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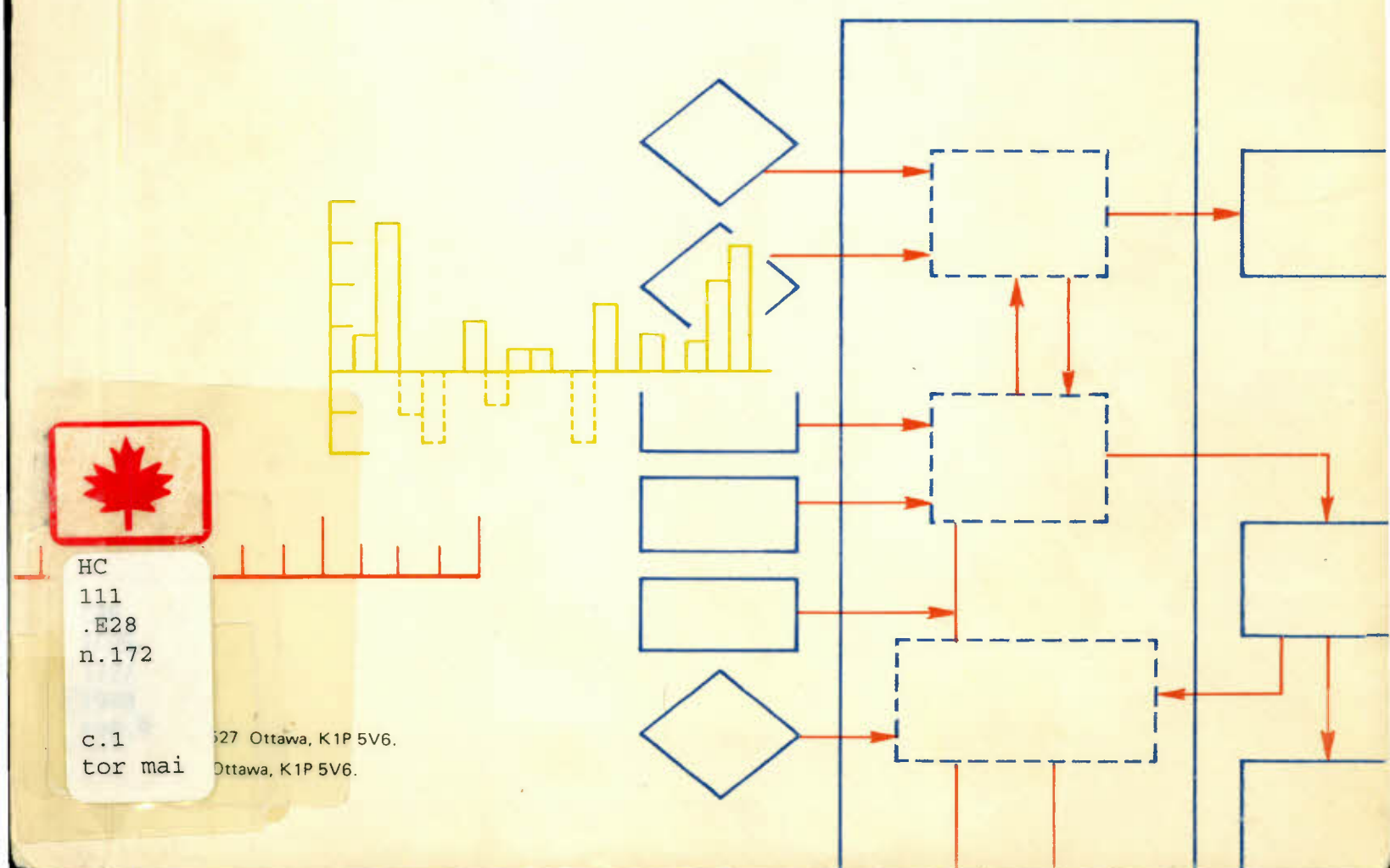

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DISCUSSION PAPER NO. 172

Canadian Industry and the Challenge of Low-Cost Imports

by

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An assessment of the vulnerability of employment in Canadian manufacturing to dislocations caused by import competition from developing countries, with special reference to impacts on regions and communities.

