervention serves more general ends if we look closely at the nature of the activities which receive government assistance. Referring again to Table 4-5, the juxtaposition of the goods in question, such as nuclear energy, aircraft, ships, railway rolling stock and even communications, is striking. These are activities which the government has supported for a long time, for reasons related to national defence and control of advanced technologies, or simply because government agencies throughout the world are the main buyers of these products. In light of this situation, the EDC's intervention could be interpreted as being aimed essentially at turning a profit on previous government investments. The marketing of CANDU reactors is the best example of this.

If this argument is accepted, however, it must then be recognized that the social benefits arising from EDC intervention are even more uncertain and negative, as they help subsidize goods which are already heavily subsidized in other ways. Far from compensating for distortions, such intervention creates additional ones.

Foreign Aid

Government export financing may be regarded as one facet of the country's general foreign policy. In this regard, a government might be inclined to incur losses in exchange for political gains on the international scene, or to secure certain broader economic advantages. Two examples come to mind: the security of supplies and mixed credit. In the first instance, export subsidies could be justified in exchange for certain guarantees of access to oil or other raw materials. In the second, despite appearances, mixed credit might cost a donor country less if the alternative is outright government assistance. We must admit that such considerations are highly speculative and that the arguments are hardly convincing.

The Correction of Distortions

According to a standard academic argument in favour of government intervention, the net result of a new distortion is indeterminate in an imperfect world, as it may just as easily improve or further jeopardize the allocation of resources. Export assistance might compensate for the burden of customs tariffs which raise the rate of exchange and penalize exporters. Such assistance may thus contribute to increasing welfare and exports, because the situation at the outset entailed a distortion which tended to limit exports artificially.

We accept the validity of this argument. However, the solution does not entail subsidizing exports, but eliminating tariffs and other obstacles to trade which created the problem in the first place. The main reason for this is that export financing is not neutral in relation to the industries it favours. On the contrary, such financing is highly selective; it covers a limited range of capital goods, most of which are already heavily subsidized. One has only to think of ships, aircraft and the CANDU reactor before concluding that the program cannot be a useful instrument for effecting the necessary rebalancing of existing distortions.

In a similar vein, trade distortions might be regarded as creating a discrepancy between the private and social value of foreign exchange. As a result of tariffs and other selective taxes on imported goods, the observed value of the Canadian dollar is too high. Thus, export subsidies might help earn currencies whose social value is higher than their market value. Jenkins and Kuo (1985) set this exchange premium at 6.5 percent of the value of the currency acquired (on a net basis). However, net currency acquired represents only a small proportion of the value of a typical export order.

Foreign Government Subsidies

According to those who defend export assistance programs, the most decisive — if not the least debatable — argument is the one regarding subsidies which foreign governments give their exporters. This argument maintains that Canada will lose its customers in the absence of equivalent subsidies. It is analogous to the thesis stating that a country must introduce retaliatory tariffs in response to those levied by other countries.

The matter of fairness comes into play in support of this opinion. It is true that certain exporters pay the cost of such undue foreign competition by losing sales for reasons unrelated to the market situation. The cost of shifting activities is also involved, since the exporter, a victim of foreign government policies, should do something else. For both reasons, some compensation may be justified. The essential question — and a hard one to answer — is to determine whether foreign subsidies are temporary or permanent. If they are temporary, the best response is perhaps to offer

equivalent subsidies, up to the cost of the next best alternative for the producer. However, such subsidies must be strictly temporary. Where foreign subsidies tend to be permanent, it is in everyone's interest not to become involved in ruinous competition. What advantage is there in producing at a loss when the subsidy is actually paid to foreign buyers? If it is absolutely necessary to subsidize someone, it may as well be a domestic producer.

The rule which applies does not involve following one's neighbours blindly, but serving one's own interests. To comply with this rule, it is necessary to develop programs in such a way that the potential benefits ultimately compensate the initial outlays — i.e., any export which is initially subsidized must become, in the end, an unsubsidized and profitable one. This in fact is the same principle as in the theory of customs tariff with respect to infant industries or learning by doing.

Redistribution

Aside from the question of efficiency in allocating resources, governments have often intervened to modify the distribution of resources in favour of particular groups. With respect to exports, it has been argued that government assistance should favour small and medium-sized businesses and contribute to more balanced regional development.

Both objectives strike us as inappropriate. Encouraging firms to assume excessive risks is like tempting the devil. Exporting, especially to overseas markets, requires a highly developed infrastructure, continuity and perseverance, an abundant supply of working capital, highly diversified expertise, and a long-term outlook. Such qualities are hardly the forte of small and medium-sized businesses.

Regional development is best assured obviously by other forms of intervention that are directly related to it, rather than by export assistance.

At the risk of oversimplifying the issue, the conclusions of this section can be summarized as follows.

- An indeterminate though significant proportion of EDC activities duplicate those in the private sector.
- About 85 percent of EDC insurance activities would be assumed by the private sector under other circumstances.
- Fixed-rate lending with terms exceeding five years may reflect a market failure under current conditions, although this represents a judgment rather than a demonstration.
- Externalities related to employment and the balance of payments are negligible; moreover, other policies are more appropriate for pursuing these objectives.
- The diversification of outlets is not an externality.
- The improvement of the industrial structure might constitute an exter-

- nality, although the EDC does not contribute to it in any way.
- The EDC's possible contribution to Canada's foreign policy is not known but is probably negligible.
 - Export subsidies are inefficient as a compensation for tariffs or exchange rates, compared with the elimination of initial distortions.
 - Foreign subsidies call for strictly temporary ad hoc responses.
 - It is completely inappropriate to use export assistance to promote regional development or small business.

Future Directions

Judging by the growth of its business, the diversity of the services it provides, and the satisfaction of exporters, the EDC is a dynamic concern which carries out its responsibilities well.

However, as noted in the two preceding sections, the cost of these services to society as a whole is very high, i.e., nearly \$500 million in 1982 alone and \$2.6 billion for the period covered by the loans (see Table 4-A2 in Appendix B). It is impossible to determine that these social losses are justified by equivalent social benefits. Therefore, the role which the federal government has assigned to the EDC must be reassessed.

A Substitute for or Complement to the Private Sector

If the EDC's social benefits are so hard to determine, it is because a good part of its activities duplicate those provided by private financial institutions. The clearest example of this observation is the direct negotiation of contracts with foreign buyers and Canadian exporters in spite of the fact that the Canadian banking system is one of the most extensive in the world. By the end of 1978, Canadian banks maintained 286 offices in 40 countries. In Canada, it is generally acknowledged that the banks are strong, efficient and subject to satisfactory competition, especially since the legislative changes instituted during the past two decades.

Under such circumstances, it would be surprising to discover that the EDC makes up for obvious market failures. A more plausible hypothesis is that, with time, and as a result of pressures from the private and public sectors, the EDC has developed its activities and programs independently of what the private sector might have done had it been asked to do so.

It is true that the Export Development Act does not require the EDC to encourage private export insurance and financing in preference to its own expansion. For example, the act does not stipulate anywhere that the EDC should insure or finance exports as a last resort.¹⁶ On the other hand, a close examination of House of Commons debates since 1944 leaves no doubt as to the government's intention in this respect. Members of Parliament have always claimed to give priority to private financial institutions, assigning only a substitute role to the EDC in the form of complementary,

different or additional services. The EDC is clearly supposed to do what the market would not do in its absence. This requirement goes even farther. In the case of market failures, the corporation must avoid setting prices below the social cost of the resources it uses since, by definition, no additional social benefit exists once the failure has been rectified. To act otherwise results in unfair competition toward private financial institutions.

The problems relating to economic structure, whose seriousness is often deplored in Canada, have not, in our view, resulted from the weakness of financial institutions. With regard to exports, there is a fairly broad consensus that the lack of competitiveness among Canadian manufacturers depends instead on the frequent lack of originality of their products, the smallness of both the domestic market and the firms in question, and the relatively high production costs. Although some will find this judgment debatable, we believe that Canada's difficulties in becoming established as a manufacturing nation stem largely from the abundance of our natural resources. The development of natural resources explains the drain of capital, the high wages and an exchange rate which is unfavourable to manufacturing. In a sense (and because of its resources) Canada has become an overly precocious rentier. If this diagnosis is accurate it calls for other support and organizational measures, rather than government financing as such.

With regard to the social benefits generated by the EDC, the question is more or less open. In any case, other, much more effective policies are needed to achieve them. Under these circumstances, it appears inevitable to conclude that the government must look increasingly to private financial institutions to insure and finance exports, subject to the exceptions noted below.

This general orientation corresponds to that proposed by the Economic Council of Canada in *Intervention and Efficiency* (1982) and to the ideas put forward by Tremblay (1981).

Insurance

It would clearly be beneficial for the EDC to abandon short- and medium-term global insurance. On the other hand, the EDC should be the principal agent of a mixed reinsurance scheme and should continue to provide insurance as a last resort to cover major projects or exceptional risks.

Financing

A study by the Economic Council of Canada (1982) clearly establishes that the EDC is more closely tied to government than similar institutions in other countries. This certainly need not be the case. The direct supply of credit and the negotiation of contracts would be better left to private

financial institutions, and the EDC should offer generous rediscount facilities on banking instruments as well as guarantees, if need be. It could also maintain its original and useful practices of negotiating general agreements with foreign governments.¹⁷

Three problems have been identified in this market. The first relates to subsidies granted by foreign governments. A satisfactory solution has already been found and applied — providing specific ad hoc subsidies in cases where a foreign competitor clearly benefits from such subsidies. The internal mechanism to do this is already in place in the Canada Account maintained by the EDC, to which all of these expressly subsidized transactions should be attributed.

A second problem for private financial institutions and exporters entails fixed-price credit for terms of more than five years. With certain exceptions, the private sector could provide this credit if the EDC were to offer appropriate guarantees, refinancing or rediscount.

One final obstacle remains — the general level of interest rates in Canada compared with those in foreign countries. In other words, is it possible to face international competition generally without having to subsidize credit in Canada? This question warrants a thorough analysis which we cannot undertake here.

The difficulty Canada experiences in meeting competition in international markets can be partly explained by the fact that at a given exchange rate, its interest rates are higher than elsewhere. (Wages and taxes are other explanations for this difficulty.)

To overcome this problem, the Wallen (1980) report proposes a differentiated interest rate system based on the value of currencies. The approach is perfectly logical, although some doubt may be expressed about how practical it is. The principle involves setting interest rates lower in currencies which are likely to appreciate and higher in those subject to depreciation. On January 1, 1980, the interest rate would have been 9 percent in U.S. dollars and 10.5 percent in Canadian dollars. This leads us to ask whether a borrower would have preferred the lower U.S. rate and the appreciation risk, or would have speculated on a drop in the Canadian dollar. As borrowers have greater opportunities to export to the United States than to Canada, they would probably choose the U.S. dollar.¹⁸ In practice, it is quite possible that Canadian exports will be increasingly financed in U.S. dollars, leaving the Canadian export firms to bear the relatively small risk of possible depreciation of the U.S. dollar.

Alternatives to Government Export Financing

We have shown in this study that government export financing does not appear to provide an adequate, efficient response to problems encountered by Canadian manufacturers with respect to international competition. However, it is possible to turn the problem around and ask what might

be the most appropriate policies for attaining a given goal. Such a methodology requires general equilibrium models to determine the comparative impacts of various options. Research of this sort is still not very advanced in Canada, although we have already mentioned certain simulations which should be completed here.

First is a recent study by Damus (1983) which concludes that production subsidies are preferable to export financing if the objective is to increase real income or welfare. This conclusion is intuitively correct, as export subsidies partly benefit foreign borrowers.

Harris (1983) also compares various policy options on the basis of stated objectives. Using a general equilibrium model, his targets are employment, trade and productivity. He then analyzes a series of five instruments of intervention: subsidies on capital, labour, import substitution, export, financing and rationalization of industry. The simulations indicate that the net benefit of these measures depends heavily (and naturally) on the objectives pursued and the characteristics of various industries. It is obvious that export subsidies are preferable to other measures for encouraging trade, while labour subsidies are more efficient for employment, and the rationalization of industry for productivity. We might also add that export subsidies are especially useful in industries which benefit from substantial economies of scale.

The general conclusion of this study may be stated as follows. Canadian exports could be maintained and encouraged as well by private institutions as by the EDC if the latter's role were truly limited to supporting the private sector rather than supplanting it. On the other hand, the macroeconomic objectives would be better served if the social losses resulting from government export financing were eliminated and if more general policies were selected for their achievement.

Appendix A

Present Value of Subsidy and Social Loss on EDC Activities

Subsidy is defined here as the difference between the cost to the EDC of borrowing capital and the return, net of administrative expenses, the corporation obtains on its assets. A social loss is deemed to be the difference between the social opportunity cost of capital invested by the EDC and the same return, net of administrative expenses (this time in real terms), which the EDC earns on its assets.

Because of a lack of information on the interest rates related to annual debit and credit transactions, calculations have been made on assets outstanding at year end; interest rates and rates of return are averages based on the same notion of stock.

Exact maturities on EDC's loans are not available. Calculations will be based on effective terms of five and seven years. Generally, loans have a nominal maturity of between nine and ten years and are repaid in two equal annual installments. The average effective term is about five years on loans paid out during the year, but closer to seven years on outstanding loans, which is the approach followed here.

Rates of Subsidy

If the subsidy granted by the EDC is the difference between the cost of borrowing and the return on capital, such a subsidy lasts as long as the loan does. Therefore, we must add up the annual subsidies and express this amount as a present value, taking into account the terms of the loans.

One can write:

$$S = C_F - R_N \quad (1)$$

where S is the value of the subsidy, C_F is the financial cost of capital, R_N is the net return on capital, with all variables being expressed in present values.

The financial cost of capital used by the EDC is the average cost of the public debt outstanding. This gives:

$$C_F = \sum_{t=0}^{T-1} \frac{r^P L}{(1 + r^P)^t} \quad (2)$$

where r^P is the average rate of interest on public debt outstanding, L the capital invested, and T the effective term.

Similarly, one can define the EDC's return on its assets as follows:

$$R_N = \sum_{t=0}^{T-1} \frac{r^N L}{(1 + r^P)^t} \quad (3)$$

where r^N is the net nominal rate of return obtained by the EDC.

The subsidy is then:

$$S = \sum_{t=0}^{T-1} \frac{r^P L - r^N L}{(1 + r^P)^t} \quad (4)$$

$$S = \sum_{t=0}^{T-1} \frac{L(r^P - r^N)}{(1 + r^P)^t} \quad (5)$$

The rate of the subsidy as opposed to its total value is defined as:

$$s = \frac{S}{L} = \sum_{t=0}^{T-1} \frac{r^P - r^N}{(1 + r^P)^t} \quad (6)$$

Assets, L , will later stand for loans receivable, on the one hand, and total assets, on the other.

Rates of Social Loss

The rate of social loss is calculated using the same logic as that used to determine the rate of subsidy. The value of the loss P is the difference between the social cost C^E of capital, i.e., 10 percent or 7 percent in real terms, and the net return on EDC's assets, (R_K), adjusted this time for the implicit GNE price index. This gives:

$$P = C_E - R_K \quad (7)$$

and the rate of loss P will be equal to:

$$p = \frac{P}{L} = \sum_{t=0}^{T-1} \frac{r^E - r^K}{(1 + r^E)^t} \quad (8)$$

Results

Calculations related to equations (6) or (8) are straightforward. In 1980, for example, r^P was 9.9 percent and r^N on EDC loans was 8.3 percent. Thus, the spread was 1.6 percent, i.e., the cost to the EDC of borrowing capital exceeded the return it obtained on it by 1.6 percent. Taking into account loans receivable of $\frac{L_{80} + L_{79}}{2}$, \$2,930 million, the total subsidy

for the year amounted to \$46.5 million (see Table 4-9 or Table 4-A1 in Appendix A).

It is this subsidy for the year which is totalled over the period to maturity of the loan portfolio and discounted by the borrowing rate r^P . The present value of the subsidy becomes \$194.2 million. Dividing this amount by loans outstanding, we get the subsidy rate we have been looking for, namely, 6.6 percent.

Tables 4-A1 and 4-A2 provide the rates of subsidy and social loss for each of the last three years (1980 to 1982) with respect to loans and EDC's assets overall, and on the basis of effective terms of five and seven years.

In 1982, the subsidy rate reached 20.1 percent on loans receivable. In present value, these subsidies totalled \$841.6 million, given the volume of loans outstanding and an effective term estimated at five years. If the

TABLE 4-A1 Rates of Subsidy and Social Loss on EDC Assets, in Present Values, 1980-82 (terms estimated at five years)

	1980	1981	1982
A. Subsidy			
A.1 on loans			
(a) Subsidy for the year, in millions	46.5	86.7	217.0
(b) Present value of the total subsidy, in millions	194.2	355.7	841.6
(c) Rate of subsidy on loans, as a percentage	6.6	10.3	20.1
A.2 on overall activities			
(a) Subsidy for the year, in millions	17.0	51.8	233.0
(b) Present value of the subsidy, in millions	71.0	212.5	903.7
(c) Rate of subsidy on assets, as a percentage	2.1	5.3	19.0
B. Social loss ($r^E = 10\%$)			
B.1 on loans			
(a) Loss for the year, in millions	361.0	420.0	443.0
(b) Present value of total loss, in millions	1,505.3	1,751.4	1,847.3
(c) Rate of social loss on loans, as a percentage	51.4	50.5	44.2
B.2 on overall activities			
(a) Loss for the year, in millions	389.0	435.0	494.0
(b) Present value of the total loss, in millions	1,622.1	1,813.9	2,059.0
(c) Rate of social loss on assets, as a percentage	47.7	45.5	43.4

term is seven years, the rate of subsidy is 25 percent.

With regard to the social cost of capital, i.e., the return which such capital would have produced elsewhere in the Canadian economy, the rate of social loss on loans receivable reached 44 percent in 1982, or \$1.85 billion. With terms of seven years, the rate of loss if 56.7 percent, representing \$2.4 billion.

Such results may seem astonishing given that proponents of trade generally claim that Canada does not provide sufficient assistance to exporters. These figures indicate that when the EDC loans one dollar for seven years, it imposes on Canadian society as a whole a loss of \$0.57, of which \$0.25 represents a direct financial subsidy.

This conclusion is worth reflecting upon for possible qualifications. It should be pointed out that these calculations apply to stocks or to the

**TABLE 4-A2 Rates of Subsidy and Social Loss on EDC Assets,
in Present Values, 1980-82 (terms estimated at
seven years)**

	1980	1981	1982
<i>A. Subsidy</i>			
<i>A.1 on loans</i>			
(a) Subsidy for the year, in millions	46.5	86.7	217.0
(b) Present value of the total subsidy, in millions	249.6	453.5	1,047.2
(c) Rate of subsidy on loans, as a percentage	8.5	13.1	25.1
<i>A.2 on overall activities</i>			
(a) Subsidy for the year, in millions	17.0	51.8	233.0
(b) Present value of the sub- sidy, in millions	91.3	270.9	1,124.4
(c) Rate of subsidy on assets, as a percentage	2.7	6.8	23.7
<i>B. Social loss ($r^E = 10\%$)</i>			
<i>B.1 on loans</i>			
(a) Loss for the year, in millions	361.0	420.0	443.0
(b) Present value of total loss, in millions	1,993.1	2,249.1	2,372.3
(c) Rate of social loss on loans, as a percentage	65.9	64.8	56.7
<i>B.2 on overall activities</i>			
(a) Loss for the year, in millions	389.0	435.0	494.0
(b) Present value of the total loss, in millions	2,083.1	2,329.4	2,645.4
(c) Rate of social loss on assets, as a percentage	61.3	58.4	55.7

EDC's portfolio at a given date, such as December 31, 1982. They do not reflect actual interest rates and rates of return in 1982, but the cumulative total of conditions which prevailed prior to that time. The situation described here is that of a balance sheet, not that of an income and expenditure account. Consequently, we are obviously not at liberty to calculate another multi-year total of subsidies or social losses, as present value already constitutes an amount which corresponds to the average duration of the loans. This approach, which was imposed upon us by the lack of information on annual flows, nonetheless includes several advantages. It is much less sensitive to changes in the current financial situation and corresponds better to the notion of social cost used here, which is based on medium- and long-term situations. In this respect, the results presented

Appendix B

Selected EDC Tables

TABLE 4-B1 Export Development Corporation
Balance Sheet as of December 31, 1982 (in millions
of dollars)

Assets		Liabilities	
<i>Loans receivable</i>	4,710.4	<i>Loans payable</i>	
Less: participation by other lenders	142.9	Long term	3,333.3
	4,558.5	Short term	958.9
Accrued interest and fees (receivable)	132.5	Accrued interest (payable)	156.9
<i>Investments</i>		<i>Other liabilities</i>	
Cash and short-term investments	578.3	Accounts payable	59.4
Canada bonds	26.2	Deferred revenue	97.4
Accrued interest	10.6	Other	9.1
<i>Other</i>		Allowance for claims on insurance	16.0
Unamortized debt discount and issue expenses	21.6	Allowance for losses on loans	53.0
Other	7.9	<i>Shareholder's equity</i>	
Total Assets	5,335.0	Capital	465.0
		Retained earnings	186.1
		Total Liabilities	5,335.0

Source: EDC, 1982 Annual Report.

are more reliable; they reflect more accurately financial transactions spread over several years.

The disadvantage of this method is that it remains relatively abstract. For the United States, Baron (1983) is able to establish rates of subsidy and social loss by year, country, product and individual transaction. He notes that the average rate of subsidy on loans authorized in 1981 was 29.7 percent; in 1980, 18.5 percent; and in 1979, 13.7 percent. Such rates cannot be compared with ours, although they do suggest that the United States also loses money on financing exports.

As noted earlier, our results underestimate the magnitude of subsidies and social losses because the country risks are not taken into account in the financial and social cost of the capital invested.

The average term of loans receivable is a very important hypothesis. It should be closer to seven years than to five, for three reasons. The first one relates to the arithmetic of a constant flow of loans, repaid according to a constant annual proportion. The effective term of such a portfolio is seven years where the original loans have a nominal term of ten years. The second reason arises from the fact that, as the volume of the EDC's activities has increased over the years, the loans receivable portfolio contains a greater volume of new loans. The third reason is the practice whereby banks obtain the full repayment of their loans before the EDC does. Consider a \$1,000 loan repayable at a rate of \$100 per year for ten years. If a bank participates in the financing and provides \$300, for example, repayments will be made to the bank during the first three years; the EDC will only receive its share starting in the fourth year. This considerably lengthens the effective term of EDC's loans.

TABLE 4-B2 Export Development Corporation
Operating Account as of December 31, 1982
(in millions of dollars)

Income		Expenditures	
1. <i>Loans and guarantees</i>		1. <i>Loans and guarantees</i>	
Interest earned	404.3	Interest expense	342.6
Fees earned	15.9	Provision for losses	6.3
2. <i>Insurance and guarantees</i>		2. <i>Insurance and guarantees</i>	
Premiums and other income	14.7	Provision for claims	7.0
<i>Investments</i>		3. <i>Investments</i>	
Interest earned	63.3	Interest expense	115.6
		4. <i>Administrative expenses</i>	
			25.5
Total Income	498.2	Total Expenditures	497.1
Net Income	1.1		

Source: EDC, 1982 Annual Report.

Note: Figures have been rounded off.

Notes

This study was originally written in French. It was completed in September 1984.

1. Disbursements accounted for only 53 percent of the loans authorized during the 1978-82 period. This calculation is derived from Table 4-3.
2. These proportions apply to 1980. Manufactured goods include categories 5, 6, 7 and 8 in the Standard International Trade Classification (SITC). Source: OECD, Foreign Trade Statistics.
3. Group 31 (machinery) in the Standard Industrial Classification, Statistics Canada (1970).

4. According to the 1970 classification of industries, the following ones are involved: 301, 305, 310, 321, 324, 325, 326, 327, 332, 335, 336 and 338.
5. Some claim that the purpose of development assistance is to encourage exports. The argument which follows is all the more relevant.
6. In 1960, the GATT defined an export subsidy as a loan granted at a rate below the cost of the public debt. See Hufbauer (1983, p. 344).
7. The annual report of the Export-Import Bank of the United States shows the interest rates charged on each individual transactions.
8. Outstanding loans used in our calculations exclude the participation of other lenders.
9. This calculation is inaccurate for two reasons: first, the rate should be calculated on value-added to give an effective subsidy rate analogous to effective protection rates. Moreover, as the subsidy lasts for a long time, a present value should be calculated for the duration of the loans. This matter is discussed later.
10. These results may seem astonishing, as the EDC has never recorded losses in its financial statements. The reason for this is that the cost of shareholders' equity is nil in the financial statements, while our method of calculation assumes that such equity is borrowed (which, in fact, it is, by the federal government).
11. The overall rate of loss is lower than that on loans, although the stock of capital is greater. Conversely, the annual rate of loss of 11.5 percent which prevailed in the 1970s led to relatively smaller dollar losses, because the EDC made fewer loans.
12. The *Euromoney Review* presents "The Country Risk League Table" in which countries are classified according to the rate of interest they had to pay on government borrowings in Euro-currencies from banking syndicates. The discrepancies noted express the differences in risk.
13. See Export Development Corporation (1982).
14. Economic Council of Canada (1982, Appendix E, p. 165).
15. Averages for the period 1969-82.
16. An amendment made in 1983 to the act governing the EDC's activities gives it explicit powers with regard to reinsurance, although the power is not restrictive.
17. Lines of credit and intergovernmental agreements on investment are two examples of very valuable initiatives which are the preserve of a Crown corporation and beyond the means of a private firm.
18. This reason differs from the hypothesis of the illusion of interest rates mentioned by several authors (see Hufbauer, 1983, p. 346). The most recent OECD agreement, reached in July 1982, provides for an exemption from minimum interest rates in favour of the Japanese yen. Exceptionally, there may be a trend toward differentiating interest rates according to the currency.

Bibliography

- Baron, David P. 1983. *The Export-Import Bank: An Economic Analysis*. New York: Academic Press.
- Boyd, John H. 1982. "Eximbank Lending: A Federal Program that Costs Too Much." *Quarterly Review*, Federal Reserve Bank of Minneapolis, (Winter): 1-17.
- Burgess, David F. 1981. "The Social Discount Rate for Canada: Theory and Evidence." *Policy Analysis* 7: 383-94.
- Campbell, H.F. 1981. "Shadow Prices for the Economic Appraisal of Public Sector Expenditures." *Policy Analysis* 7: 395-98.
- Canada. 1985. "Export Financing, Consultation Paper," January, Ottawa.
- , Department of Industry, Trade and Commerce. 1979. *Strengthening Canada Abroad*. Final Report of the Export Promotion Review Committee, Chairman: Roger Hatch. Ottawa: The Department. [The "Hatch Report"].
- , House of Commons. Special Committee on a National Trading Corporation. 1981. *Canada's Trade Challenge*. Ottawa: Minister of Supply and Services Canada.

- , Statistics Canada. 1970. *Standard Industrial Classification*. Ottawa: Statistics Canada, cat. 12-501.
- Cloutier, S. 1980. "Collaboration between the EDC and Canadian Banks." Ottawa: E.D.C. mimeographed.
- Damus, S. 1983. *Government Loan Subsidies*. Study prepared for the Economic Council of Canada. Ottawa: Minister of Supply and Services Canada.
- Défossé, Gaston, ed. 1982. *Les exportations françaises et leur financement*. Paris: PUF
- Economic Council of Canada. 1982. *Intervention and Efficiency: A Study of Government Credit and Credit Guarantees Through the Private Sector*. Ottawa: Minister of Supply and Services Canada.
- Evans, John, and Glenn P. Jenkins. 1977. "An Economic Evaluation of Foreign Financing of Investments in Canada." Working document (April). Toronto and Cambridge: York University and Harvard University.
- Export Development Corporation. 1969 to 1982. *Annual Report*. Ottawa: EDC.
- . 1980. "The EDC's Corporate Purpose." Ottawa, document prepared by the directors of the EDC.
- . 1982. "The Case for Official Support of Canadian Capital Goods Exports." Ottawa: EDC, April 15, Mimeographed.
- Export-Import Bank of the United States. 1974 to 1982. *Annual Report*. Washington, D.C.
- Feinberg, Richard E. 1982. *Subsidizing Success: The Export-Import Bank in the U.S. Economy*. Cambridge: Cambridge University Press.
- Gibson, J.D. 1968. "Report on Canadian Financing Facilities for Export." Report submitted to the Government of Canada, May 14. Mimeographed.
- Harris, R.G. with David Cox. 1984. *Trade, Industrial Policy and Canadian Manufacturing*. Economic Research Study prepared for the Ontario Economic Council. Toronto: The Council.
- Hufbauer, Gary Clide. 1983. "Subsidy Issues After the Tokyo Round." In *Trade Policy in the 1980's*, edited by William R. Cline, pp. 327-62. Washington D.C.: Institute for International Economics.
- International Monetary Fund. Annual. *International Financial Statistics*. Washington, D.C.: IMF.
- Jelliss, A.D., and C.Y. Kuo. 1984. *On Measuring the Economic Costs of Concessionary Export Sales Financing*. Ottawa: Department of Finance, February. Preliminary paper.
- Jenkins, Glenn P. 1977. "Capital in Canada: Its Social and Private Performance, 1965-1974." Discussion Paper 98. Ottawa: Economic Council of Canada.
- . 1980. "Discount Rates for Economic Appraisal of Public Sector Expenditures." *Policy Analysis* 6: 549-55.
- . 1981. "The Public Sector Discount Rate for Canada: Some Further Observations." *Policy Analysis* 7: 399-407.
- Jenkins, Glenn P., and B. Chun-Yan Kuo. 1985. "On Measuring the Social Opportunity Cost of Foreign Exchange." *Canadian Journal of Economics* 18: (2) 400-15.
- McCaughey, Claire, Jack Mintz, and Jacques Carrière. 1981. "Determining the Subsidy Element Involved with Government Credit Programs." Ottawa: Economic Council of Canada, August. Mimeographed.
- Mintz, J.M., J. Carrière and C. McCaughey. 1984. "Determining the Subsidy Involved with Government Credit Programs: An Application to a Selected Group of Programs." Ottawa: Economic Council of Canada, Discussion Paper 256.
- Organization for Economic Cooperation and Development. Annual. *Development Cooperation*. Paris: OECD.
- . 1976 and 1982. *The Export Credit Financing Systems in OECD Member Countries*. Paris: OECD.
- Pearce, Joan. 1980. *Subsidized Export Credit*. London: The Royal Institute of International Affairs, Chatham House Papers.

- Raynauld, André. 1979. *Le financement des exportations*. Montreal: University of Montreal Press.
- . 1984. La politique fiscale et le chômage. Montréal, *Actualité économique* 60 (4) (December): 424-29.
- Raynauld, André, Jean-Marie Dufour, and Daniel Racette. 1983. *Government Assistance to Export Financing*. Study prepared for the Economic Council of Canada. Ottawa: Minister of Supply and Services Canada.
- Royal Bank of Canada. 1921. *Financing Foreign Trade*. Montreal: The Bank.
- Tremblay, Rodrigue. 1981. "La médiation financière et l'assistance financière à l'exportation." Ottawa: Economic Council of Canada. Mimeographed.
- United Nations. Annual. *The Yearbook of International Trade Statistics*. Vol. I. New York: UN.
- United States. Congress. Congressional Budget Office. 1981. "The Benefits and Costs of the Export-Import Bank Loan Subsidy Program." Washington, D.C. (June). Mimeographed.
- Wallen, Alex. 1980. "Arrangements on Guidelines for Officially Supported Export Credits: Interest Rate Study." Paris: OECD, January 10.



Domestic Adjustment to Trade Policy Changes and External Shocks

Summary of the Proceedings of a Research Symposium

RODERICK HILL

On-going structural adjustment is a fact of life in any economy: firms enter and leave industries, jobs appear and disappear, and capital flows toward the areas of highest expected returns. However, in an open economy such as Canada's, the relationship with the rest of the world — changes in the prices of imports and exports and changes in trade policies — is an important source of pressure for adjustment.

How should public policy respond to adjustment pressures generated in the external sector? Indeed, need it respond at all? We can attempt to insulate the domestic economy from developments abroad and protect both the status quo and the incomes of those factors of production that would be adversely affected by change. Alternatively, we can recognize the costs of preserving the status quo in terms of foregone opportunities to benefit from enhanced foreign trade, and can design policies that facilitate adjustment rather than resist pressure for change.

One's view of the need for and the appropriate design of adjustment policies in the light of pressures from the external sector depends on one's view of how well markets work. In an economy with smoothly functioning labour and capital markets, adjustment policies would be redundant. However, in an economy characterized by regionally concentrated unemployment and poor information or low mobility in labour markets, adjustment policies can play a major role.

A research symposium on trade policy and domestic adjustment issues was held by the Commission in Ottawa on January 27, 1984. In the symposium, seven papers were presented, each followed by extensive discussion. (Participants are listed at the end of this paper.) Gerry Salembier outlined the sources of pressure for structural adjustment and the nature of the market rigidities that make adjustment policies desirable. Richard Harris presented three alternative views of the way the international dimen-

sions of the economy work, and traced through the implications of each for adjustment policies. He also stressed two special Canadian features of the adjustment issue — interregional mobility of resources and the need for the rationalization of industry through larger plant size. Michael Trebilcock discussed the political economy of bailing out failing firms and the implications for adjustment programs. David Richardson assessed U.S. experience with trade-related adjustment assistance and discussed the ability of markets to provide adequate adjustment incentives, along with the merits of providing adjustment assistance for firms or workers. Matthew Robertson and Alex Grey provided estimates of the effect of trade on employment in Canada and gave an overview and assessment of Canadian trade-related worker adjustment programs. Harley McGee outlined the philosophy of the Department of Regional Industrial Expansion (DRIE) toward industrial adjustment and the programs now in place to deal with adjustment issues. Finally, John Baldwin and Paul Gorecki presented a summary of their recent empirical work on plant specialization, relative plant scale, productivity, entry and exit behaviour of firms during the 1970s, and the implications of these findings for Canadian trade policies.

In this paper, both the symposium papers and the subsequent discussion are summarized. The papers by Trebilcock, Richardson, Robertson and Grey, and DRIE are included in this volume. The paper by Baldwin and Gorecki appears in *Canada-United States Free Trade*, Volume 11 of the Commission's research series.

The Sources of Pressures for Structural Adjustment

In his paper for the symposium, Gerry Salembier argued that structural adjustment problems in Canada are generally not due to changes in either foreign or domestic trade policy. In his opinion, other factors in the external sector have been much more important as sources of pressure for adjustment. These factors include increases in oil prices and the government's response to these increases, the international debt problem, volatile export and import prices in the 1970s, and the increasing importance of the newly industrialized countries (NICs) in world trade. However, both changes in the domestic economy due to intersectoral shifts in demand and changing productivity trends are even more important than external factors.

In their paper, Matthew Robertson and Alex Grey presented empirical evidence on the importance of foreign trade for employment in a sample of 13 industries that have experienced substantial import penetration during the past 15 years. Although changes in domestic demand and productivity have been the most important factors influencing changes in employment, exports and imports have in many cases had a significant effect. Over the period 1967–81, imports reduced employment in these 13 industries by

an average of 4.1 percent per year. Aggregate data tend to understate adjustment difficulties because such difficulties are generally concentrated in specific subsectors of broader industry groups.

However, despite the relative unimportance in the past of changes in trade policy compared to other sources of pressure for structural adjustment, future changes in trade policy could create adjustment problems. This is especially the case for industries such as clothing and textiles, which are now heavily protected. There is evidence that although the adjustment problems due to changes in trade policy may have been less important than problems due to other sources, changes in trade policy have nonetheless resulted in changes in Canada's industrial structure. The empirical work reported by Baldwin and Gorecki clearly indicates that lower Canadian tariffs have led to increases in plant scale in Canada (relative to comparable U.S. plants), primarily in industries with a small number of firms and high tariff protections. Lower tariffs have also increased the length of production runs in Canadian manufacturing. Lower tariffs improve Canadian productivity relative to that of the United States through their effects on product diversity and relative plant scale and through the increased market size made possible by trade liberalization.¹ Were Canada, for instance, to negotiate a bilateral free trade arrangement with the United States, future changes in trade policy could be even larger than those we have experienced in recent decades, and the resulting pressures for adjustment could be greater.

The symposium also explored the reasons underlying both changes in trade over time and pressures for adjustment. It was noted by some participants that in many cases, factor proportions are converging across industrialized countries. Traditional explanations of comparative advantage based on factor proportions were not seen as providing an adequate explanation of why Canada has some types of manufacturing activity and not others. Some participants stressed that the first firms into a market gain a permanent cost advantage over potential entrants. If so, there may be some rationale for the government's initial subsidization of infant industries. As Harris noted, in this scenario, short-run industry dynamics dominate long-run considerations.

The reasons for the increasing shift of basic, often capital-intensive industries (such as steel and shipbuilding) to NICs were also discussed during the symposium and the pressures for adjustment created by this trend were examined. Some participants felt that this trend was due to institutional rigidities in the labour markets in developed countries which keep real wages in these industries too high, rather than to more fundamental changes in comparative advantage. However, other participants believed that changes in comparative advantage play a role.

Adjustment problems in labour-intensive industries, both here and in the United States, were also discussed. It was noted that U.S. trade policy tends to react defensively to adjustment problems, especially those com-

ing from developing countries. When applied non-selectively, such policies tend to damage Canadian interests and create adjustment problems here. As was pointed out during the symposium, a bilateral free trade agreement with the United States could conceivably ease pressures for structural adjustment in some of our industries, rather than — as is generally presumed — creating new adjustment problems.

The possible reactions of multinationals to changes in the global economy and the implications for adjustment policies were also discussed. Will production in North America tend to be increasingly centred in the United States, or will plants tend to remain in their present location but specialize more? Harris was of the opinion that the concentration of production in the United States was more likely to occur under present circumstances than under a Canada-U.S. free trade area, where world product mandating would seem the efficient outcome.

Experience with Adjustment and Its Implications for Trade Policies

Both trade theory and empirical work generally support the idea that multilateral trade liberalization would yield long-run gains to Canada. However, as Richard Harris pointed out, the costs of moving toward the long-run free trade industrial structure must be considered and mechanisms must be developed to transfer income from the gainers to the losers. Adjustment policies could both lower the cost of the transition and redistribute income to compensate those affected.