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Note:

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SUMMARY

Increasing attention has been devoted for some time in advanced industrial nations to the competition offered by imports of manufactured goods -- often very cheaply priced -- from certain developing countries. The inroads being made in some of these cases are sufficiently striking that fears arise for the future viability of domestic industries, which are perceived as being seriously challenged: the prospect presents itself of a Third World becoming effective in the output and export of a wide range of manufactures, with devastating consequences for production and employment in higher-cost economies.

Canada is among the countries especially concerned about this problem, by virtue of its relatively fragile manufacturing sector hampered by inadequacies of scale and specialization and other difficulties. This paper is an attempt to calculate the actual and potential threat posed for Canadian firms and workers by imported manufactured goods from the developing world and, in particular, to isolate the main communities and categories of labour that might be vulnerable in the event that, sooner or later, the trade protection at present afforded relevant industries proved inadequate or could not be sustained.

The paper finds that, despite recent growth in such imports, Canada's purchases of fully manufactured products from developing countries in 1979 were valued at only just over $1½ billion, or approximately 4 per cent of total Canadian acquisitions abroad in that category. Of this trade, three-quarters was supplied by Taiwan, South Korea, and Hong Kong, with much more modest amounts coming from China, Brazil, Singapore, Mexico, Puerto Rico, India, and a few others. Given that Canada imports about a third of its requirements of manufactures, the 4 per cent figure means that imports from the Third World account for a little over one percent of the Canadian market.

However, the trade is heavily concentrated in a relatively narrow range of products. This paper identifies in considerable detail the classes and sub-classes of manufactures in which penetration of the Canadian market from developing-country sources is important. Among over 900 categories of goods produced in Canada and/or imported in the early 1970s, such countries were suppliers of 127; but their penetration of the Canadian market was both substantial and rising as a proportion of total sales in only 29 cases. (Further, seven of those were achieving their success in Canada largely at the expense of other imports rather than at that of domestic industry.) The products causing problems are almost entirely textiles and clothing, footwear and leather goods, toys, sporting

supplies, certain types of electrical and electronic equipment, and some wood products. And it is worth noting that the home industries making these sorts of items are, in most cases, rather highly protected by import duties and other barriers, some of which are aimed quite specifically at limiting inflows from low-wage countries.

Examination of the Canadian industries concerned reveals that they employ more than a quarter of a million workers, or around 2½ per cent of the total labour force. In the paper it is assumed -- rather unrealistically, no doubt, but as a basis for more sophisticated estimation -- that any of these workers might ultimately find his job at risk because of Third World competition. On the other hand, the rule of thumb is applied that labour redundancies from this cause would be unlikely to give rise to prolonged difficulty unless the employment represented was equal to 5 per cent or more of the work force in a locality -- defined for the purpose as the relevant city and its districts in large metropolitan areas or the county in semi-urban and rural regions. On that revised basis, the number of potentially affected workers is closer to 150,000, which means about 1½ per cent of all working Canadians.

Yet, if the possible impact appears minor in overall terms, it is narrowly focused regionally: perhaps 70,000 of these jobs would be in greater Montreal and

50,000 more in other parts of Quebec, compared with 25,000 or so in Ontario (mainly the eastern sections, plus two counties in the central part of the province) and virtually none anywhere else. In some towns in Quebec the workers in indicated industries account for over 20 per cent or even over 30 per cent of the local labour force.

The study evaluates the characteristics of "vulnerable" workers in some detail, using census material. While many factors are described, according to the industry, principal location involved, and other considerations, the analysis shows that the workers concerned tend to include untypically high proportions of females, older people, and those with poor education, as well as rather large numbers of immigrants and, of course (in view of the Quebec orientation), French-speaking Canadians. The findings lead to some observations about the structure of employment and pattern of industrial development in urban and rural Quebec and a number of thoughts about possible approaches to the problem.

In an appendix to the paper some attention is given to the future. Partly because Canada's most significant suppliers of low-cost manufactures are in East Asia (but also for more general reasons), the notion is tentatively advanced that industrializing Third World countries may henceforward move by stages along a path of

sequential product specialization not unlike that earlier followed by Japan. Accordingly, an assessment of Canadian imports of Japanese manufactured goods is presented and the apparent effects of that trade and the results of the previous analysis are compared. Broadly speaking, it is clear that the kinds of products entering the Canadian market from Japan compete with home industries centred more in Ontario, and less in Quebec, than those now threatened by competition from developing nations. Moreover, the work forces involved are more heavily male, contain a greater percentage of people in the prime age groups, and are characterized by substantially higher levels of education than in the other instance. It is concluded that, if Japan's evolution toward industrial maturity is, indeed, subsequently emulated by some Third World countries, the ramifications for Canada will be no less worrisome, in many respects, than the problems already encountered; but the capacity of the affected workers for ready adjustment to alternative employments may be greater.

Résumé

Depuis un certain temps déjà, les pays industrialisés se préoccupent de plus en plus de la concurrence offerte par les importations de produits manufacturés -- souvent à très bas prix -- en provenance de pays en développement. La pénétration de ces produits, dans certains cas, est suffisamment importante pour susciter des craintes concernant la viabilité future des industries des pays industrialisés, dont la survie est sérieusement menacée : les perspectives laissent entrevoir un Tiers Monde dont l'efficacité dans la production et l'exportation d'une vaste gamme de produits manufacturés provoquera des effets désastreux sur la production et l'emploi dans les économies où les coûts sont élevés.

Le Canada est l'un des pays particulièrement touchés par ce problème du fait que son secteur manufacturier est relativement fragile, situation que viennent aggraver des lacunes sur le plan des économies d'échelle et de spécialisation, entre autres difficultés. L'objet du présent document est d'évaluer la menace réelle et virtuelle que les produits manufacturés des pays en développement posent aux entreprises et aux travailleurs canadiens et, en particulier, d'isoler les localités et les catégories de travailleurs qui seraient les plus vulnérables si, tôt ou tard, la protection commerciale assurée à l'heure actuelle aux industries en cause se révélait inadéquate ou ne pouvait être maintenue.

L'étude montre que, malgré la croissance récente de ces importations, les achats canadiens de produits manufacturés en provenance de pays en développement n'étaient évalués qu'à un peu plus de 1,5 milliard de dollars en 1979, soit environ 4 % du total des achats canadiens à l'étranger dans cette catégorie. Les trois quarts de ces produits étaient fournis par Taïwan, la Corée du Sud et Hong Kong, alors que des quantités beaucoup plus modestes provenaient de la Chine, du Brésil, de Singapour, du Mexique, de Porto Rico, de l'Inde et de quelques autres pays. Étant donné que le Canada importe environ le tiers des produits manufacturés dont il a besoin, le chiffre de 4 % signifie que les importations en provenance des pays du Tiers Monde ne représentent qu'un peu plus de 1 % du marché canadien.

Toutefois, ces échanges sont fortement concentrés dans un éventail de produits relativement restreint. Dans ce document, l'auteur identifie d'une façon très détaillée les catégories et sous-catégories de produits manufacturés dont une importante proportion est importée des pays en développement. Des 900 catégories et plus de produits fabriqués au Canada ou importés au début des années 1970, 127 provenaient de ces pays; mais en proportion des ventes totales, leur pénétration sur le marché canadien était à la fois importante et en croissance dans 29 cas seulement. (En outre, les succès réalisés au Canada dans sept de ces cas l'étaient principalement aux dépens d'autres produits importés plutôt qu'au détriment des produits canadiens.) Les produits qui font face à des difficultés se retrouvent

presque exclusivement dans les textiles et le vêtement, les chaussures et les produits en cuir, les jouets, les articles de sport, certains types de matériel électrique et électronique, et quelques produits du bois. Il y a lieu de noter que les industries canadiennes fabriquant ces genres de produits sont, dans la plupart des cas, fortement protégées par diverses formes de barrières tarifaires, dont certaines sont expressément destinées à limiter les importations en provenance de pays à faibles salaires.

Une étude des industries canadiennes concernées révèle qu'elles emploient plus d'un quart de million de travailleurs, soit environ 2,5 % de l'ensemble de la population active. Même si la chose est plutôt irréaliste, nous avons supposé, comme point de départ à une estimation plus poussée, que tout travailleur occupant un emploi dans ces industries pourrait un jour voir son poste compromis en raison de la concurrence du Tiers Monde. D'autre part, nous avons postulé que les pertes d'emploi découlant de cette situation ne seraient pas une source de difficultés sérieuses aussi longtemps qu'elles ne dépasseraient pas 5 % de l'effectif ouvrier dans une localité -- définie à cette fin comme la ville concernée et ses districts dans les grandes régions métropolitaines, ou le comté dans les régions semi-urbaines et rurales. Dans ce cas, le nombre de travailleurs susceptibles d'être touchés se situe à près de 150 000, ce qui correspond à environ 1,5 % de tous les travailleurs canadiens.