Harris also suggested that in evaluating the costs and benefits of a Canada-U.S. free trade arrangement, one must choose from different models of the economy. In a full employment model with competitive markets, both the gains from free trade and the adjustment costs would be small. However, a full employment model with imperfect competition in product markets presents a more complex picture. Two features are important — the size of scale economies, which tend to provide the greater part of the long-run gains from freer trade, and the short-run dynamics of the adjustment process.

Harris claimed that the entry and exit behaviour of firms, although an important determinant of adjustment costs, is poorly understood theoretically. However, Baldwin and Gorecki's empirical evidence suggests that exit rates of firms tend to be constant across industries. Entry rates, however, respond to changing conditions in each industry.

Harris also saw short-run considerations as affecting the size of benefits of freer trade. These considerations include foreign firms' decisions about location, the ability of domestic firms to penetrate export markets successfully, and the possible importance of the learning curve. (Learning curves enable the first firms into a market to reduce their average cost of production as their output grows and thereby gain a permanent advan-

tage over potential competitors.) The key question in the case of the learning curve is whether firms in larger foreign economies could exploit it faster, resulting in the demise of some domestic industries.

Another model of the economy outlined by Harris retains imperfect competition in product markets but introduces rigidities in the wage-setting process, so that tariff reductions generate unemployment in import-competing sectors. Labour is slow to reallocate to other sectors. Adjustment costs are higher in this model than in the full employment case, but the size of adjustment costs depends on the stickiness of real wages.

The social discount rate at which the benefits and costs of trade liberalization are discounted is also an important parameter, because the discount rate affects the trade-off between long-term benefits and short-term costs. If the social discount rate is low, as Harris felt was the case, long-run benefits dominate short-run costs. However, a related issue involves possible intergenerational effects; impeding the adjustment process may enhance the income of Canadians today relative to that of Canadians tomorrow.

Uncertainties about the flexibility of real wages and about the social discount rate make it difficult to determine the value of the net benefits of trade liberalization. Harris suggested that one must turn to past experience to get some indication of how increased exposure to trade has affected industrial structure. One can perhaps thereby glean some indication of the net effects of further trade liberalization — taking into account both the long-run gains and the shorter-run adjustment costs.

In discussing their empirical work on productivity, plant size, and protection, John Baldwin and Paul Gorecki touched on Canadian experience during periods of adjustment. Using plant-level data, they explored whether the theoretical predictions of greater plant specialization, greater plant size, and increased productivity under a more liberal trade environment have been borne out as economies have become more open in the 1970s.

Baldwin and Gorecki concluded that lowering trade barriers does generally lead to higher productivity, greater plant size, longer production runs, and reduced product diversity. Over the period 1974–79, the average length of production runs in a wide range of Canadian industries increased substantially, while product diversity fell. Plants of American-owned subsidiaries in general appear more specialized after standardization for the number of commodities in each industry. When foreign-owned plants are compared to domestically owned plants in the same industry, foreign investment seems to have little measurable effect on product diversity or the length of production runs.

It is frequently asserted that the combination of the tariff and the small size of the Canadian market has been responsible for plants in the Canadian manufacturing sector being smaller than the minimum efficient size (that is, the size of plant at which the average cost of production is mini-

mized). Assuming both that larger plants in the United States are of minimum efficient size and that these plants can be used as a benchmark against which to compare larger Canadian plants, Baldwin and Gorecki found that the ratio of the size of Canadian to U.S. plants is about 0.6:1. Their statistical analysis indicated that the size of the Canadian market is one of the major determinants of this ratio — the larger the domestic market, the greater the relative plant size. This analysis thus suggests that a bilateral free trade arrangement with the United States would, on average, lead to Canadian plants being similar in size to comparable U.S. plants. Tariffs significantly reduce Canadian plant size only in industries with high tariffs and high levels of concentration.² Strong export performance in an industry is therefore collinear with larger plants, whereas a high ratio of imports to domestic production is collinear with smaller plant size. The evidence seems to suggest that Canadian plants competing with imports are becoming smaller and more specialized over time.

Although Baldwin and Gorecki found that foreign investment has no measurable effect on plant scale, one symposium participant noted that efficiency aspects of foreign versus domestic firms may go undetected in Baldwin and Gorecki's data on plant size. To the extent that there are firm-level or multiplant economies, foreign firms in some industries may be more efficient even though this difference cannot be detected in the data used by Baldwin and Gorecki.

Participants in the symposium seemed to agree that the Baldwin-Gorecki results support the hypothesis that there are beneficial long-run effects of both multilateral and unilateral trade liberalization in Canada. Harris has provided indications of the adjustments that free trade with the United States would induce.³ Generally small intersectoral shifts in the labour force result, but the rationalization within industries leads to large intra-industry shifts in resources. According to Harris, it is conceivable that these intra-industry adjustments may be less than the inter-industry adjustments. However, establishing this point requires knowing the exact mix of skills of each industry's labour force before and after rationalization.

Two major issues therefore need to be faced in deciding upon appropriate trade and adjustment policies. First, although symposium participants seemed to agree that it would be desirable for Canada to have a few large-scale industries producing for the world market, free trade may not produce this outcome — for example, because of the activist industrial policies of other governments. Harris suggested that government play a role in the initial planning and coordination of industries and perhaps ensure that firms have access to the capital market on the same terms as their competitors.

Second, if we remove our trade barriers as part of a general move to free trade, some of our industries will face severe adjustments, especially because of competition from low-wage developing countries and NICs. To the extent that particular industries are regionally concentrated, one might

expect that the costs of moving resources to competitive firms would be lower. However, as indicated in the paper on Canadian adjustment policies prepared by the Department of Regional Industrial Expansion, if an industry is located in an already depressed region, regional disparities might increase. Adjustment policies might have to respond through efforts to locate new, viable industry in depressed regions. Retraining programs and compensation for older workers might be required. Harris felt that these measures would be less costly than continuing the current practice of protecting these industries. Furthermore, given the demographic structure of the work force, postponing change would further increase costs.

The paper by DRIE also noted that all regions of the country currently have adjustment problems in one or more industries: the western provinces in wood and paper products, Ontario and especially Quebec in labour-intensive manufacturing, and the Atlantic provinces in fisheries and forestry. Harris remarked that if substantially freer trade is rejected in favour of the federal government's offer of increased protection, it might be difficult to prevent the provinces from trying to implement their own protectionist measures. In addition to perhaps damaging the internal economic union, such protection might exacerbate interregional tensions through the effects of the interregional income redistribution which protection creates. Canadian-content legislation for automobiles, for example, would likely prove unpopular outside southern Ontario.

Adjustment Policies: Their Rationale and Design

Government responses to adjustment can take any one of a number of approaches. The approach chosen depends upon policy makers' implicit economic model and the assumptions about market failure embodied in the model. Also important are policy makers' views on the appropriate role of government in the economy. Although market failures may exist, it does not follow that all adjustment policies in response to these failures improve economic efficiency. Policies seeking to promote adjustment may also involve short-term protection. Temporary protection may be implemented to permit orderly and less painful adjustment. However, if the adjustment does not take place, the industry may remain dependent on protection. Other issues in the design of policy include whether adjustment assistance should be aimed at firms or workers, or at both, and whether programs should be available to all or should be narrowly targeted — and if so, at whom.

In the view of some participants, market economies inevitably contain rigidities that increase adjustment costs related to trade or trade policy and invite a policy response. Richardson cited imperfect information, market uncertainties, and incomplete factor mobility as sources of rigidities. Many participants cited wage rigidities in the labour market as

the major problem. Labour market externalities were mentioned by Trebilcock as of some importance in cases where failing firms lay off large numbers of workers in a region where unemployment might already be high. According to Trebilcock, providing subsidized employment maintenance to a failing firm may sometimes be less costly than letting the firm fail and providing alternative forms of employment maintenance or social relief.

Capital market imperfections were given less weight by the symposium participants, although Richardson cited adequate access to capital markets to finance the human and physical capital investments needed for adjustment as a possible rationale for assistance. However, in his examination of bailouts of failing firms such as Dome, Massey, and Chrysler, Trebilcock found no convincing rationale for providing public funds to bridge finance for companies in temporary difficulty. If the firms are indeed viable, there seems no reason why capital markets cannot provide them with sufficient funds to continue operations. Trebilcock did, however, cite a potential failure of the bankruptcy market in such cases as Chrysler and Massey, where liquidation of a firm's assets may fail to take full account of their long-run social value as a productive unit.

Salembier mentioned other rationales for government intervention through adjustment assistance: problems created by oligopolistic barriers to entry; the inadequacy of market signals to provide incentives for large-scale or long-term projects where social benefits exceed private benefits, such as energy, infrastructure, and R&D projects; and international competitive subsidization which, in some industries, can lead to excess capacity.

Richardson noted that although purely market-based adjustments may be slow to occur because of rigidities, these rigidities may be not very responsive to economic policy to the extent that they reflect social attitudes and institutions. His view was that market forces are sufficient to generate the required adjustments only as long as there are enough workers and firms with adequate information, confidence, ambition, acceptance of risk, and access to capital markets. Richardson further noted that there are incentives to be part of this adjustment because workers and firms that adjust usually earn windfall gains and avoid losses on their skills, capital, and resource ownership.

It is possible, however, that this group of workers and firms may not be large enough to handle the adjustments required either by large international fluctuations or by changes in trade policy. In addition, attitudes and institutions may limit the number of workers and firms prepared to carry out these adjustments.

Richardson also raised a number of questions about the design of appropriate trade adjustment policies:

- Should one direct adjustment policies primarily at firms or at workers?
- Are general or categorical adjustment policies superior? For example,

unemployment insurance is a general policy; the provision of extended income supplements to residents of a particular community is a categorical policy.

- If one chooses categorical policies, should they be directed at all structurally displaced workers or at trade-displaced workers in particular?

Governments can direct adjustment policies toward firms, helping them adjust capacity and letting labour adjust without assistance. Or governments can target their assistance more broadly at the work force, letting firms adjust as they will. Alternatively, governments can pursue an intermediate course.

Richardson argued that adjustment policies should be directed toward workers. His reasoning was that owners of capital are better able than workers to adjust on their own because of the national and international scope of capital markets and the information that owners of capital are likely to have about prospects for change and alternative uses of their resources in other industries. Richardson also saw financial markets as capable of assessing the prospects of a firm with enough accuracy that there is no need for governments to encourage modernization and product diversification. Richardson's view was that it is unwise to go to great lengths to preserve failing firms *per se* rather than to help workers adjust.

Although Trebilcock did not see such an important distinction between assisting firms and assisting workers, he nonetheless noted a weakness in bailing out firms — the weakest firms in an industry are supported, and the objective of achieving an efficient restructuring of the industry is often not met. Although one can assist workers to some extent by subsidizing firms, if rigidities or market failures are mostly in the labour market then labour market adjustment policies might be more effective than policies designed to assist firms.

The issue of target efficiency also arose in the discussion of general and categorical policies. Harris saw general adjustment programs as desirable because they preserve relative market signals. He saw adjustment policies that assist rationalization within industries as especially important because this rationalization is such an important part of the adjustment process. In contrast, he saw narrowly targetted policies as more difficult to design. Picking winners and losers among industries is easier than doing so at the level of the firm. Baldwin agreed, noting that rankings of firms within an industry are constantly changing. Because the dynamics of industry structure are not fully understood, designing categorical policies is difficult. Baldwin also saw categorical policies as more likely than general policies to damage the competitive process. Furthermore, politicians responding to narrow political pressures are more likely to prefer categorical policies to general policies.

These considerations were evident in Trebilcock's examination of the assistance offered to failing firms. Nevertheless, he felt that government

bailouts, if done well, might be less costly than more general policies designed to handle worst-case scenarios. In supporting categorical programs, Richardson felt that policies are most efficient if concentrated on markets where the adjustment margin is narrow relative to the size of the adjustment pressures involved.

In practice, existing adjustment programs in Canada have both general and categorical elements. DRIE policies, for example, try to facilitate appropriate broad industrial adjustments rather than narrowly targeted responses. However, regional and social concerns often constrain the implementation of policy. Most policies still tend to be aimed at particular sectors and firms, not at regions.

Temporary protection is also used in Canada and elsewhere as a short-term response to adjustment problems. The key problem, of course, is ensuring that the assistance is both temporary and believed to be temporary. As Richardson put it, if firms believe that they can achieve their objectives through political pressure, they will become dependent on protection. When temporary assistance runs out, governments face the same situation as they did initially and another dose of temporary assistance is hard to resist. As the DRIE paper indicated, one must design temporary adjustment policies so that firms and workers in the affected sectors do not rely on such policies. This, of course, is difficult to achieve. Some participants suggested explicitly temporary help, such as a one-shot cash grant or an infusion of equity or assistance with sunset provisions. Another suggestion was the use of forced mergers to accompany bailouts, thus eliminating the original firm and preventing it from returning with further requests for adjustment assistance. Although these types of solutions may be desirable, it is difficult for governments to organize such rationalizations of industry, especially given the short time usually available for acting on a request for adjustment assistance.

Also discussed was whether a case exists for special aid to trade-displaced workers as opposed to aid to structurally displaced workers. Richardson emphasized that a key argument in favour of trade adjustment assistance is that the alternative may be protection. Adjustment assistance may be looked at as a way of buying off protectionist forces and simultaneously ensuring that foreign exporters have continuing access to the domestic market. Because information is likely to be more mobile within a country than across countries, unanticipated sectoral shocks will be larger for trade-competitive factors than for factors that are not trade competitive. As Richardson put it, trade adjustment assistance can help trade-competitive factors adjust to and weather the mistakes that go with greater uncertainty in international trade.

Those who made the case against special trade-related adjustment programs cited the difficulties of identifying which workers have been displaced by trade and not by some other cause. In the United States, the International Trade Commission adjudicates the cause of displacement

for purposes of U.S. trade adjustment assistance. Although the task is not simple, neither is it impossible, according to Richardson. In the discussion, one participant compared a trade-displaced worker and one displaced by imported technological change. He concluded that the only difference between the strength of the two cases for adjustment assistance was that good statistics exist on imports but not on technology. He suggested that this fact seemed a poor reason for distinguishing between the two cases and felt that they should be treated in the same way.

Because the data seem to suggest that trade is a relatively small factor in dislocations, compared to changes in domestic demand, technology, and productivity, the rationale for trade adjustment assistance was also questioned. However, there are industries for which trade shocks are dominant or could become so. Currently protected industries could be forced to contract severely in the event of substantial trade liberalization and would be clear candidates for special adjustment assistance.

Adjustment Policies for Firms

Adjustment assistance for firms can take a number of forms. Governments can help firms facing import competition to penetrate foreign markets and acquire international marketing expertise. Research and development can be encouraged through tax policies. Financial incentives for modernization and restructuring can also be provided. Firms in danger of bankruptcy (not necessarily for trade-related reasons) may be bailed out.

In his analysis of business bailouts, Michael Trebilcock emphasized the dangers of tampering with the incentives that markets provide for an efficient allocation of resources. It is important that entrepreneurs or owners of capital not only receive the rewards from risk taking but also bear the costs. If they can keep the rewards and systematically shift the costs to others after the fact, incentives will be distorted toward high-risk ventures and scarce resources will therefore be misallocated.

Trebilcock emphasized, however, that this is not an accurate description of the current state of affairs in Canada. Despite the large increase in the number of bankruptcies (from 2,958 in 1975 to 10,765 in 1982), economic Darwinism has for the most part been allowed to run its course. Small bailouts have occurred, and some cases involving major firms have cost hundreds of millions of dollars. Why were these particular bailouts made, and were there sound economic reasons for them? Are bailouts only a recent and temporary phenomenon? If not, how can the situation be improved so that bailouts are better managed in future?

Trebilcock's opinion was that Canadian policy on bailouts is largely ad hoc. The economic adjustment process inevitably generates transitional losses that fall unevenly on different subgroups within the economy. These losses induce perceptions of social injustice and opposition to the required adjustments. Bailouts may be seen as a response to these pressures. Bailouts

may also be attempts to buy off potential political vetoes of more general shifts in economic policies, such as tighter macroeconomic policies or changes in trade policies. But among the bailouts cited by Trebilcock (Dome Petroleum, Chrysler Canada, Maislin Industries, Massey-Ferguson, Canadair, de Havilland, Consolidated Computer, and Bricklin), there is no simple common thread. Trebilcock saw bailouts in Canada before World War II as part of a national policy of developing infrastructure. The aims of subsequent intervention, however, seem more obscure.

Given this history, Trebilcock suggested that one aim of policy should be to reduce the number of candidates for bailout by making the adjustments themselves easier to achieve. He suggested reforming bankruptcy laws (to deal with the possible market failures noted above) and facilitating mergers of weak and strong firms through changes in rules governing foreign investment and antitrust legislation. Encouraging cost-reducing innovations through subsidization of R&D could be an alternative to protection or other kinds of subsidies. Trebilcock also noted that labour market policies providing severance payments to older workers, relocating or retraining younger workers, and making payments to workers who get jobs in different industries could help reduce pressures for bailouts from firms in declining sectors.

Trebilcock suggested that it might be possible to devise a screening procedure for candidates for bailouts to determine, on the basis of the potential market failures discussed earlier, who should receive assistance. Realistically, this procedure could not be applied to large firms because intervention is usually a political matter. The drawback is that if the criteria for bailout were made public, moral hazard would be created: firms that believed themselves eligible for assistance would have an incentive to behave recklessly.

Trebilcock noted that there are several policy instruments available for bailing out firms: cash subsidies, loans or loan guarantees, partial or complete public ownership, tax relief, and trade protection, among others. Trebilcock suggested that loan guarantees have been heavily favoured because they appear “off-budget,” although recent experience with these policies has made them less popular. They are risky, however, because they may unfavourably affect the debt-equity ratios of failing firms and may induce less cautious behaviour on the part of creditors.

Other forms of adjustment assistance used in Canada are documented in the DRIE paper, presented at the symposium by Harley McGee. DRIE programs are not designed to lead the industrial adjustment process; rather, they are intended to promote a climate conducive to adjustment. DRIE sees initiatives in the private sector as the appropriate driving force in the adjustment process. However, in DRIE’s view, government involvement may be needed in cases where companies have inadequate finances or management ability to adapt successfully, where significant economic decline may otherwise occur in a region, or where social considerations

warrant involvement. As the following summary of major DRIE adjustment programs indicates, the effects of geographically concentrated industries on a regional economy are of significant concern, particularly if the location in question has a limited industrial base and the adjustment requires plant closures. Long-run economic viability remains the main criterion for assistance.

Although most DRIE programs have some effect on adjustment, broadly defined, only a few have adjustment as their primary purpose. As the paper by DRIE indicated, some programs are directed toward specific industry sectors or subsectors, while others are universal. Methods of assistance vary and include funding such as loans, contributions, ad hoc financial assistance, and the remission of duties.

Universal programs seem directed primarily at improving the functioning of markets by improving market information (for example, by identifying new market opportunities), reducing risk, and encouraging research and innovation. Sector-specific adjustment assistance is directed toward problem sectors such as textiles, clothing, footwear, pulp and paper, and shipbuilding. There are also specific programs, such as the Industry and Labour Adjustment Program (ILAP), which are focussed on particular communities with severe adjustment problems. Other programs deal with adjustment problems at a regional level.

The costs of DRIE programs are in excess of one billion dollars per year, but only a portion of this cost is for adjustment per se. The major program is the Industrial and Regional Development Program (IRDP). This program has six elements: industrial development climate, innovation, plant establishment, modernization and expansion, marketing, and restructuring. Within this structure, a variety of adjustment-related actions take place. Assistance under the program depends on the Development Index, an index of economic disparity based on employment, income and revenue (that is, the province's fiscal capacity) and on the uses to which the assistance will be put. Loan guarantees, contributions (sometimes repayable), and participation loans are among the instruments used.

The Canadian Industrial Renewal Board (CIRB), created in 1981, also plays a major role in providing industrial adjustment assistance. CIRB consists of programs covering restructuring and community assistance for the textile, clothing, tanning and footwear industries. All these industries have found themselves on the whole unable to compete with cheaper imports. In textiles and clothing, both the Multi-Fibre Arrangement (MFA) and various bilateral arrangements impose quantitative restrictions on imports. Global quotas are used to protect the footwear industry. Protection is supposed to be closely linked to the restructuring, rationalization and modernization of these industries. The aim of policy toward the clothing and textile industries is unclear. The development of international competitiveness in these industries (or at least the elimination of special protective measures) has been the stated goal of policy. However, policy actions, such as continued

participation in the MFA and the lack of any timetable for dismantling protection, have tended to belie these goals. For the footwear and tanning industries, the only objective is decreased reliance on quotas.

Adjustment to external changes requires that in the long run resources will have to be withdrawn from these industries. Strengthening and diversifying the economic base of regions heavily dependent upon these industries is therefore an objective promoted by DRIE. Special investment assistance for this purpose is available in designated communities. The objective of complementary worker assistance, which uses such instruments as early retirement benefits for laid-off workers, portable wage subsidies, mobility assistance, and enhanced incentives for training, is to facilitate the movement of labour out of these declining industries.

Adjustment programs providing assistance to specific industries such as pulp and paper, shipbuilding, and automotive parts have also existed, although they may have been subsequently subsumed by IDRP.⁴ Assistance included grants for productivity improvement; incentives to modernize, increase energy efficiency, or abate pollution; as well as various subsidies, loans, and remission of duties.

According to DRIE, it is difficult to determine the effectiveness of its programs in moving resources from less efficient to more efficient firms or from less competitive to more competitive industries because it is not possible to determine what adjustment would have occurred without government assistance.

Experience with Labour Adjustment Policies

Canada has never had a formal program like the U.S. Trade Adjustment Assistance (TAA) program, and Canadian policy makers will therefore have to rely primarily on the experience of others if they wish to design policies of this type. American experience with TAA legislation is reviewed by David Richardson in his symposium paper. Under the program, additional unemployment insurance benefits were provided to workers after ordinary payments expired, and allowances for job search and relocation were available. The original TAA consisted of income support aimed specifically at trade-displaced workers. Over time, the definition of trade-displaced changed, as did expenditures under the program. During the 1962–73 period, eligibility was severely restricted and expenditures were low. Expenditures rose between 1974 and 1980 as eligibility criteria eased, and US\$2.2 billion was spent in 1980. Rules were retightened in 1981, and expenditures fell to about US\$54 million by 1983.

One issue is whether the duration of unemployment was increased by TAA because of the extended length of time for which benefits could be claimed. One of the goals of the program was to compensate those injured by changes in trade policies; a lump sum payment might therefore have been more efficient. Richardson argued that what was involved was a trade

shock followed by a series of unemployment spells. Generous compensation has been found to increase the length of the first unemployment spell, but the correlation between compensation and the total length of all unemployment spells was very low.

Although U.S. experience with TAA has been widely viewed as unsuccessful in facilitating adjustment, Richardson argued that TAA had many positive elements. A key point is that TAA was always seen as an alternative to the use of import barriers in a number of industries. TAA also preserved market signals for adjustment while serving a signalling function itself. TAA certification signalled to employers and workers that a plant or firm was under important competitive pressure from imports — useful information to workers contemplating commitments and firms contemplating investments. The parts of the program offering adjustment services to workers were not much used, perhaps because little effort was expended in offering adjustment services and because labour adjustment may have been working effectively on its own. The chief drawback of the program in the 1974–81 period was that it was not targetted narrowly enough. Consequently, too many workers who received assistance were on only temporary layoff or a reduced work week.

Canada has some experience with worker-related adjustment programs. As Matthew Robertson and Alex Grey pointed out in their paper, general policy instruments such as unemployment insurance and training and mobility programs have been used to facilitate adjustment. There have also been specific policies toward trade-related adjustment problems and some localized adjustment difficulties in which trade played a part. For instance, the Labour Adjustment Benefits Program provided \$9.3 million in preretirement benefits in selected industries (textiles, clothing, footwear, and tanning) in 1982–83. This program reflects the belief that older workers require assistance because few are re-employed once unemployed.

The Industry and Labour Adjustment Program (ILAP)⁵ was also a major attempt to provide adjustment assistance. The program focussed on 12 communities, chosen on the basis of the severity of unemployment rather than on the source of these difficulties. ILAP consisted of enriched labour market programs such as training and mobility assistance, job-creation measures, and portable wage subsidies for older workers.

In evaluating the effectiveness of labour adjustment programs in facilitating positive adjustment, Robertson and Grey noted that it is difficult to distinguish between structural, or permanent, dislocation (to which these programs are directed) and cyclical difficulties. The effectiveness of programs is probably limited to the extent that cyclical factors are significant. The fact that a high percentage of workers in manufacturing industries return to the same establishment after a period of unemployment indicates that this problem has been important.

In addition, the effectiveness of ILAP was impaired by its being introduced in 1981 at the beginning of a recession. Data on expenditures pro-

vided by Robertson and Grey indicated that of the estimated \$97.2 million spent on ILAP in 1981–83, \$52.3 million went to job-creation measures, \$37.6 million to training, and much smaller amounts to mobility assistance, wage subsidies, and manpower consulting services. Little adjustment assistance was provided, and assistance for short-term job creation predominated. ILAP was more successful at maintaining incomes and assisting those in need than at bringing about labour adjustment. Of workers laid off in industries falling under ILAP and CIRB, about 65 percent returned to the same employer in their next employment spell, compared to an average of 40 percent of all industries. However, one symposium participant pointed out that one must look at the worker's next best alternative wage in judging these recall rates; this wage will strongly influence whether or not the worker is interested in finding another job.

Robertson and Grey also mentioned another factor — the limited opportunities for alternative employment in communities heavily dependent on import-competing industries such as textiles, clothing, footwear, and tanning. Low levels of mobility in these communities may be attributed to low skill levels and the high percentage of second wage earners in the work force. A sizable number of workers experienced long unemployment spells; yet the majority returned to their previous employer. Of those who did not, most left the region.

Robertson and Grey concluded that separating cyclical and structural factors and analyzing the effect of factors such as community size on the adjustment process are essential to developing appropriate programs.

Conclusion

In the concluding session of the symposium, a number of participants expressed the view that further pressures for structural adjustment in the 1980s will result in a continuation of the tendency toward negotiated trade arrangements covering an increasing number of industries. One participant summed up this view by saying that countries are faced with the problem of how to divest themselves of declining industries at the least social cost. Although economists declare that new employment opportunities will arise automatically when the market is allowed to work, few people believe these assurances. Instead, it seems politically imperative to find winning industries; hence the pressures — which lead to managed protection — to divide up global markets by negotiation.

It was agreed that pressures for adjustment will also continue as trade policy changes. One can ease pressures from tariff cuts to some extent by well-timed actions — timing tariff cuts to coincide with periods in which the exchange rate is low (as suggested by Wonnacott) or with an upswing in the business cycle (as suggested by Harris). If tariff cuts are bilateral and confined to particular industries, adjustment problems may be confined and policies better focussed. Harris also suggested that a federal-

provincial agency could usefully coordinate trade and industrial policies through the adjustment period after trade liberalization to help safeguard the internal economic union. He also saw a system of general labour mobility grants as desirable in promoting interregional labour mobility.

A further point made was that the adjustment process may continue to be adversely affected by a continuation of high real interest rates. Policies to lower real rates would facilitate adjustment; however, this is primarily a problem for U.S., not Canadian, policy makers.

Debate took place throughout the symposium on the relative merits of assistance to workers and assistance to firms, and on the desirability of adjustment assistance for trade-related reasons only or for all cases of structural adjustment, no matter what the cause. Opinion was divided on both questions. Assistance to workers was argued to be more efficient than assistance to firms if one was attempting to remedy imperfections or rigidities in labour markets. However, assistance to firms may also be rationalized to the extent that there exist imperfections in capital or product markets. Moreover, assistance to firms affects their work force; although indirect and more uncertain than the effects of assistance to workers, these effects can be beneficial.

One participant suggested imposing performance requirements on firms as a precondition for their receiving adjustment assistance. Tax or subsidy incentives could be related to performance indicators such as productivity, lowered costs, technical improvements, and modernization. Firms would thus be free to reorganize their activities as they wished, given the incentives.

The main arguments put forward for trade-related adjustment assistance were the predominance of potential trade shocks in some sectors (for example, a lowering of tariffs on industries currently heavily protected) and its use as an alternative to protection (thus allowing trade liberalization to proceed). The arguments for general structural adjustment policies rely on the existence of market rigidities and imperfections, most of which are unrelated to trade in particular.

There was unanimity that adjustment policies remain the key to future initiatives in trade liberalization: in the absence of such policies, political opposition from contracting industries and workers affected by trade could thwart such initiatives. It was suggested that at least in the United States, dissatisfaction with adjustment assistance in the 1960s and 1970s makes further trade liberalization that much more difficult. The message for Canada would seem to be that any bilateral free trade initiative with the United States or a further round of trade liberalization under the GATT should be considered alongside options for adjustment assistance.

Notes

I wish to thank John Whalley for his extensive assistance in writing this paper. Tricianne Burke-Smith, Paul Gorecki, Alex Grey, David Richardson, and Gerry Salembier made helpful comments on an earlier draft.

1. Baldwin and Gorecki also found that relative productivity is greater the larger the Canadian market (as measured by the number of plants of minimum efficient scale the market can accommodate).
2. There is a strong positive correlation in Baldwin and Gorecki's data between concentration and foreign ownership, making the effects difficult to separate.
3. Harris's summary of this intersectoral modelling of the effect of free trade on the Canadian economy is included in *Canada-United States Free Trade*, Volume 11 of the Commission's research series.
4. For further details on these programs, see the paper by DRIE in this volume.
5. This program recently expired, and its functions were taken over by IRDP and a new program to be administered by the Canadian Employment and Immigration Commission.

Appendix List of Participants

RESEARCH SYMPOSIUM ON DOMESTIC ADJUSTMENT
TO TRADE POLICY AND EXTERNAL SHOCKS
HELD BY THE
ROYAL COMMISSION ON THE ECONOMIC UNION
AND DEVELOPMENT PROSPECTS FOR CANADA

OTTAWA, JANUARY 27, 1984.

John Baldwin	Queen's University, Kingston
Jeffrey Bernstein	Carleton University, Ottawa
Tricianne	
Burke-Smith	Department of Regional Industrial Expansion, Ottawa
John Curtis	Institute for Research on Public Policy, Ottawa
Graham Glenday	Department of Finance, Ottawa
Paul Gorecki	Economic Council of Canada, Ottawa
Alex Grey	Employment and Immigration Canada, Ottawa
Richard Harris	Queen's University, Kingston
Gerald Helleiner	University of Toronto, Toronto
Donald McFetridge	Carleton University, Ottawa, and the Royal Commission
James Markusen	University of Western Ontario, London
Roy Matthews	Economic Council of Canada, Ottawa
R. Harley McGee	Department of Regional Industrial Expansion, Ottawa
Peter Morici	National Planning Association, Washington, D.C.
Pierre-Paul Proulx	Department of Regional Industrial Expansion, Ottawa
J. David Richardson	University of Wisconsin, Madison
Matthew Robertson	Employment and Immigration Canada, Ottawa
A. Edward Safarian	University of Toronto, Toronto
Gerry Salembier	Institute for Research on Public Policy, Ottawa
W.R. Spence	Department of External Affairs, Ottawa

Arnold De Silva	Economic Council of Canada, Ottawa
Michael Trebilcock	University of Toronto, Toronto
Rodrigue Tremblay	University of Montreal, Montreal
John Whalley	University of Western Ontario, London, and the Royal Commission
Bruce Wilkinson	University of Alberta, Edmonton
Ronald Wonnacott	University of Western Ontario, London

From the Royal Commission

Jamie Benidickson
André Blais
Victor Clarke
Lilla Connidis
Mireille Éthier
Douglas Green
Roderick Hill
Ann Martin
Alan Nymark
John Sargent



Factor Market Adjustment Policies in Response to External Shocks

J. DAVID RICHARDSON

“Adjustment” is an issue of great immediacy for industrial countries today. The confluence of technological progress, demographic change, cyclical swings, and fluctuation in oil prices and exchange rates seems to have left some workers and industries (perhaps even countries) high and dry. Others have been tossed, turned, and cascaded along by strong currents of growth and opportunity.¹

Factor markets illustrate these adjustment pressures clearly. Bankruptcy, plant closure, and chronic unemployment characterize many. Yet others reveal buoyancy, unusual capital gains, and shortages of crucial skills. Transformation of a bleak outlook into a promising one is of course possible for any factor owner, but usually requires retraining, relocating, refurbishing, and retooling. All such adjustment activities are painful, and all require effort, time, and financial resources. The resource cost of adjustment is high. Adjustment effort has little immediate material reward, only the opportunity cost of goods that might have been produced instead. The time and financial resources required for adjustment are similar. The resource cost of adjustment seems, furthermore, to have been rising recently, as measured by real interest rates. Real interest rates have been forced higher by many influences — growing budget deficits, monetary restraint, shrinking current-account surpluses of oil producers, and a 15-to-20-year legacy of undercapitalization. It is unfortunate that the cost of adjustment has risen as the need for it has grown.

Government policy may have a desirable role here. The “market for adjustment” has shortcomings for which policy may be able to compensate. Policy can sensibly encourage certain adjustments and slow down others. To become more precise, though, requires answers to several important questions. One is whether the case for government adjustment policy is stronger for workers than for firms. Another is whether the case is

stronger for external shocks than for domestic ones. The provisional answers to these questions, outlined below, are yes and yes. Less provisional answers await the outcome of critical discussion and research on adjustment.² A third question, not treated in this paper, is whether "external shocks" should encompass commodity trade, international investment, and migration, or only some of these. Shocks to any of them are described below as trade-related shocks.

The United States has experimented for more than 20 years with an import-triggered, worker-centred program described as Trade Adjustment Assistance (TAA). While it has historically been more a compensation policy than an adjustment policy, this fact has been overemphasized, obscuring the relevance of U.S. experience under TAA for general adjustment questions. The second section of this paper attempts to draw out this relevance. Canada has also experimented with programs for workers displaced by trade. Robertson et al. (1983) describe both Canadian and U.S. programs.³ The viewpoint presented below is that carefully structured trade adjustment assistance for workers is a sensible policy, especially relative to likely alternatives.⁴

Trade Adjustment Assistance in the United States

Provisions for trade-displaced workers under the TAA program are due to expire in September 1985. Under TAA, income support for workers supplements unemployment insurance (UI) receipts. It provided larger and longer benefits than UI until October 1, 1981, and only longer benefits since that time. Income support for firms involves limited tax concessions. Adjustment services for workers include training, counselling, job search allowances, and relocation allowances. Adjustment services for firms include free technical consultation and concessionary loans (low rates or guarantees) for modernization. Only the income support for workers has been tied very closely to trade displacement. Adjustment services and the entire program for firms have generally been unfunded and folded into other programs, to be administered by their offices.

In practice, the whole TAA program was nearly stillborn because of strict eligibility criteria, until legislative liberalization occurred in 1974. It burgeoned between 1974 and 1981, after which time disenchantment with it led to legislative reversal. Eligibility criteria were tightened again and income-support benefits were reduced. Adjustment services were strengthened but the amount in annual dollars spent was insignificant.⁵ Program expenditures rose as high as \$2.2 billion in 1980, but were estimated to be as low as \$54 million in 1983 (United States, 1982, p. 202; Aho and Bayard, 1985, pp. 179-80; Hufbauer and Rosen, 1983, p. 6). The United Auto Workers has brought at least three suits against the U.S.

Department of Labor to carry out expenditures of even the greatly reduced budget commitments (reported in the *Wall Street Journal*, August 16, 1983, p. 2).

It has become commonplace in recent discussions of U.S. trade adjustment assistance to speak of its tripartite goals: equity, efficiency, and political efficacy.⁶ Equity describes the goal of compensating those who are deserving and have been injured by a government trade policy undertaken in the name of society's general welfare. Efficiency describes the goal of promoting intersectoral adjustment of productive resources in directions indicated by international market forces. And political efficacy describes the goal of "bribing" or "buying off" the coalitions of agents with credible political power that could block the desirable trade policy and resource adjustment.⁷

With these goals in mind, U.S. trade adjustment assistance from 1974 to 1981 is thought to have been tolerably successful at providing compensation for injury and responding to political threats, but quite unsuccessful at facilitating adjustment.⁸ Initially, there was general agreement that TAA recipients were deserving — poorer, older, less educated, and more typically with minority status. With respect to political efficacy, several "successes" are often cited. The interpretation of eligibility requirements was loosened somewhat during the early 1970s to offset growing political support for the protectionist Burke-Hartke legislation. Eligibility was then broadened formally in the Trade Act of 1974 as a sweetener to gain political support for American initiative in the Tokyo Round of tariff negotiations under the General Agreement on Tariffs and Trade. And U.S. administrations opted for TAA rather than new import barriers in a number of import relief cases from 1974 until 1980, thereby defusing political support for the protectionist alternatives. (Aho and Bayard, 1981, pp. 40–43; and Hufbauer and Rosen, 1983, pp. 5–10, 24, provide useful summaries.)

Was U.S. trade adjustment assistance really ineffective at facilitating adjustment? It is well documented that trade-displaced workers took very little advantage of "adjustment services." But very little money or productive resources were spent offering them (Aho and Bayard, 1981, p. 35; 1985, p. 31). So nothing ventured, nothing gained — or lost, either. And if the "market for labour adjustment" worked tolerably well for the United States during the 1970s, as examined below, then it is perhaps just as well that, in practical administration of the TAA program, adjustment services were unused.⁹ Whether the market for labour adjustment can continue to work well in the 1980s, however, is quite another question. Some general and international aspects of that question are analyzed in the following section of this paper.

It is furthermore possible that U.S. TAA provides more adjustment stimuli than just those represented by adjustment services. For example, one of the less appreciated favourable impacts of the U.S. program on labour market adjustment was its signalling dimension. If it did nothing

else, TAA certification signalled to employers and workers that a plant or firm was under important competitive pressure from imports. And it did this on the face of it without significantly impeding any sympathetic adjustment signals from the market itself.¹⁰ The TAA program caused no significant change in product prices or factor costs — or, more exactly, less change than protectionist import barriers would have caused. Layoffs continued. Competitive pressures from imports continued. Market signals to adjust were largely left intact. From this point of view, TAA certification provided both symptomatic relief (equity-based compensation) and a strong diagnostic signal that the patient was sick, leaving it to the patient to take the requisite preventive medicine of responding to the market.¹¹ TAA certification may thus have encouraged a desirable sort of “leading adjustment” — in the direction of cautious reserve for workers contemplating commitments and firms contemplating investments in import-sensitive sectors. “Leading adjustment” has the virtue of being controlled by *expected* wages, prices, costs, and profits, all of which are flexible, thereby contributing to market clearing and minimizing adjustment distortions such as unemployment and excess capacity.

TAA may also stimulate desirable adjustment by discouraging inefficient adjustment. If the alternative to TAA’s preservation of adjustment signals is protection, then the adjustment result under protection is perverse. Prices, wages, and profits all move in a direction to defer adjustment, encouraging additional workers and larger firms, and increasing the size of equitable compensation claims if protection is abandoned in the future. For example, it seems arguable that more, not less, TAA compensation was paid to U.S. garment workers, shoeworkers, and steelworkers in the 1970s because those sectors benefitted from increasing U.S. protection during that time.

Factor-Market Adjustment: General Considerations

Since the experience with TAA has been mixed at best, political support exists in the United States today for a “radical” alternative. This alternative is to rely on market forces despite their distortions — that is, to have no active policy of any kind. Doing something is not always better than doing nothing, after all, even when external shocks are severe. When markets fail, government may fail even more. And markets seem recently to be succeeding in several striking ways — sustaining recovery, creating new industries, and so on.

Yet is the market really working well in providing adjustment, especially downward adjustment? A case can be made that market-based adjustment in the United States is working less and less well, because of the large size of recent international shocks and because of fundamental changes in social attitudes and institutions. Trade-related labour adjustment policies are

discussed as a desirable alternative to market reliance. Adjustment policies for firms are argued to be generally undesirable in contrast to labour adjustment policies.

Market Reliance ("our policy is to have no policy")

Reliance on markets to provide adequate adjustment incentives is fashionable in the United States today, at least in ideology if not in practice:

Adjustment assistance [does not of itself] effectuate adjustment. It is U.S. policy to place primary reliance on market forces to facilitate adjustment in affected industries . . . A better solution to the problems associated with shifts in competitiveness is to promote positive adjustment of economies by permitting market forces to operate. (Brock, 1981)

The basic tenet of American policy has been that the signals provided by the marketplace to firms and workers provide the best guide to adjustments in the economy and that the government's primary responsibility is to pursue macroeconomic policies that will help assure stable, non-inflationary growth.

(United States, 1984, p. 53)

But just how effective is the "market for adjustment"? Does it succeed reasonably well or fail? Do government adjustment programs succeed better or fail worse? Aho and Bayard (1980, pp. 367-71; see also 1985, pp. 157-60) provide a useful introduction to these questions in the context of U.S. trade adjustment assistance. Their litany of problems with market adjustment is familiar: imperfect information, uncertainty, incomplete factor mobility, wage-price rigidities, and insufficient access to the capital market to finance the capital investments (human as well as physical) that are the concomitants of adjustment. The litany is worth repeating because some of the entries on it are reflections of social attitudes and institutions that are not very responsive to economic policy. These attitudes and institutions may exact a sobering economic cost if they impede the ability of the market to administer adjustment adequately.

Only one cautionary note needs to be added. Even with the problems, market forces will be sufficient to generate acceptable adjustment as long as there is a large enough margin of workers and firms, even a minority, with adequate information, confidence, ambition, acceptance of risk (observe how these personal attitudes are the counterparts to the apparently impersonal forces labelled uncertainty, incomplete factor mobility, and wage-price rigidities), and access to the capital market. Only the margin matters. Characteristics, histories, and personalities of the average worker and firm do not.¹²

With that note of caution, there are two potential dangers in leaving adjustment to external shocks to be achieved in the market. The first is that international fluctuations may be so much larger than those of recent history that they will "overwhelm" the margin of workers and firms who

adjust to market signals. It may then be desirable for policy to mediate the adjustment to the extent that the market cannot.

The second potential danger is that attitudes and institutions may shift in such a way that the margin is narrowed, and even moderate fluctuations cannot be accommodated by market adjustment. Attitudinal and institutional sclerosis seems to be the “European disease.” (Blackhurst et al., 1977, pp. 44–52 provocatively title one section “Protection and the Refusal to Adjust.”) There are signs that other regions are catching it. In the U.S. Congress, there is fundamental questioning of market reliance in U.S. international economic transactions, with surprising support for a “negotiated” world trade structure that would administratively constrain and channel global market forces (Richardson, 1982, point 60). And Congress may be faithfully representing a shift in social attitudes and institutions that includes:

- a decline in intellectual curiosity and increasing satisfaction with shallow and indulgent education, such that uncertainty and speculation displace information and reasoned judgment;
- increasing expansion of “rights” at the expense of contingent privileges, positions, and property — contingent on performance — such that perceived entitlement to a particular job at a particular salary level in a particular community constricts mobility and makes wages, work conditions, and promotion paths rigid; and
- higher real interest rates, crowding out, and credit limitations relating to wealth inequality, all of which shrink capital-market resources for physical investment and for human investments in retraining and relocating.

Each of these attitudinal and institutional shifts intensifies the distortions that impede the market adjustment mechanism — imperfect information, uncertainty, incomplete factor mobility, wage-price rigidity, and insufficient capital-market access.

If little can be done about these shifts in the short run, then it may be desirable to have policies that provide incentives to re-expand the margin of workers and firms that adjust. It is anomalous that the social shifts so frequently decried in conservative diagnoses also undermine the conservative prescription for relief. Recourse to the market alone for adjustment may be ineffective without complementary government adjustment programs.

Some Questions

The discussion to this point begs several important questions. First, are firms and workers really symmetric or does market reliance generate more appropriate adjustment by firms than by workers? Second, are general adjustment policies called for or are categorical policies superior, for exam-

ple, for the long-term unemployed or the less educated? Third, given a categorical policy, why have a special adjustment program for trade-displaced factors of production as opposed, for example, to structurally displaced factors?

Starting with the last question, there are several reasons why trade-displaced factors might be distinguished from others facing chronic or structural excess supply.¹³ First, trade-competitive factors can be argued to face greater *unanticipated* sectoral shocks than others. Information is generally more mobile (cheaper to acquire and to convey) within a nation than across national boundaries.¹⁴ Trade adjustment assistance can help agents adjust to and weather the mistakes that go with greater uncertainty in international trade.¹⁵ Second, categorical trade adjustment assistance is one of the most direct ways of responding to a properly disenfranchised but nevertheless important constituency — foreign exporters and governments, especially of developing countries, who are concerned about the predictability of access to export markets (Aho and Bayard, 1980a, pp. 364–65). Most alternatives to TAA in this regard have beggar-your-neighbor properties; TAA does not.

The chief reason for preferring categorical over so-called “general” programs is target efficiency (Weisbrod, 1977). In markets where adjustment margins of workers and firms are wide enough to accommodate the size of external shocks, there is no need for a government adjustment program. Providing one anyway only wastes resources.

Adjustment Policies for Firms?

With respect to firms as distinct from their workers, the case for trade-related adjustment programs seems weak on exactly these grounds. Adjustment margins seem generally adequate. Capital markets are national and international; labour markets are local. Risk-taking owners of capital are presumably better informed than workers about prospects for international change, and also about finding more lucrative employment of their resources by moving to other industries. They therefore have more opportunities to diversify than workers. Firms are supported (or confronted) by financial intermediaries with multinational scope or contacts who are presumably even better informed than the firm about international and interindustry prospects. Except perhaps for gargantuan high-risk endeavours with long start-up periods and economically disenfranchised future beneficiaries, one can argue that financial markets assess more or less correctly the relative productivities of alternative firms and projects. Therefore government programs to encourage modernization and product diversification by trade-pressured firms would seem most often to indenture workers and managers to an institutional shell that was already revealed by the market to be comparatively unsuccessful. (If it had been a successful firm, modernization and diversification would presumably

have been profitable for it without special government encouragement.) There seem to be few economic reasons for preserving institutions, especially unsuccessful ones, in contrast to preserving the skills and well-being of individuals.¹⁶ So it would seem more productive to allow firms to die rather than to modernize or diversify. After death, diversification does take place, but on an individual basis by employees of the dead firm — into new skills, new responsibilities, and relatively more successful institutional shells (firms). The upshot of this argument is to cast doubt on the wisdom of government programs aimed at the survival of firms rather than at their (orderly) exit.¹⁷

Adjustment Policies for Workers

A sensible trade adjustment policy for workers might put more weight on adjustment and less on compensation than the historical U.S. TAA program. Potential components of such a program would include: extension of existing employment subsidy programs, such as tax credits for targeted jobs for workers certified as having been permanently (not temporarily) displaced by trade; self-financing and voluntary loan/insurance programs for such workers, to underwrite retraining and maybe relocating; and conditional extensions of unemployment benefits beyond normal limits for trade-displaced workers — conditional, for example, on employed workers and firms bearing some sizable portion of the extra financial burden through negotiated “cost-sharing.”¹⁸ In addition, trade adjustment programs should avoid clear shortcomings in the administration, eligibility, and design of past TAA experiments. Aho and Bayard (1980b, pp. 21–28) make helpful suggestions along these lines.

Notes

This paper was prepared for the Symposium on Domestic Adjustment to Trade Policy Changes and External Shocks, held by the Royal Commission on the Economic Union and Development Prospects for Canada on January 27, 1984. Revised in January 1985.

1. United States (1984) describes today's adjustment pressures comprehensively. See also Pearson and Salembier (1983).
2. Three forums where such discussion and research are proceeding are the Institute for International Economics (Washington), the Council on Foreign Relations (New York), and the Organization for Economic Co-operation and Development (Paris). The first has been funded by the Ford Foundation to conduct a study of the adjustment component of trade policy. Three volumes are currently being edited by Gary C. Hufbauer and Howard F. Rosen. The second conducted a series of meetings on U.S. trade and adjustment policy as part of its 1983–84 study program (Aho, 1984). The third has commissioned a series of papers on employment growth in the context of structural change.
3. This paper is part of the OECD project described in note 2.
4. The following section builds on Richardson (1983a), and the section after that on Richardson (1983b).
5. Currently, for a worker to obtain income support, imports must be found to have been a “cause no less important than any other cause” of worker separations. Support levels

are the same as state UI benefits and are payable only after UI is exhausted. Total weeks of UI and TAA support cannot exceed 52 unless a worker is in an approved training program, at which time 26 additional weeks of support are possible. Job search and relocation allowances pay 90 percent of necessary costs up to \$600 per worker (United States, 1984, p. 149).

6. The particular language to describe the goals is taken from Aho and Bayard (1980a, 1980b, 1981, 1985). See also Richardson (1980).
7. "Policy" is always taken quite broadly to include preservation of the status quo, a passive option that could be blocked by coalitions of protectionists lobbying for increased trade barriers.
8. See Aho and Bayard (1981, pp. 31–36; 1985, pp. 165–84); American Enterprise Institute (1983), and Charnovitz (1984), who summarize and compare the relevant studies. Cropper and Jacobson (1982) reveal evidence that suggests even the possibility of overcompensation.
9. Provision of adjustment services was the responsibility of Comprehensive Employment and Training Act personnel, whose orientation and experience was toward the problems of young, inexperienced, and disadvantaged workers. See also Aho and Bayard (1980a, pp. 368–69).
10. The word "significantly" is important because Utgoff (1982) suggests that TAA compensation, which was neither taxed nor experience-rated (unlike unemployment insurance) increased the labour supply in industries with high incidence of TAA certification, decreased wages in such industries, increased layoffs in such industries, and increased "job attachment" in such industries.
11. And TAA may have provided more. A highly tentative but intriguing possibility uncovered by Richardson (1980, p. 350) is that although TAA compensation (being more generous than unemployment insurance) increased a recipient's first spell of unemployment, it reduced the incidence and duration of subsequent spells. It thereby seemed to increase the "efficiency" of job search. The first job taken after separation seemed to be a "better match" for the worker, perhaps because of more generous TAA compensation.
12. Dore (1982) provides some engaging profiles of the easy adjustment undergone by British textile firms and workers on the margin of adjustment to international competitive forces. Many workers switched industries and acquired new skills without official assistance or protracted periods of unemployment, even those who seemed least ambitious, skilled, and mobile. Some workers even switched countries, moving to comparable or better positions in the Sudanese and Philippine textile industries. And while firms took advantage of government assistance when offered, "none of them . . . was prepared to ascribe a very large role in their scheme of things to such assistance" (p. 313).

Jacobson (1982) reports similar conclusions for a margin of U.S. workers making adjustments during the 1960s (a period, however, of seemingly smaller shocks and lower overall unemployment).

A point that is often missed in discussions of market-initiated adjustment is that it should, in general, provide those adjusting with temporary supernormal rewards and shield them from subnormal rewards. Workers and firms in the adjustment margin will usually earn windfall gains and avoid windfall losses on their skills, capital, and resource ownership. Windfall gains will be earned on factors in temporary excess demand; windfall losses will be avoided on factors in temporary excess supply. The adjustment period is a period of market disequilibrium by definition in which opportunities exist for the same kind of supernormal rewards that are associated with monopolistic market positions. From this point of view, membership in the adjustment margin ought to be desired and sought out, not feared. Ignorance, uncertainty, sloth and capital-market exclusion are, of course, tempering factors. That is true, however, precisely because they are sources of market failure, as described in the text, and should therefore be expected to obscure the market's rewards for those in the adjustment margin.

13. It seems inappropriate to argue for a categorical trade adjustment program by reasoning that unemployment and income recovery are harder for trade-displaced workers. While that may be true, as Richardson (1980, p. 349) describes (5 percent less employment, 1 percent less income recovery), it suggests a categorical adjustment program for the hard-core unemployed, not for those who are trade-displaced. Linking a program to trade displacement for this reason alone would be inefficient and arguably inequitable.

14. See Grossman and Richardson (1982, pp. 20–22) for an expansion of these observations. The reason is straightforward and continues to hold even in the instance of possible gains from diversification of risk. Except for the largest multinational corporations with operating roots in virtually all important economic centres, economic agents will generally find it optimal to acquire less information about foreign markets and government policy than about domestic equivalents. Presumably they proceed in such a way that an extra dollar spent on gathering information would reap results of the same marginal value for information abroad as at home. Then if information abroad is costlier to acquire, because of cultural, linguistic, and communications differences, less of it will be acquired than at home. The result is that economic agents will generally be better able to anticipate and forecast domestic events than foreign events; they will be better able to take advantage of those that are favourable and to insure against those that are unfavourable. Or conversely, economic agents will be regretfully or happily surprised more often from recurring foreign fluctuations than from recurring domestic fluctuations. The variance of unexpected business shocks should be larger the more dependent a sector is on exports or the more competitive it is with imports.
15. This argument for a categorical trade adjustment assistance program puts a high payoff on credible governmental provision of information and signals, especially on the import side of trade. It suggests the possible feasibility of a self-financing insurance/loan system where favourable unexpected surprises provide the revenue for factors in tradables sectors to pay the premia that tide them over unfavourable unexpected surprises (Grossman and Richardson (1982, p. 26). See the *Wall Street Journal*, April 7, 1982, p. 27 for a fledgling private job insurance program along these lines.
16. One of those few reasons might be that each firm is the most efficient institutional shell for preserving the skills and well-being of its long-time employees. Yet that is a reason for prolonging life and easing the institution's last days on its deathbed; it is not a reason for modernization and diversification.
17. A non-traditional exit-adjustment program for firms has been proposed by Hufbauer and Rosen (1983, pp. 14–19). Owners of a trade-pressured firm would essentially be bribed to leave their industry (although not their geographical region) by government purchase of capital equipment at some negotiated value. The source of funds for such purposes would be increased tariff revenues from conversion of U.S. non-tariff import barriers to tariffs.
18. For example, it would seem that options to purchase additional unemployment insurance could be made available on a plant-by-plant basis without undue increases in administrative cost.

Bibliography

- Aho, C. Michael. 1984. "U.S. Trade Adjustment Policy: Identifying the Major Questions." Working Paper 1 of the Study Group on U.S. Trade and Adjustment Policy. Washington, D.C.: Council on Foreign Relations.
- Aho, C. Michael, and Thomas O. Bayard. 1980a. "American Trade Adjustment Assistance After Five Years." *The World Economy* 3 (November 1980): 359–76.
- . 1980b. "Trade Adjustment Assistance Pro and Con: A Scope Paper." Washington, D.C.: U.S. Department of Labor.
- . 1981. "Costs and Benefits of Trade Adjustment Assistance." Paper presented at the Western Economic Association Meeting, San Francisco, July 2.
- . 1985. "Costs and Benefits of Trade Adjustment Assistance." In *Structure and Evolution of Recent U.S. Trade Policy*, edited by Robert E. Baldwin and Anne O. Krueger. Chicago: University of Chicago Press.
- American Enterprise Institute. 1983. "Reauthorization of Trade Adjustment Assistance." AEI Legislative Analysis 35. Washington, D.C.: AEI.
- Bhagwati, Jagdish N., ed. 1982. *Import Competition and Response*. Chicago: University of Chicago Press.

- Blackhurst, Richard, Nicolas Marian, and Jan Tumlrir. 1977. *Trade Liberalization, Protectionism, and Independence*. GATT Studies in International Trade 5. Geneva: General Agreement on Tariffs and Trade.
- Brock, William E. 1981. "Statement" by the U.S. Trade Representative to the Senate Committee on Banking, Housing and Urban Affairs, Washington, D.C., July 8.
- Charnovitz, Steve. 1984. "Trade Adjustment Assistance: What Went Wrong?" *Journal for the Institute for Socioeconomic Studies* 9 (Spring): 26-39.
- Cropper, Maureen, and Louis Jacobson. 1982. "The Earnings and Compensation of Workers Receiving Trade Adjustment Assistance." CRC 459. Alexandria, Va.: Public Research Institute, Center for Naval Analyses.
- Dore, Ronald P. 1982. "Adjustment in Process: A Lancashire Town." In *Import Competition and Response*, edited by Jagdish N. Bhagwati. Chicago: University of Chicago Press.
- Grossman, Gene M., and J. David Richardson. 1982. "Issues and Options for U.S. Trade Policy in the 1980s: Some Research Perspectives." Research Progress Report. New York: National Bureau of Economic Research.
- Hufbauer, Gary Clyde, and Howard Rosen. 1983. "Managing Comparative Disadvantage." Mimeographed.
- Jacobson, Louis. 1982. "Community-Wide Labor Adjustment to Declining Employment." CRC 458. Alexandria, Va.: Public Research Institute, Center for Naval Analyses.
- Pearson, Charles, and Gerry Salembier. 1983. *Trade, Employment, and Adjustment*. Montreal: Institute for Research on Public Policy.
- Richardson, J. David. 1980. "Trade Adjustment Assistance Under the U.S. Trade Act of 1974: An Analytical Examination and Worker Survey." National Bureau of Economic Research Working Paper 556. Reprinted in *Import Competition and Response*, edited by Jagdish N. Bhagwati. Chicago: University of Chicago Press, 1982.
- . 1982. "Further Issues, Options, and Insights for U.S. Trade Policy." Cambridge, Mass.: National Bureau of Economic Research.
- . 1983a. "Worker Adjustment to U.S. International Trade: Programs and Prospects." In *Trade Policy in the 1980s*, edited by William R. Cline. Washington, D.C.: Institute for International Economics.
- . 1983b. "U.S. International Trade Policies in a World of Industrial Change." In *Industrial Change and Public Policy* by the Federal Reserve Bank of Kansas City. Kansas City: Federal Reserve Bank.
- Robertson, Matthew, Alex Grey et al. 1983. "The Effectiveness of Trade Related Worker Adjustment Policies in Canada and the United States." Paper prepared jointly by Employment and Immigration Canada and by the U.S. Department of Labor. Ottawa and Washington.
- United States. 1982. *Twenty-Sixth Annual Report of the President of the United States on the Trade Agreements Program, 1981-1982*. Washington, D.C.: Office of the United States Trade Representative.
- . 1984. *Twenty-Seventh Annual Report of the President of the United States on the Trade Agreements Program, 1982-1983*. Washington, D.C.: Office of the United States Trade Representative.
- Utgoft, K.C. 1982. "Reduction of Adjustment Costs Associated with Trade." Alexandria, Va.: Public Research Institute, Center for Naval Analyses.
- Weisbrod, Burton. 1977. "Collective Action and the Distribution of Income: A Conceptual Approach." In *Public Expenditure and Policy Analysis*, edited by Robert Haveman and Julius Margolis. Chicago: Rand McNally.



Trade-Related Worker Adjustment Policies: The Canadian Experience

MATTHEW ROBERTSON AND ALEX GREY

Changing patterns of trade, although beneficial to Canada, have often been accompanied by adjustment burdens to workers in import-competing industries. In particular, the rapidity of some of the shocks to particular sectors, combined with resource immobility, has made it increasingly difficult to adjust to exogenous economic events (Baldwin, 1984, p. 6). The growing importance of trade, especially with the newly industrialized countries (NICs), is likely to cause significant structural adjustment in the Canadian labour market. The purpose of this paper is to present a preliminary survey of the nature of the worker adjustment problems posed by trade and to briefly analyze Canada's policy response. A more detailed description of adjustment policies in Canada is contained in a paper prepared jointly by Employment and Immigration Canada and the U.S. Department of Labor, titled *The Effectiveness of Trade-Related Worker Adjustment Policies in Canada and the United States* (1984).¹

In the first section of this paper, we attempt to assess the relative employment displacement effect attributable to trade in comparison with other sources of employment adjustment. Previous studies have indicated that the net effects of trade on employment for the United States and other countries have generally been smaller than the effects of other sources of employment change, such as domestic demand and productivity (Frank, 1977; Krueger, 1980; Sapir and Schumacher, 1984), leaving the impression that changes in trade are not an important source of domestic employment adjustment difficulties. However, no analyses have been undertaken for Canada. On the basis of results in this paper, we conclude that domestic employment growth in Canada has been significantly affected by import penetration over the past two decades.

In assessing Canada's program response, we present a brief overview of programs, followed by evidence on the nature of adjustment processes

in specific geographic areas. The focus is on the re-employment profile of workers in trade-vulnerable industries for selected years in the 1970s. In general, we find that in these industries, a large proportion of workers return to the former employer after a period of unemployment, an important consideration when designing and targetting labour adjustment assistance. As noted by Baldwin (1984, p. 20), adjustment assistance programs accept market-induced structural change and try to cope in a positive manner with the social costs of such change. In other words, this approach does not try to prevent or slow down structural change based on shifts in comparative advantages but tries to ease the adjustment problems faced by workers and firms as a result of these shifts.

The Effect of Trade on Employment

Through both import competition and export growth, changes in the international competitive environment have the potential to significantly affect Canadian employment, given the relative openness of the Canadian economy. Since the mid-1960s, Canada has experienced growing import penetration in a wide range of industry subsectors, especially as a result of competition from the NICs. Labour market adjustment difficulties first became apparent in relatively labour-intensive industries, such as leather, textiles, and clothing. Imports subsequently gained a substantial market share of more capital-intensive domestic industries based on more complex technology, such as electrical and electronics products and transportation equipment. Table 7-1 gives an indication of the extent of import penetration in a number of import-competing manufacturing industries.

TABLE 7-1 Import Penetration in Import-Competing Industries, 1966-81

Major Group	Import Share of Domestic Demand ^a			
	1966	1971	1976	1981
Rubber and plastics	14.5	18.1	21.0	21.0
Leather	14.4	23.5	34.6	33.3
Textiles	25.2	22.8	27.3	26.0
Knitting	11.3	27.3	35.7	29.2
Clothing	5.1	6.9	13.9	13.4
Furniture and fixtures	5.1	5.8	12.1	12.5
Primary metals	23.5	23.5	21.9	39.7
Metal fabricating	11.6	12.9	14.6	15.3
Machinery	64.2	66.3	71.2	74.7
Transportation equipment	39.1	65.7	70.7	73.3
Electrical products	21.9	27.3	34.5	40.5
Chemicals	23.0	25.0	29.2	31.3
Miscellaneous	46.2	49.2	51.6	58.2

Source: Industry, Trade and Commerce/Regional Economic Expansion, *Manufacturing Trade and Measures, 1966-1982* (Ottawa: ITC/DREE, 1983).

a. Domestic Demand = Shipments - Exports + Imports. All figures are based on data in current dollars.

By contrast, many of these import-competing manufacturing industries and other sectors of the Canadian economy have experienced substantial export growth. In many major groups within the standard industrial classification (SIC) system, export markets for some subsectors have increased rapidly, whereas other subsectors have experienced import competition. Overall, trade has the potential to create both downside adjustment difficulties, such as layoffs and plant closures, and upside adjustment problems, such as skill shortages.

A preliminary estimate of the relative employment effect of foreign trade can be made by decomposing employment growth on decline into the proportion attributable to changes in domestic demand, imports, exports, and productivity. Studies for the United States have indicated that the net effect of trade on employment is relatively small compared with the effects of changes in domestic demand and productivity (Baldwin, 1984, pp. 5-6; Frank, 1977, pp. 29-32). Data for 13 Canadian industries that have experienced significant import penetration have been selected, and the method used by Frank (1977) has been used to decompose employment growth by source.²

Data on the relative effect of changes in domestic demand, productivity, and international trade on employment in these 13 major industry groups for the period 1967-81 are shown in Table 7-2. On the basis of these results, it seems that changes in domestic demand and productivity have been the major factors influencing employment shifts in these industries for this period. However, changes in the international competitive environment have had a significant effect on employment in the majority of these broad industry groupings. This conclusion, however, must remain tentative because the methodology does not take account of the behavioural relationships among the explanatory variables. For example, the interpretation of import figures is that, if imports had remained at their 1967 level and all other factors had remained constant, employment would not have been reduced by the appropriate percentage figure. However, such a scenario is unlikely to have occurred, and factors affecting trade often affect domestic demand and productivity. In addition, this simple decomposition does not take into account the relationships among industries. Such an analysis would require the use of an input-output model (Lawrence, 1983, pp. 132-33).

These caveats recognized, some interesting findings may be noted. Domestic demand was the most important source of employment change in all 13 SIC major groups selected. Furthermore, productivity growth had a more significant effect on employment than changes in trade in 9 of these 13 industrial categories. However, imports reduced employment by an average of approximately 4.1 percent per year between 1967 and 1981 for all these industries. The net effect of trade changes was to reduce employment by approximately 1.4 percent per year for these 13 categories. Employment losses exceeded 1.0 percent per year in 6 of the 13 industries,

TABLE 7-2 Sources of Employment Growth in Selected Import-Competing Industries, 1967-81 (percent/year)

Major Group	(1) Growth Rate (Total Employment)	(2) Domestic Demand rd (D/SHIP)	(3) Exports rx (X/SHIP)	(4) Imports -rm (M/SHIP)	(5) Net Trade (3) + (4)	(6) Productivity (-rp)
Rubber	0.31	2.67	2.09	-2.82	-0.73	-1.63
Leather	-1.34	3.05	0.37	-3.18	-2.81	-1.58
Textiles	-0.78	5.08	0.49	-1.56	-1.08	-4.78
Knitting	-0.83	7.87	0.10	-5.20	-5.10	-3.60
Clothing	-0.22	2.72	0.52	-1.07	-0.55	-2.40
Furniture and fixtures	1.49	3.05	0.89	-1.01	-0.12	-1.45
Primary metals	0.68	2.54	2.57	-1.79	+0.78	-2.64
Metal fabricating	0.74	2.97	0.54	-0.75	-0.21	-2.02
Machinery	2.63	11.72	4.22	-9.62	-5.40	-3.69
Transportation equipment	1.44	5.68	7.92	-7.41	+0.50	-4.75
Electrical products	0.27	5.40	1.69	-3.66	-1.97	-3.15
Chemicals	1.41	4.84	1.96	-2.20	-0.24	-3.18
Miscellaneous	0.37	9.04	1.26	-6.25	-4.99	-3.69
All industries	0.65	5.62	2.68	-4.09	-1.41	-3.56

Source: Industry Trade and Commerce/Regional Economic Expansion, *Manufacturing Trade and Measures 1966-1982* (Ottawa: IT&C and REE, 1983). Statistics Canada, *Manufacturing Industries of Canada*, cat. no. 31-203, and *Real Domestic Product by Industry* cat. no. 61-516 and 61-213 (Ottawa: Statistics Canada).

a. This is a forced figure, based on the identity $re = rd (D/SHIP) + rx (X/SHIP) - rm (M/SHIP)$ -rp, re, rd, rx, rm, and rp are annual average percentage changes in employment (E), domestic demand (D), exports (X), imports (M), and productivity (P). The ratios D/SHIP, M/SHIP, and H/SHIP are averages for 1967-81. All figures are based on 1971 dollars.

b. Rubber is used rather than rubber and plastics because the employment series from 1966-1970 for rubber and plastics is not readily available.

c. This category includes, among others, scientific and professional equipment, instruments, and sporting goods and toys.

including those traditionally import vulnerable — leather, textiles, and knitting — and those embodying more complex technology, such as machinery, electrical products, as well as a miscellaneous group which includes scientific and professional equipment, instruments, and sporting goods and toys.

Two similar studies were done for the United States: Frank (1977) studied the period 1963–71, Krueger (1980) the period 1970–76. Although the period examined in this study, 1967–81, differs, comparison with these two studies indicates that the average annual net employment loss due to net trade (exports less imports) was greater in Canada than in the United States in the majority of these 13 import-competing industries. In addition, employment growth as a result of exports and employment losses resulting from imports appears to have been greater in Canada in the majority of the 13 SIC major groups selected for this study. This result is an indication of greater openness of the Canadian economy relative to that of the United States.

Using information provided in Table 7-2, it is possible to estimate absolute employment changes due to trade between 1967 and 1981. These results are presented in Table 7-3. With all other factors held constant, increased exports resulted in an increment of over 370,000 jobs in these import-competing industries, whereas increased import penetration produced employment losses totalling approximately 570,000 in these 13 industries. The net effect of trade was thus a reduction in employment in these 13 industries of almost 200,000 between 1967 and 1981. The most substantial employment decline attributable to net trade was in the miscellaneous group, in which employment declined by approximately 90,000. Other industries adversely affected by trade include machinery, electrical products, and traditionally import-vulnerable industries. However, the use of aggregate data probably understates the adjustment difficulties (both upside and downside) associated with trade; these difficulties tend to be concentrated in specific industry subsectors (Pearson and Salembier, 1983, p. 40). Overall, these findings do not indicate that trade has led to a net reduction of employment in Canada; rather, these findings are a preliminary estimate of the effect of trade on employment in particular subsectors.

An Overview of Trade-Related Worker Adjustment Programs

In Canada, worker adjustment problems arising from trade have not generally resulted in specific policy responses. In most cases, national policy instruments (for example, unemployment insurance and training and mobility programs) have provided sufficient assistance to deal with adjustment difficulties arising from trade. However, in a number of instances, there have been specific policy responses both to adjustment difficulties stemming directly from trade-related difficulties and to situations where trade has been one of several factors causing localized adjustment dif-

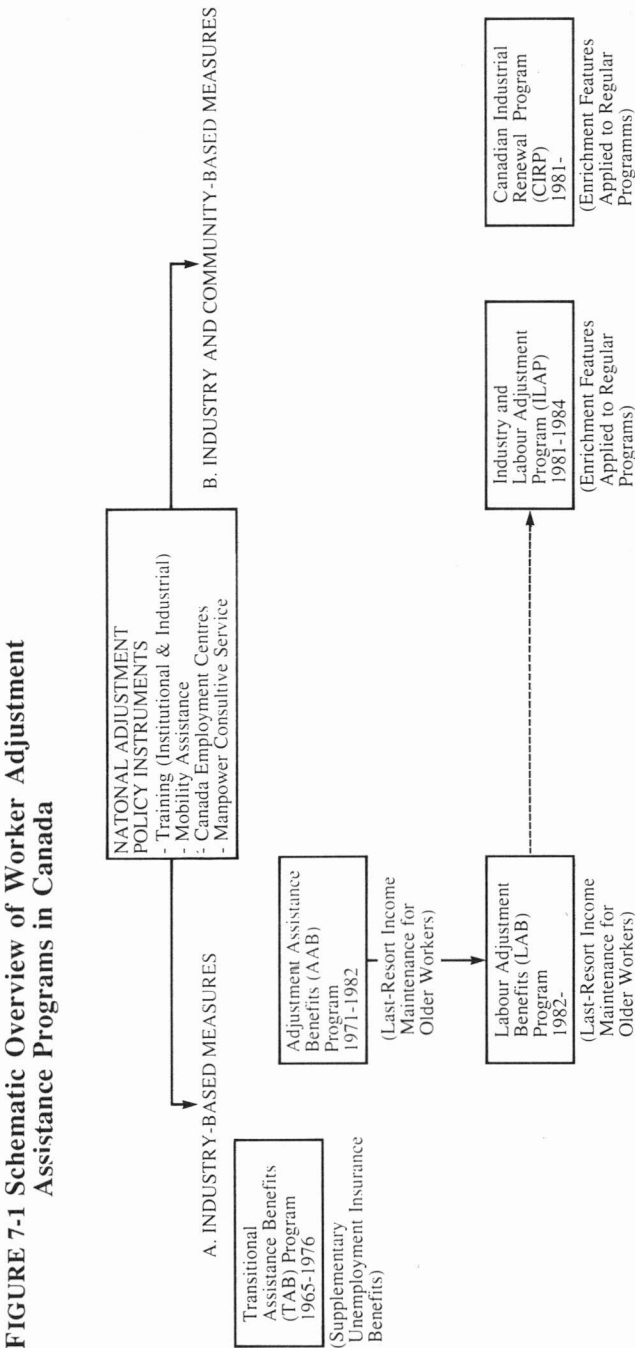
**TABLE 7-3 Effect of Foreign Trade on Employment in Selected Import-Competing Industries
(Employment in 000s), 1967-81**

Major Group	(1) Total Employment Gain (Loss)	(2) Exports Gain (Loss)	(3) Imports Gain (Loss)	(4) Balance of Trade (2) - (3)
Rubber	3.4	22.9	(31.0)	(8.1)
Leather	(5.9)	1.6	(14.0)	(12.4)
Textiles	(6.9)	4.3	(13.8)	(9.5)
Knitting	(2.8)	0.4	(17.8)	(17.5)
Clothing	(0.9)	2.1	(4.3)	(2.2)
Furniture and fixtures	8.0	4.8	(5.4)	(0.6)
Primary metals	14.6	55.3	(38.4)	16.9
Metal fabricating	21.7	15.8	(21.9)	(6.1)
Machinery	27.0	43.4	(99.0)	(55.5)
Transportation equipment	30.0	165.4	(155.0)	10.5
Electrical products	(2.9)	17.8	(38.5)	(20.8)
Chemicals	11.6	16.0	(18.0)	(2.0)
Miscellaneous	(6.6)	22.6	(112.2)	(89.7)
All industries	90.4	372.3	(569.3)	(197.0)

Source: Industry Trade and Commerce/Regional Economic Expansion, Manufacturing Trade and Measures 1966-1982 (Ottawa: IT&C and REE, 1983).
Statistics Canada, Manufacturing Industries of Canada, cat. no. 31-203, and Real Domestic Product by Industry cat. no. 61-516 and 61-213 (Ottawa: Statistics Canada).

Note: Absolute employment changes in each industry attributable to trade were calculated as the annual percentage change in employment due to trade divided by the total annual percentage change in employment and multiplied by the absolute employment change over 1967-81. The influence of cyclical factors was reduced by using three-year averages as estimates of beginning- and end-period employment in the calculation of absolute employment change.

ficulties. In Figure 7-1, a schematic overview of the history of adjustment assistance in response to trade is presented.



Initially, programs designed to alleviate adjustment difficulties arising from trade had industry-wide application and were largely compensatory. The Transitional Assistance Benefits (TAB) Program, in place from 1965 to 1976, provided supplemental unemployment insurance benefits to laid-off auto workers. This program was designed to alleviate the potential adjustment burden arising from the Canada-U.S. Automotive Products Agreement of 1965. Over the life of the program, approximately 3,000 people received benefits. The Adjustment Assistance Benefits (AAB) Program (1971-82) provided last-resort income maintenance to displaced workers 54 years and older in the textile, clothing, footwear, and tanning industries. Assistance was directed toward older workers because of the difficulty this group had in obtaining employment after layoffs. Benefits were available until retirement if circumstances warranted. Again, the intent of the program was to compensate people adversely affected by government trade policy decisions. The AAB Program was introduced by the federal government as part of the Canadian textile policy of 1970, which was designed to help the textiles and clothing industries adjust to international competition. However, because of the severity of adjustment difficulties in these industries arising from trade, eligibility for benefits under the AAB Program was not specifically tied to changes in tariff policy. Subsequent trade-adjustment assistance programs have also not been tied directly to changes in tariff policy but have been triggered by the severity of adjustment problems.

Adjustment assistance programs have expanded to provide assistance designed to encourage worker retraining and relocation, not purely to provide compensation. In addition to providing assistance on an industry-wide basis, programs have been targetted to specific communities experiencing severe adjustment difficulties. Although these adjustment programs have responded to difficulties often stemming from several factors, trade has been an important source of adjustment difficulties where these programs have been implemented. Table 7-4 presents an overview of expenditure estimates under three more recent programs — the Industry and Labour Adjustment Program (ILAP), the Canadian Industrial Renewal Program (CIRP)³ and the Labour Adjustment Benefits Program (LAB).