Si les conséquences possibles apparaissent limitées sur le plan global, elles sont cependant fortement régionalisées : il se peut que 70 000 de ces emplois se trouvent dans le Montréal métropolitain et 50 000 autres ailleurs au Québec, par comparaison à quelque 25 000 en Ontario (principalement dans l'est de la province et dans deux comtés du centre) et à des chiffres à peu près nuls ailleurs. Dans certaines villes du Québec, les travailleurs des industries mentionnées composent plus de 20 % ou parfois même plus de 30 % de la main-d'oeuvre locale.

L'étude évalue en détail les caractéristiques des travailleurs "vulnérables", à l'aide de données du recensement. Bien que plusieurs facteurs soient décrits des points de vue de l'industrie, de l'emplacement principal ou autres considérations, l'analyse indique que les travailleurs concernés comprennent des proportions anormalement élevées de femmes, de personnes âgées et de personnes peu instruites, de même qu'un nombre assez considérable d'immigrants et, évidemment (vu l'importance des industries touchées au Québec), de Canadiens français. Les résultats conduisent à certaines observations ou réflexions sur la structure de l'emploi et du développement industriel dans le Québec urbain et rural, et sur des moyens possibles de résoudre le problème.

Dans une annexe au document, nous examinons les perspectives d'avenir. Comme la plupart de nos principaux

fournisseurs de produits manufacturés à faible prix se trouvent en Asie de l'Est (mais aussi pour des raisons plus générales), nous soutenons provisoirement que les pays en cours d'industrialisation du Tiers Monde progresseront vraisemblablement par étape dans la voie d'une spécialisation séquentielle semblable à celle qu'a suivie antérieurement le Japon. En conséquence, nous présentons une analyse des importations canadiennes de produits manufacturés au Japon, et nous comparons ensuite les effets apparents de ces échanges avec les résultats de l'analyse précédente. En général, il est clair que les types de produits qui entrent sur le marché canadien en provenance du Japon concurrencent plutôt les industries implantées en Ontario que celles du Québec, contrairement aux importations actuelles provenant des pays en voie de développement. En outre, la main-d'oeuvre en cause comprend une majorité de travailleurs masculins, un pourcentage plus élevé de personnes du groupe d'âge principal, et est caractérisée par des niveaux nettement plus élevés de scolarité que dans l'autre cas. L'auteur conclut que, si l'évolution du Japon vers la maturité industrielle est imitée par certains pays du Tiers Monde, les conséquences pour le Canada seront tout aussi inquiétantes à de nombreux égards que les problèmes auxquels il fait déjà face; toutefois, les travailleurs touchés pourraient présumément s'adapter plus facilement à d'autres emplois.

1. Introduction

The problem of disruption of domestic industry by import competition is a familiar one, and the economist's prescription is well known: any idea of providing special protection should be rejected, the imports should be welcomed as contributing to cheaper goods for consumers, and capital and workers should be encouraged to abandon the threatened activities in favour of more viable ones. To this end, it is habitually suggested, government will be well advised to institute measures of "adjustment assistance" that can ease the process of adaptation to new circumstances. And, insofar as workers seem unable or unwilling to move from communities or regions that are heavily affected by such events, efforts may be desirable to create alternative job opportunities in these areas of the country.

If that set of policies is generally what the professional economist has to recommend, he is likely to be even more vehement in his advocacy when the import competition concerned derives primarily from developing nations.[1] There is widespread agreement that poorer countries badly need the employment and income that manufacturing enterprise can generate, and it is clear that many such countries are well placed to compete in international markets in certain products -- notably those whose

fabrication involves relatively standard technology and intensive use of semi-skilled labour. Indeed, the evidence appears to indicate that a strictly logical division of the world's resources, including manpower of different levels of skills and education, would see much labour-intensive manufacture transferred from the advanced to the less developed nations, which frequently possess comparative advantage in these lines of endeavour relative to high-wage-cost countries like Canada.[2]