Adjustment assistance to workers in the textile, clothing, footwear, and tanning industries has been expanded under the current programs, LAB and CIRP. Last-resort income maintenance for displaced older workers continues to be made available under the LAB Program, which succeeded the AAB Program. CIRP, introduced in 1981, provides a wide range of enriched regular labour market programming for displaced workers in designated communities heavily dependent on the textiles, clothing, footwear, and leather industries. This programming includes enriched mobility assistance, enriched training allowances (both institutional and on-the-job), wage subsidies to encourage the re-employment of older workers, and additional job creation measures in the communities most

TABLE 7-4 Expenditure for Labour Adjustment Programs

Program	Period	Expenditures Actual or Projected (\$ million)
ILAP	1981-83	97.2 ^a
Training		37.6
Mobility		3.5
Wage subsidies		2.7
Job creation		52.3
Manpower consulting service - Community adjustments committees		1.1
CIRP	1981-86 (fiscal year)	51.3 ^a
Training		33.8
Mobility		1.3
Wage subsidies		5.2
Job creation		10.2
Manpower consulting service		0.8
LAB ^b	1982-83 (fiscal year)	9.3

Source: Employment and Immigration Canada

- a. Expenditure estimates under ILAP and CIRP cover only labour adjustment measures. Both these programs also contain industrial assistance initiatives. In addition, estimates for labour adjustment expenditures for both programs include regular labour market programming in designated communities in addition to enhanced measures included in formal program funding allocations. Estimates for ILAP are actual expenditures for April 1981 through October 1983, but CIRP figures are estimates.
- b. This program is ongoing. Expenditures in fiscal 1982-83 totalled \$9.3 million. LAB entails a potentially lengthy financial commitment. Average benefit costs per recipient are approximately \$60,000, and the benefit period can extend up to 10 years.

severely affected by layoffs. In addition, the Manpower Consultative Service (MCS) works with both labour and management to ease the problems of adjustment in situations of layoff and plant closure.

The Industry and Labour Adjustment Program (ILAP) (1981-84) has been Canada's major policy initiative in the area of adjustment assistance. ILAP provided a package similar to CIRP's enriched labour market programs to displaced workers in 12 designated communities. Communities were selected for assistance on the basis of severity of unemployment, not according to the source of the difficulties. However, trade was a significant cause of adjustment difficulties in a number of designated communities, including Windsor and Chatham, which experienced substantial layoffs in the auto and auto parts industries. The program package included enriched training assistance, enriched mobility assistance to encourage workers to relocate, wage subsidies to encourage the re-employment of older workers, and job creation measures. In addition, income support for laid-off older workers who could not be re-employed

has been made available in the designated communities under the LAB Program. In the affected communities, efforts were made to encourage local participation in seeking solutions to adjustment difficulties through community adjustment committees. These committees brought together representatives of business, labour, and the federal government and played an important role in coordinating the delivery of adjustment assistance to the affected communities.

The Effectiveness of Labour Adjustment Programs

Labour adjustment programs normally incorporate designation criteria directed at structural, that is, permanent, dislocation rather than at cyclical difficulties. However, it is often difficult in practice to distinguish between the two. For example, in the automobile sector, structural factors resulting from improved technology and increased competition from abroad, as well as slow growth in domestic demand, were both factors in the employment dislocations in the industry over the past several years. If cyclical factors are significant, the effectiveness of labour adjustment programs may be limited. For example, in manufacturing industries, a high percentage of workers return to their former establishment after a period of unemployment. This factor is an important consideration when the effectiveness of adjustment assistance programs is being assessed.

Assessment of the adjustment programs should be based on whether the programs maintained workers' income, serviced all those in need, and facilitated positive adjustment, that is, the movement of labour into more productive employment. ILAP's introduction during a period of cyclical downturn severely curtailed the effectiveness of labour market adjustment measures, such as training and mobility assistance, designed to operate in conjunction with existing labour market flows. As a result, these components of ILAP were taken up in limited number. In addition, the difficulty of distinguishing structural from cyclical problems resulted in a relatively high use of short-term job creation measures under ILAP. Another difficulty encountered in the ILAP initiative was defining boundaries for community designation. Often, communities just outside the designation zones were excluded. In addition, only workers in the designated industries in these communities were eligible for assistance. At first glance, it therefore seems that ILAP was successful in assisting those in need and, when combined with unemployment insurance, in maintaining workers' income. However, the labour adjustment side of the program encountered difficulties in encouraging positive adjustment to structural changes affecting these industries.

An indication of the importance of cyclical factors affecting import-competing industries can be obtained by examining the re-employment profiles of workers laid off in industries strongly affected by cyclical factors.⁴ Such industries include the leather, textiles, knitting, and clothing

industries, which have received assistance under CIRP, and transportation equipment (the auto and auto parts industries have received assistance under ILAP).

Results for these industries are shown in Table 7-5 for workers laid off in 1975 (cyclical downturn) and 1978 (cyclical upswing). This table indicates that approximately 65 percent of laid-off workers in these industries returned to their former employer in the next employment spell. The average for all industries is approximately 40 percent. This percentage was roughly the same in both recessionary and non-recessionary periods; however, in 1975, there was a significant shift in the distribution of unemployment's duration.

At this preliminary stage, these results can be interpreted only generally. First, they suggest that programs geared to facilitating adjustment to structural change risk picking up workers temporarily laid off because of cyclical factors. Second, these results indicate that there is limited alternative employment in many smaller and medium-sized communities heavily dependent on import-competing industries. Mobility is often limited, especially among workers in the textiles, clothing, footwear, and tanning industries. Limited mobility could be due to the relatively low wages prevailing in these industries, the high percentage of second wage earners employed in these industries, and the relatively poor academic background of workers in these industries (Employment and Immigration Canada, 1983, p. 3).

A similar situation arose among laid-off workers in the United States under the Trade Adjustment Assistance (TAA) program (1974). Under the Trade Expansion Act (TEA) of 1962, workers whose job loss was certified to result from tariff reduction were given compensation in the form of allowances over and above weekly unemployment insurance benefits. Few qualified for assistance as a result of restrictive eligibility criteria. Subsequently, eligibility requirements were greatly liberalized under the TAA Act. Workers were eligible for assistance if imports had contributed "importantly" to the workers' unemployment. The result was a substantial increase in the number of people receiving TAA benefits (Employment and Immigration Canada and United States Department of Labor, 1984, pp. 2-5). The majority of recipients — one estimate was 77 percent — were on temporary layoff or reduced work week (Mathematica Policy Research, 1980). Over one-half of TAA recipients were in the automobile industry (Employment and Immigration Canada and United States Department of Labor, 1984, p. 14). Overall, the TAA program was not very successful in promoting labour market adjustment.

In spite of the strong tendency of workers in these import-competing industries to return to the former employer, it is apparent that there is still a serious problem. This problem is reflected in the relatively high proportion of people who experienced relatively long spells between employment. Even in a period of cyclical upswing, more than 15 percent of peo-

TABLE 7-5 Reemployment Profile of Workers Laid Off in Selected Trade-Vulnerable Manufacturing Industries, 1975 and 1978

Major Group	Percentage returning to former employer		Percentage never returning to former employer		Average number of weeks between employment			
	1975	1978	1975	1978	0-10	11-52	52+	1978 11-52 52+
Leather	74.2	83.3	24.7	16.7	38.2	30.3	31.5	58.3 22.9 18.8
Textiles and knitting	72.7	86.7	26.6	13.3	39.2	34.5	26.3	43.8 37.5 18.8
Clothing	64.0	71.9	34.8	26.7	34.1	32.6	30.3	54.8 29.0 16.3
Furniture and fixtures	69.6	74.7	28.6	23.9	43.5	29.7	26.8	53.5 22.5 23.9
Primary metals	74.5	72.1	22.6	24.6	28.3	34.0	37.7	54.1 34.4 11.5
Metal fabricating	57.0	63.4	39.3	30.9	35.6	37.4	27.0	52.4 37.0 10.6
Machinery	65.3	74.0	29.5	24.0	38.7	29.5	31.8	40.6 33.3 26.0
Transportation equipment	90.0	95.3	9.3	4.1	43.3	29.0	27.7	54.5 30.4 15.1
Electrical products	77.0	85.5	21.2	13.6	32.5	35.7	31.8	61.8 28.2 10.0
Chemicals	84.3	87.2	13.5	12.8	44.9	30.3	24.7	46.8 40.3 12.8
Miscellaneous	66.5	78.3	32.0	21.7	28.3	42.1	29.6	42.0 43.5 14.5
All industries	39.1	46.2	54.6	48.7	26.5	46.0	27.6	33.7 51.2 15.1

Source: Operation UI (longitudinal) and Record of Employment data, Department of Employment and Immigration.

Sample size: Selected Industries

1975 Layoff
1978 Layoff

All Industries
12,488
22,689

ple laid off in these industries were unemployed for more than 52 weeks. The majority of these long-term unemployed returned to the former employer, which indicates considerable unemployment hardship. It is also apparent that the majority of those who do not return to the same employer left the region; this fact suggests limited alternative employment opportunities in many of the communities where these industries are located.

Summary

Foreign trade has had a significant effect on employment in Canada and has the potential to create both upside and downside labour adjustment difficulties. Even at the level of major industry groups, import penetration has been a major source of employment decline. Because import competition usually affects specific industries, it is most likely that adjustment problems are more severe than is indicated by these results. In particular, many import-vulnerable industries are in smaller communities with limited alternative employment opportunities. Export growth in many of these SIC major groups is often concentrated in specific subsectors and therefore has the potential to create skill shortages.

Adjustment assistance to trade-displaced workers has generally been provided through regular labour market programs, such as training and mobility assistance and unemployment insurance. However, Canada has established specific programs (ILAP and CIRP) to provide adjustment assistance, most recently to communities experiencing serious structural unemployment. In a number of cases, foreign trade has been a significant factor causing layoffs in these communities. However, it is difficult to isolate layoffs due to structural causes from layoffs caused by cyclical factors. That the two problems are often combined makes it difficult to target adjustment assistance programs.

Overall, there is a need for closer scrutiny of the adjustment process, particularly the dynamics of labour adjustment in small areas. In particular, the separation of cyclical from structural problems and the analysis of the effect of various factors (for example, community size) on the adjustment process will be valuable in the development of appropriate program responses. The growing trade in services, which has the potential to affect the labour market in Canada significantly, must also be analyzed.

Notes

This paper was prepared for the Symposium on Domestic Adjustment to Trade Policy Changes and External Shocks, held by the Royal Commission on the Economic Union and Development Prospects for Canada on January 27, 1984. The views expressed are those of the authors and are not necessarily those of the Government of Canada or Employment and Immigration Canada. The authors acknowledge the assistance of Lise Côté and Marion Rae in preparing the paper.

1. Background paper for an OECD conference, "Employment Growth in the Context of Structural Change," held in February 1984.
2. The decomposition is based on the equation $re = rd (D/SHIP) + rx (X/SHIP) - rm (M/SHIP) - rp$, where re , rd , rx , rm , and rp are the average annual percentage growth rates in employment (E), domestic demand (D), exports (X), imports (M), and productivity (P). The ratios $D/SHIP$, $X/SHIP$, and $M/SHIP$ are the ratios of domestic demand, exports, and imports to shipments. All figures are in 1971 dollars. The derivation is based on $SHIP = D - X + M$ and $P = SHIP/E$ ($SHIP$ in real terms is used as a proxy for output). Differentiating with respect to time and cross multiplying gives the equation used to decompose employment growth or decline by source (Frank 1977, p. 27).
3. This program is operated by Employment and Immigration Canada in conjunction with the Canadian Industrial Renewal Board, which oversees the operation of joint labour/capital adjustment assistance programs. The total budget for the board is \$267 million for 1981-86.
4. Information was obtained from the Record of Employer (ROE) file of the Department of Employment and Immigration. Each time an individual separates from an employer, he or she is issued an ROE, which states tenure with the employer, the reason for the separation, and other information. The employee must present the ROE to a CEIC employment office to be eligible for UI benefits.

Bibliography

- Baldwin, R. 1984. *The Employment and Adjustment Implications of International Trade*. Paris: OECD, Directorate for Social Affairs, Manpower and Education.
- Canada. Department of Employment and Immigration. 1983. *Canadian Industrial Renewal Program: Labour Adjustment Measures, Annual Report 1982-1983*. Ottawa: The Department.
- Canada. Department of Employment and Immigration, and the United States Department of Labor. 1984. *The Effectiveness of Trade-related Worker Adjustment Policies in Canada and the United States*. Paris: OECD, Directorate for Social Affairs, Manpower and Education.
- Canada. Department of Industry, Trade and Commerce/Regional Economic Expansion. 1983. *Manufacturing Trade and Measures, 1966-1982*. Ottawa: The Department.
- Frank, C.R. 1977. *Foreign Trade and Domestic Aid*. Washington, D.C.: Brookings Institution.
- Krueger, A.O. 1980. *Protectionist Pressures, Imports and Employment in the United States*. Working Paper 461. Washington, D.C.: National Bureau of Economic Research.
- Lawrence, R.Z. 1983. "Is Trade Deindustrializing America? A Medium-Term Perspective." *Brookings Papers on Economic Activity*, no. 1: 129-77.
- Mathematica Policy Research. 1980. *Restricting Trade Act Benefits to Import-affected Workers Who Cannot Find a Job Can Save Millions*. General Accounting Office Report to the Congress. Washington, D.C.
- Pearson, Charles, and Gerry Salembier. *Trade, Employment and Adjustment*. Montreal: The Institute for Research on Public Policy, 1983.
- Sapir, A., and D. Schumacher. 1984. *The Employment Impact of Shifts in the Composition of Community and Services Trade*. Paris: OECD, Directorate for Social Affairs, Manpower and Education.

Statistics Canada. Annual. *Manufacturing Industries of Canada*. Cat. no. 31-203. Ottawa:
Minister of Supply and Services Canada.

—. Annual. *Real Domestic Product by Industry*. Cat. nos. 61-516 and 61-213. Ottawa:
Minister of Supply and Services Canada.



The Political Economy of Business Bailouts in Canada

MICHAEL J. TREBILCOCK

The Nature of the Issues

In a market economy, risk-taking by economic agents, both firms and individuals, is an essential feature of the process of resource allocation. At least in theory, the price system appropriately compensates agents for taking risks and creates appropriate economic incentives that influence capital investment according to the amount of risk entailed. In the nature of things, however, losses do sometimes occur and economic agents are required to bear the costs associated with them. But when their investments are successful, the agents receive a return to capital to compensate them for the risk that the investment might have failed, with the loss of both the capital and any return. This is the essence of entrepreneurship in a capitalist system. In Joseph Schumpeter's memorable phrase, competitive markets involves "a perennial gale of creative destruction."¹ While there are both winners and losers in such a process, a system that encourages private risk-taking fosters an economic dynamism that makes society as a whole materially better off.

The basic premises of such an economic system would obviously be violated if private economic agents took risks and captured the rewards of successful investments but could systematically shift the costs to others *ex post* when they failed. A system which separates the bearing of costs and the receipt of rewards from private risk-taking would create perverse and highly inefficient economic incentives to cavalier or irresponsible undertaking of activities, whatever the risks and whatever their potential social value. Over time, this would result in a gross misallocation of society's scarce economic resources. At the limit, it would be tantamount to gambling with other people's money.

In the Canadian economy, many firms in fact realize substantial economic successes while other firms fail. The federal Superintendent of

Bankruptcy reports that 46,654 business went bankrupt during the 1975–82 period. The annual number of new business bankruptcies jumped from 2,958 in 1975 to 10,765 in 1982 (see Table 8-1). An unknown but substantial number of additional firms were privately liquidated either by voluntary termination or by creditor-managed receiverships.

TABLE 8-1 Bankrupt Estates Accepted, 1975–82

	Consumer	Business	Total
1975	8,355	2,958	11,293
1976	10,049	3,136	13,185
1977	12,772	3,905	16,677
1978	15,938	5,546	21,484
1979	17,876	5,694	23,570
1980	21,025	6,595	27,620
1981	23,036	8,055	31,091
1982	30,643	10,765	41,408
Total	139,674	46,654	186,328

Source: *Insolvency Bulletin, Canada*, August 1983, Federal Superintendent of Bankruptcy.

In all of these cases, economic Darwinism was allowed to run its course. However, in a small number of other cases, governments at various levels in Canada have actively intervened to bail out failing firms in an effort to avert this fate. This phenomenon has acquired a high public profile in recent years with government bailouts of a number of major private sector firms. A recent report in the *Financial Post*² lists a number of recent federal bailout efforts (see Table 8-2).

A study of the political economy of business bailouts in Canada must address several basic questions.

- Why do governments bail out some failing firms but not others?
- Are there sound economic rationales, consistent with efficient resource allocation, that may justify at least some of these bailouts?
- Are incentives created by our political system for collective decision makers to intervene in some cases but not others? Will these incentives yield policy outcomes that are congruent with sound economic policy?
- Can economic or political analysis assist us in evaluating the particular choice of bailout instrument once a decision has been made to intervene in some form?
- Are the recent business bailouts by government merely a passing period piece, a peculiar function of current economic conditions with few historical analogues and little future likelihood of replication, and thus of limited enduring moment for Canadian public policy making?
- If potential business bailouts are likely to remain a major problem for Canadian policy makers, is there room for improvement in current policies to reduce the number of bailout candidates, to choose wisely

TABLE 8-2 Recent Federal Bailout Efforts

Companies	Bailout Plan	Status
Dome Petroleum Ltd., Calgary	September 1982 — offer by Ottawa to lend Dome \$500 million in convertible debentures which could be converted to common shares and ultimately provide government with up to 40% of Dome equity. (Dome's Canadian bankers would contribute an equal amount as part of a large debt restructuring package.)	Offer has not yet been taken up by Dome. There is as yet no liability for Ottawa. Dome is still in business looking for an alternative way of raising money.
Chrysler Canada Ltd., Windsor	May 1980 — offer of \$200 million in loan guarantees conditional on Chrysler making certain capital investments and maintaining certain employment levels. The federal offer was part of a larger North American financial bailout, including the U.S. and Ontario governments.	To date, Chrysler has not taken up the Ottawa loan, and has since returned to profitability.
Maislin Industries Ltd., Montreal	July 1982 — offer by Ottawa of \$33.4 million in loan guarantees through the Enterprise Development Program of the Industry Department	Maislin, which had loans of \$20 million in 1982, borrowed the guaranteed loans and recently went into receivership. Ottawa lost the full amount of the loan.
Massey-Ferguson Ltd., Toronto	February 1981 — Ottawa offers to guarantee \$125 million of a preferred share issue, which is part of a larger \$715 million financing package. In July, 1982, Massey fails to pay a required dividend and triggers the guarantee. Ottawa end up with 62% of the nonvoting share issue.	Company today remains in business, continues to maintain loans and waits for a revival of the farm implement business.

TABLE 8-2 (continued)

Companies	Bailout Plan	Status
Canadair Ltd., Montreal	Ottawa, in a series of steps during the past few years, has made loan guarantees totaling \$1.35 billion for the development and production of the Challenger aircraft — all of it used up. In addition, the government this summer voted \$240 million in new equity capital to the company and has indicated it will return to Parliament this fall to request further equity assistance.	The company reported a \$1.4 billion loss in fiscal 1982, including \$1 billion in writeoffs from previous years. The company is still in business, but its future is tied to the future plans and assistance of Ottawa, which is its sole owner.
de Havilland Aircraft of Canada, Toronto	Ottawa, in the past few years, has made loan guarantees totalling \$450 million, all of which have been taken up. In addition, Parliament voted \$60 million in new equity capital to the Crown-owned corporation. A further \$230 million in loan guarantees has been authorized for use by commercial buyers of the Dash 7 airplane, of which \$112 million had been taken up by March.	The company reported losses of \$266 million for the seven months ending December 1982, including writeoffs of \$113 million. It continues to operate, but the fate of the Dash 8 program is still to be determined by Ottawa this fall after market assessment.
Co-op Implements Ltd., Winnipeg	February 1982 — Ottawa loaned a further \$5.5 million and forgave \$7.5 million in previous loans. The federal aid was part of a larger \$35 million refinancing package involving Prairie provincial governments and co-operative farm groups.	The company continues business, is losing money and, like Massey-Ferguson, awaiting recovery in the farm implements business.

TABLE 8-2 (continued)

Companies	Bailout Plan	Status
Consolidated Computer Inc., Ottawa	The company received a total of \$94 million in federal loan guarantees over the past decade, plus additional aid — all of which has been lost.	Total federal losses were about \$125 million and, in 1981, Ottawa sold remaining assets of the computer firm to Nabu Manufacturing Corp. of Ottawa for \$100,000.
CCM Inc., Toronto	In the late 1970s, Ottawa made direct loans and loan guarantees totaling \$22 million to the bicycle company.	The company declared bankruptcy in October 1982, and losses to the government totaled \$15.5 million.
White Farm Equipment Canada Ltd., Brantford, Ontario	March 1981 — Ottawa guaranteed \$10.5 million in loans to help resurrect the company which had been placed in receivership by its bankrupt U.S. parent, White Motor Corp. of Michigan. An additional \$2.5 million grant was made by the Enterprise Development Board.	The company sustained major losses since the loans and was placed in receivership in June. The government will lose its money.
Pioneer Chain Saw, Peterborough	In 1978, FDB approved \$6.5 million in guaranteed loans as part of a larger restructuring package.	The company was sold to Sweden's Electrolux AB in 1979 and Ottawa was repaid.
Lake Group Inc., St. John's	June 1982 — Ottawa authorized \$13 million in loan guarantees to help restructure the fish products firm. The money has been all taken up.	The company had a \$22.5 million loss in 1982, but reported a \$1.5 million profit in second-quarter 1983. It is also part of a planned Newfoundland fishery reconstruction program that was announced by federal Fisheries Minister Pierre de Bané.
St. Anthony's Fisheries Ltd., Newfoundland	June 1982 — Ottawa approved \$8 million in loan guarantees to refinance the company.	As of March 1983, the company had taken up \$1.3 million of the total.

TABLE 8-2 (continued)

Companies	Bailout Plan	Status
Electrohome Ltd., Kitchener	Ottawa, in 1977, insured loans worth \$15 million to help in the financial restructuring of the company.	The company's fortunes reversed and it was able to repay the loan by 1980. Because of the risk, Ottawa took an option on a block of shares as a condition for the loss. It made \$10 million when it exercised the option.
Petromont Inc., Montreal	March 1983 — Ottawa offered the hard-pressed oil-based petrochemical firm \$25 million in repayable contributions over the two years if Quebec matched the offer.	As of March 1983, Quebec has agreed to the matching condition, and the first payment has been approved.
Petrosar Ltd., Sarnia	March 1983 — Ottawa offered the oil-based petrochemical firm \$25 million on loan guarantees over two years if Ontario matched the offer.	There has been no acceptance of the offer to date.

Source: *Financial Post*, August 6, 1983, p. 1

in deciding which failing firms to support, and to fashion more effective bailout instruments once a decision to support has been taken?

- Does comparative experience from other countries offer any insights at a positive level into the factors that spawn bailout candidates, that induce government intervention, or that shape the choice of instrument of intervention, or any additional insights at a prescriptive level into possible improvements in Canadian policy making in this area?

In contemplating these issues, it is useful to view business bailouts by government in the context of economic and political mechanisms that shape the economic adjustment process. The dominant economic objective of such a process is presumably to facilitate the movement of resources from declining to expanding sectors as technology changes, as comparative advantage shifts, or as consumer tastes change, causing changes in relative prices. Unfortunately, however, this process of adjustment is likely to generate transitional losses that will often fall unevenly on different subgroups within the economy. This may induce perceptions of social injustice and in turn raise opposition to the adjustments, which may require political intervention to settle.

As Lester Thurow argues in his recent popular book, *The Zero Sum Society*,³ failure by policy makers, especially economists, to address the distributional impacts of change has often meant that adjustments needed to make the community better off in the long run did not occur or were long deferred, as the losers translated their sense of grievance into political opposition. What Courchene⁴ has called the socialization of market risk may at a general level be one of the most striking shifts in public policy making in Canada during the post-Second World War period. This process arose from the massive growth of social welfare programs directed to individuals and of industrial assistance programs directed to firms, which coincided with the deployment of activist Keynesian macroeconomic policies and the emergence of strong regional development pressures and policy responses to them during this period. These policies make it increasingly difficult politically for governments to renounce responsibility for the performance of the economy at large or of particular sectors within it.

In the context of bailouts specifically, one may interpret some of the recent bailouts as welfare responses in an open economy with a decentralized and diffused political structure and with fragmented labour organizations. This then makes it more difficult to forge the more encompassing policy responses needed to counter the economic and social consequences of an economic recession. The absence of more inclusive political institutions and interest groups may lead unavoidably to an emphasis on narrow, short-run perspectives.⁵ Alternatively, at least some of the recent bailouts can be viewed as attempts to mute potential political opposition to more general shifts in economic policies, especially macroeconomic policies including higher interest rates, needed for long-run stability. In

this sense, some bailouts may represent a rational reconciliation of economic, distributional, and political considerations. However, the fact remains that recent bailouts are highly ad hoc and diverse in nature and are difficult to rationalize in terms of any over-arching industrial strategy. This stands in sharp contrast to crisis assistance by Canadian governments to failing firms prior to the Second World War. Bailouts of canals, railways and wheatpools were all intimately linked to the country's National Policy, and their development and maintenance was widely perceived as providing central infrastructural underpinnings to the political and economic integration of the nation along an east-west axis. Explaining recent bailouts in a political economy framework is a more elusive task.

Prescriptive Implications for Future Policy Making

In evaluating possible improvements in existing government policies or practices for dealing with failing firms, it may be useful to isolate three separate areas of policy making:

- policies that facilitate private adjustment processes and reduce the incidence of bailout candidates;
- policies that determine which residual failing firms should receive government assistance of some kind; and
- policies that influence the choice of a particular instrument of assistance, once a decision to intervene has been taken in principle.

Reducing the Incidence of Bailout Candidates

A number of marginal policy shifts may help to reduce the number of firms in jeopardy of failing.

While bankruptcy per se may lead to the redeployment of a firm's assets, such action may fail to take fully into account the integrity of the long-run social value of those assets as a productive unit. Reform of bankruptcy law may be useful in covering the gap. Chapter 11 of the U.S. Bankruptcy Act, for example, provides for court-imposed corporate reorganizations that maintain a firm as an entity. While there are obvious problems with ex post court-imposed variations in the legal burden of security holders, there may also be some circumstances in which either strategic behaviour or transaction costs may prevent classes of creditors and shareholders from reaching some long-run resolution that would maximize the overall value of their competing claims.

The merger of a failing firm with a stronger firm in an industry may often be an efficient form of structural adjustment in an industry. Policies that make mergers more difficult or costly inhibit such adjustments. Examples include excessively categorical antitrust laws, unduly restrictive foreign

investment controls, and securities laws that impose costly conditions on takeovers, such as the requirement that a takeover bidder must make the same offer to all shareholders as is made to the owners of the controlling shares. Such policies may discourage this form of adjustment.

While operating losses sustained by companies can be carried forward to some extent under the income averaging rules of tax law, these rules may be of little value to a company with severe cash-flow problems and lacking immediate prospects of income against which to set off these losses. While clearly there are major moral hazard problems that require careful analysis, tax policy in some circumstances could be altered to allow operating losses to generate a negative liability and positive payouts from the Treasury as an alternative to future tax relief by way of loss carry-forwards.

As an alternative to tariff protection for declining industries (for example, textiles and shoes) or direct subsidies to maintain existing levels or forms of activities (for example, shipbuilding), there may be a case for shifting emphasis in assistance to such industries toward more investment in research and development. Such a policy change could be used either to reduce costs through technological innovation and attain a higher degree of long-run competitiveness or to establish specialized market niches in such industries or diversify out of the industry over time. Inducing orderly change, rather than preserving the status quo, should be a key feature of any assistance.

Apart from unemployment benefits, there may be a case in declining industries for dealing with the human capital costs of decline. Such measures could include greater emphasis on formal retraining programs for younger workers, severance payments for older workers, and wage subsidies to employers in other industries who hire workers from designated declining industries. Alternatively, cash payments could be made to workers from declining industries upon securing employment outside the industry. This last strategy may possess an important advantage over formal retraining programs insofar as it facilitates the acquisition of on-the-job training and experience in specialized job settings. These strategies share the objective of facilitating an exodus of labour out of declining industries in an orderly and compassionate way rather than subsidizing employment indefinitely, either directly or indirectly, at existing levels in these industries. To the extent that subsidies are entailed, these are directed to expanding sectors. Importantly, these strategies can most effectively be implemented when the economy generally is buoyant, and reasonable opportunities of alternative employment outside the declining sectors exist.

Clearly one of the major factors in the financial difficulties faced by a number of firms that have been the subject of recent bailouts was the dramatic escalation in interest rates on debt outstanding. This was the result in part of major shifts in macroeconomic policy both in Canada and the United States, as well as increases in energy prices. It is a truism to note

that marked instabilities in the macroeconomic environment inhibit long-range planning and business confidence in the investment climate, as well as increasing the incidence of firm failures. Moreover, political pressures on government to intervene in the case of these failures increase to the extent that public perceptions view the failures as direct consequences of government policy making and attach blame on government and responsibility for redressing these consequences.

Government Assistance to Failing Firms

Assuming that general adjustment processes, even modified ones as suggested above, do not save a firm from the prospect of bankruptcy, the question then becomes when, if at all, government should intervene to attempt to save the failing firm (abstracting for the moment from the question of the choice of instrument).

Canadian historical experience and comparative experience from other industrialized democracies demonstrate that governments nearly always extend help to failing firms if they are large enough and implicate enough politically salient interests. Bankruptcy is unlikely to prove a politically acceptable option. Some form of bailout is likely to be forthcoming and the live policy question is largely reduced to the choice of bailout instrument and the particular terms of it. To advocate otherwise is to ignore political realities. Moreover, to argue for institutionalization and more rigorous structuring of the decision-making process for these very large-scale bailouts is to discount two serious classes of difficulties. First, the unique nature of large-scale bailouts makes it impossible to design a program that could effectively specify criteria, choice of instrument, decision-making processes, budgetary appropriations and so on for all exigencies. Second, institutionalizing the bailout process may well increase the incidence of business bailouts because of moral hazard problems created for corporate management, creditors, and the bureaucracy in terms of perverse incentives to stimulate demand for bailout forms of assistance. Consequent changes in attitudes toward risk-taking may seriously increase resource misallocation.

Medium and small-scale bailout candidates now are typically handled bureaucratically rather than politically, through programs like the federal Enterprise Development Program, administered by the Department of Regional Industrial Expansion, and the provincial Ontario Development Corporation. A more analytical approach to the bailout decision may be possible for them, with predetermined criteria and a structured decision-making process distanced somewhat from the political process. However, even here, where political pressures to bail out may be less severe, the very existence of a bureaucracy and a defined process committed to performing the bailout function again creates a type of moral hazard problem or perverse incentives for corporate management, creditors, and government

officials. Moreover, given the pluralistic and diffused nature of our political system, the set of objectives for such an agency is likely to be nebulous and perhaps even contradictory; this makes it difficult to screen relatively wide-ranging and diverse claims for assistance against rigorous criteria.

These difficulties notwithstanding, it seems conceptually possible and analytically desirable from an economic perspective to isolate the particular form of market failure that is claimed to be exemplified for any particular case. It is imperative to develop some kind of reasonably rigorous grid to categorize which market failures are eligible for government assistance. Otherwise, government will find itself overwhelmed with requests to evaluate potential investments. This not only is likely to put more weight on cost-benefit methodology than it can reasonably bear, but also risks turning government into a lender of first resort in a wide range of situations. With respect to potentially relevant forms of market failure, arguments about "gaps" in the Canadian capital market, especially the terms of loan capital and the availability of equity capital, carry little conviction beyond perhaps very small businesses. Arguments about the failure of the bankruptcy market may have some relevance in cases where productive systems or processes would lose much of their value if they were broken up by liquidation; Massey-Ferguson and Chrysler are two examples. In other cases where physical or human capital is relatively mobile, Maislin for example, or where the company's principal assets are natural resources whose value may be largely unaffected by a change of ownership even on a piecemeal basis, as with Dome Petroleum for example, the bankruptcy market failure argument has limited force.

Arguments about labour and related externalities are likely to have more general force, particularly in a recessionary environment where the social costs, direct and indirect, of large scale and regionally concentrated layoffs may be substantial. Here, subsidized employment maintenance with a failing firm may sometimes be socially less costly than firm failure, and indeed less costly than alternative forms of employment maintenance or social relief, although only temporary subsidies would seem justified by these considerations.

This suggests a role for formal economic analysis in first identifying relevant and significant forms of market failure and then estimating broad orders of magnitude for the costs and benefits of responding to these failures in various ways. It might be added that even in the case of large-scale bailouts, where political considerations may often overwhelm the implications of formal economic analysis, such analysis still may exert a useful and disciplining influence on political decision makers. However, for the most part, this is contingent on publicizing the results of this kind of analysis in a timely fashion. Significantly and regrettably, the analysis underlying bailout decisions has not been formally made public, either *ex ante* or *ex post*, whether the decision was a political or a bureaucratic

one. A serious attenuation of political and bureaucratic accountability is the obvious (and objectionable) result.

The Choice of Bailout Instrument

Once governments have decided in principle to intervene on behalf of a failing company to pre-empt or counteract the consequences of failure, they must make difficult decisions about the form of the intervention. The instrument employed may take the form of cash subsidies, loans, loan guarantees, credit insurance, partial equity ownership, outright public ownership, tax relief (expenditures), trade protection measures, government procurement policies or regulatory protection. Within each instrument, modalities may vary widely; for example, various conditions may be attached to direct forms of financial assistance. In addition, assistance may be targetted not on the firms themselves but on the various subinterests that will suffer losses in the event of insolvency. For example, policies may be directed to providing extended unemployment insurance benefits to unemployed workers, adjustment assistance (severance payments or subsidized retraining) to workers, prescribed minimum notice requirements for mass layoffs or prescribed minimum severance payments in such event, wage credits or subsidies to induce re-employment of laid-off workers by other employers, new publicly supported investments in alternative business activities in the locality affected by a firm failure, or subsidies to consumers to induce an increase in demand for the output of the failing firms, for example, with retail sales tax rebates.

In recent bailouts in Canada, as with the earlier bailouts of the railways, a strong predilection is evident in policy making toward the use of loan guarantees (or insurance). This exhibits some disquieting features. Because loan guarantees are an off-budget item in the government's budgetary processes, political and bureaucratic accountability is attenuated (and may, of course, in part explain their popularity). In addition, the preference for loan guarantees may bias the capital structure of failing companies toward an even more highly leveraged debt-to-equity ratio when the origin of their difficulties may be too high a debt load, particularly in periods of high interest rates. Moreover, the existence of a loan guarantee may induce less cautious behaviour on the part of creditors. Thus, again, moral hazard problems arise with corporate management, government, and creditors in the administration of a loan guarantee policy.

Governments face another difficulty with crisis assistance to firms in containing the level of assistance over time. Having made an initial grant of assistance, governments can hardly refuse further grants of assistance (with a resultant increase in the probability of firm bankruptcy) without creating political problems out of perceptions (perhaps incorrect ones) that the initial grant of assistance was a mistake. Repeated assistance makes governments vulnerable to strategic behaviour by corporate management

and creditors and may attenuate incentives for firms to restructure in efficient ways, for example, by downsizing operations, which a one-time-only grant might have induced. Similar problems arise for governments in enforcing the conditions attached to grants of assistance, such as maintaining employment levels, making changes in product mix, downsizing, or restructuring. Failure by firms to adhere to such conditions confronts governments with politically difficult decisions about whether to withdraw assistance granted or to withhold further assistance where the governments might then be publicly perceived as responsible for a firm's subsequent failure. As a result, many conditions in recent bailout arrangements in Canada have been frequently violated, often apparently without consequence. On the other hand, to present a balanced picture, it is necessary to acknowledge that governments have terminated assistance in a number of cases, resulting in subsequent firm failures, as happened for Maislin, CCM, White Farm and Clarke-Irwin. In other cases, the terms of proffered assistance have been sufficiently stringent to force substantial restructuring and downsizing on the part of the failing firms, as in the cases of Massey-Ferguson and Dome Petroleum.

Another difficulty faced by governments when fashioning forms of ad hoc crisis assistance to failing firms is that it is typically the weakest firms in an industry that seek assistance, often at short notice. Then a rapid government response is imperative if the crisis facing the firm is to be averted. This distorts policy making in important ways. First, decisions tend to focus too much on microeconomic issues of supply and demand facing a firm and are unlikely to take full account of broader industry problems of which the failing firm may be merely symptomatic. Second, bailing out the weakest firms in an industry may do nothing in the long run to induce efficient industry restructuring (as opposed to firm restructuring) and indeed may be counter-productive in this respect. Comparative experience, especially from Europe, suggests a much greater willingness on the part of government to use the issue of a failing firm in an industry to induce a restructuring of the industry, for example, by inducing mergers of weaker firms with stronger firms as a condition of financial assistance. Somewhat ironically, this experience also points up the need for less frequent but more assertive government intervention if the background adjustment mechanisms canvassed earlier in this paper are in place.

Where intervention is unavoidable, governments might attach conditions to ensure that assistance does not simply perpetuate a state of weakness in an industry and that firms do not become dependent on continuing government support. To illustrate, governments have provided bailout assistance to three failing farm machinery companies, namely, Massey-Ferguson, White Farm, and Co-operative Farm Implements. Each of these companies had serious excess productive capacity in an industry generally plagued with this problem. This has given rise to claims by some of the assisted companies that they cannot compete with other assisted

companies which are “dumping” products on the market below cost, by virtue of the government assistance. The aggrieved firms have then called for further assistance. Moreover, terms in the bailout arrangements in some cases, for example Massey, have required the firms to maintain Canadian employment at certain levels. The combined effect of these policies has been to inhibit rather than to facilitate the restructuring and downsizing of the industry in a way that holds out some prospect of long-run economic viability. The tension between short-run political objectives and long-run economic objectives is clear in this context.

Another example of the same phenomenon is the abortive bailout of Maislin Industries Ltd. The government chose to support the company’s continued existence. Knowledgeable industry sources claim, on the other hand, that the government had the opportunity early in the bailout process to induce a merger with either of two other major Canadian-owned carriers headquartered in Montreal, perhaps through a conditional cash grant to support an orderly reduction of the excess capacity in the merged companies that may have occurred in the short run. Instead, with the company’s recent receivership, its route licences have been bought from the receiver by a U.S.-based carrier. In terms of the government’s stated objectives in intervening, the outcome seems almost the worst possible on all relevant scores.

The only recent example in Canada of a more managed approach to salvaging failing firms by policies directed at an industry as a whole is the bailout of the Atlantic fish processing companies. In this case, most of the major companies in the industry were consolidated, although a number of inefficient local processing plants were perpetuated. It is too early to judge whether this recent initiative will prove successful. However, preliminary indications do not warrant optimism.