On the whole, however, such propositions have gained rather little support at the political level, essentially because the pressures from industry, organized labour, and regional interests to maintain the status quo have been much more intense and effective than those from consumer groups or others concerned to increase efficiency and lower prices. The reasons for this phenomenon are obvious enough. There is an inherent asymmetry in the costs and benefits of successful adjustment that makes for immense social -- and therefore political -- difficulty: whereas the gains are realized in the saving of a few cents or a few dollars for millions of consumers when they make a purchase, the upheavals suffered by relatively small numbers of workers and businessmen to yield these gains can be such as to endanger their very livelihoods and undermine the stability and well-being of whole communities. When the communities happen to be concentrated in particular regions

that represent electoral power, the repercussions add still more to a political dilemma that has consistently tended to intimidate policy-makers all over the world. By and large, therefore, governments have failed to act on the arguments of economists, preferring to support the existing situation of affected groups -- and where necessary to afford increased protection to the endangered industries. Their hesitancy is understandable; but the problem remains. It has been much studied in recent years, as the bibliography to this paper attests.

The Canadian Case

In Canada, this subject is perhaps peculiarly sensitive because a high proportion of plants in the most evidently vulnerable industries -- textiles, clothing, and footwear, among others -- are located, as we shall see, in Quebec. Quite apart from the political considerations entailed, a heavy dependence on employment in industries challenged from outside sources naturally makes Quebecers worry about the extent to which they rely on the readiness of consumers across the country to absorb the higher costs -- a direct result of import protection -- that keep their economy viable.

This study is not devoted to such provincial concerns -- at least, not directly. It is designed to clarify some of the main factors that would be involved if the relevant industries come to be increasingly challenged by imports from the developing countries. In particular, the paper examines the precise location of the industries at risk and the nature and extent of the employment that is in jeopardy as a result. The work focuses initially on an analysis of statistical information on the penetration of the Canadian market by manufactured imports from the Third World, as derived from a new Statistics Canada data series and some special material developed to the author's specifications. As a basis for the assessment, this method may be criticized. Because of habitual time-lags in the presentation of data, the tabulations necessarily describe a situation that existed in the early to mid 1970's, and since then a lot has happened in this respect. What is more, in order to develop an in-depth picture of the potential regional disruption in Canada resulting from low-wage imports, one is obliged much of the time to concentrate on a limited number of industries for which adequate detail is available -- and that tends to bring the researcher back relentlessly to familiar labour-intensive activities like textiles and clothing. Many readers would doubtless wish that we could have learned more about the new spheres of vulnerability in Canadian industry, and even that we might

have pointed out those fields in which problems are likely to arise from this cause in the future.

That is certainly a valid criticism; but we must note that not too much evidence has so far appeared that could be of help in such an exercise. A paper issued in 1978 by the UNCTAD secretariat,[3] isolating the fifty products that did most to raise developing countries' manufactured-goods exports to the developed world between 1970 and 1976, showed few items outside the list that has been indicated here. Some attempts to predict which directions the industrialization efforts and subsequent export drives of developing countries might go, based on an analysis of relevant comparative characteristics of nations and industries, have given only limited guidance in this respect.[4]

One slightly unconventional approach to the question, not ostensibly focused on this difficulty but of inferential value, is tried in Appendix A. There, the observation that many developing countries are following in Japan's footsteps -- by no means exactly, of course, but approximately enough to be useful for this purpose -- leads us to undertake an evaluation of Japanese successes in the Canadian market for manufactured goods as a way of gauging the shape of things to come. These results are interesting, one feels, by virtue of the broadening of the spectrum of

affected industries that they imply. While the findings suggest added adjustments for Canadian firms and workers as the capability for effective penetration of the Canadian market spreads to other countries -- ones whose labour costs are sure to be far lower than Japan's -- they imply a degree of difficulty in many ways less severe than in the "traditional" sectors. The reasons for this conclusion lie in key characteristics of those industries that seem likely to face the next wave of import competition from such sources as compared with those that are encountering the challenge now: they are mostly in Ontario rather than in Quebec, and their labour forces are more predominantly male, more heavily focused on the 25-44 age group, and on average significantly better educated -- all of which are factors, according to an extensive recent study,[5] that make for easier and more successful transitions in case of plant shutdowns and employment layoffs.

These points are dealt with more explicitly at the end of Appendix A. For the present suffice it to say that the impression derived from such considerations is that our so-called traditional industries -- the "secteurs mous" as they are known in Quebec -- do indeed represent the main problem. Thus, while our emphasis on them, in the body of the paper, may be in part a consequence of technical and statistical inadequacies, it appears nevertheless to be essentially appropriate to the policy concerns raised by this sort of prospect.

On the Positive Side

One final point needs to be made here about the matters discussed in the paper, and that is that Canadian imports of manufactured goods from developing countries have been substantially exceeded, in recent times, by exports from Canada to such countries in the same category. In 1978 (the year we will mainly use for assessing current trends), our shipments to the Third World of "end products, inedible" -- that is, fully finished non-food manufactures -- were valued at $1.9 billion, compared with purchases from those regions worth $1.2 billion.* (For "fabricated materials, inedible" -- or partially manufactured goods -- the export figure was $1.5 billion while that of imports was less than $600 million.)** In other words, Canada has a trade surplus in these more labour-intensive fields, as far as the poorer nations are concerned, and so the net effect of the transactions on employment of Canadians is almost certainly positive.

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* The 1979 amounts are reported to have been $2.0 billion and $1.7 billion respectively.

** In 1979 the respective figures were $2.1 billion and $750 million.

Admittedly, the products that Canada sells in greatest amount tend to be different from the ones that it acquires, and the principal areas of destination are generally different from the source areas of our main manufactured-good imports. Among the northeast Asian "little big three" -- Hong Kong, South Korea, and Taiwan -- that are suppliers of the bulk of Canada's imports of end products from the Third World, purchases from our own manufacturers are quite limited: in 1978 Hong Kong bought Canadian items like telecommunications equipment ($4.2 million), hand tools and similar products ($3.2 million), ships and boats ($2.3 million), and medical and pharmaceutical preparations ($1.6 million); South Korea's major finished-goods acquisitions from Canada were motor vehicle parts ($1.4 million), office machines ($1.1 million), and materials handling machinery ($1.0 million); Taiwan provided a market for such Canadian manufactures as telecommunications equipment ($1.4 million) and office machines ($1.3 million). For the non-food end-products category as a whole, Canada's exports to these three countries -- $41.3 million -- were eclipsed by our imports from them -- close to $900 million. Indeed, with respect to the top twelve suppliers of these kinds of goods, as shown in Table 4 (Chapter 2), the Canadian position in 1978 was one of net deficit on manufactured-products trade in seven and surplus in only five (although, as regards the top twelve in partially fabricated items (Table 3, Chapter 2), it was of net surplus in eight and deficit in four).

But, of course, trade is the result of a multi-dimensional complex of interactions rather than just a two way street, so one needs to look beyond these bilateral relationships. In the broader context, it is remarkable that more than a third -- over $600 million worth -- of Canadian exports to developing nations in the inedible-end-product classification during 1978 were accounted for simply by sales of automobiles, trucks, and motor vehicle parts to three oil-rich territories: Venezuela, Saudi Arabia, and Iran. And no doubt some part of the reason that Canada can sell automotive products to those places is that their inhabitants derive wealth from shipments of petroleum to industrializing countries like South Korea, Taiwan, and Hong Kong. That is, the growth in these countries' economies, of which ability to export competitively to Canada is both a manifestation and a contributing factor, is bound to yield certain benefits to Canadian producers in one way or another.

It nevertheless appears, at least <u>prima facie</u>, that the regional implications in Canada -- a major aspect of this study -- are very far from even-handed: a high proportion of the manufactured products Canadians are most successful in exporting to developing nations (notably motor vehicles) are made principally in Ontario, whereas the impact of import penetration from these areas is felt, as will be shown, mainly in the province of Quebec. A complete

estimation of the effects would require tracing all successive benefits and detriments and their regional ramifications, not only in terms of the narrow arithmetic of exchanges in comparable product classes -- and not only in commerce with developing countries alone -- through the entire economic system. Given the importance, in Canada's overall export trade, of primary commodities and partially fabricated materials, many of which are produced in large quantities in Quebec (for example, newsprint paper and other forest products, aluminum, iron ore, asbestos, and similar minerals), to say nothing of foreign sales of hydroelectric power and of various technical and other services from Quebec bases, the indirect advantages for that province from Canadian trade with the Third World may be considerable.