Conclusion

Failing firms and concomitant claims on government for assistance have been a prominent feature of Canadian economic history. Recent bailout experience, while presenting its own particular complexions, is not a new phenomenon. If the past is any guide to the future, bailouts will remain an intractable problem for Canadian policy makers. Indeed, increasingly rapid rates of technological change and shifts in comparative advantage in a more competitive and demanding international economic environment may well make the problem more acute. Hence, the bailout phenomenon must be viewed as an integral part of attempts to grapple with the social, economic, and political implications of our processes of economic adjustment.

Notes

This paper is drawn from a much larger study under the same title presently being undertaken for the Ontario Economic Council by Professors Trebilcock, Chandler, Gunderson, Halpern and Quinn. This version was prepared for the Symposium on Domestic Adjustment to Trade Policy Changes and External Shocks, held by the Royal Commission on the Economic Union and Development Prospects for Canada on January 27, 1984. Revised in December 1984.

1. Joseph Schumpeter, *Capitalism, Socialism and Democracy* (Harvard University Press, 1975), p. 87.
2. *Financial Post*, August 6, 1983, p. 1.
3. Lester Thurow, *The Zero Sum Society*, New York: Basic Books, 1980.
4. Thomas Courchene, "Towards a Protected Society: The Politicization of Economic Life," *Canadian Journal of Economics* 13 (1980): 556.
5. See Mancur Olson, *The Rise and Decline of Nations* (New Haven: Yale University Press, 1982); and critical review thereof by Robert Reich, "Why Democracy Makes Economic Sense," *The New Republic*, December 19, 1983.



Canada's Industrial Adjustment: Federal Government Policies and Programs

DEPARTMENT OF REGIONAL INDUSTRIAL EXPANSION

Canada depends on trade for much of its prosperity. Any changes in trade, whether they result from specific trade policies or from unrelated external events (or shocks) that distort established trade patterns, have repercussions on the nature and direction of Canada's economy. The repercussions may be either positive or negative in terms of affording opportunities or threatening the status quo. In either case, the existing structure of the domestic economy is affected.

Change over time is inevitable in the external environment. Recently, however, the rate of change has been increasing rapidly. Furthermore, the impact of some external shocks has been of a magnitude heretofore largely unparalleled.

Trade patterns have also changed and the pace is quickening. One noteworthy cause is the development of trade in manufactured goods from newly industrialized countries (NICs). NICs thus compete directly with traditional trading nations and NICs frequently have a comparative advantage over their competitors. This changed situation has led to a greater interdependence of national economies and trading relationships to form a world economy. Any significant change now produces ripple effects on a worldwide scale. Canada, with its reliance on trade and its susceptibility to external shocks, is not immune and must make adjustments to this change.

This paper reviews the external events of the past two decades and recounts the actions over the same period by the Department of Regional Industrial Expansion (DRIE) and the former departments of Regional Economic Expansion (DREE) and Industry, Trade and Commerce (IT&C) to address industrial adjustment. Horizontal policies such as fiscal or immigration policies are excluded, as are domestic trade policies generally.

The phenomenon of industrial adjustment is difficult to describe. It can be viewed in the broad sense as encompassing changes of any kind — for example, technological changes, organizational or structural changes, or changes in management and marketing practices. In the narrow sense, it may involve the complete restructuring of an industrial sector or subsector — for example, textiles or automotive parts.

Trade Policy Changes and External Shocks

“It is axiomatic that external developments are crucial in any analysis of Canada’s economic performance and prospects,” the Economic Council of Canada noted in its Tenth Annual Review, *Shaping the Expansion* (Ottawa: Information Canada, 1973).

Over the past two decades, there have been a number of trade policy changes and significant events that affect the anticipated direction and growth of the Canadian economy. These changes and events have required Canada to change its course of action by making adjustments of a general nature across many industrial sectors, or by making more radical adjustments in individual sectors such as textiles in order to adapt to the threats or opportunities presented.

Trade Policy Changes

The Multilateral Trade Negotiations (MTN) and the General Agreement on Trade and Tariffs (GATT), especially the Kennedy and Tokyo rounds, were designed to reduce tariffs and increase the access of signatory countries to each others’ markets. However, there has been a tendency in some cases for industries that have been adversely affected to lobby for protectionist measures. In other cases, non-tariff barriers have been deployed to achieve the effects previously obtained through tariff barriers.

Some countries have signed trading and economic agreements to form common market areas — for example, the European Economic Community, the European Free Trade Area, or those involving several African, Caribbean and Pacific countries. Others have signed bilateral agreements. The development of these power blocs in international trading relations limited some of Canada’s opportunities for trade, and have thus required Canada to make certain domestic adjustments.

Under the General System of Preferences, Canada and certain other countries have agreed to provide unilateral tariff preferences for a range of manufactured goods exported from developing countries. As a result, Canada may have to make some domestic industrial adjustment. A variety of trade policy instruments affecting industrial adjustment have been introduced over the last two decades. Examples include the use of safeguards permitted under the GATT, such as anti-dumping restrictions and counter-vail duties against export subsidies; the renegotiation of tariff concessions;

the use of safeguards as provided for in the General Preferential Tariff; the decision that the tariff reductions resulting from the MTN should be phased in gradually rather than introduced immediately, in addition to the use of partial or full exemptions from the formula tariff cuts, as permitted. To deal with industrial adjustment problems, Canada has imposed selective import controls, such as introducing quotas on certain items like acrylic and worsted yarns, negotiating import levels for selected goods with other countries, or requesting import licences for specific products such as worsted fabrics.

Significant External Shocks

Major shocks — some of them sudden and somewhat unexpected, others evolving over a longer period of time — are as follows:

- rapid advances and frequent changes in technology;
- the OPEC agreement, which led to significant increases in oil prices and caused a cycle of price rises that had a major impact on the world economy and altered the existing structure of comparative advantages;
- currency instability, the increased volatility of exchange rates, the floating dollar, and the devaluation of the U.S. and Canadian dollars;
- worldwide inflation, caused by abnormally high interest rates worldwide, which stemmed from increases in oil prices and in the prices of goods heavily reliant upon oil-related inputs and which resulted in some decrease in investment, aggravated by the tight money policy in the United States and by excess demand following the expansive policies during the early 1970s in Canada and elsewhere;
- the underutilized capacity in some Canadian industries resulting from an unanticipated global slowdown in demand leading to increased costs and price pressures and very strong competition for available markets, as well as from slow growth, recession, and reduction in trade volumes in the United States as that country attempted to improve its own balance of payments;
- the industrialization and internationalization of Third World countries, and the emergence of newly industrialized countries have increased Canada's awareness of world economic interdependence;
- the impressive success of Japan and of recently industrialized countries which are often able to compete effectively with Canada, partly because of low productivity in some Canadian industries;
- the development of new resource bases and new sources of supply which in some cases has led to a decline in the relative importance of Canada's export trade in minerals, metals and other primary products while, at the same time, putting a premium on exports of manufactured goods;
- the changes in demographic patterns such as population aging, particularly in the industrialized countries, which has altered the size and

composition of the labour force and overall patterns of demand for products;

- the difficulties of Third World countries in meeting their debts; and
- the spread of large multinational corporations.

Effects of Changes and Shocks

Trade policy changes and external events have presented opportunities as well as threats for Canada. In some cases, companies are able to make the adjustments necessary to remain viable, to increase profits or to take advantage of new opportunities as they arise. In other cases, companies may have inadequate finances or management ability to adapt successfully. A government role of one kind or another may therefore seem warranted in some circumstances in order to facilitate adjustment and prevent economic decline. Since most adjustment occurs through private sector motivation, the government role should be minimal.

Significant adjustment problems have occurred in Canada as a result of strong import competition in a number of sectors including textiles, clothing, footwear, consumer electrical products, and segments of the metal fabricating industries. Certain resource-processing industries including wood and paper products, primary metals and non-metallic mineral products require extensive modernization and rationalization in order to remain competitive (often in the face of declining demand). In addition, furniture, some sectors of food processing and shipbuilding industries have encountered adjustment problems. Although adjustment measures in some industries may reduce employment, the measures are necessary if industry viability is to be regained.

External events have different impacts on the various regional economies in Canada. In some cases, industries requiring adjustment may be concentrated in only a few geographic locations. This is particularly true of textiles, clothing and primary metals industries. If the affected community has a limited industrial base and if adjustment measures strongly suggest plant closure, then the effect on the regional economy may be of crucial importance, even though the impact at the national level may be considerably milder. At the same time, the opportunities for potential benefit stemming from a required adjustment are likely to be greater in some regions than in others.

Among the major Canadian regions, some industries have been identified as possible targets for industrial adjustment policies. These include:

- in the western provinces, wood and paper products and some secondary manufacturing;
- in Ontario, the manufacturing sector, particularly those industries which are labour intensive;
- in Quebec, the clothing, furniture, and footwear industries, which are

labour intensive and which face strong import competition (Quebec forest products also face worldwide competition); and

- in the Atlantic provinces, the mineral and oil and gas off-shore industries, which are likely to require adjustment, and the fisheries and forestry industries, which are also likely to benefit from restructuring.

Rather than simply reacting to strong import competition, Canada could initiate timely adjustment of industries which, if actively seized and accurately assessed, could yield a comparative advantage in trade of products such as technologically advanced producer goods.

DRIE Philosophy Toward Industrial Adjustment

In a market economy, industrial adjustment is a natural process whereby labour and capital move from non-competitive sectors to more productive, higher-return activities. The DRIE approach with respect to this process is in line with the department's overall philosophy of relying on private sector initiative. Rather than directing the industrial adjustment process, the department has designed various programs to facilitate necessary changes and to provide an environment conducive to the adjustment process.

Though industrial adjustment is an on-going process, it does not always proceed at an even pace. Shocks or large changes to the economic system, including reduction in tariffs, increases in oil prices and swift development of supply capability among NICs have, in a relatively short period of time, dramatically affected the longer-run prospects of some industries. In response to such situations, government involvement is sometimes considered necessary, particularly when the social benefits of adjustment outweigh private sector costs.

There are two kinds of government response to adjustment which seem appropriate. The first relates to the very short term, in which temporary protection or other emergency measures may need to be employed. It is essential, however, to design these measures so that firms and workers in affected sectors do not rely on them, because such measures cannot be permanent. The second and most significant type of government response involves mechanisms (including financial incentives where appropriate) to facilitate those shifts in resources which are necessary to ensure long-run economic viability. Intra-industry and interindustry rationalization are common features of this adjustment process. Government involvement often takes the form of aid to firms to restructure operations and to retrain or relocate workers. There is also a requirement to provide a more extensive form of assistance to those workers who, for one reason or another, cannot be retrained or relocated geographically.

Another important contribution of government toward industrial adjustment is awareness of regional sensitivity. A declining industry located or

concentrated in a disadvantaged region has special problems. To prevent increases in regional disparities, government efforts to attract new and viable industries to the location in question may assist the adjustment process.

DRIE's approach to industrial adjustment relies largely on private initiative to drive the economy and to restructure industrial activities based on the external environment (both threats and opportunities). Overall, the major philosophy of DRIE is to promote a climate conducive to rapid growth and to efficient allocation of resources. This involves concentrating attention on the economy's flexibility and ability to adapt to changing circumstances, as well as operating programs designed to ease the burden of the adjustment process in particular cases.

DRIE Programs for Industrial Adjustment

The present DRIE organization incorporates many programs from the former DREE and IT&C departments, as well as programs undertaken jointly with other departments, such as the Industry and Labour Adjustment Program (ILAP) shared with the Employment and Immigration Department. Inasmuch as any financial or other support to industry may result in an adjustment of some sort, most of these programs can be considered to make some contribution toward adjustment. Only a small number of programs such as the General Adjustment Assistance Program, the Industry and Labour Adjustment Program, and the Canadian Industrial Renewal Board were introduced largely for industrial adjustment purposes.

Some programs are directed toward specific industry sectors or subsectors, while others are universal. Methods of assistance vary and include funding such as loans, contributions, ad hoc financial assistance, and duty remission.

Types of Programs

Universal programs for firms are generally aimed at improving knowledge, providing commercial intelligence, strengthening the financial condition of business, encouraging research and innovation, facilitating rationalization and restructuring, identifying and developing new market opportunities and reducing risk. Program activity of this type has been found to be particularly helpful to small and medium-sized firms.

Assistance can also be provided on a case-by-case basis for large companies facing extraordinary situations as a result of the need for adjustment. Companies are usually major companies in an industry sector or of strategic importance.

Programs for firms in specific industry sectors are also available to provide adjustment assistance for firms facing special problems of rationaliza-

tion and restructuring. Such sectors include textiles and clothing, leather and footwear, automotive parts, shipbuilding, and pulp and paper.

Programs for communities where the major employer is an industry facing severe adjustment problems have been developed to offer special assistance to overcome the social problems related to labour aspects. One important program of this nature is the Industry and Labour Adjustment Program formerly operated jointly by DRIE and the Employment and Immigration department.

Programs at the regional level focus on adjustment problems encountered by firms heavily concentrated in particular regions, such as textiles in Quebec, automotive assembly and auto parts in Ontario, and the fisheries on the two coasts. Their problems are likely to be aggravated when the economy is on the downside, when a traditional industry may be in decline through obsolescence or when it meets superior competitiveness from newly emerging competitors. Though not primarily adjustment programs, the Regional Development Incentive Program and General Development Agreements (GDAs), now generally replaced by Economic Regional Development Agreements (ERDAs), could be used to deal with adjustment in such cases. (The GDAs may have had more relevance in dealing with opportunities presented in specific areas.)

The following programs or activities are considered to have (or to have had) significant industrial adjustment elements. Programs applying to most industry sectors include:

- the Industrial and Regional Development Program (IRDP), which in 1983 subsumed the Enterprise Development Program, Regional Development Incentives Program, and the Institutional Assistance Program, Support for Technology Enhanced Productivity, Cooperative Overseas Market Development Program and the special area programs for Montreal and the Magdalen Islands, and which in November 1984 dropped the rarely used restructuring element of the IRDP (Appendix A provides a detailed summary of the IRDP as modified in 1984);
- the Enterprise Development Program (EDP) of the former IT&C department, which in 1977 subsumed a variety of earlier programs, including the Program for Advancement of Industrial Technology (PAIT); Industrial Design Assistance Program (IDAP); Program to Enhance Productivity (PEP); General Adjustment Assistance Program (GAAP); Automotive Adjustment Assistance Program (AAA); Footwear and Tanning Industry Adjustment Program (FTIAP); and Pharmaceutical Industry Development Assistance Program (PIDA) (some of these programs were industry specific); and
- the Industry and Labour Adjustment Program (ILAP), which includes the community-based industrial adjustment program (CIAP), formerly operated jointly by the IT&C and Employment and Immigration departments and now modified under DRIE;

- individual Company Restructuring, which aided such corporations as Chrysler, under joint auspices of the former IT&C and DREE departments; and
- the Regional Development Incentives Program (RDIP), formerly sponsored by DREE.

Programs offering adjustment assistance to specific industry sectors include:

- the Footwear and Tanning Industry Adjustment Program (FTIAP), administered by the General Adjustment Assistance Board, and the Fashion Design Assistance Program, administered by the Canadian Industrial Renewal Board (CIRB), under the auspices of the former IT&C department;
- the Pulp and Paper Modernization Program for mill rationalization and restructuring under joint administration by DREE and IT&C;
- the Shipbuilding Industry Assistance Program (SIAP) under IT&C; and
- the Automotive Adjustment Program, also under IT&C.

The following programs and activities are considered to have (or to have had) some impacts on adjustment:

- the Industrial Energy R&D Program (IERDP), formerly operated by IT&C and now administered by the Energy, Mines and Resources department;
- the Support for Technology Enhanced Productivity (STEP) program under IT&C;
- duty remission under IT&C;
- the Program for Export Market Development (PEMD), formerly administered by IT&C, now operated by the Department of External Affairs, but delivered largely through DRIE;
- the Montreal Special Area Program, formerly operated by DREE;
- the Institutional Assistance Program (IAP), formerly operated by IT&C;
- the Small Business Loans Act (SBLA), formerly administered by IT&C, now by DRIE;
- the General Development Agreements (GDAs), including subsidiary agreements which in some cases were industry specific, formerly administered by DREE; and
- the Defence Industry Productivity Program (DIPP), formerly run by IT&C, now delivered through DRIE.

Appendix B describes the major adjustment programs operated by the former departments of DREE and IT&C, and the major program of the recently established DRIE, the Industrial and Regional Development Program in which one program element, restructuring (now terminated), was devoted exclusively to industrial adjustment; other program elements can be applied to adjustment in some cases. Appendix C describes other programs which influence industrial adjustment.

The Overall Effectiveness of DRIE Activities

The Industrial and Regional Development Program plus other existing DRIE programs and activities provide a variety of measures to assist industry (and, in the case of ILAP, workers) to adjust to a changing environment. The Canadian Industrial Renewal Board and ILAP were designed solely for adjustment purposes, and certain program elements in the IRDP (in particular, Innovation and Modernization/Expansion elements) provide assistance for additional adjustment needs.

It is difficult to determine the degree of success in responding to adjustment that has been achieved through DRIE action. It may have led to movement of labour and capital from less efficient to more efficient companies or from less competitive to more competitive industries, thus strengthening the viability of the Canadian economy. Or it may have provided opportunities for companies to take advantage of in making an adjustment. In some cases, especially in single-industry towns, the social costs involved add another dimension of adjustment, which is hard to measure.

The private sector makes its own responses to industrial adjustment, thus making it difficult to separate what adjustment occurred as a result of government assistance and/or encouragement from what would have occurred in its absence.

Appendix A

Summary of Industrial and Regional Development Program Coverage

Element: Innovation

To encourage the development of new products and processes and to increase industrial productivity and international competitiveness through support of research and development projects which show promise of economic success or strategic importance to a region and which would not be undertaken without support.

Eligible Projects	Maximum Level of Assistance Offered			
	Tier I and Special Tier I	Tier II	Tier III	Tier IV
1) <i>Studies</i> Assistance may be made available toward the cost of hiring qualified con-	33.3%	40%	50%	50%

Eligible Projects	Maximum Level of Assistance Offered			
	Tier I and Special			
	Tier I	Tier II	Tier III	Tier IV
sultants for studies on project feasibility, technology transfer, market research and venture capital search associated with prospective innovation projects.				
2) <i>Developing New Products or Processes</i> Assistance may be provided for projects to develop or demonstrate new or improved products or processes, including pollution control, which are scientifically feasible, entail significant technical risk and represent attractive prospects for commercial exploitation.	33.3%	40%	50%	50%
3) <i>Developing Technological Capability</i> Projects for the improvement or expansion of technological capability which do not lead directly to identifiable sales may be supported if the technological capability is of strategic importance to the firm and the regional industrial development priorities of the government.	33.3%	40%	50%	50%

Eligible Projects	Maximum Level of Assistance Offered			
	Tier I and Special			
	Tier I	Tier II	Tier III	Tier IV
4) <i>Development and Demonstration</i> Projects to develop or demonstrate new products or processes, but which do not entail significant technological risk may be supported in a way similar to those in 2) above, the assistance being repayable upon successful commercial exploitation of the resulting product or process.	33.3%	40%	50%	50%
5) <i>Design</i> Assistance may be made available for the design of a new, durable product capable of being mass produced that offers good prospects for commercial exploitation.	33.3%	40%	50%	50%

Element: Establishment

To assist in the establishment of new production in regions with relatively higher economic disparity.

Eligible Projects	Maximum Level of Assistance Offered				
	Special				
	Tier I	Tier I	Tier II	Tier III	Tier IV
1) <i>Studies</i> Funding may be provided toward the cost of hiring qualified consultants for	N/A	30%	30%	37.5%	37.5%

Eligible Projects	Maximum Level of Assistance Offered				
	Special				
	Tier I	Tier I	Tier II	Tier III	Tier IV
studies of project feasibility, market research or venture capital search associated with a prospective establishment project.					
2) <i>Plant Establishment</i> Funding may be made available for the establishment of new facilities for manufacturing or processing.	N/A	17.5%	17.5%	25%	30%

The minimum approved capital costs to be eligible for assistance under 2) above have been established as:

Tier Group	Establishment
I	N/A
I Special	\$50,000
II	50,000
III	25,000
IV	5,000

Element: Modernization/Expansion

To increase industrial productivity through the improvement, modernization and expansion of existing manufacturing and processing operations.

Eligible Projects	Maximum Level of Assistance Offered				
	Special				
	Tier I	Tier I	Tier II	Tier III	Tier IV
1) <i>Studies</i> Assistance may be provided toward the cost of hiring qualified consultants for project feasibility and other studies, market research	N/A	30%	30%	37.5%	37.5%

Eligible Projects	Maximum Level of Assistance Offered				
	Tier I	Special Tier I	Tier II	Tier III	Tier IV
and venture capital search for projects associated with modernization, productivity improvement or expansion.					
2) <i>Modernization</i> Assistance may be made available for the acquisition of new advanced machinery and equipment which modernize or significantly enhance the productivity of existing activities in manufacturing and processing.	N/A	17.5%	17.5%	25%	25%
3) <i>Expansion</i> Assistance may be made available for the expansion of existing manufacturing or processing operations.	N/A	17.5%	17.5%	25%	25%
4) Funding may be provided to manufacturers and processors for the first installation of micro-electronic devices in their products and operations, for the design of custom micro-electronic devices, and for incorporation or application of electronic dependent products, or systems in products, processes, production methods or facilities.	N/A	30%	30%	37.5%	37.5%

The minimum approved capital costs to be eligible for assistance under 2) and 3) above have been established as:

Tier Group	Establishment
I	N/A
I Special	\$50,000
II	50,000
III	25,000
IV	5,000

Element: Marketing

To facilitate the identification, development and exploitation of new domestic and international market opportunities, and to enhance competitiveness within existing markets.

Eligible Projects	Maximum Level of Assistance Offered			
	Tier I and Special Tier I	Tier II	Tier III	Tier IV
1) Assistance may be available to economic, business or technological centres and similar non-profit organizations for activities promoting the acceptance of Canadian standards and product specifications, for market research and analysis, trade shows or other events or for the publication and dissemination of catalogues to promote Canadian products if the purpose is to increase the marketing and processing operations.	45%	45%	45%	45%

Eligible Projects	Maximum Level of Assistance Offered			
	Tier I and Special Tier I	Tier II	Tier III	Tier IV
2) <i>Studies</i> Funding may be available toward the cost of hiring qualified consultants for feasibility studies.	25%	30%	37.5%	37.5%
<i>Program for Export Market Development</i> (PEMD)	Eligible	Eligible	Eligible	Eligible

Although not part of IRDP, PEMD will be delivered by DRIE on behalf of the Department of External Affairs in support of DRIE's continuing responsibilities for trade promotion in Canada.

Appendix B

Major Adjustment-Related Programs

Industrial and Regional Development Program (IRDP)

To enhance the flexibility, effectiveness and regional sensitivity of government assistance, most of the major programs of the former DREE and IT&C were replaced by the Industrial and Regional Development Program (IRDP) introduced in July 1983. IRDP subsumed the Enterprise Development Program, Regional Development Incentives Program, and the Institutional Assistance Program, Support for Technology Enhanced Productivity, Cooperative Overseas Market Development Program, and the special area programs for Montreal and the Magdalen Islands (Appendix A provides a detailed summary of the IRDP, modified in November 1984). The IRDP, intended to respond to economic development priorities established by the government without creating additional new programs or perpetuating less relevant ones, differs from former programs in several respects. It

is based on a philosophy of selectivity and value for money so as to reduce the tendency of some sectors and companies to develop a dependence on program assistance. Projects are subject to negotiation and assistance is awarded according to departmental priorities.

The program is the means whereby DRIE implements the provisions of the act, formerly known as Bill C-165, to provide financial assistance to commercial operations for industrial development in all regions based on need (as identified through Tier Group designation) and on the specific purpose for which the assistance is used (as established according to criteria determined on the basis of program elements).

A Development Index classifies census divisions into one of four Tier Groups according to economic disparity. The index is based on employment and income levels and on the fiscal capacity of the province in which the division is located over the most recent three years for which data exist. Tier Group IV comprises the areas containing the most disadvantaged 5 percent of the population, Tier Group III, those areas with the next 15 percent, as well as Yukon and Northwest Territories included here for administrative purposes, Tier Group II, the areas with the next 30 percent, and Tier Group I, the remaining 50 percent of the population. The level and type of assistance varies according to Tier Group.

There exists also, for certain cases, a Tier I special category which allows enhanced programming in areas experiencing acute short-term problems. Assistance is not provided for any projects or activities that are unlikely to make a significant contribution to the economic or social benefit of Canada, or to projects that would be carried out in the absence of federal assistance.

Assistance is provided for viable projects meeting eligibility criteria (outlined below) at various stages of development from inception of the idea through innovation, plant establishment, modernization or expansion and marketing. Originally IRDP included two additional elements, Industrial Development Climate and Restructuring. The department believes that the Climate element can be dealt with more effectively through federal-provincial agreements. The Restructuring element was dropped because it was rarely used. Assistance is in the form of contributions (repayable or not). Program modifications were made in November 1984 in an attempt to improve the program's efficiency, to focus on projects/activity likely to increase industrial productivity and international competitiveness, and to ensure that support is provided in areas of the country where it is most needed. Maximum levels of assistance were reduced (as indicated in Appendix A) to approximate the average level actually employed. The Modernization/Expansion element is no longer available to Tier I, and projects related to tourism and Crown corporations are ineligible (because these are more appropriately funded through federal-provincial agreements and the legislatures, respectively). The program set the following eligibility criteria:

- *Companies* — manufacturers and processors (as defined in Program regulations).
- *Incrementality* — no project may be supported unless it would not proceed, insofar as location, scope or timing are concerned, without such support.
- *Commercial Viability* — the project and persons undertaking the project must be considered to be commercially viable within reasonable bounds of risk.
- *Significant Economic Benefits to Canada* — the project and exploitation of the results of the project must represent significant economic benefits to Canada.

Program expenditures for fiscal year 1983–84 amounted to \$195.8 million.

The program provides for the first time, a regionally sensitized, multi-faceted program of industrial financial assistance for private sector initiatives in all parts of Canada. Another feature of the program is its flexibility to provide the type of assistance appropriate to a given industry, area or community at a given time. The IRDP addresses the needs related to industrial development by affording opportunities to apply the benefits of technology and other innovations to existing industries in all parts of Canada to ensure their long-term viability and growth. The program provides for effective regional development by instituting a strong incentive to Canadian firms to invest in those areas in Canada which are in the greatest need of that investment. Program delivery is local, aimed at providing a one-stop shopping approach to government assistance to industry.

Enterprise Development Program (EDP)

The Enterprise Development Program, incorporating a number of instruments applicable to adjustment problems, was introduced in 1977 to help the growth of manufacturing and processing sectors by providing assistance to selected firms to make them more viable and internationally competitive. The program was replaced by IRDP in 1983. The thrust of the program was to foster innovation in the design and development of new or improved products or processes and to assist adjustment to changing circumstances (upside and downside adjustment). In addition, the program laid special emphasis on opportunities for electronics projects, secondary manufacturing affected by GATT tariff reductions (and by non-tariff barriers), and footwear and tanning.

The ten regional and one central Enterprise Development Boards reporting to the minister of IT&C authorized financial assistance to companies. Regional Boards authorized assistance only to applicants with annual sales of \$5,000,000 or less, and assistance of \$200,000 or less. EDP provided support by:

- contributing up to 75 percent for companies with annual sales up to \$10 million or up to 50 percent (for companies with annual sales over \$10 million) of project costs for new product identification, product development, product design, productivity improvement and associated consultants costs;
- providing loan insurance for up to 90 percent of a term loan from a conventional lender for a 1 percent annual fee for adjustment projects (to encourage mergers or increase working capital or enable the purchase of capital items); and
- providing special purpose assistance through loans and consulting grants to encourage restructuring in the footwear and tanning industry, to facilitate mergers and acquisitions, and to take advantage of export opportunities and restructuring opportunities opened up by the Tokyo Round tariff negotiations.

To be eligible for EDP assistance, firms had to meet the following criteria:

- the economic viability of the project and company had to be positive;
- for loan insurance, the firm had to have been unable to obtain financing on reasonable terms (last resort financing); and
- for contributions, the project must have represented a significant burden to the firm in relation to its resources.

The program was not directed to large-scale or community-based adjustment needs.

Industry and Labour Adjustment Program (ILAP)

The budget of October 2, 1980, provided a special allocation of \$350 million over four years "to promote industrial restructuring and manpower training and mobility in areas of particular need."

ILAP was initiated in anticipation of major new adjustment pressures affecting sectors not subject to special protection measures as well as those affecting protected sectors. Farm machinery, autos, shipbuilding, primary metals, and pulp and paper were faced with adjustment problems as a result of import competition or other factors impinging on domestic and foreign demand, such as high interest rates, large energy price increases, or product or market decline. It was anticipated that affected industries might not be able to undertake viable projects which were in the best economic interests of Canada without government assistance. Concern was also expressed for communities heavily dependent on a major industry, and faced by severe dislocation resulting from recent large-scale permanent layoffs. ILAP provided a "safety net" to the unemployed, as well as assistance to restructure industries.

ILAP operated as an industrial and labour adjustment fund with industrial development and restructuring benefits delivered by the Community

Based Industrial Adjustment Program and the Industry-Specific Restructuring Program. A substantial portion of the funding allocated to ILAP was set aside to supplement the national Critical Trade Skills Training program (CTST), to finance the Canadian Industrial Renewal Board, and to provide for additional labour adjustment measures in 1982.

Prior to the introduction of the ILAP, federal aid in respect of special labour adjustment and industrial restructuring situations tended to be linked to evidence that federal action had contributed to the adjustment problem. It came to appear more useful to consider the impact of industrial change per se rather than its causes. Despite a wide array of universal labour adjustment programs and an ability to assist the rearrangement of debt as part of a financial restructuring, a need was identified to reinforce the adjustment process and to broaden the scope of federal assistance in a highly targetted manner to deal with special labour and industry adjustment situations.

The following forms of assistance were provided under ILAP:

- contributions of up to 75 percent of consultant costs of projects to establish, expand or restructure operations;
- contributions of up to 75 percent of consultant costs associated with merger and acquisition projects;
- contributions of up to 75 percent of consultant costs for operational analysis and restructuring plans;
- repayable interest-free contributions of up to 50 percent of related capital costs, to encourage project undertaking;
- Critical Trade Skills Training (CTST) to firms participating in the program, with reimbursement of 100 percent of trainee wages to a maximum of \$250 weekly (for the first year) to firms training people under the program; and
- early retirement subsidies, increased mobility allowances and provisions for temporary productive employment for workers affected by adjustment.

To be eligible, selected firms and projects had to be viable with net economic benefits accruing to a designated community from a project unable to proceed without government assistance. A further requirement was that the project should not create competitive overcapacity in the sector or industry. As of December 1983, funds approved under ILAP amounted to \$79 million and created an estimated 8,000 jobs.

ILAP was scheduled to expire on March 31, 1984. A modified ILAP, focussing on the labour aspects of the original program has replaced it. Modified ILAP provides enriched mobility assistance for Level 1 designations, and special early retirement benefits under the Labour Adjustment Benefits Act for Level 2 designations.

Company-Specific Restructurings

Starting in the late 1970s, companies sought government intervention to support massive restructuring after they had exhausted all private sector measures to solve their adjustment-related problems. Due to the enormity of the companies' financial problems and adjustment difficulties and the implications for employees, suppliers, communities, banks and other major Canadian and foreign institutions, IT&C enlisted cabinet's decision-making authority to consider what measures the government should take. Types of assistance granted included:

- loan guarantees;
- guarantee of preferred share issue; and
- repayable grants and contributions.

Regional Development Incentives Program (RDIP)

The Regional Development Incentives Program was introduced in 1969 to stimulate and to preserve production and employment opportunities in designated areas and to facilitate the implementation of selected opportunities identified under the General Development Agreements (GDAs). This program is now subsumed under the IRDP. The program provided development incentives in support of the establishment, modernization or expansion of manufacturing and certain other facilities. Its purpose was to encourage firms to locate, modernize or expand in designated slow-growth regions. An interdepartmental committee advised the minister on offers of incentive assistance to applicants (generally only for projects with capital costs of \$2,000,000 and up).

Forms of assistance included:

- non-repayable and repayable incentives based on approved capital costs of at least \$25,000 or approved capital costs of \$5,000 with at least five direct eligible jobs; and
- loan guarantees based on capital costs of at least \$100,000, authorized for most manufacturing and processing industries and a restricted number of new commercial projects, with a maximum guarantee commitment not exceeding 90 percent of the original principal amount of the loan.

Textiles and Clothing

During the first half of the 1970s, considerable progress was made in reducing the proportion of imports (primarily textiles) governed by bilateral agreements, but low-cost clothing imports made deep inroads. Canadian-made clothing and certain textile industries were unable to compete with low-cost imports, particularly from countries where trading was managed by the government.

The 1970 Textile Policy was introduced "to create conditions in which the Canadian textile and clothing industries continue to move progressively toward viable lines of production on an increasingly competitive basis internationally." The two major policy elements were restructuring and protection. The policy was introduced to meet the threat posed by imports, against a background of changes in technology, production methods and demand. Major features of the policy included the following elements:

- the Textile and Clothing Board (to ensure that protection was linked to restructuring);
- the Fashion Design Assistance Program;
- the Adjustment Assistance Benefits Program for Displaced Workers;
- the Bilateral Arrangements and Export Promotion Program; and
- the establishment of development and productivity centres for the textile and clothing industries.

Support was available under the former General Adjustment Assistance Program for guarantees and loan insurance, special case loans, and grants for consulting costs related to restructuring plans. Special protective measures were available in cases of actual or threatened serious injury from low-cost imports (in cases where adjustment plans were acceptable).

The Textile and Clothing Board had the power to conduct inquiries to ensure that import protection was linked to restructuring, and to recommend special protection measures to the Minister of IT&C upon submission by producers of acceptable adjustment plans. A major program to promote exports through trade fairs, shows and missions was launched for the clothing and textile industries. Aided by the fashion explosion of the late 1960s, the Fashion Design Assistance Program attempted to develop Canadian designers and to enhance the Canadian fashion design image domestically and internationally through Fashion Canada Mode.

The 1981 Update of the 1970 Textile Policy was announced by the federal government in June 1981 for the Canadian textile and clothing industries. The policy allocated \$250 million over five years to restructure, rationalize and modernize the domestic industries while ensuring continued adequate levels of protection during the adjustment period. It also provides assistance to communities and workers affected by foreign competition in these industries through the creation of the Canadian Industrial Renewal Board (CIRB) to administer the Sector Firms Program (restructuring) and Business Industrial Development Program (community assistance), a worker assistance program (administered by CEIC) and the renegotiation of bilateral arrangements with state-trading countries or countries producing low-cost goods for a five-year period ending December 31, 1986 (administered by External Affairs).

The objectives of the programs under the CIRB are:

- to promote the revitalization of the textile, clothing and footwear industries;
- to develop an internationally competitive textile and clothing industry and thereby gradually reduce the need for special measures of protection;
- to promote the strengthening and diversification of the economic base of regions heavily dependent upon these industries; and
- to assist workers displaced as a result of industrial adjustment.

CIRB assistance takes the form of contributions for viable companies and projects.

Under the Business and Industrial Development Program, particular regions heavily dependent on textiles, clothing and footwear are identified as "special" areas. These areas are given special priority under the program. In addition to all federal services to industry, CIRB offers investors in special areas the following forms of assistance:

- contributions of up to 75 percent of consultant costs for developing restructuring and modernization plans, developing feasibility studies for mergers and acquisitions, and developing proposals to establish manufacturing, processing or other commercial activities;
- contributions of up to 50 percent of capital and pre-production expenses of projects to restructure or establish manufacturing or processing activity in designated communities; and
- loans of up to \$1.5 million, and loan insurance of up to 90 percent for mergers and acquisitions.

The CIRB also provides assistance in the form of contributions of up to 100 percent of consultant costs for the creation of long-range industrial development plans for designated communities. Portable wage subsidies, mobility assistance, enhanced training allowance incentives and early retirement benefits for laid-off workers are administered by CEIC. In addition, the Multi-Fibre Arrangement (II), allowing restraints on cotton textiles and products and wool and man-made fibre textiles and products was renewed for the 1982-86 period. Bilateral arrangements covering a wide range of low-cost clothing imports have been negotiated for the same period.

Footwear and Tanning Industries Adjustment Program

The Footwear and Tanning Industries Adjustment Program was introduced in 1974 in response to intense competition from low-cost imports. It was administered initially by the General Adjustment Assistance Program Board and later by the Enterprise Development Board until 1981. The program provided no formal mechanisms for establishing bilateral import restraint arrangements, relying instead on Canada's use of global quotas on all or on certain footwear imports, along with normal tariff protection. Major features of the program included the following elements:

- establishment of a Development and Productivity Centre;
- establishment of the Adjustment Assistance Benefits Program for Displaced Workers (administered by the Department of Labour);
- export promotion assistance; and
- improved market analysis and information.

The objective of the program was to provide companies with financial assistance through grants of up to 80 percent of the consultant costs for review and implementation of restructuring plans. It also provided direct loans for mergers and the acquisition of new equipment. In addition, the Footwear and Leather Institute of Canada was established in 1976 to provide companies in the industry with specialized services covering productivity improvements, marketing, personnel and financial management. Furthermore, various quotas were introduced by the government covering a range of footwear.

On November 24, 1981, following a determination of serious injury from imports, the federal government announced a new policy for the Canadian footwear and tanning industries comprising a \$17 million financial assistance program to be administered by the Canadian Industrial Renewal Board, with a three-year global quota of 34.1 million pairs on all imports of non-leather footwear including canvas for the period December 1, 1981 to November 30, 1984.

The objective of this adjustment policy is to restructure and rationalize the domestic footwear and tanning industries in order to reduce the industry's reliance on quantitative import barriers and to assist communities and workers affected by foreign competitors. The objective of a global quota is to provide a more stable market in Canada, especially in the face of severe competition from low-cost imports, so that the domestic footwear industry can continue to restructure and modernize.

Industry restructuring is assisted through the Canadian Industrial Renewal Board's programs for firms in specific industry sectors. Community diversification is offered through the CIRB's Business and Industrial Development Program, and worker assistance is offered through programs administered by the Employment and Immigration department.