Unfortunately, determining the extent to which those advantages offset the more readily perceived disadvantages (so far as producers and workers are concerned) requires a separate type of analysis, using a general equilibrium model of the kind employed in other research; but that could not be attempted in the present work. One must therefore be content with a plea to the reader to bear in mind the existence of these "plus" factors -- even within the region most adversely influenced -- in a necessary concentration, for immediate purposes, on the direct and tangible "minuses".

2. Imports from Developing Countries

Before proceding further, it will be as well to look at the dimensions and characteristics of Canada's imports from the developing countries in general terms, with particular reference to the trade in manufactured goods likely to provide a competitive challenge to domestic output.

Canadian imports form the Third World in 1978 were worth a little under $6 billion, or almost 12 per cent of this country's total purchases from abroad (Table 1).* Nearly a third of these imports came from South America, while about a quarter originated in the Middle East and another quarter in developing Asia (that is, excluding Japan); the rest derived from Central America and the Antilles, developing Africa (excluding South Africa), and Oceania (excluding Australia and New Zealand). So far as individual nations are concerned, the principal suppliers to Canada among the developing group were Venezuela, Saudi Arabia, and Iran, all major oil producers, which together accounted for 45 per cent of the total. Then came three semi-industrialized Asian states -- Taiwan, South Korea, and

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* In 1979 the value of such imports rose to more than $7 billion, but as a proportion of the total it fell slightly to about 11 per cent; the distribution by geographic regions remained essentially unaltered.

Table 1

Total Canadian Imports and Imports from Developing Countries,
With Breakdown by Major Third World Regions and Some Figures for Largest Individual Suppliers[1]

	Selected Years														
	1961			1970			1976			1977			1978		
	$ Million	Per Cent of All Dev'g	Per Cent of Total	$ Million	Per Cent of All Dev'g	Per Cent of Total	$ Million	Per Cent of All Dev'g	Per Cent of Total	$ Million	Per Cent Of All Dev'g	Per Cent Of Total	$ Million	Per Cent of All Dev'g	Per Cent of Total
Total Canadian Imports	5,769		100.0	13,952		100.0	37,444		100.0	42,156		100.0	49,684		100.0
Imports from Developing Countries	678	100.0	11.8	1,195	100.0	8.6	5,449	100.0	14.6	5,469	100.0	13.0	5,917	100.0	11.9
Middle East	98	14.5	1.7	104	8.7	0.7	1,762	32.2	4.7	1,487	26.9	3.5	1,615	27.7	3.3
Other Africa (ex. South Africa)	32	4.7	0.6	107	9.0	0.8	376	6.8	1.0	212	3.8	0.5	210	3.4	0.4
Other Asia (ex. Japan)	98	14.5	1.7	283	23.7	2.0	1,254	22.6	3.3	1,317	23.8	3.1	1,552	26.1	3.1
Oceania (ex. Australia & NZ)	3	0.4	0.1	10	0.8	0.1	1	—	—	2	—	—	6	—	—
South America	305	45.0	5.3	477	39.9	3.4	1,628	29.5	4.3	1,834	33.8	4.4	1,930	32.8	3.9
Central America & Antilles	142	20.9	2.5	214	17.9	1.5	429	7.5	1.1	618	11.5	1.5	603	10.1	1.2
Venezuela	217	32.0	3.8	339	28.4	2.4	1,299	24.0	3.5	1,360	24.6	3.2	1,283	21.8	2.6
Saudi Arabia	41	6.0	0.7	24	2.0	0.2	482	8.9	1.3	712	13.1	1.7	749	12.6	1.5
Iran	22	3.2	0.4	34	2.8	0.2	695	13.0	1.9	537	10.0	1.3	594	10.1	1.2
Taiwan	2	0.3	—	52	4.4	0.4	293	5.5	0.8	321	6.2	0.8	397	6.7	0.8
Korea, South	—	—	—	15	1.3	0.1	304	5.5	0.8	323	6.2	0.8	363	5.9	0.7
Hong Kong	14	2.1	0.2	78	6.5	0.6	284	5.5	0.8	280	5.4	0.7	332	5.9	0.7
Brazil	29	4.3	0.5	49	4.1	0.4	163	2.7	0.4	214	3.8	0.5	248	4.2	0.5
Mexico	18	2.7	0.3	47	3.9	0.3	145	2.7	0.4	195	3.8	0.5	184	3.4	0.4
Iraq	1	0.1	—	15	1.3	0.1	134	2.7	0.4	111	2.3	0.3	131	2.5	0.3
Ecuador	8	1.2	0.1	11	0.9	0.1	30	0.7	0.1	69	1.5	0.2	105	1.7	0.2
Singapore	..[2]	..[2]	..[2]	20	1.7	0.1	78	1.4	0.2	94	1.5	0.2	100	1.7	0.2
Nigeria	4	0.6	0.1	45	3.8	0.3	156	2.7	0.4	38	0.8	0.1	10	0.2	—