Pulp and Paper Modernization

As a result of competitive difficulties, the shortfall in capital investment, technological changes in machinery, new products and changing wood resources, the federal government and concerned provincial governments decided that there was a need to upgrade and modernize existing facilities in the pulp and paper industry. The purpose of the program was to stimulate investments in order to improve the viability and efficiency of the industry and to provide assistance for cost-reduction and modernization in order to improve the industry's competitiveness.

Through various cost-sharing subsidiary agreements with Newfoundland, Nova Scotia, New Brunswick, Quebec and Ontario, \$276 million was budgeted for capital costs of projects under this program over a five-year period starting July 1980. The program provides incentive grants of up to 25 percent of capital costs for modernization, efficient utilization of energy resources, and pollution abatement of primary pulp and paper facilities.

Shipbuilding Industry Assistance Program (SIAP)

Federal assistance to the shipbuilding industry has been provided by a series of subsidy programs. The Shipbuilding Industry Assistance Program, which replaced the Ship Construction Subsidy and the Shipbuilding Temporary Assistance Program, provides incentives for improved performance through increased productivity and efficiency. SIAP was introduced in 1975 when the world shipping industry encountered serious difficulties resulting in part from increased oil prices, a downturn in world trading activity and defensive support measures by most shipbuilding countries.

In part, the government motives for the introduction of the program are based on the desirability of maintaining employment and the need for a marine infrastructure to support Canada's role as a world trader. Arctic sovereignty is also a factor. The objective of the program is to maintain and improve the industry's viability and competitiveness in bidding for new domestic and foreign orders in the face of foreign competition. Program assistance includes:

- a subsidy of the approved cost of a vessel built or converted in Canada, beginning with 17 percent, declining by 1 percent in each successive year until it reached 9 percent; however, from February 1977 to June 1980, the rate was reset at 20 percent, reverting after this date to 9 percent;
- a productivity improvement credit of 3 percent of the cost of vessels entitled to a subsidy or vessels purchased by the federal government, payable through a matching grant of 50 percent in cases where an equal investment was made by a shipyard for approved performance improvement leading to an upgrading of facilities.

Automotive Adjustment Assistance Program (AAA)

The purpose of the Automotive Adjustment Assistance Program was to assist Canadian automotive producers in expanding their operations and making them more efficient. The program was introduced as a result of the Canada-United States Automotive Products Agreement, which created an entirely new trading environment for automotive parts manufacturers. Under it, new cars produced in North America could be transported between the two countries without duty, provided that certain production-

to-sales ratios and Canadian value-added requirements were met.

AAA was administered by the Adjustment Assistance Board from 1965 to 1977. The Board had a private sector chairman and included the deputy ministers of finance, labour, national revenue, customs and excise, and industry, trade and commerce.

Forms of assistance provided under the program included:

- loans to automotive parts manufacturers and suppliers of materials, accessories and tooling used in the industry;
- a tariff remission application review system to remit duties on imported production machinery and equipment which was not available from Canadian producers within the time needed to meet production schedules; and
- benefits paid to laid-off automotive workers certified by the Adjustment Assistance Board administered under the Department of Labour's Transitional Assistance Benefits Regulations.

During the 1970s, regulations concerning automobile emissions, safety, fuel economy, imports and down-sizing have placed more pressures on automotive parts producers as the North American and world automotive markets changed.

Appendix C

Program Activities with Some Impact on Adjustment

Industrial Energy R&D Program (IERDP)

The IERD Program encourages research and development of new and improved processes and equipment that will reduce energy consumption in industry and ensure the widest possible use of this technology. It was initially administered by IT&C and is now directed by the Department of Energy, Mines and Resources. The program provides contributions of up to 50 percent of the total estimated cost of approved projects excluding capital expenditures associated with building, machinery and laboratory equipment. Contributions provided in 1981-82, prior to the introduction of the National Energy Program, were \$0.6 million. In 1982-83, the figure reached \$2.7 million.

Support for Technology-Enhanced Productivity (STEP)

STEP, introduced in January 1982, was designed to enhance productivity in Canadian industry by encouraging the use of new electronic-dependent production, process and design technologies and the use of micro-electronics to improve quality and create new products. It was initially administered by IT&C, and is now subsumed under IRDP. Financial incentives were available to support consultant studies to examine the feasibility

of applying modern electronic-based technology to manufacturing and design processes and products. Depending on the type of project, assistance could be as high as 100 percent. Financial assistance was also available for R&D and capital investment projects that could substantially enhance Canadian supply capability in electronics and production automation technology. Maximum contributions were 75 percent of R&D, 50 percent of equipment costs and 15 percent of building costs. Expenditures under STEP in 1981-82 amounted to \$8.5 million.

Duty Remission

A number of duty remission (or waiver) programs exist, covering the following items: machinery, power cruisers, front-end wheel loaders, shirting fabric, televisions, Singer sewing machines, automotive components, and off-highway vehicles. The programs, originally directed by IT&C, are now under DRIE auspices. The machinery program, for example, encourages modernization investment by assisting the acquisition of advanced production equipment at the lowest possible cost through the remission of duty on machinery not available from Canadian manufacturers. Sales tax is also reduced via the reduced duty-paid value.

Program for Export Market Development (PEMD)

PEMD provides incentives for Canadian firms to enter export markets for the first time or to expand into new export markets, by sharing costs incurred. Formerly administered by IT&C, it now falls under the jurisdiction of the Department of External Affairs, but is delivered largely through DRIE. Assistance is available for export initiatives such as:

- specific project bidding;
- market identification;
- trade fair participation;
- incoming buyer visits;
- development of export consortiums; and
- establishment of a permanent presence in foreign markets.

In addition, assistance is available for the export-related activities of non-profit organizations and for agriculture-related activities, specifically fish and food.

Under PEMD, the federal contribution is repayable at specified terms if export sales are achieved as a result of the assistance. PEMD provided approximately \$27 million in contributions to export market development in 1983-84.

Montreal Special Area Program

The Montreal Special Area Program provided financial incentives for the establishment, expansion and modernization of facilities in two areas:

Metropolitan Montreal and the non-metropolitan region. It was formerly administered by DREE and is now subsumed under IRDP. The maximum level of assistance was 25 percent of approved capital costs.

Institutional Assistance Program (IAP)

IAP provided financial support to non-profit institutions offering specialized services to industry, or to fund activities or studies which foster industrial development in Canada. It is now subsumed by IRDP. Money was provided to a wide variety of institutions to enable them to provide research on a fee-for-service basis to industry. Support was conditional on the institute's achievement of self-sufficiency within a reasonable period of time. The program also provided scholarships, and funding for special studies and university courses.

Small Business Loans Act (SBLA)

Under the provision of the SBLA, all chartered banks and other approved lenders are authorized to make guaranteed loans to small business enterprises for the purchase or modernization of equipment or premises and the purchase of land. The program term has an expiry date of March 1985. It was administered initially by IT&C and is now administered by DRIE. The loan rate is set at 1 percent above prime. A maximum of \$100,000 in loans can be outstanding at any one time.

Loans can be used to finance up to 80 percent of the cost of fixed or movable equipment, and 90 percent of the cost of the purchase or construction of new premises, renovation and the purchase of land. In 1984, the government guaranteed over \$939 million in respect of over 33,000 small business loans.

General Development Agreements (GDA)

GDAs provide flexible mechanisms for federal-provincial coordination of developmental programming. They have been in force in each province except Prince Edward Island, where a Comprehensive Development Plan is in place. GDAs had a 1984 expiry date, after which DRIE was to negotiate new Economic Regional Development Agreements.

Defence Industry Productivity Program (DIPP)

In 1959, the federal government made a deliberate decision to end domestic development of major weapon systems with the cancellation of the Avro Arrow fighter program. To maintain the defence technology base and to support the Canada/U.S. Defence Production Sharing Agreement, it was deemed necessary to provide industrial assistance to replace the weapons development programs administered by the Department of National

Defence. It was in this context that the DIP Program was initiated in 1959. Formerly delivered through IT&C, it is now delivered through DRIE.

The objectives of the DIP Program are:

- the promotion of economically viable defence exports and related civil exports;
- the maintenance of a defence industrial base in Canada; and
- the development and maintenance of an advanced technological capability in the industry.

The types of support provided by the DIP Program are as follows:

- innovation project development for new products for export, generally called R&D projects, with federal funding of up to 50 percent and usually no more than 35 percent;
- capital assistance for upgrading Canadian manufacturing equipment in defence-related companies, generally called Capital Assistance projects, with federal funding of up to 50 percent and usually no more than 35 percent;
- source establishment for helping Canadian companies to absorb non-recurring front-end contract costs when competing against the U.S. defence industry, generally called Source Establishment projects with federal funding of up to 50 percent and usually no more than 35 percent; and
- market feasibility studies to determine the market for an existing product, or to determine characteristics required to fill a market need, with federal funding of up to 50 percent and usually no more than 35 percent.

Grants and contributions in 1983–84 amounted to \$144.2 million.

Notes

This paper was prepared for the Symposium on Domestic Adjustment to Trade Policy Changes and External Shocks, held by the Royal Commission on the Economic Union and Development Prospects for Canada on January 27, 1984. Revised in January 1985.



Exchange Rates, Financial Markets and Trade Liberalization

Summary of the Proceedings of a Research Symposium

RODERICK HILL

In raising the issue of the reduction of Canada's trade barriers, whether this is part of a bilateral or multilateral reduction in protection, or part of a unilateral move toward free trade, policy makers must consider the way in which the exchange rate would respond to such action. In turn, movements in exchange rates may effect trade policy through their effects on the international competitiveness of domestic industries and the pressures for protection felt by policy makers.

The links between trade policies, exchange rates, capital flows and financial markets are typically downplayed or even ignored in the traditional textbook approach to international trade theory. In the long run, monetary factors are assumed to have no influence on real trade flows, and so the links between exchange rates and trade policy are assumed not to be worthy of further study.

Recently, however, as floating exchange rates have become more widespread, the short-run links between trade policies and exchange rates have attracted more attention. The large U.S. fiscal deficit, high U.S. interest rates, and large capital inflows into the United States have made it clear that volatile and perhaps fundamentally misaligned exchange rates can generate pressures for increased protection. The worry is that protection generated by those factors may not be easy to remove once the misalignment is corrected. Present U.S. fiscal policies therefore pose two issues for Canadians through the links to exchange rates and interest rates. What are the consequences for Canada from what many observers claim is a significant misalignment between major currencies? And how will this affect the trade policies of Canada's major trading partner?

However, this does not exhaust the issues for Canadians arising from these linkages. Another set of questions concerns the possible effects of changes in trade policy on capital markets and on transborder capital flows.

Will capital that has been attracted into Canada by Canadian protective barriers leave? Several different forms of trade liberalization are potentially open to Canada: unilateral free trade, and bilateral or multilateral free trade agreements. It might therefore be asked whether the nature and organization of financial and capital markets makes one form of trade liberalization more or less desirable than another. Would exchange rate effects have to be taken into account and, if so, would one exchange rate policy make trade liberalization more attractive than another?

On February 10, 1984, the Research Advisory Group on Trade Policy (Economics) held a research symposium on exchange rates, financial markets and trade liberalization. The purpose of the symposium was to examine these issues and their consequences for Canadian international trade policy.

David Richardson presented a paper examining the links between exchange rates and trade policy, demonstrating that resource misallocations can result from exchange-rate misalignment and volatility. In the same session, John Williamson discussed the nature of currency misalignments, the response of trade flows to them and the costs involved. Both Richardson and Williamson evaluated various possible policy responses to the currency misalignments that they believe are present in the current global situation, and both agreed that central banks in several countries should jointly act to stabilize exchange rates.

In a subsequent session, Michael Parkin examined the consequences of a Canadian move toward unilateral free trade under either fixed or flexible exchange rates, and also under the exchange rate policies that the Bank of Canada has followed in recent years. He stressed that maintaining a predictable and widely understood monetary policy on the part of the central bank was far more important for capturing the gains from freer trade than the choice of fixed or flexible rates. In a companion paper, David Longworth considered whether or not undesirable short-run exchange rate responses might occur after a bilateral free trade agreement with the United States. The options available to the Bank were also examined. Russell Boyer analyzed what might follow a move to unilateral free trade under fixed and flexible exchange rate regimes. He asked whether it was possible to overshoot the new equilibrium exchange rate if flexible rates were chosen. The last paper of the symposium was presented by David Burgess, in which he considered the impact of both unilateral free trade and bilateral free trade with the United States on foreign direct investment (FDI) flows into Canada. He stressed that whether FDI increases or decreases as a consequence of trade liberalization, it is the real income gains resulting from freer trade which are of primary importance in improving the welfare of Canadians. In his opinion, whatever the desirable flow of inward investment into Canada, it should be achieved through instruments other than trade policies.

This paper summarizes the main points made both in the papers presented and in the discussion they generated. The various sections deal with the issues of misalignment and volatility of exchange rates and with their implications for trade policy, the consequences of more liberal trade policies both for exchange rates and the choice of exchange rate regime, and the effects on direct investment of either unilateral or bilateral free trade. The papers presented at the symposium by Richardson, Williamson, and Longworth are also included in this volume. The paper by Burgess appears in *Canada-United States Free Trade*, Volume 11 of the Commission's research series.

Misalignment of Exchange Rates and Protectionist Pressures

In an open economy such as Canada's, the exchange rate is an important variable. Its short-run volatility may have undesirable effects on resource allocation as would its misalignment against other currencies.

In his paper, Williamson defined misalignment as a persistent departure of the exchange rate from its long-run equilibrium value. This long-run or "fundamental" equilibrium should be regarded as the average, trade-weighted, real exchange rate expected to generate a current account surplus or deficit equal to the underlying capital flow over the business cycle.¹ Richardson similarly defined misalignment as a situation in which the current value of the exchange rate differs from its expected long-run equilibrium value.

Although there was disagreement among symposium participants about whether or not misalignments occur, if they do indeed occur, it was agreed that these could only be explained by different speeds at which various markets clear in response to shocks. Not all markets clear instantaneously, as a result of rigidities of various kinds. Markets that clear relatively quickly are spot or auction markets. Financial and commodity markets are the most common examples. However, spillovers from more slowly clearing markets to the faster-clearing ones can cause misalignments in financial markets, including foreign exchange markets. However, if further shocks beyond those originally occurring are not encountered, the exchange rate will converge on its long-run equilibrium value, and the sluggish variables in other markets will adjust and the misalignment will vanish. But, if the shocks recur often, then misalignments may remain for some time.

Only if the spillovers of sluggish adjustment into financial markets are long enough and sharp enough can it be said that the misalignment of exchange rates will cause serious resource misallocation problems. Williamson pointed out, for example, that an overvaluation is equivalent to a temporary uniform export tax and import subsidy. How temporary it is, in the view of economic agents affected, is the important issue. If there are adjustment costs involved in changing trade flows, exchange rate changes

perceived as temporary will have little effect. However, if a temporary misalignment is perceived as being permanent, then deviations of the exchange rate from its long-run level may induce costly misallocations.

Irrationality was also cited by some symposium participants as a possible contributing factor to misalignment. However, to the extent that it exists at all, it was seen to be likely of secondary importance empirically.

Williamson referred to the 1975-76 period during which the Canadian dollar was overvalued as an example of possible exchange market irrationality. He felt that there are often all too few market participants who form their expectations using the fundamental determinants of the exchange rate. It is difficult to say, however, whether the 1975-76 episode resulted in important misallocations and hence significant losses. Longworth suggested that the costs of episodes such as this can be significant if the volatility of exchange rates is such that it becomes, in effect, a significant misalignment. He also referred to the value of the Canadian dollar in the summers of 1981 and 1982 as evidence of periods of possible overreaction by exchange markets.

In his paper, Longworth stated that exchange rates may also be affected by expectations formed using inappropriate forecasting models of the economy. Or else, "fads" may occur, as market participants shift from the use of one model to another in forming their expectations. Speculative bubbles are also a possibility.

Under flexible exchange rates, short-run volatility in exchange rates can exist without causing problems for trade policies. Experience with flexible rates has shown that, over short periods of time, rates can exhibit large and sudden changes relative to what is happening to their long-run or fundamental determinants. Also, the timing of exchange rate changes frequently does not correspond to the timing of changes in the underlying fundamentals.

After raising these apparent puzzles, Richardson explained that they can be largely resolved by taking a broader view of what the fundamental determinants of the exchange rate actually are. He saw the distinction between flexible and sluggish economic variables as important here. Seemingly puzzling exchange rate changes can be explained by the response of exchange rates to unobservable variables, such as expectations and errors in forecasting the fundamental determinants.

Exchange rate volatility introduces additional "noise" into the economic system, but only when misalignments prevail for significant periods of time, or when exchange rate volatility is pronounced, do exchange rates lead to sharp and undesirable effects on resource misallocation. While firms can use forward exchange markets to protect themselves against short-run exchange rate volatility, they cannot protect themselves against a sustained and unexpected depreciation or appreciation. As Williamson put it, firms which would be competitive in the longer run may find themselves in the company of truly uncompetitive firms in a protectionist

lobby. This situation may add plausibility to protectionist requests.

Prolonged under- or overvaluation of a currency can be undesirable. As Richardson said, undervaluation can induce resources and workers to flow to tradable goods sectors, even though their presence cannot be supported by the market in the long run. Overvaluation causes a flow out of the tradable goods sector. The adjustment costs involved in moving resources between sectors have to be considered, along with the changes in productive capacity that long-run equilibrium behaviour may not justify. Further costs can potentially arise if changes in trade policies are induced through lobbying by workers and by firms suffering under temporarily adverse conditions associated with a misalignment.

If a temporary overvaluation results in new import protection and/or export promotion policies, it is possible that these policies will not be removed when the conditions that warranted them are reversed. However, as one symposium participant pointed out, this need not be the case. Examples of past experience with temporary import surcharges for balance of payments reasons suggest that they are indeed subsequently removed.

Neither Richardson nor Williamson favoured the use of temporary trade policies in situations of misalignment. Richardson emphasized the difficulties of credibly guaranteeing the temporariness of such policies. If temporary trade policies become permanent, what began as a temporary distortion (the misalignment) will be converted into a permanent one (new trade barriers).

Williamson, agreeing with Richardson, stressed the second-best nature of using trade policies to offset the effects of a misalignment. He pointed out that it is difficult to design subsidies for exports and tariffs for imports that would accomplish this without distorting trade flows. As the domestic currency would likely be misaligned by differing amounts with respect to different currencies, policy makers would wish to discriminate between trade flows to different countries, which is a practice not permitted under GATT rules. Finally, changes in the trade flows induced by the temporary trade policies could drive the exchange rate even further from its long-run equilibrium value.

The current and recent sizes of the misalignments that are creating pressures for protection were also examined at the symposium. In his paper, Williamson claimed that misalignment between major currencies could now be as high as 25 percent. In his opinion, the Canadian dollar (as of mid-1983), however, seemed close to its long-run equilibrium value. As this value is trade-weighted and the currencies of Canada's trading partners are misaligned, according to Williamson's calculations, this would have left the Canadian dollar overvalued by roughly 5 percent against the yen, 16 percent against European Monetary System currencies and undervalued by about 8 percent against the U.S. dollar. Because these currencies are misaligned with respect to each other, it is impossible for Canada to simultaneously achieve appropriate bilateral exchange rates with all of

our important trading partners. Only if the commodity composition of trade with all of them is the same will these bilateral misalignments have no aggregate effect.

Several other participants suggested that the bilateral rate against the U.S. dollar was about right. This would leave the Canadian dollar somewhat overvalued in trade-weighted terms.

As well as the costs of misalignment outlined above, Canada can suffer from other effects. For example, restrictive trade policies introduced by our trading partners as a result of misalignment can have harmful consequences for Canada. According to both Richardson and Williamson, some of the recent trade frictions between the United States, Japan and Western Europe have been caused by exchange rate misalignments. In the cases of agriculture, automobiles and steel, for example, such frictions have arisen, although the latter two industries also have deeper structural problems in the United States which the exchange rate pressures intensify.

There was fairly broad agreement among participants about the causes of current exchange rate problems. While some were willing to give market irrationalities a role, an inappropriate U.S. monetary and fiscal policy mix was cited as the primary cause. This mix of loose fiscal policy and tight monetary policy was viewed as not sustainable in the long run. Very substantial capital inflows into the United States are currently financing a heavy demand for credit and keeping the exchange rate at a high level. As Williamson argued the case, being a net debtor to the rest of the world is not a natural position for the world's most capital-rich country. Sooner or later, a current account surplus will be necessary to restore the U.S. asset position abroad.² The duration of the current misalignment cannot be predicted but in Williamson's view it will eventually unwind, especially since the U.S. budget deficits cannot last forever.³ Williamson believed that the longer the misalignment persists, the more the long-run equilibrium exchange rate will be overshoot in the other direction as realignment occurs. In the meantime, if the U.S. budget deficit is perceived to be a long-term problem, misalignment may well persist and protectionist pressures on U.S. trade policies will continue.

Policy responses to the misalignment problem were also discussed during the symposium. Williamson saw the appropriate policy response as being dependent upon the source of the misalignment. If market irrationality is at fault, the misalignment itself has no benefits: its costs through induced misallocations are all that need be considered. If, however, domestic macroeconomic policies are the source of the misalignment, the trade-offs between exchange rate volatility, the domestic macroeconomic targets, and the variability of official reserves must be considered.

There was general agreement that, if misalignment problems are caused by asset market shocks, then the best recourse is through an asset market response. Its aim would be to stabilize the exchange rate around its equilibrium value. If successful, this would avoid unexpected exchange

rate changes that adversely affect resource allocation and increase protectionist pressures. Assuming the mobility of financial capital across national borders and the reasonable accuracy of forecasting of expected inflation rates, Richardson demonstrated that attempts to stabilize movements of exchange rates around trend values are best achieved through efforts to stabilize interest rate differentials between countries. As Richardson put it:

It suggests [a] linkage between what is sometimes considered a concern of financial policy — the divergence of real interest rates from global levels — and what is usually considered a concern of trade policy — trends in international competitiveness. It also suggests that small, financially open nations may have on the one hand little policy control over real exchange rates . . . and on the other hand little need for such policy control. Movement of real exchange rates for such countries may be quite small . . . since international arbitrage seems likely to minimize divergences of home real interest rates from dominating global levels.

If the above describes the Canadian situation, it also suggests that there is little that Canada can do on its own to affect the real exchange rate of the Canadian dollar.

Joint action by a number of central banks is the course advocated by both Richardson and Williamson. They saw this as a more effective way of dealing with misalignments than individual actions by central banks to stabilize exchange rates. Williamson suggested a “target zone approach,” whereby countries would announce target zones of about 10 to 20 percent around a set of mutually consistent exchange rates. They would intervene in the foreign exchange market to prevent movements of rates toward the edge of the zone. Countries would not be obligated to defend their zone in all circumstances. Some latitude would have to be given for independent monetary policy and to allow for the uncertainties in estimates of the equilibrium exchange rates. Richardson also stressed that such schemes must deal with the fundamental problem of the credibility of both the exchange-rate targets and the commitments. The problem is the stability and credibility of government financial policy, not whether intervention is intrinsically ineffective.

Symposium participants also discussed what form intervention in exchange markets should take for maximum effectiveness in influencing the exchange rate in the short run. The alternatives are unsterilized, partly sterilized or completely sterilized intervention. Unsterilized intervention involves the open market purchase or sale of official reserve assets. This is also a form of domestic monetary policy since the domestic money supply is altered. Sterilized intervention differs from unsterilized intervention because the effects from the former on the domestic money supply are offset by open market purchases or sales of domestic securities (or equivalent operations) to leave the domestic money supply unaffected.⁴ The net result is a change in the share of assets denominated in domestic

and foreign currencies in asset portfolios. Partial sterilization does not entirely eliminate the effects on the domestic money supply.

Unsterilized intervention is a credible policy if the purpose is to demonstrate that stable exchange rates are indeed a goal of domestic monetary policy. If the government's target is credible, unsterilized intervention will be effective, and private capital movements themselves can stabilize exchange rates. However, as Longworth pointed out, whether central banks would choose to use monetary policy to affect exchange rates would depend on many factors, including the state of inflationary expectations; the slackness of labour markets; the degree of capacity utilization; the effects of such action on other targets of monetary policy; uncertainty over the value of the long-run exchange rate; and the extent of the misalignment.

Sterilized intervention was generally regarded by symposium participants as a weaker tool to use to achieve exchange rate targets. Its effectiveness depends on the degree of substitutability between assets denominated in different currencies. If the assets are not perfect substitutes, a change in relative asset supplies will change relative asset prices, including exchange rates. Longworth argued that there is evidence supporting the effectiveness of sterilized intervention as a short-run smoothing device; he found such a policy useful if some market irrationality is believed to be behind exchange rate misalignments. Such a policy works because of imperfect asset substitutability in the short run.

Both he and other symposium participants felt that the empirical evidence indicates that asset substitutability in the longer run is much closer to being perfect.⁵ Even more than with unsterilized intervention, there may be a credibility problem to be dealt with. Some participants felt that massive intervention would be required in the long run to have any effect on exchange rates, and even then the effects could be small. However, Richardson pointed out that it is an empirical matter of asset substitutability; if not all assets influence the exchange rate, official reserves, small though they may be relative to the total size of cross-boundary flows of financial capital, may be sufficient to have an effect on misalignments, even in the long run.

Partial sterilization, which also has impacts on domestic monetary conditions, is the course Williamson believed to be more effective than sterilized intervention. It also involves a lower variability of reserves than would occur with completely sterilized intervention.

Whether attempts to correct perceived misalignments can be successful remains an open question. Issues raised at the symposium concerned the difficulty and uncertainty involved in estimating long-run exchange rates, and thus in determining the extent of misalignment. Some cautioned that care must be taken when planning possible changes to improve on the market outcome. What certainty is there that the current level of borrowing by the U.S. from the rest of the world is not a manifestation of the

underlying long-term capital flow that helps determine the long-run equilibrium exchange rate?

There are also paradoxes apparent in the empirical literature on the subject: real interest rate differentials between countries cannot explain some cases of large misalignments that apparently exist. It is unclear then what fraction of misalignments may be due to market irrationalities.

In any event, it was generally agreed that Canada can do little on its own. Even if the Canadian exchange rate were approximately at its long-run equilibrium level, there would seem to be no acceptable means available for trying to offset the effects of misalignments among the currencies of Canada's trading partners. Williamson concluded that, because of its size, Canada seems to have a stronger national interest in promoting reform of the international monetary system rather than in trying to offset the effects of exchange rate misalignments case by case.

Trade Liberalization and Exchange Rate Policy

The symposium then turned to a further set of questions regarding the consequences to Canada of measures to liberalize trade in the years ahead, be they unilateral, bilateral, or multilateral. Will problems with exchange rate behaviour arise? Will the Canadian dollar fall or rise and can exchange rate behaviour become unstable? Would liberalized trade policies alter any preference between fixed and flexible exchange rate regimes? And what would be the appropriate stance of monetary policy in a post-liberalization adjustment period? These and related questions were addressed in papers presented to the symposium by Boyer, Longworth and Parkin; the paper by Longworth is included in the present volume.

Boyer examined what might happen under a movement by Canada toward unilateral free trade. He defined trade liberalization as a uniform reduction in both tariffs and export subsidies. Under this treatment, import tariffs and export subsidies take the form of a "border tax," where the same rate applies to all goods. Canadian trade policies are not in fact of this form; tariffs, non-tariff barriers, and export subsidies vary widely among different goods, and in general export subsidies are lower than our protection against imports. This assumption does, however, simplify the problem of analyzing what the new, post-liberalization situation might look like.

Boyer considered a lowering of these border taxes by Canada under both fixed and flexible exchange rate regimes. The effects under fixed rates are equivalent to a depreciation in the exchange rate. To restore equilibrium, all nominal prices fall by the amount of the reduction in border taxes. All real variables, including output in Canada and trade flows remain unchanged.

Under flexible rates, the reduction in border taxes is exactly offset by a depreciation of the exchange rate by the same percentage. External

balance is maintained and all other variables are unchanged. While the long-run effects are thus the same under a fixed or flexible-rate regime, Boyer pointed out certain short-run advantages in opting for flexible exchange rates in avoiding deflation with its consequent risk of short-run unemployment.

In his paper, Parkin also analyzed the consequences of a unilateral move toward freer trade by Canada, but one involving a lowering of tariff and non-tariff barriers, rather than changes in uniform border taxes. While noting that unilateral free trade was not likely to actually occur, Parkin believed that, from the point of view of monetary policy, trade liberalization in whatever form it takes does not present any major problems.

In the fixed-rate case, starting from a position of long-run equilibrium, the removal of trade barriers will cause the prices of imported goods (and thus the general price level) to decline. The demand for imports will rise, and the trade account balance will deteriorate. This generates losses of reserves. Faced with this situation, the Bank of Canada can either maintain its initial stock of foreign exchange reserves or allow it to decline. For simplicity, Parkin assumed the former, and supposed that the Bank will sell enough domestic securities to temporarily raise domestic interest rates relative to rates elsewhere. (In the long run, no difference between domestic and foreign real interest rates can persist.) A capital account surplus is produced which, if the domestic rates rise enough, will match the current account deficit. Assuming a constant nominal money supply, the initial fall in the price level will reduce nominal money demand, resulting in an excess supply of money. During the ensuing adjustment period, this is eliminated as the money supply falls while the Bank maintains its reserves.

The new equilibrium will have a lower price level (because of the initial fall in prices of imported goods), a lower money stock, and a value of the capital account of the balance of payments equal to the negative of the current account. The same real adjustments stressed by conventional trade theory analysis of the impacts of unilateral trade liberalization will take place as resources are reallocated away from the import-competing sector to the export and non-traded goods sectors. No further implications for the analysis arise from the monetary side; no complications enter from exchange rate behaviour.

Parkin then analyzed the flexible exchange rate case. Here, the impact effect of unilateral free trade will be the same as with the fixed rate case: import prices, and thus the general price level, fall (resulting in an excess supply of money), and the trade balance deteriorates. Now, however, as the central bank takes no action to support it, the currency depreciates and import prices rise (as do the prices of all other goods), which restores money market equilibrium. In this case, the eventual long-run equilibrium is the same as that with a fixed exchange rate, but with a higher price level. The same real adjustments as in the fixed exchange rate case will have occurred.

Judging from past Bank of Canada behaviour, Parkin believed that, in the event of unilateral trade liberalization by Canada, the Bank would likely adopt policies designed to achieve what it saw as a desirable path for the exchange rate. To do this, the Bank would neither fix the exchange rate, permitting the money stock to fall, nor fix the money stock, permitting the exchange rate to depreciate. This response, a linear combination of the extreme fixed and flexible cases, would lead to an outcome for the exchange rate and price level between the outcomes in the two cases analyzed by Parkin.

Parkin concluded that, given the similarity of both the adjustment paths and the ensuing equilibria in these cases, the choice between these monetary policies (including the exchange rate regime) was not a crucial factor. Instead, he argued that the stability and predictability of the chosen policy regime is the primary issue in easing the adjustments involved.

Exchange rate aspects of bilateral trade liberalization with the United States are examined in the paper by Longworth. In this more complex situation, one cannot say *a priori* whether the equilibrium exchange rate would rise or fall. With unilateral free trade, removal of domestic trade barriers tends to lower the exchange rate but, under bilateral trade liberalization, the removal of the barriers of the foreign country tends to have an offsetting effect. This uncertainty about the direction of the exchange rate movement would also occur in the more complicated case of multilateral trade liberalization, such as might result from a future GATT trade negotiation.

Longworth based his remarks on the arguments made in the literature on fixed versus flexible rates during the adjustment period following a trade liberalization. This view, argued earlier by Harry Johnson, by Paul and Ronald Wonnacott and during the symposium by Williamson and Boyer, regards flexible rates as a better device to adjust the general price level of a country to an equilibrium relationship with those of its trading partners than the reliance a fixed-rate system places on relative domestic inflation or deflation.

Possible problems that might occur in foreign exchange markets include instability and overshooting. Most participants agreed with Longworth that there would be no reason to believe that the bilateral exchange rate would be unstable in the long run, if the monetary authorities in both Canada and the United States had targets for the levels of nominal variables. A trade liberalization would simply raise or lower the exchange rate relative to its trend value.

Participants differed in their views on shorter-run impacts. Boyer saw a relatively smooth transition of the exchange rate to the new equilibrium, claiming that the exchange rate would not overshoot its new long-run equilibrium. He also saw very little evidence to support the overshooting hypothesis. Longworth, on the other hand, argued that, since real adjustments take time, the reallocation of capital investments between industries

required to re-establish long-run equilibrium could come slowly, and the exchange rate could overshoot the long-run equilibrium position in the short run.

As for possible short-run volatility, participants generally agreed that, after trade liberalization of some kind, there will be considerable uncertainty about the levels at which the new equilibrium relative prices would settle. The exchange rate is no exception, especially in the case of bilateral or multilateral liberalization, where even the direction of change is uncertain. Some symposium participants felt that, in the presence of this uncertainty, even perfectly predictable monetary policy might not lead to a smooth adjustment in exchange rates. Longworth suggested that current models may not be able to explain the full extent of the volatility that has been observed in the past. He cited "irrelevant information" and "bubbles" (referred to in the previous section) as possible reasons for excess volatility in exchange markets.

If the adjustment period does generate what seems to the Bank to be overly large movements of the exchange rate, the Bank could intervene to smooth these fluctuations. It would have the choice between sterilized and unsterilized intervention, whose respective merits are discussed above. Longworth argued that sterilized intervention could act as a device for smoothing the short-run exchange rate, but that unsterilized intervention (monetary policy) would have to be used if the Bank wanted to offset a prolonged deviation of the exchange rate from its long-run path. His opinion was that the Bank would not have a fixed view about what the exchange rate should be in such a case, recognizing that the objective of a stable exchange rate has to be tempered by the concern to avoid attempting to stabilize the exchange rate at an arbitrary level that would not prove viable in the long run.

It was also agreed that higher unemployment would likely occur during the adjustment period following a reduction in trade barriers. Parkin suggested that the reallocation of resources within and between sectors when trade barriers are lowered would make this unavoidable. He also cited recent work showing that the unemployment rate is largely determined by the size of the gross flows of labour between sectors. He suggested that the Bank of Canada has used monetary policy in the past to respond to some degree to high unemployment and might be expected to do so again. But, given the nature of this transitory increase in unemployment, stimulative monetary policies in such circumstances would be inappropriate. They would merely result in an increased rate of inflation and a depreciation of the exchange rate.

Trade Liberalization and Direct Investment Flows

A final issue taken up in the symposium concerned the possible consequences of a lowering of Canadian trade barriers for foreign direct investment (FDI) in Canada. Many observers have long believed that much of

the foreign investment currently in Canada is a response by foreign producers to the tariff and non-tariff barriers in Canada. Under this view, trade and foreign investment are substitutes; foreign firms have the choice of supplying the Canadian market with exports from their home country or of establishing branch plants here. The higher the trade barriers, *ceteris paribus*, the more attractive the branch plant option. These observers argue that the removal of trade barriers could induce the closing of branch plants, and encourage foreign firms to supply the Canadian market from expanded production abroad. In his paper for the symposium, Burgess examined both this argument and other issues concerning the impact of trade liberalization on foreign direct investment.

The first question raised by Burgess was whether or not a decision on the merits of trade liberalization should depend on the effects of trade liberalization on FDI. Burgess argued that it should not be the decisive factor, since higher per capita real incomes result from freer trade, whether FDI flows expand or contract. In his view, if FDI is thought to be desirable, then it can be subsidized directly, but if it is seen as undesirable then it can be taxed. In his view, the inappropriate way to proceed is to control it indirectly through trade barriers.

Nonetheless, the impact on foreign investment is an important question in discussing trade liberalization, and there are competing views about the relationship between trade and FDI. Most standard trade theory supports the view that they are substitutes. Thus Canadian trade barriers would appear both to reduce trade by shifting resources out of the sectors where there is a comparative advantage, and to encourage FDI inflows by raising rates of return in protected sectors above those in the rest of the economy. Under this view, trade liberalization will tend to reduce the stock of FDI in Canada.

However, Burgess argued that this is not necessarily the case, as standard theory ignores some crucial factors. Since Canadian plants have economies of scale that firms could utilize if the available market were expanded, the response of a firm to a reduction in trade barriers will also depend on what it produces. Furthermore, if Canadian plants produce goods where local design and processing occur prior to sales, and where their local reputation is important, they are less likely to leave if trade barriers are lowered than are plants whose activities lack these characteristics. These factors tend to make trade and FDI complements instead of substitutes.

Since 1973, balance of payments statistics show that FDI outflows from Canada have exceeded inflows. However, these statistics are of limited use, as they fail to include reinvested earnings from existing foreign direct investments. Thus, while Canada is gradually becoming a net capital exporter in terms of official FDI flows, the large size of retained earnings here (relative to those of Canadian investments abroad) are likely to keep Canada a net capital importer for some time.

The impacts of both unilateral and bilateral free trade with the United States on FDI were discussed at the symposium. In the unilateral free trade case, both Parkin and Burgess felt that a considerable outflow of FDI might occur. The critical factor in this case is the continued existence of foreign trade barriers. Significant economies of scale within the plant would become the argument for complete plant closures in Canada with supply of the Canadian market through exports from other countries.

Burgess devoted most of his attention to the case of bilateral free trade with the United States. The impact of this on FDI involves many factors and whether FDI will increase or decrease as a result cannot be known *a priori*. Firms must consider the degree of security of access which any trade agreement would offer before deciding whether to expand production in Canada. Important considerations include the size of the Canadian market relative to the minimum efficient scale of plant operation, and the degree of economies of scale. If a Canadian plant has the same opportunities to realize economies of scale as the comparable U.S. plant, there could be risks in locating in Canada that could not be wholly eradicated, because of the existence of the national border and the risks that U.S. trade barriers could be reintroduced. In the most extreme case, where a single plant could service the entire North American market, it would have to rely on exporting 90 percent of its output if located in Canada, and only 10 percent if located in the United States. Guaranteed access to the U.S. market under such an arrangement therefore becomes critically important.

If this concern could be met, Canada would then become a more attractive location than previously for FDI seeking to serve a North American market. This could also be the case for Canadian firms currently investing in the United States. An effect of a Canada-U.S. free trade agreement could be increased Canadian investment directed to Canada, potentially displacing some foreign investment here.

Transportation costs would be a further factor in location decisions. The issue here is whether the drift of population and industry to the southwestern United States could be a factor working against FDI in Canada under bilateral free trade. However, symposium participants agreed that this trend will operate independently of whether or not there is a bilateral free trade agreement. As one participant pointed out, there are limits to the ability of the southwestern United States to expand.

A further issue discussed during the symposium was how foreign-owned subsidiaries would actually react to a reduction in trade barriers. Burgess considered a "worst case" scenario in which there are widespread plant shutdowns and increased imports of manufactured goods result. As it seems that there would be limits to the capacity of the resource sector to absorb the labour and capital that would be released, Burgess believed that these resources would continue to find employment in Canadian manufacturing. A large sell-off of assets in Canada by U.S. subsidiaries would cause a fall in asset prices, implying that Canadians would be able

to buy them cheaply, and this would likely limit the extent of any sell-off. A large capital outflow and a trade deficit would put downward pressure on the exchange rate, also inhibiting further capital outflows and favouring production in Canada. Burgess thought that equilibrium would be restored through a combination of an exchange rate depreciation and some fall in the manufacturing wage level, which would induce firms to remain in Canada. In the longer run, as plant rationalization took place and economies of scale were captured, both real wages and real rates of return in manufacturing would be expected to rise. The Canadian manufacturing sector would survive in a more specialized, leaner form.

The tendency toward wholesale exodus was generally seen by participants as an unlikely event were Canada to reduce its trade barriers. The most likely cases where exit would occur are for those subsidiaries that have developed no special strengths or advantages from their Canadian location, other than production behind protective barriers. Burgess claimed that disinvestment in such cases is beneficial. Both he and other symposium participants saw trade liberalization as likely leading to a more desirable type of foreign investment in Canada. Those firms likely to remain would be better-managed firms who have developed special expertise. Increasingly, these subsidiaries are already moving toward world product mandates. As well, those firms rationalizing and remaining in Canada will likely be in those industries achieving higher growth rates.

A further issue is how small and medium-sized Canadian firms would fare. The risks they face if trade barriers are lowered seem larger, as many lack experience in export markets and will have to compete with American-owned subsidiaries with access to their parents' financial resources and marketing facilities. More foreign ownership may even result if these firms are taken over or merged with U.S. firms in order to gain access to such facilities.

On balance, it is clearly difficult to state whether FDI will increase or decrease following a bilateral free trade agreement with the United States. In Burgess's judgment, additional FDI flows from third countries into Canada could tilt the balance toward increased net imports of FDI for Canada. But such a conclusion is a guess, at best. In the longer run, as the real income gains from the trade liberalization are realized, Burgess foresaw a rise in domestic savings, which will allow Canadians to both own more of their own resources and to rely less on foreign investment for development than has historically been the case.

Concluding Remarks

The symposium concentrated on exchange rate behaviour and impacts on investment flows accompanying reductions in Canadian trade barriers whether these are taken bilaterally or unilaterally. The participants viewed Canadian exchange rate behaviour as virtually unalterable, despite cur-

rency misalignments that seem to be causing difficulty at present both for Canada and its trading partners. They saw little scope for action that Canada alone can realistically adopt. Small, financially open countries have little influence either on real interest rates or real exchange rates. They concluded that countries such as Canada have an interest in active diplomacy to persuade foreign governments and central banks to take actions that will lead to greater stability in the international monetary system. The consensus of the symposium was that political pressures for restrictive trade policies in the United States will likely continue until actions are taken to alleviate the pressures leading to present exchange rate misalignment. Canadian trade policy makers might therefore expect protectionist policies abroad (and in particular in the United States) to become more widespread in the next few years, if current misalignments continue.

The symposium participants also examined the consequences of a major trade liberalization — either unilaterally or bilaterally with the United States — for the exchange rate. They saw no long-run problems. Participants stressed the need for monetary policy to reduce uncertainty as much as possible and to maintain predictability by adhering to monetary targets. Those who stated a preference between fixed and flexible exchange rates chose a continuation of the present flexible regime following trade liberalization. There was some uncertainty about the extent of exchange rate volatility during the adjustment period following a lowering in trade barriers. This would partly depend on the nature of the trade liberalization, since that could affect the degree of uncertainty about what the new equilibrium exchange rate should be. There was no support for the proposition that exchange rate difficulties might outweigh the possible gains from the removal of trade barriers.

In examining the effects of trade liberalization on direct foreign investment flows, the participants voiced a good deal of uncertainty about the income, especially in the short run. They were, however, generally optimistic about the longer run. A more efficient and competitive manufacturing sector with a more beneficial type of foreign direct investment was seen as the most likely result.

Notes

I wish to thank John Whalley for his help in writing this paper. I am grateful also to Russell Boyer, David Laidler, David Longworth and John Williamson for their helpful comments on an earlier draft.

1. The real exchange rate is the nominal exchange rate multiplied by the ratio of price indexes in the two countries. The price index used can be a consumer price index or even an index of normalized unit labour costs in manufacturing. The latter is calculated by dividing an index of hourly labour costs by an index of output per man-hour. The purpose of calculating real exchange rates is to adjust nominal exchange rates for changes in the relative price levels in the two countries, thus providing a measure of the real purchasing power of the currency.

2. As financial flows are matched by the movements of goods, a country with a current account surplus (that is, exports of goods and services greater than imports) will be a net capital exporter. Given domestic wages and prices, the exchange rate would move (in this case depreciate) to produce the appropriate trade balance.
3. Others have argued that it is not clear that participants in international capital markets view the U.S. economy's borrowing requirements as inappropriate. If they did, one would expect the exchange rate of the U.S. dollar to be lower than has actually been the case.
4. In Canada, government deposits are usually switched between the Bank of Canada and the chartered banks in order to change bank reserves.
5. This issue is examined by Paul Boothe, Kevin Clinton, Agathe Côté and David Longworth in "International Asset Substitutability," a Bank of Canada Technical Report, forthcoming, 1985.

Appendix

List of Participants

RESEARCH SYMPOSIUM ON EXCHANGE RATES, FINANCIAL
MARKETS AND TRADE LIBERALIZATION
HELD BY THE
ROYAL COMMISSION ON THE ECONOMIC UNION
AND DEVELOPMENT PROSPECTS FOR CANADA

OTTAWA, FEBRUARY 10, 1984

William Alexander	Bank of Canada, Ottawa
Russell Boyer	University of Western Ontario, London
David Burgess	University of Western Ontario, London
Kevin Clinton	Bank of Canada, Ottawa
John Curtis	Institute for Research on Public Policy, Ottawa
Gerald Helleiner	University of Toronto, Toronto
David Longworth	Bank of Canada, Toronto
James Markusen	University of Western Ontario, London
Roy Matthews	Economic Council of Canada, Ottawa
Peter Morici	National Planning Association, Washington, D.C.
Michael Parkin	University of Western Ontario, London
J. David Richardson	University of Wisconsin, Madison
David C. Smith	Queen's University, Kingston, and the Royal Commission
Randy Spence	Department of External Affairs, Ottawa
Roderigue Tremblay	University of Montreal, Montreal
John Whalley	University of Western Ontario, London, and the Royal Commission
Bruce Wilkinson	University of Alberta, Edmonton
John Williamson	Institute for International Economics, Washington, D.C.
Ronald Wonnacott	University of Western Ontario, London

From the Royal Commission

Clarence Barber, Commissioner

Staff

Jamie Benedickson
Victor Clarke
Lilla Connidis
Douglas Green
Mireille Ethier
Roderick Hill
Alan Nymark
Nicholas Roy
John Sargent
Michel Vastel



Exchange Rate Misalignments, Trade and Canadian Policy

JOHN WILLIAMSON

The title of this session, "Misalignment of Exchange Rates and Trade Policy," is in my opinion well chosen. First, it recognizes that it is persistent misalignments of exchange rates, rather than their short-run volatility, that create serious problems for policy. Second, it recognizes that those problems involve trade. In this paper I shall elaborate briefly on both these themes before proceeding to survey the alternative policy responses available to Canada.

Misalignments

I have elsewhere (Williamson, 1983) defined a misalignment as "a persistent departure of the exchange rate from its long-run equilibrium level." I argued that the relevant sense of equilibrium in this context is neither "market equilibrium," i.e., the rate that balances demand and supply in the foreign exchange market in the absence of intervention, nor "current equilibrium," defined as the rate that would equate risk-adjusted yields between currencies on the basis of actual government policies, but rather "fundamental equilibrium." This term was used to connote the obverse of "fundamental disequilibrium," the criterion for a parity change under the Bretton Woods system. The fundamental equilibrium exchange rate (FEER) is therefore that which is expected to generate a current account surplus or deficit equal to the underlying capital flow over the business cycle, given that the country is pursuing internal balance as best it can and is not restricting trade for balance of payments reasons. The concept is not totally free of normative content, inasmuch as there may be some discretion to vary both "internal balance" and the "underlying capital flow" that reflects thrift and productivity.

The concept of a FEER is most naturally interpreted as relating to an effective (i.e., average, trade-weighted) rather than bilateral (e.g., against the U.S. dollar) exchange rate, and as referring to a real (i.e., adjusted for inflation) rather than nominal exchange rate. Estimating FEERs is a far from exact science, though not obviously more intractable than the problem of identifying other parameters crucial to rational macroeconomic management (like potential output, the full-employment budget position and the natural rate of unemployment). There are two basic approaches — backward-looking and forward-looking. The backward-looking approach seeks some past period when the economy in question seemed to be in rough equilibrium overall, and then makes a “purchasing power parity” (PPP) comparison to find the current nominal exchange rate that would achieve the same real exchange rate as in that base period. The forward-looking approach combines a model of current account determination with a balance of payments forecast, and asks what change in the real exchange rate would be needed to combine the desired current account target with internal balance.

My own work utilized a combination of these two methods to calculate 1983 FEERs for the five major currencies that compose the SDR basket. I looked back to an earlier period (1976–77), but instead of assuming that exchange rates were in equilibrium at that time I endeavored to calculate how different they would have needed to be in order to generate what looked like sensible current account targets. I then extrapolated the estimated 1976–77 FEERs forward to 1983, modifying PPP by such real exchange rate changes as seemed called for by real shocks (like the second oil price increase) in the intervening period. A quick attempt to apply a similar approach to the Canadian dollar would suggest that it was close to its fundamental equilibrium in the middle of 1983. Of course, this conceals a striking difference between an undervaluation of perhaps 10 percent against the U.S. dollar and an overvaluation of some 15 percent against the currencies of the European Monetary System, and perhaps 5 percent against the yen.

Misalignments and Trade

Misalignments clearly have an impact on trade flows. An overvaluation is equivalent to a uniform export tax or import subsidy in every respect except one, which is that there is less presumption that it will be perpetuated in the future. This difference has usually been assumed to be the reason that estimated “tariff elasticities” proved greater than “exchange rate elasticities” (Krause, 1962; Kreinin, 1967). But there has long been decisive empirical evidence that even the latter are quite substantial, although the lags involved are lengthy (Stern, Francis and Schumacher, 1976).

Both the lengthy lags found in the adjustment of trade to exchange rate changes and the difference between tariff elasticities and exchange rate

elasticities suggest that exchange rate changes perceived to be temporary will have little influence on trade flows. This in turn suggests that there are significant adjustment costs involved in redirecting trade flows and therefore that deviations of the exchange rate from its fundamental equilibrium which are not perceived to be temporary are costly.

In my recent study I suggested that one could identify six different costs of currency misalignments. Only one of those six costs, ratchet effects on the price level leading to a higher long-run rate of inflation, would exist if trade did *not* respond to misalignments. The remaining five costs are as follows:

- the adjustment costs (labor retraining, capital investment, etc.) involved in redeploying resources between the tradable and non-tradable goods industries, as noted above;
- unemployment of resources in a sector which is rendered uncompetitive by a misalignment (tradable goods industries in the case of an overvaluation);
- variations in productive capacity not called for by equilibrium relative prices (de-industrialization in a country with an overvalued currency or overexpansion of export industries in a country with an undervalued currency);
- protectionism, as industries try to avoid the above costs;
- variations in the time stream of consumption, if the government tries to avoid the unemployment costs by using demand management to offset the swing in the foreign balance.

There is still not a great deal of systematic evidence as to the magnitude of these costs. One reason for this is that until recently — or apparently even now in some circles (e.g., Farrell et al., 1983) — economists associated floating with volatility but not with misalignments, and therefore looked in the wrong direction in their search for the costs of floating. Now that we have had graphic evidence that floating can breed misalignments as large as those that emerged in the breakdown phase of the Bretton Woods system, however, one can no longer deflect criticism of the floating regime by arguing that the apparent costs of volatility are secondary. The costs listed above are surely of the first order of importance.

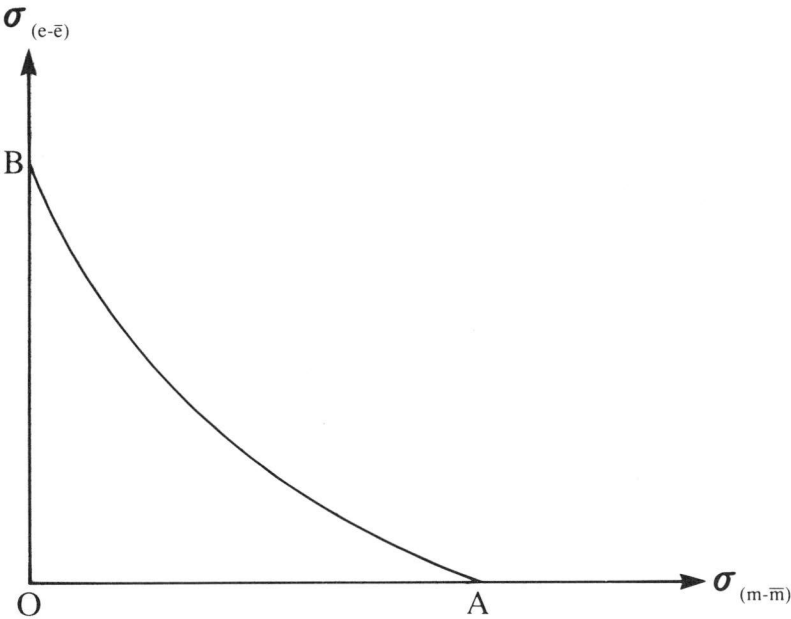
Policy Implications

The costs sketched above are gross costs of misalignments. Where a misalignment is caused by a market irrationality (e.g., rumours, a speculative run, Dornbusch's [1983] "peso problem," etc.) which pushes the market rate away from "current equilibrium," those gross costs are also net costs. But where the misalignment arises because the government adopts a policy package that pushes current equilibrium away from fundamental equilibrium, there may be good reasons for its actions. Where

that is the case, one has to trade off the advantages in terms of domestic macroeconomic policy against the above costs of misalignments.

That trade-off is represented in Figure 11-1. Take for simplicity the case of a government whose domestic macroeconomic policy ideal is a constant growth rate of the money supply along a target growth path m . (A similar argument could be constructed for governments of a Keynesian orientation that wish to target interest rates rather than monetary growth.) Exclusive attention to domestic concerns leads policy makers to pick point B, where the money stock remains on its growth path but all shocks to money demand and the real economy are allowed to move the exchange rate, which therefore shows a high degree of variability (measured by its standard deviation, σ) around its fundamental equilibrium path \bar{e} . At the other extreme, policy makers could choose to subjugate monetary policy entirely to achieving their exchange rate target, implying a high degree of variability of the money supply as at point A. The line connecting B to A shows the trade-off as unsterilized intervention directed to exchange rate targeting is progressively increased.

FIGURE 11-1



Given the overwhelming evidence, both casual and econometric, that assets denominated in different currencies are imperfect substitutes, it should be possible to improve the trade-off shown in Figure 11-1 by *sterilized* intervention. In principle this would presumably permit one to reach

the origin, where both money supply and exchange rates are on target simultaneously. But there is also much evidence that sterilized intervention is very much less effective than unsterilized intervention, which implies that the improvement in the trade-off in $\sigma(e-\bar{e})/\sigma(m-\bar{m})$ space is purchased at the cost of increased variability of reserves (R). One therefore needs to add a third dimension, an axis representing $\sigma(R-\bar{R})$, to Figure 11-1, and to recognize that the relevant trade-off is a three-way one between variability in domestic monetary conditions, the exchange rate and reserves.

It was argued in the preceding section that the costs involved in misaligned exchange rates are large. It is also surely true that monetary policy is important from an internal standpoint in managing demand and controlling inflation (especially in countries without adequate control of fiscal policy). Third, the evidence is that sterilized intervention would have to be undertaken on a truly massive scale to limit exchange rate misalignments and deviations from desired monetary growth simultaneously. These considerations suggest that policy should aim for an interior point of the three-way trade-off.

This is what a target zone approach to exchange rate management is designed to achieve. The government of each country would ask itself what its fundamental equilibrium (real effective) exchange rate is. The IMF would endeavor to ensure that the answers countries gave to this question were mutually consistent. Countries would announce "target zones" involving a range of 10 to 20 percent around their estimated fundamental equilibrium rates,¹ which would be updated to neutralize the effects of differential inflation and amended as needed when real shocks appeared to create a need for real adjustment. Countries would intervene to resist movements of the exchange rates toward the edge of the target zones and would not completely sterilize that intervention. There would be no absolute obligation to prevent rates moving outside the zones, but intervention — and therefore the impact on monetary conditions — would become progressively more intense if that occurred. Both the width of the zones and the lack of an absolute obligation to defend the zones are intended to leave an important internal capability for monetary policy, while the proclamation of a target and the undertaking that incentives will change so as to back up that target are intended to provide a focus for stabilizing speculation.

The best that unilateral adoption of such a policy stance by Canada could hope to achieve would be a perpetuation of the recent correct alignment of the Canadian dollar's effective exchange rate. As noted in the earlier discussion on misalignments, however, this correct alignment of the effective exchange rate entails a substantial undervaluation against the U.S. dollar and overvaluation against most other currencies. Given the enormous current misalignment of over 25 percent between currency blocs, there is no way that countries like Canada can simultaneously achieve reasonably appropriate bilateral exchange rates with all important trading

partners. How much this matters depends on the differences in the commodity composition of trade with different trading partners. My impression is that the goods Canada exports to the United States are very different to those it exports elsewhere. If so, this suggests that at least four of the costs of misalignment identified above — namely, adjustment costs, unemployment, variations in productive capacity, and protectionism — would continue to arise even though Canadian macroeconomic policy does all that it possibly can, by stabilizing the effective rate at an appropriate level.

Can Canada hope to find a second-best solution to currency misalignments? The customary candidates are capital controls and trade controls.

Capital controls offer no hope whatsoever. Under the best of circumstances, capital controls are notoriously leaky. With its long common border with the United States and its long tradition of capital market integration, Canada must be in the worst rather than the best position to impose effective capital controls. But there is an even more fundamental objection, which arises from the fact that the problem stems from the impossibility of achieving correct bilateral alignments simultaneously against different partners whose own currencies are seriously misaligned. At best, capital controls would simply provide an additional weapon for influencing the effective exchange rate, not for differentially affecting the rates against different currencies.

Trade controls offer little greater hope. Once again, there are both general and particular reasons for dismissing their efficacy. The general reasons include the difficulty of implementing neutral (non-distorting) programs of combined export levies (subsidies) and import subsidies (levies), especially if one wishes to cover invisible as well as visible trade; the concern that the induced changes in trade flows will push the exchange rate further away from fundamental equilibrium; and the danger that trade controls intended to compensate for deficiencies of macroeconomic policy will nevertheless provoke retaliation or breed pressures for their perpetuation, thus fuelling the growth of protection. The specific reasons relate to the need to discriminate between the trade flows with different areas in order to achieve the object. If, for example, exports to Europe were to be subsidized in order to offset the current overvaluation of the Canadian dollar while those to the United States were to be surcharged, there would be incentives to divert exports to the United States through Europe.

There is therefore no alternative to the present system unilaterally available to Canada. If the misalignments that inescapably result from misaligned exchange rates between third parties are perceived to pose a major problem, the only remedy lies in persuading those third parties to change their behaviour, for example by adopting the type of policy stance outlined above. That would seem to give Canada a national interest in promoting reform of the international monetary system. For a country

that already conducts its own macroeconomic policy rationally and that undertakes about two-thirds of its trade with the United States and one-third with the rest of the world, there is no other way of avoiding the damage wreaked by misaligned exchange rates.

Notes

Presented at the Research Symposium on Exchange Rates, Financial Markets and Trade Liberalization of the Royal Commission on the Economic Union and Development Prospects for Canada in Ottawa, February 10, 1984.

1. A wide zone is needed both to leave scope for legitimate domestic use of monetary policy and to make allowance for the considerable uncertainty in estimates of FEERs.

Bibliography

- Dornbusch, Rudiger. 1983. "Flexible Exchange Rates and *Interdependence*." *International Monetary Fund Staff Papers* (May).
- Farrell, Victoria S., with Dean A. DeRosa and T. Ashby McCown. 1983. *Effects of Exchange Rate Variability on International Trade and Other Economic Variables: A Review of the Literature*. Staff Study. Washington, D.C.: Board of Governors of the Federal Reserve System.
- Krause, Lawrence B. 1962. "United States Imports, 1947-1958." *Econometrica* (April).
- Kreinin, Mordechai. 1967. "'Price' Versus 'Tariff' Elasticities in International Trade — A Suggested Reconciliation." *American Economic Review* (September).
- Stern, Robert M., Jonathan Francis, and Bruce Schumacher. 1976. *Price Elasticities in International Trade*. Toronto: Macmillan.
- Williamson, John. *The Exchange Rate System*. 1983. Policy Analyses in International Economics no. 5. Washington, D.C.: Institute for International Economics.



Some Links Between Exchange Rates and Trade Policy

J. DAVID RICHARDSON

Interconnections among policies influencing trade and exchange rates have long been a focus of development economics. By contrast, these interconnections seem to be rarely addressed in analyses of developed countries. This is presumably because they have been judged unimportant or quantitatively insignificant. Recent trends, however, especially in exchange rates, have generated new interest in these interconnections.

This paper examines the link between exchange rates and trade policy. It describes how the amplitude, frequency, and duration of divergences from expected exchange rates all create political pressure for trade policy intervention. It explains how expectations and the interplay between sluggish and flexible economic variables make exchange rates hard to predict, especially when attention is restricted to a familiar but narrow set of exchange rate determinants. Unexpected exchange rates are, sadly, to be expected. Unexpected sectoral pressures and windfalls may be the consequences.

Asset market developments can lead unexpected exchange rates to be sustained for long periods. International competitiveness is unexpectedly altered for the same period. This in turn affects employment, profits, and resource allocation. Some of these effects can be quite painful. Yet the pain is inherently temporary. If it is alleviated by permanent import protection or permanent export promotion, then the economy can end up in worse pain than when it started — and permanent pain at that. Temporary trade policy seems obviously preferable to permanent, yet it is subject to a peculiar weakness that may completely undermine its potential.

This paper suggests the superiority of asset market policy to trade policy in dealing with exchange rate misalignment and volatility. Asset market

policy seems naturally best suited to deal with asset market shocks, which are taken to be the most important causes of unexpected exchange rates. Asset market policy obviously includes standard monetary and fiscal instruments, but a case is also made for the efficacy of sterilized and unsterilized exchange market intervention.

The Exchange Rate and Its Fundamental Determinants

Repetition has made a platitude of the observation that “recent exchange rates cannot be justified by ‘fundamental’ trends.” Commentators — and researchers, too (for example, Meese and Rogoff, 1983a, 1983b) — usually have in mind two initially bewildering features of recent exchange rate variation. First, it has been larger and sharper than variation in any of the underlying variables usually looked at to explain exchange rates (asset stocks, money supplies, prices, interest rates, current account balances, and so on). Second, it has not always corresponded even to the timing of changes in the underlying determinants. Exchange rates have recently varied up to 10 percent in the course of a few days with no apparently significant changes in any of the fundamental determinants; and exchange rates have seemed stuck at apparently misaligned values, despite significant changes in many of the fundamentals. The first of these features has given rise to the problems of overshooting and volatility, the second to the problem of misalignment.¹ The nature and duration of these problems are examined in the third section of this background paper.

To explain such unpredictability as being caused by speculative movements of “hot money” only begs the question. What fundamental changes caused the hot money to move? Economists only grudgingly accept the answers “animal spirits,” “herd instincts,” and “stampedes.” We have too much faith in the ongoing presence of “fundamentals watchers” (it need only be a sensible and cool-headed minority) who try to make quick profits from any irrational animals in a herd by transacting oppositely to them. The “fundamentals watchers” thus nip any irrational stampede in the bud, and thereby cause the herd itself to bunch up close to the trail of the fundamentals.²

Much more satisfying explanations for the apparent unpredictability of exchange rates rest on a *full* characterization of fundamental determinants. There are good economic reasons why the observed short-run movement of flexible economic magnitudes, such as exchange rates, can be greater than their observed long-run movement — and greater also than any predicted movement that is based on a narrow view of fundamentals. Many explanations spring from the interplay between flexible economic variables and sluggish economic variables — those that respond only slowly to unanticipated economic shocks. Illustrations of sluggish economic variables abound: producers are reluctant to change commodity prices frequently or dramatically; costs of materials, labour services, and rentals

are often contractually rigid in the short run; it is much less costly sometimes to allow flexible inventories and order backlogs to adjust than to alter output; it takes time for saving and dissaving to compensate for unexpected capital losses and gains; government policies adapt to economic flux with well-known lags in recognition, implementation, and response; expectations themselves may be slow to adjust if it takes time to learn whether an unanticipated shock is temporary or permanent, local or global.

The contrast between flexible and sluggish variables has an important consequence. Flexible variables must do the work of sluggish variables, as well as their own, in the short run after an unanticipated shock. For example, flexible daily supplies of foreign exchange and flexible demands for it will be affected in the short run not only by what is normally believed to be their fundamental determinants, but also by pressures that spill over into the foreign exchange market from other places — the transitory frustration of saving-investment preferences, temporary failure of commodity and input markets to clear, and short-run divergence between anticipations and realizations.³ Flexible exchange rates are, of course, affected by the same familiar fundamentals and the same less familiar spillovers from sluggish economic behaviour.

There are also good economic reasons why the timing of changes in exchange rates does not match the timing of changes in allegedly fundamental determinants. There is considerable income to be earned in correctly anticipating movements of flexible economic variables such as exchange rates. Because of this, they will respond immediately to any change in expectations regarding their fundamental determinants — even before the determinants themselves change. Expectations in turn are altered by any new relevant data. Among such data are announcements of policy intentions by governments and corrections of former anticipations when fundamental changes are actually revealed.

The latter is especially interesting and important. It suggests that exchange rates respond to errors in forecasting a fundamental change, not to the fundamental change itself. Since a forecast error can be either positive or negative, the movement of the exchange rate at the exact moment of the fundamental change (or, more exactly, at the moment when the error is revealed) can itself be either positive or negative — to the consternation of commentators who rely on simple, immediate, and unambiguous relationships between exchange rates and asset stocks, money supplies, prices, and so on.

The lesson in this is that understanding and predicting exchange rates depends on first knowing how expectations are generated, how forecasts are formulated and updated, and how information about impending fundamental changes is disseminated. If, by contrast, knowledge is restricted to the long-run relationship between exchange rates and the fundamental changes themselves, then the result is likely to be wrong as often as it is right, just like the guesses of the proverbial man in the street.

Why care about the predictability of variables as exotic as exchange rates? The answer is that exchange rates aren't exotic. They are (at least over some time period) themselves determinants of *domestic* economic prosperity — most importantly of jobs, profits, and prices, and not only the jobs, profits, and prices that are tied up with exports and imports.

Before expanding on this observation, it is worth noting how difficult it is to disentangle influences in an economy with a great deal of simultaneous feedback (see, for example, Hooper and Lowrey, 1979, pp. 6–10). Exchange rate changes are sometimes the result of a change in domestic prosperity; at other times, they are the cause of a change in domestic prosperity. The discussion above treats them in the former way and ignores the latter, which is discussed in the next section.

“Real” Effects of Exchange Rates and Trade Policy

Global integration of asset markets and increasing financial capital mobility have brought unique pressures to bear on trade policy through exchange rates and their effects on prices, jobs, and growth.

The strongest political pressure for protection and promotion emanates from specific sectors of the economy. Each sector views itself as having very little influence over exchange rates. (Corden 1980, p. 176, suggests that sectors think of their movement as “acts of God.”) Yet sectors are painfully aware of exchange rate influences on them. Brief unexpected depreciation or appreciation can be hedged against. Sustained unexpected depreciation or appreciation cannot. They can lead to sustained changes in competitiveness, cash flow, and employment, and to potentially fatal changes in economic viability.⁴ To the extent that there are intertemporal capital market distortions that set limits to the maximum loss consistent with any firm's survival, unexpected exchange rate fluctuation may heighten corporate, sectoral, and ultimately collective political pressure for protection, especially of a quantitative kind. Quantitative import barriers shrink the variance of international competitiveness, as well as changing its mean.⁵ The impetus for these sectoral interventionist pressures is of course unexpected fluctuation in a sector's “real” exchange rates, or ratios of foreign to domestic prices in comparable currency units.⁶

This argument suggests only that pressures for government intervention in trade will be greater given floating exchange rates. It does not suggest that international trade will be discouraged by floating. The argument is thus consistent with the oft-cited failure to find convincing correlation between exchange rate volatility and international trade.⁷ One explanation for this consistency is that current trade policies are as likely to be pro-trade-biased as anti-trade-biased. Examples of pro-trade-biased policies include: export performance requirements, indirect export subsidies, export tax relief, concessionary export financing, disguised encour-

agements to dump, and official cultivation of scale-intensive and technology-intensive industry that necessitates reliance on international markets. Increased export promotion and export protection move global production and trade patterns toward their free trade norms, and potentially even past them.⁸

This discussion helps explain recent recommendations to stabilize average (aggregate) real exchange rates around their trends. The idea has appeal as a means of avoiding the unexpected real exchange rate divergences that may destabilize and distort resource allocation. It may also thus avoid distortionary pressures to change trade policy. Whether governments really have the policy instruments to implement this idea is examined in the following section.

What this proposal approximates, in a world with spatially mobile financial capital and with reasonably accurate forecasting of expected inflation, is stabilization of an average "real"⁹ interest rate differential. When nominal interest parity, Fisherian interest parity, and mean forecast accuracy all hold, the average (aggregate) time trend in real exchange rates is approximately equal to the average international difference in real interest rates:

$$\dot{e} - \dot{P}_d + \dot{P}_f \approx r_d - r_f$$

where \dot{e} = the time rate of change of any exchange rate (domestic currency price of foreign currency);

\dot{P}_d and \dot{P}_f = average domestic and foreign inflation rates for goods;

$\dot{e} - \dot{P}_d + \dot{P}_f$ = a measure of the average time rate of change of real exchange rates; and

r_d and r_f = measures of domestic and foreign "real" interest rates.

Thus, to stabilize real exchange rates around their trend is to stabilize international differences in real interest rates. It is notable that from the left side of the "equation" such policy looks like trade policy but from the right side it looks like financial policy. With spatially mobile capital, the two are closely linked. That is an important characteristic of today's international economy.

The band of approximation around the "equation" is narrower the closer the spatial links between financial capital markets and the less biased the economic forecasts. When it is reasonably accurate, the equation serves several purposes. It suggests the linkage between what is sometimes considered a concern of financial policy — the divergence of real interest rates

from global levels — and what is usually considered a concern of trade policy — trends in international competitiveness. It also suggests that small, financially open nations like Canada may have, on the one hand, little policy control over real exchange rates (so that the real exchange rate targeting mentioned above would be infeasible) and, on the other hand, little need for such policy control. Movements of real exchange rates for such countries may be quite small, and their mean value may approximate purchasing power parity norms, since international arbitrage seems likely to minimize divergences of home real interest rates from dominating global levels. Such “real interest arbitrage” might be most likely where multinational corporate presence is prominent in the small, financially open economy.

The “equation” also suggests how important trade issues can arise from the intertemporal considerations associated with real interest rates. Divergences between home and foreign real interest rates may be as significant an influence on trade as trade policy itself, especially in a growing economy. Trends in and unexpected shocks to real interest rates can change the commodity composition of trade because they alter real exchange rates, with subsequent shifts in the margin of comparative advantage among goods.

Some commentators (for example, Levich, 1981) argue that because exchange rates are just like other asset prices, one is no more a cause of worry than the other. While the description of exchange rates as asset prices is undeniable, the prescription to treat them the same as other asset prices seems dubious. Sustained misalignment of exchange rates would seem on the face of it to affect industrial decisions more dramatically than the sustained misalignment of prices for equities, bonds, or commodities futures. One reason is that exchange rates are relative prices of media of exchange, not just stores of value. When the relative prices of exchange media vary, so will the terms of any real transaction requiring those exchange media to be bartered. Almost all current (as well as future) international transactions involve such a barter. There is no medium of exchange for the national media, no super-medium.

The point is that foreign exchange markets serve more purposes than those served by asset markets in general. This makes price variation in the former arguably more important than price variation in the latter. Foreign exchange (spot claims in foreign money) is different from other financial assets for exactly the same reasons (whatever they are) that money (whatever it is) is different from other financial assets. Public interest in stock markets and futures markets would understandably rise if legal tender were to be redefined as contracts for pork bellies or baskets of ownership certificates to Dow-Jones Industrials. Concern over pork bellies and the Dow-Jones average might then become fit fare for every family’s dinner conversation. Opposition might spring up immediately to the capricious influences on jobs and incomes that were generated by the vagaries of

pricing on Wall Street and in the pits of the Chicago Mercantile Exchange. "That's all very well for speculative financial instruments," people might be heard to say, "but this stuff with the unpredictable price is legal tender!"

Commentators from "pure" analytic approaches to trade policy sometimes argue that exchange rates are red herrings. In the most familiar general equilibrium models, exchange rates are ignored. They are ignored precisely *because* they are the relative price of two monies, both of which are "veils" having no real effects. Money does not matter, and neither do exchange rates. They are all "neutral." An exogenous change in their value has no ultimate impact on production or consumption, and therefore no ultimate impact on trade policy. Payments adjustment is implicitly assumed to be maintained automatically. The automatic maintenance mechanisms are exchange rate flexibility, stabilizing official or private trade in assets (as under the gold standard), or a combination of all.

The key word in understanding this point of view is "ultimate." Over long enough periods of time, ratios of wages, profits and prices — in one sector relative to another and in one nation relative to another — are probably quite insensitive to exchange rates (and to monetary fluctuations). These non-monetary *ratios* are the real source of protectionist pressure. The monetary *level* of wages, profits, and prices doesn't really matter much. Workers, managers, shareholders, or creditors do not see much inequity or need for government intervention when wages and income rise as fast as prices (adjusted for productivity), and when foreign wages, prices, and incomes rise at the same rate.

Yet over shorter periods of time, misalignment and volatility of exchange rates can cause real adjustment and injury in much the same way as monetary policy does. The catalysts in this reaction are the sluggish economic variables described in the previous section. When unexpected misalignment is sustained, or when volatility is pronounced, exchange rates can lead to sharp and undesirable signals to reallocate resources. Unexpected exchange rate fluctuation has all the unfortunate features of unpredictable monetary policy. Both can send misleading and wasteful price signals to economic decision makers. Thus exchange rates are not irrelevant for trade policy even though they may be neutral in their long-run effects. Permanent changes in the level or even the trend of an exchange rate may be innocuous; unpredicted divergences from its trend and changes in its variance are not.

Policy Implications

It is cold comfort to those injured by sustained misalignment of exchange rates¹⁰ that "this too shall (ultimately) pass." "Temporary" real impacts that persist for two or three years stand a good chance of permanently affecting personal productivity and industrial viability. One can understand the near desperate demands for import protection and export pro-

motion. Yet trade policy changes are probably even longer-lasting than injury from exchange rate misalignment. Many trade policy changes border, in fact, on being permanent (or at least indefinite). The implication is that they continue in place long after the problem they were meant to alleviate has vanished. What began as policy relief ends as a policy distortion, with concomitant waste and its own implicit injury.

Permanent policy changes are not suitable for solving inherently temporary problems, even when the temporary effects are very enduring. Temporary policies are properly congruent to temporary problems. Temporary trade policies would seem to be candidates. Yet it is hard for a government to guarantee credibly that a trade policy is only temporary. If the conditions that justified it continue to exist, the incentives are nearly irresistible for the government to repeat its dose of temporary protection — and to repeat it again and again. If private decision makers sense how irresistible this pattern is, they will refuse to believe in the proclaimed temporariness of the trade policy, and will remain active in the protected sector rather than exiting. Their continued activity keeps conditions the same as those that warranted the trade policy in the first place, and seduces the government to repeat its temporary protection. The sequence then repeats. It should be clear that this cycle represents an equilibrium, a position of rest in which temporary trade policy is impossible (that is, not sustained by the postulated behaviour).¹¹

Furthermore, temporary trade policies are probably second-best solutions to exchange rate misalignments even if they are feasible. Better policies would seem to be some adjustment in monetary policy or a change in the macroeconomic policy mix. These alternatives have asset market effects that can directly offset most asset market pressures on exchange rates. Although some temporary macroeconomic policies are subject to the credibility problem described above, not all are.

Policy stabilization of exchange rates is another alternative to trade policy. But how does a government stabilize exchange rates? The first step is for its central bank to decide and then to announce that a relatively stable currency is one of its goals in establishing monetary policy. (Naturally, the decision must be matched with detectable action or it will not be believed or effective.) It generally helps further, if governments can agree, to have several central banks announce jointly that exchange rate fluctuation would influence their monetary initiatives and then to issue periodic joint reports on how it had done so.¹² Finally, official intervention in foreign exchange markets is worth considering. Unsterilized intervention is really no more than monetary policy — open market purchases and sales of official reserve assets — so that it adds only credible action to the suggestion that stable exchange rates be one of the goals of monetary policy. Sterilized intervention, by contrast, is an independent, although potentially weak, instrument for influencing exchange rates, recent official research notwithstanding. It changes the shares of domestic and foreign

assets in the portfolios of the general public, and will change relative asset prices, including exchange rates, for the same reason that any shock to relative asset supplies does.¹³

Unsterilized intervention also has problems. Two are often said to confront any regular and significant transactions. One is that official reserves are inadequate to cope with massive cross-boundary portfolio reallocations. The second is that no matter how large official reserves may be, rational expectations of the government's intervention, based on knowledge of its policy reaction behaviour, would cause the intervention to be ineffective. It is rarely observed that both of these problems are derivative, not primary. They are themselves caused by a fundamentally deeper problem — the incredulousness with which the market greets government targets and commitments for exchange rates. Suppose instead that governments were really believed in their exchange rate commitments and that they really took policy action consistent with those beliefs in order to ratify them. Then the payments mechanism would work much as it did under the gold standard, although not necessarily with fixed exchange rates. Massive portfolio reallocation might indeed take place, and the government's policy reactions would indeed be transparent to rational forecasters. But any massive capital movements based on rational expectations would themselves stabilize the exchange rate around the government's credible target. Little actual intervention would be necessary. By contrast, if the target were incredible, no amount of government intervention would succeed. The deeper real problem is thus the stability and credibility of government financial policy, not any intrinsic weakness of intervention. Stability and credibility seem to be as much prerequisites for policy effectiveness as they are for personal effectiveness.

Notes

This paper was prepared for the Symposium on Exchange Rates, Financial Markets and Trade Liberalization, held by the Royal Commission on the Economic Union and Development Prospects for Canada on February 10, 1984. Revised in January 1985.

1. The overshooting literature is summarized and surveyed by Schadler (1977), Levich (1981), and several contributors to the handbook edited by Jones and Kenen (1984). Recent evidence and thinking on misalignment and volatility are summarized by Williamson (1983).
2. It is worth repeating that this is a statement of faith — a working hypothesis of economists, especially for medium and long runs. It is occasionally inconsistent with the facts, for example, when one side of a market disappears temporarily. But it is certainly a much more realistic hypothesis than the contrary extreme — that exchange rate movements are essentially arbitrary, subject to the whim of capricious speculators. It is also worth noting that fundamentals watchers need not be dismayed by large irrational herds. Far from feeling swamped and losing their cool sensibility, they may welcome the opportunity to earn even bigger profits.
3. An elementary and instructive illustration is the following. U.S. energy-related controls in the 1970s almost certainly generated additional spillover demands for imported petroleum products by interfering with market clearing. Some of the additional flow of dollars received by foreign oil producers was converted steadily to non-dollar assets

to ensure diversified financial portfolios, and the dollar was therefore weaker in the foreign exchange market than it would otherwise have been (see Feldman, 1982). As these U.S. price controls were removed in the 1980s, the dollar's appreciation was therefore more marked than it would otherwise have been (although this would not explain appreciation beyond its fundamental level).

4. Mussa (1984) provides a careful conceptual illustration. Deardorff and Stern (1982a, 1982b) empirically estimate some of the sectoral U.S. effects of dollar appreciation. Marsden and Hollander (1981) show for Australia how flux in nominal exchange rates overwhelmingly accounts for flux in sector-by-sector international competitiveness. Giovannini and Rotemberg (1984) show similarly for Germany that nominal exchange rate variability accounts for the greatest part of aggregate "real" exchange rate variability.
5. See Richardson (1984, p. 264) and Aizenman (1983). This may be a reason to expect relatively more recourse to quantitative protection under floating exchange rates, and relatively less recourse to tariffs, than would be typical under pegged rates.
6. Some define real exchange rates as domestic ratios of tradables prices to non-tradables prices (see, for example, Neary and Purvis, 1983). Most of the observations in this section have straightforward correspondents in this conception as long as tradables prices follow exchange rates less sluggishly than non-tradables prices.
7. The evidence is in fact mixed on this score, as summarized in Farrell et al. (1983) and as demonstrated by Akhtar and Hilton (1984a, 1984b) in a study of Germany and the United States.
8. Other explanations for failure to find much impact of exchange rate variation on international trade (or investment) include: (a) possible encouragements to trade based on foreign direct investment, vertically to avoid input-price variation, and horizontally to exploit arbitrage of the produce-where-cheap, market-where-dear variety (see Artus, 1982, pp. 6,8 and McCulloch, 1983, p. 10); (b) possible encouragements to trade based on temporal arbitrage of a produce-when-cheap, market-when-dear variety (Leahy, 1984); and (c) the large proportion of modern international trade and investment carried out by genuinely multinational corporations with no strong currency habitat, so that exchange rate variation becomes less important to their real decisions.
9. "Real" interest rates are thought of as the difference between nominal interest rates and reasonably accurate forecasts of inflation. Nominal interest rates differ internationally under spatial financial capital mobility by estimates of the trend movement in exchange rates, estimates that may frequently be wrong, but not systematically in one direction or the other.
10. As Bergsten and Williamson (1983) imply, injury from sustained undervaluation really is symmetrical to injury from sustained overvaluation. The former may attract resources and workers to tradables sectors whose presence there will not be supported by the market over the long run. Their ultimate displacement is no different in character than that of resources and workers who do belong in tradables sectors, yet are displaced by sustained overvaluation.
11. The problem with temporary trade policy in this account is described in the technical literature as "time inconsistency."
12. This is a much weaker proposal than that of MacKinnon (1984), but in the same spirit.
13. It is weak, however, because a change in relative supplies of perfectly substitutable assets will have no effect on asset prices or exchange rates; most analysts believe that domestic and foreign assets are becoming increasingly substitutable as communications technology and deregulation integrate financial markets across borders.

Bibliography

- Aizenman, Joshua. 1983. "On the Optimal Combination of Commercial and Exchange Rate Policies." *Southern Economic Journal* 50 (July): 185-94.
- Akhtar, M.A., and R. Spence Hilton. 1984a. "Effects of Exchange-Rate Uncertainty on German and U.S. Trade." Federal Reserve Bank of New York *Quarterly Review* 9 (Spring): 7-16.

- . 1984b. "Exchange Rate Uncertainty and International Trade: Some Conceptual Issues and New Estimates for Germany and the United States." Federal Reserve Bank of New York, Research Paper 8403, May.
- Artus, Jacques R. 1982. "Toward a More Orderly Exchange Rate System." Paper given at a Wingspread Conference on Evolving International Monetary Arrangements, Racine, Wisconsin, July 29-31, 1982.
- Bergsten, C. Fred, and John Williamson. 1983. "Exchange Rates and Trade Policy." In *Trade Policy in the 1980s*, edited by William R. Cline, Institute for International Economics. Cambridge: MIT Press.
- Corden, W.M. 1980. "Relationships Between Macroeconomic and Industrial Policies." *The World Economy* 3 (September): 167-84.
- Deardorff, Alan V., and Robert M. Stern. 1982a. "The Effects of Exchange-Rate Changes on Domestic Prices, Trade, and Employment in the U.S., European Community, and Japan." Research Seminar in International Economics, Discussion Paper 111. Ann Arbor Mich.: University of Michigan. May.
- . 1982b. "The Sectoral Impact of the Recent Appreciation of the U.S. Dollar." Report to the Office of the U.S. Trade Representative. Ann Arbor, Mich.: University of Michigan.
- Farrell, Victoria S. with Dean A. DeRosa, and T. Ashby McCown. 1983. "Effects of Exchange Rate Variability on International Trade and Other Economic Variables: A Review of the Literature." Washington, D.C.: Board of Governors of the Federal Reserve System, Staff Studies 130, December.
- Feldman, Robert A. 1982. *The Impact of Oil Import Price Shocks on Domestic Prices*. Boulder, Colo.: Westview.
- Frenkel, Jacob, ed. 1983. *Exchange Rates and International Macroeconomics*. Chicago: University of Chicago Press.
- Giovannini, Alberto, and Julio J. Rotemberg. 1984. "Exchange-Rate Dynamics With Sticky Prices: The Deutsch Mark, 1974-1982." Cambridge, Mass.: National Bureau of Economic Research Working paper 1281, February.
- Hooper, Peter and Barbara R. Lowrey. 1979. "Impact of the Dollar Depreciation on the U.S. Price Level: An Analytical Survey of Empirical Estimates." Washington, D.C.: Board of Governors of the Federal Reserve System Staff Studies 103, April.
- Jones, Ronald W., and Peter B. Kenen, eds. 1984. *Handbook of International Economics, Volume 2: International Monetary Theory*. Amsterdam: North-Holland.
- Leahy, Michael. 1984. "The Effects of Exchange Rate Variability on Industry Profits and Output." University of Wisconsin doctoral dissertation proposal, February.
- Levich, Richard M. 1981. "Overshooting in the Foreign Exchange Market." New York: Group of Thirty, Occasional Papers 5.
- Marsden, J.S., and G. Hollander. 1981. "Floating Exchange Rates, Inflation and Selective Protectionism: Their Effects on the Competitiveness of Australian Industry." Paper presented at the Sixth Annual Conference of the International Economics Study Group, Sussex, England, September 20.
- McCulloch, Rachel. 1983. "Unexpected Real Consequences of Floating Exchange Rates." *Essays in International Finance* 153. Princeton: Princeton University Press.
- McKinnon, Ronald I. 1984. "An International Standard for Monetary Stabilization." *Policy Analyses in International Economics* 8. Washington, D.C.: Institute for International Economics.
- Meese, Richard, and Kenneth Rogoff. 1983a. "Empirical Exchange Rate Models of the Seventies: Do They Fit Out of Sample?" *Journal of International Economics* 14 (February): 3-24.
- . 1983b. "The Out-of-Sample Failure of Empirical Exchange Rate Models: Sampling Error or Misspecification?" In *Exchange Rates and International Macroeconomics*, edited by Jacob Frenkel. Chicago: University of Chicago Press.
- Mussa, Michael. 1984. "The Exchange Rate as a Tool of Commercial Policy." Paper presented at a National Bureau of Economic Research and World Bank Conference on Structural Adjustment and the Real Exchange Rate in Developing Countries, Washington, D.C., November 30.

- Neary, J. Peter, and Douglas Purvis. 1983. "Real Adjustment and Exchange Rate Dynamics." In *Exchange Rates and International Macroeconomics*, edited by Jacob Frenkel. Chicago: University of Chicago Press.
- Richardson, J. David. 1984. "The New Nexus Among Trade, Industrial, and Exchange-Rate Policies." In *The Future of the International Monetary System*, edited by Tamir Agmon, Robert G. Hawkins, and Richard M. Levich. Lexington, Mass.: D.C. Heath.
- Schadler, Susan. 1977. "Sources of Exchange-Rate Variability: Theory and Empirical Evidence." International Monetary Fund *Staff Papers* 24 (July): 253-96. Washington, D.C.: IMF.
- Williamson, John. 1983. *The Exchange Rate System*. Cambridge: MIT Press. Institute for International Economics.



Some Exchange Rate Policy Considerations When Trade Is Liberalized

DAVID LONGWORTH

The issue of the flexibility of exchange rates played an important part in the policy discussion of trade liberalization in the 1960s (see Wonnacott and Wonnacott, 1967, 1968, and Johnson, 1968) when Canada was on a fixed exchange rate. The literature of that era was concerned with whether flexible exchange rates would ease the economic adjustments that would follow from trade liberalization. The experience with generalized floating among the major industrial countries since the early 1970s has apparently not caused any revision of the view that exchange rate flexibility could be helpful when trade is being liberalized. However, much surprise has been expressed at the high level of exchange rate volatility which has accompanied the flexible exchange rate system and the possibility of irrationality in the exchange market has been frequently discussed.

This paper takes a brief look at considerations relating to exchange rate policy at the time at which trade is liberalized. The paper begins with two brief sections — the first deals with changes to the exchange rate regime and the second with the potential for exchange rate instability in the long run. These sections are followed by the main topics at hand — the potential for large exchange rate volatility and/or unwarranted shifts in the level of the exchange rate in the short run and the options available to a central bank for dealing with such outcomes.

The Exchange Rate Regime

Both Harry Johnson (1968) and the Wonnacotts (1967) argued for some flexibility in the exchange rate during a period when trade was being liberalized. Johnson's arguments for flexible rates were without qualification:

... they provide a more palatable and smoothly working mechanism for adjusting a country's general price level to an equilibrium relationship with those of its trading partners than the fixed-rate system's reliance on relative domestic inflation or deflation, while freeing the country from the obligation to conform to inflationary or deflationary price movements in the outside world. (p. 34)

The Wonnacotts, in contrast, saw advantages in having the adjustment occur in both wages and the exchange rate. They expressed their support for at least some form of flexibility as follows:

Exchange rate flexibility is obviously the simplest and fastest method of realigning international costs and finding a new wage and price equilibrium between two economies. A freely floating exchange rate acts immediately, and in addition, there are no barriers to its movement in either direction. But, there are barriers to wage revision; the existence of unemployment limits upward flexibility. Forcing revisions in relative wages in the face of these restraints is almost certain to result in some short-run unemployment in the country in which wages are initially relatively high. (p. 204)

If Canada were on a flexible exchange rate regime at the time that a program of trade liberalization was introduced, there would appear to be no reason to seek a regime change since the above theoretical arguments tend to be on the side of exchange rate flexibility.

Exchange Rate Stability in the Long Run

There is no reason to believe that the bilateral Canadian-U.S. exchange rate would be unstable in the long run if the monetary authorities in both Canada and the United States were to have targets for the levels of nominal variables — for example the money stock, nominal income, or the price level. In the absence of real shocks the trend movement in the exchange rate would be determined by the difference between the trend movements in the targetted nominal magnitudes (adjusted for trend movements in the real variables where appropriate). Real shocks, including trade liberalization between Canada and the United States, would tend to raise and/or lower the exchange rate relative to this trend.

The probability is high that Canada and the United States will continue to pay attention to the growth of nominal magnitudes. In his annual report for 1982, the Governor of the Bank of Canada stated that “overall financial policy must be, and must be seen by a skeptical public to be, consistent with a continuing movement towards cost and price stability. . . . We continue to believe that monetary policy will move towards a trend of monetary expansion that will permit economic growth without inflation” (pp. 7, 8). In the United States, Chairman Paul Volcker of the Federal Reserve Board has expressed similar intentions as follows: “Ultimately, money should increase no faster than the needs generated by real growth at reasonably stable prices.”¹

Exchange Rate Movements and Volatility in the Short Run

Discussion of exchange rate movement in the short run in response to trade liberalization can be divided into three components: (a) the real exchange rate change that is necessary to move the system to equilibrium; (b) the perceptions and expectations of exchange market participants as to where the exchange rate should go; and (c) volatility caused by irrationality.

The responses of the economic system to trade liberalization may well entail a change in the equilibrium real exchange rate, although in general one cannot say whether it would be a rise or a fall. Moreover, the time path of such a change may well differ depending on whether liberalization occurs all at once or is introduced slowly over time. Even if the liberalization occurs over time, expectations of its future effects can lead to immediate exchange rate changes.

The perceptions of exchange market participants as to the expected outcome of trade liberalization on the current account, output and real exchange rate may differ from those of the architects of the policy. In any event, there may be a substantial variance around any expected outcome. Market participants will therefore look to certain economic variables to monitor the adjustment of the economy to trade liberalization.

Research on exchange rate models and "news" has shown that changes in the trade balance, long-term capital flows and relative prices have had significant impacts on exchange rates. Work done at the Bank of Canada has tended to confirm that these effects are also true for the Canadian dollar. Therefore one might reasonably expect that short-run movements in such variables which differ from what is expected in the long run could lead to exchange rate adjustments that are not smooth. However, since trade liberalization represents a significant change in structure, the responses to surprises in the "monitoring variables" may differ substantially from what one might expect based on coefficients estimated over past history. In either case, some exchange rate volatility would result as a new equilibrium was sought, even if information were used in a fully rational manner. Since real adjustments take time — the reallocation of capital may be sluggish — the exchange rate may overshoot in the short run (Neary and Purvis, 1983).

The volatility of exchange rates since generalized floating began in 1973 has surprised most observers. Initially, the volatility was explained by differences in monetary policy being pursued around the world. The realization that exchange rates were more volatile than relative money stocks or relative prices led to the formation of overshooting models (Dornbusch, 1976; Mussa, 1977; and Frankel, 1979) or models with magnification effects (Frenkel, 1976; and Mussa, 1976). These models were formulated under strong assumptions about the rationality of economic agents.

More recently, however, these assumptions about rationality have come under attack from some quarters as being too strong and inconsistent with some interpretations of the empirical evidence. A number of economists have wondered if perhaps exchange rate volatility has not been more pronounced than rational models would predict, even given the large volatility in monetary and real factors experienced in the world economy. Dornbusch (1983) has catalogued a number of reasons why exchange rates may move in ways that hamper stability of the macro-economy. Prominent among these are "irrelevant information" and "bubbles."

Under the case of "irrelevant information," expectations based on incorrect models may affect the exchange rate. Moreover, attention may shift from one model to another — there may be "fads" in the exchange market. This case may or may not lead to rejection of market efficiency with conventional efficiency tests, but it is certainly consistent with the rejection of the joint hypothesis of market efficiency and no risk premium in much recent work (Hansen and Hodrick, 1980; Boothe, 1983; Longworth, Boothe and Clinton, 1983).

A "bubble" is a special case of a bandwagon in which individuals realize that a currency is overvalued but assume that there is only a small probability of decline in any finite period and that the probability of continued appreciation is sufficiently large to compensate for the risk of a sudden depreciation.² The exchange rate continues to be overvalued until the small-probability event occurs to restore it to a rational value.

Exchange Rate Policy Considerations

Because money can be expected to be approximately neutral in the long run, the influence of monetary policy on any necessary long-run real exchange rate change can also be expected to be neutral. Since a program of trade liberalization is undertaken because it is presumed to improve economic welfare, there is in any case no point in working against the implied real (and nominal) exchange rate adjustment. However, appropriate monetary policy can ensure that trade liberalization has no "disruptive effect" on price level in the long run.

In the short run, the Bank of Canada has traditionally placed emphasis on orderly markets. If the short-run adjustment of the nominal exchange rate appears to be too large (due, say, to some of the factors mentioned at the end of the preceding section) or if the exchange market is disorderly, then in theory there are two tools which could be used to remedy the situation: official foreign exchange market intervention and monetary policy. The use of official foreign exchange market intervention to affect the exchange rate has been considered at length in a number of recent studies — for example, Boothe, Clinton, Côté and Longworth (1985), Longworth, Boothe and Clinton (1983) and the Report of the Working Group on Exchange Market Intervention (1983).³ The conclusion from this work

taken as a whole is that because of imperfect asset substitutability in the short run and/or short-run "signalling" by the act of intervention, intervention is likely to have some effect as a short-run exchange rate smoothing device. However, there is little indication of imperfect substitutability of financial assets in the long run. Therefore, if the Bank desired to counteract a prolonged movement of the exchange rate away from what seemed to be a reasonable long-run path, it would have to use monetary policy.

Whether the Bank would choose to use such a monetary policy response would likely depend on a number of factors including, but not restricted to:

- the existing state of expectations of inflation in the economy and the existing degree of capacity utilization and labour market slack;
- the degree of divergence that such a policy would cause with respect to any other nominal target the Bank might have in place and the resultant impact on inflationary expectations;
- the degree of uncertainty about what should happen to the long-run real exchange rate;
- the size of deviations of the exchange rate from a smooth adjustment path and/or its long-run expected real value, and the effects of such deviations on the short-run inflation rate, assuming they were known.⁴

In the absence of specific assumptions regarding these points, it is impossible to be specific about the likely policy response except to say that a policy of neglecting the exchange rate would be unlikely. The Bank's attitude toward the exchange rate can be summarized by the following quotation from the 1982 Annual Report:

It can quite reasonably be said that for Canada the exchange rate of our currency vis-à-vis the U.S. dollar is the most important single price in the economy. It has a profound effect directly or indirectly on the whole structure of prices throughout Canada. To have such an important price swinging around widely would be about as disruptive an influence on the evolution of Canadian economic affairs as one could imagine. (p. 9)

In any given situation, however, the desire for more stable exchange rate behaviour must be tempered by a concern not to stabilize the rate at an arbitrary level. The Governor recognized explicitly that "the case for as much exchange rate stability as is practical is not a case for stability at an inappropriate level." The overriding policy objective of the Bank would be to ensure that the required relative price adjustments, including exchange rate changes, would have to work themselves out in a non-inflationary environment.

Notes

The views expressed in this paper are those of the author; no responsibility for them should be attributed to the Bank of Canada. This discussion paper was prepared for the Research Symposium on Exchange Rates, Financial Markets and Trade Liberalization held by the Royal Commission on the Economic Union and Development Prospects for Canada on February 10, 1984. Revised in December 1984.

1. Paul Volcker, "We Can Survive Prosperity," speech before the Joint Meeting of the American Economic Association–American Finance Association in San Francisco, December 28, 1983, as reported in *Bondweek*, January 9, 1984.
2. See Blanchard (1979).
3. Other references which have less direct relevance for Canada are Solomon (1983) and Mussa (1981).
4. It should be borne in mind that tariff reductions will have a short-run beneficial effect on measured inflation and thus any exchange rate depreciation might have to be substantial to overwhelm it in the short run.

Bibliography

- Bank of Canada. 1983. *Annual Report of the Governor to the Minister of Finance for 1982*. Ottawa: The Bank.
- Blanchard, Olivier. 1979. "Speculative Bubbles, Crashes and Rational Expectations." *Economic Letters* 3 (4) : 387–89.
- Boothe, Paul. 1983. "Speculative Profit Opportunities in the Canadian Foreign Exchange Market, 1974–78." *Canadian Journal of Economics* 16 (4) (November): 603–11.
- Boothe, Paul, Kevin Clinton, Agathe Côté and David Longworth. 1985. "International Asset Substitutability." In *Postwar Macroeconomic Developments*, Volume 20 of the research studies prepared for the Royal Commission on the Economic Union and Development Prospects. Toronto: University of Toronto Press.
- Dornbusch, Rudiger. 1976. "Expectations and Exchange Rate Dynamics," *Journal of Political Economy* 84(6) (December): 1161–76.
- . 1983. "Flexibility Exchange Rates and Interdependence." *IMF Staff Papers* 30(1) (March): 3–30. Washington, D.C.: IMF.
- Frankel, Jeffrey. 1979. "On the Mark: The Theory of Floating Exchange Rates Based on Real Interest Differentials." *American Economic Review* 69(4) (September): 610–23.
- Frenkel, Jacob. 1976. "The Monetary Approach to the Exchange Rate: Doctrinal Aspects and Empirical Evidence." *Scandinavian Journal of Economics* 78(2): 202–24.
- Hansen, Lars, and Robert Hodrick. 1980. "Forward Exchange Rates as Optimal Predictions of Future Spot Rates: An Econometric Analysis." *Journal of Political Economy* 88(5) (October): 829–53.
- Johnson, Harry G. 1968. "The Implications of Free or Freer Trade for the Harmonization of Other Policies." In *Harmonization of National Economy Policies under Free Trade*, edited by H.G. Johnson, P. Wonnacott and H. Shibata. Toronto: University of Toronto Press.
- Longworth, David. 1980. "Canadian Intervention in the Foreign Exchange Market: A Note." *Review of Economics and Statistics* 62(2) (May): 284–87.
- Longworth, David, Paul Boothe, Kevin Clinton. 1983. *A Study of the Efficiency of Foreign Exchange Markets*. Ottawa: Bank of Canada.
- Mussa, Michael. 1976. "The Exchange Rate, The Balance of Payments and Monetary and Fiscal Policy Under a Regime of Controlled Floating." *Scandinavian Journal of Economics* 78(2): 229–48.
- . 1977. "A Dynamic Theory of Foreign Exchange." In *Studies in Economic Analysis*, edited by M.J. Artis and A.R. Nobay. Oxford: Basil Blackwell.

- . 1981. "The Role of Official Intervention." Occasional Papers No. 6. New York, N.Y.: Group of Thirty.
- Neary, J. Peter and Douglas Purvis. 1983. "Real Adjustment and Exchange Rate Dynamics." In *Exchange Rates and International Economics*, edited by J.A. Frenkel. Chicago: University of Chicago Press.
- Report of the Working Groups on Exchange Market Intervention*. 1983. (March) Paris : The Working Group.
- Solomon, Robert. 1983. "Official Intervention in Foreign Exchange Markets: A Survey." Brookings Discussion Papers in International Economics, No. 1. Washington, D.C.: Brookings Institution.
- Wonnacott, Ronald J., and Paul Wonnacott. 1967. *Free Trade Between the United States and Canada*. Cambridge: Harvard University Press.
- . 1968. *U.S.-Canadian Free Trade: The Potential Impact on the Canadian Economy*.

ABOUT THE CONTRIBUTORS



Alex Grey is a research officer for the Department of Employment and Immigration, Ottawa.

Roderick Hill is a research analyst with the Royal Commission on the Economic Union and Development Prospects for Canada.

David Longworth is Assistant Chief of the International Department of the Bank of Canada, Ottawa.

William L. Marr is Professor of Economics in the School of Business Administration, Wilfrid Laurier University, Waterloo.

M.B. Percy is Professor in the Department of Economics, University of Alberta, Edmonton.

André Raynauld is Professor of Economics, Centre de recherche et développement en économie, University of Montreal.

J. David Richardson is Professor in the Department of Economics, University of Wisconsin, Madison.

Matthew Robertson is Chief of the Labour Market Studies Division, Department of Employment and Immigration, Ottawa.

A.E. Safarian is Professor in the Department of Economics, University of Toronto.

Michael J. Trebilcock is Professor and the Director of the Law and Economics Program, Faculty of Law, University of Toronto.

John Whalley is Professor in the Department of Economics, University of Western Ontario, London. He is also the Research Coordinator for the International Trade section of the Economics Research Area, Royal Commission on the Economic Union and Development Prospects for Canada.

John Williamson is a Senior Fellow of the Institute for International Economics, Washington, D.C.

THE COLLECTED RESEARCH STUDIES



Royal Commission on the Economic Union and Development Prospects for Canada

ECONOMICS

Income Distribution and Economic Security in Canada (Vol.1), *François Vaillancourt, Research Coordinator*

Vol. 1 Income Distribution and Economic Security in Canada, *F. Vaillancourt* (C)*

Industrial Structure (Vols. 2-8), *Donald G. McFetridge, Research Coordinator*

Vol. 2 Canadian Industry in Transition, *D.G. McFetridge* (C)

Vol. 3 Technological Change in Canadian Industry, *D.G. McFetridge* (C)

Vol. 4 Canadian Industrial Policy in Action, *D.G. McFetridge* (C)

Vol. 5 Economics of Industrial Policy and Strategy, *D.G. McFetridge* (C)

Vol. 6 The Role of Scale in Canada-US Productivity Differences, *J.R. Baldwin and P.K. Gorecki* (M)

Vol. 7 Competition Policy and Vertical Exchange, *F. Mathewson and R. Winter* (M)

Vol. 8 The Political Economy of Economic Adjustment, *M. Trebilcock* (M)

International Trade (Vols. 9-14), *John Whalley, Research Coordinator*

Vol. 9 Canadian Trade Policies and the World Economy, *J. Whalley with C. Hamilton and R. Hill* (M)

Vol. 10 Canada and the Multilateral Trading System, *J. Whalley* (M)

Vol. 11 Canada-United States Free Trade, *J. Whalley* (C)

Vol. 12 Domestic Policies and the International Economic Environment, *J. Whalley* (C)

Vol. 13 Trade, Industrial Policy and International Competition, *R. Harris* (M)

Vol. 14 Canada's Resource Industries and Water Export Policy, *J. Whalley* (C)

Labour Markets and Labour Relations (Vols. 15-18), *Craig Riddell, Research Coordinator*

Vol. 15 Labour-Management Cooperation in Canada, *C. Riddell* (C)

Vol. 16 Canadian Labour Relations, *C. Riddell* (C)

Vol. 17 Work and Pay: The Canadian Labour Market, *C. Riddell* (C)

Vol. 18 Adapting to Change: Labour Market Adjustment in Canada, *C. Riddell* (C)

Macroeconomics (Vols. 19-25), *John Sargent, Research Coordinator*

Vol. 19 Macroeconomic Performance and Policy Issues: Overviews, *J. Sargent* (M)

Vol. 20 Post-War Macroeconomic Developments, *J. Sargent* (C)

Vol. 21 Fiscal and Monetary Policy, *J. Sargent* (C)

Vol. 22 Economic Growth: Prospects and Determinants, *J. Sargent* (C)

Vol. 23 Long-Term Economic Prospects for Canada: A Symposium, *J. Sargent* (C)

Vol. 24 Foreign Macroeconomic Experience: A Symposium, *J. Sargent* (C)

Vol. 25 Dealing with Inflation and Unemployment in Canada, *C. Riddell* (M)

Economic Ideas and Social Issues (Vols. 26 and 27), *David Laidler, Research Coordinator*

Vol. 26 Approaches to Economic Well-Being, *D. Laidler* (C)

Vol. 27 Responses to Economic Change, *D. Laidler* (C)

* (C) denotes a Collection of studies by various authors coordinated by the person named.
(M) denotes a Monograph.

POLITICS AND INSTITUTIONS OF GOVERNMENT

Canada and the International Political Economy (Vols. 28-30), *Denis Stairs and Gilbert R. Winham, Research Coordinators*

Vol. 28 Canada and the International Political/Economic Environment, *D. Stairs and G.R. Winham* (C)

Vol. 29 The Politics of Canada's Economic Relationship with the United States, *D. Stairs and G.R. Winham* (C)

Vol. 30 Selected Problems in Formulating Foreign Economic Policy, *D. Stairs and G.R. Winham* (C)

State and Society in the Modern Era (Vols. 31 and 32), *Keith Banting, Research Coordinator*

Vol. 31 State and Society: Canada in Comparative Perspective, *K. Banting* (C)

Vol. 32 The State and Economic Interests, *K. Banting* (C)

Constitutionalism, Citizenship and Society (Vols. 33-35), *Alan Cairns and Cynthia Williams, Research Coordinators*

Vol. 33 Constitutionalism, Citizenship and Society in Canada, *A. Cairns and C. Williams* (C)

Vol. 34 The Politics of Gender, Ethnicity and Language in Canada, *A. Cairns and C. Williams* (C)

Vol. 35 Public Opinion and Public Policy in Canada, *R. Johnston* (M)

Representative Institutions (Vols. 36-39), *Peter Aucoin, Research Coordinator*

Vol. 36 Party Government and Regional Representation in Canada, *P. Aucoin* (C)

Vol. 37 Regional Responsiveness and the National Administrative State, *P. Aucoin* (C)

Vol. 38 Institutional Reforms for Representative Government, *P. Aucoin* (C)

Vol. 39 Intrastate Federalism in Canada, *D.V. Smiley and R.L. Watts* (M)

The Politics of Economic Policy (Vols. 40-43), *G. Bruce Doern, Research Coordinator*

Vol. 40 The Politics of Economic Policy, *G.B. Doern* (C)

Vol. 41 Federal and Provincial Budgeting, *A.M. Maslove, M.J. Prince and G.B. Doern* (M)

Vol. 42 Economic Regulation and the Federal System, *R. Schultz and A. Alexandroff* (M)

Vol. 43 Bureaucracy in Canada: Control and Reform, *S.L. Sutherland and G.B. Doern* (M)

Industrial Policy (Vols. 44 and 45), *André Blais, Research Coordinator*

Vol. 44 Canadian Industrial Policy, *A. Blais* (C)

Vol. 45 The Political Sociology of Industrial Policy, *A. Blais* (M)

LAW AND CONSTITUTIONAL ISSUES

Law, Society and the Economy (Vols. 46-51), *Ivan Bernier and Andrée Lajoie, Research Coordinators*

Vol. 46 Law, Society and the Economy, *I. Bernier and A. Lajoie* (C)

Vol. 47 The Supreme Court of Canada as an Instrument of Political Change, *I. Bernier and A. Lajoie* (C)

Vol. 48 Regulations, Crown Corporations and Administrative Tribunals, *I. Bernier and A. Lajoie* (C)

Vol. 49 Family Law and Social Welfare Legislation in Canada, *I. Bernier and A. Lajoie* (C)

Vol. 50 Consumer Protection, Environmental Law and Corporate Power, *I. Bernier and A. Lajoie* (C)

Vol. 51 Labour Law and Urban Law in Canada, *I. Bernier and A. Lajoie* (C)

The International Legal Environment (Vols. 52-54), *John Quinn, Research Coordinator*

Vol. 52 The International Legal Environment, *J. Quinn* (C)

Vol. 53 Canadian Economic Development and the International Trading System,
M.M. Hart (M)

Vol. 54 Canada and the New International Law of the Sea, *D.M. Johnston* (M)

Harmonization of Laws in Canada (Vols. 55 and 56), *Ronald C.C. Cuming, Research Coordinator*

Vol. 55 Perspectives on the Harmonization of Law in Canada, *R. Cuming* (C)

Vol. 56 Harmonization of Business Law in Canada, *R. Cuming* (C)

Institutional and Constitutional Arrangements (Vols. 57 and 58), *Clare F. Beckton and A. Wayne MacKay, Research Coordinators*

Vol. 57 Recurring Issues in Canadian Federalism, *C.F. Beckton and A.W. MacKay* (C)

Vol. 58 The Courts and The Charter, *C.F. Beckton and A.W. MacKay* (C)

FEDERALISM AND THE ECONOMIC UNION

Federalism and The Economic Union (Vols. 58-72), *Mark Krasnick, Kenneth Norrie and Richard Simeon, Research Coordinators*

Vol. 59 Federalism and Economic Union in Canada, *K. Norrie, R. Simeon and M. Krasnick* (M)

Vol. 60 Perspectives on the Canadian Economic Union, *M. Krasnick* (C)

Vol. 61 Division of Powers and Public Policy, *R. Simeon* (C)

Vol. 62 Case Studies in the Division of Powers, *M. Krasnick* (C)

Vol. 63 Intergovernmental Relations, *R. Simeon* (C)

Vol. 64 Disparities and Interregional Adjustment, *K. Norrie* (C)

Vol. 65 Fiscal Federalism, *M. Krasnick* (C)

Vol. 66 Mobility of Capital in the Canadian Economic Union, *N. Roy* (M)

Vol. 67 Economic Management and the Division of Powers, *T.J. Courchene* (M)

Vol. 68 Regional Aspects of Confederation, *J. Whalley* (M)

Vol. 69 Interest Groups in the Canadian Federal System, *H.G. Thorburn* (M)

Vol. 70 Canada and Quebec, Past and Future: An Essay, *D. Latouche* (M)

Vol. 71 The Political Economy of Canadian Federalism: 1940-1984, *R. Simeon* (M)

THE NORTH

Vol. 72 The North, *Michael S. Whittington, Coordinator* (C)

COMMISSION ORGANIZATION

Chairman

Donald S. Macdonald

Commissioners

Clarence L. Barber
Albert Breton
M. Angela Cantwell Peters
E. Gérard Docquier

William M. Hamilton
John R. Messer
Laurent Picard
Michel Robert

Daryl K. Seaman
Thomas K. Shoyama
Jean Casselman-Wadds
Catherine T. Wallace

Senior Officers

Executive Director
J. Gerald Godsoe

Director of Policy
Alan Nymark

Secretary
Michel Rochon

Director of Administration
Sheila-Marie Cook

Senior Advisors
David Ablett
Victor Clarke
Carl Goldenberg
Harry Stewart

Director of Publishing
Ed Matheson

Directors of Research
Ivan Bernier
Alan Cairns
David C. Smith

Co-Directors of Research
Kenneth Norrie
John Sargent

Research Program Organization

Economics

Research Director
David C. Smith

*Executive Assistant
& Assistant Director
(Research Services)*
I. Lilla Connidis

Coordinators
David Laidler
Donald G. McFetridge
Kenneth Norrie*
Craig Riddell
John Sargent*
François Vaillancourt
John Whalley

Research Analysts
Caroline Digby
Mireille Ethier
Judith Gold
Douglas S. Green
Colleen Hamilton
Roderick Hill
Joyce Martin

Politics and the Institutions of Government

Research Director
Alan Cairns

Executive Assistant
Karen Jackson

Coordinators
Peter Aucoin
Keith Banting
André Blais
Bruce Doern
Richard Simeon
Denis Stairs
Cynthia Williams
Gilbert R. Winham

Research Analysts
Claude Desranleau
Ian Robinson

Office Administration
Donna Stebbing

Law and Constitutional Issues

Research Director
Ivan Bernier

*Executive Assistant
& Research Program
Administrator*
Jacques J.M. Shore

Coordinators
Clare F. Beckton
Ronald C.C. Cuming
Mark Krasnick
Andrée Lajoie
A. Wayne MacKay
John J. Quinn

*Administrative and
Research Assistant*
Nicolas Roy

Research Analyst
Nola Silzer

*Kenneth Norrie and John Sargent co-directed the final phase of Economics Research with David Smith

ECONOMICS
International Trade

Domestic Policies and the International Economic Environment

JOHN WHALLEY, Research Coordinator

This is the fourth of six volumes dealing with **International Trade** (see list in back of book), included in the Collected Research Studies of the Royal Commission on the Economic Union and Development Prospects for Canada.

The essays in this volume all consider the design of domestic policies in light of the international economic environment. Specific factors discussed include the benefits and costs of direct foreign investment, the results of international movement of labour and capital, the efficacy of government policies directed towards multinational enterprises, and the links between foreign-exchange markets and trade policy.

AUTHORS AND TOPICS:

Domestic Policies and the International Economic Environment: An Introduction Roderick Hill and John Whalley

Government Control of Foreign Business Investment A.E. Safarian

Immigration Policy and Canadian Economic Growth W.L. Marr and M.B. Percy

Export Insurance and Financing in Canada André Raynauld

Domestic Adjustment to Trade Policy Changes and External Shocks: Summary of the Proceedings of a Research Symposium Roderick Hill

Factor Market Adjustment Policies in Response to External Shocks J. David Richardson

Trade-Related Worker Adjustment Policies: The Canadian Experience Matthew Robertson and Alex Grey

The Political Economy of Business Bailouts in Canada Michael J. Trebilcock

Canada's Industrial Adjustment: Federal Government Policies and Programs The Department of Regional Industrial Expansion

Exchange Rates, Financial Markets and Trade Liberalization: Summary of the Proceedings of a Research Symposium Roderick Hill

Exchange Rate Misalignments, Trade and Canadian Policy John Williamson

Some Links between Exchange Rates and Trade Policy J. David Richardson

Some Exchange Rate Policy Considerations When Trade Is Liberalized David Longworth

JOHN WHALLEY is Professor in the Department of Economics, University of Western Ontario, London.

University of Toronto Press



Royal Commission on the
Economic Union and
Development Prospects
for Canada



ISBN 0-8020-7254-2