1 That is, countries whose exports to Canada have exceeded $100 million in value in at least one of the last three years. These countries are listed in the order of the value of the Canadian sales in 1978.
2 In 1961 imports from Singapore were grouped with those from Malaya: combined value was $24 million, 3.5 per cent of imports from all developing countries and 0.4 per cent of total Canadian imports.
— Amount too small to be expressed.
.. Figure not available.

Source Imports by Countries, Statistics Canada, Cat. No. 65-006, various issues.

Hong Kong -- which made up almost an additional 20 per cent between them, and two of the more advanced Latin American economies -- Brazil and Mexico -- which represented another 7½ per cent. After that the values dropped away sharply to quite small proportions of Canada's overall import trade.

When the commodity composition of these imports is examined, it is apparent that the greater part (55 per cent in 1978) consists of so-called "crude materials, inedible", (Table 2). Moreover, the Third World is in fact the major source (again, 55 per cent of the total in 1978) of Canadian imports of items in that category. Such goods represented virtually the whole of Canada's $1.6 billion worth of acquisitions from the Middle East, some 70 per cent ($1.4 billion out of $1.9 billion) of those from South America, and another 70 per cent ($145 million out of $210 million) of those from developing Africa. In terms of Canada's total imports of inedible crude materials, these three regions accounted for 26 per cent, 23 per cent, and 2½ per cent, respectively. The overwhelming preponderance of such imports comprised crude petroleum, which of course is not competitive with Canadian production but complements it.

The commodity categories that we are more concerned about in this paper are those that follow crude materials in importance in the Canadian package of imports from developing countries: end products, inedible (21 per

Table 2

Canadian Imports From Developing World and its Regions
by Major Commodity Groups: Value and Shares, 1976-1978

	1976				1977				1978			
		% Imports from				% Imports from				% Imports from		
	$ Million	All Dev'g[1]	Indic'd Region[2]	% Group Imports[3]	$ Million	All Dev'g[1]	Indic'd Region[2]	% Group Imports[3]	$ Million	All Dev'g[1]	Indic'd Region[2]	% Group Imports[3]
A. All imports from developing countries	5,449	100.0		14.6	5,469	100.0		12.9	5,917	100.0		11.9
Live Animals	1	--		0.8	1	--		0.2	1	—		1.1
Food, Feed, Beverages and Tobacco	521	9.6		18.9	746	13.6		22.9	820	13.9		22.2
Crude Materials, Inedible	3,442	63.2		67.6	3,173	58.0		59.8	3,258	55.1		55.4
Fabricated Materials, Inedible	394	7.2		6.4	445	8.1		6.4	585	9.9		6.7
End Products, Inedible	1,037	19.0		4.6	1,072	19.6		4.1	1,215	20.5		3.9
Special Transactions, Trade	54	1.0		10.9	33	0.6		7.7	38	0.6		9.7
B. Major commodity groups from developing regions:												
Middle East - Crude Materials, Inedible	1,714	31.5	97.3	33.7	1,429	26.1	96.1	26.9	1,550	26.2	96.0	26.3
Other Africa[4] - Crude Materials, Inedible	302	5.5	80.2	5.9	135	2.5	63.5	2.5	145	2.5	69.1	2.5
Other Asia[5] - End Products, Inedible	857	15.8	68.5	3.8	880	16.1	66.8	3.4	1,058	17.9	68.2	3.4
- Fabricated Materials, Inedible	197	3.6	15.7	3.2	210	3.8	16.0	3.0	260	4.4	16.7	3.0
Oceania[6] - Food, Feed, Beverages, Tobacco	--	--	43.3	--	2	--	95.6	--	6	0.1	95.2	--
South America - Crude Materials, Inedible	1,307	24.0	80.3	25.7	1,414	25.9	77.1	26.7	1,359	23.0	70.4	23.1
- Food, Feed, Beverages, etc.	131	2.4	8.0	4.7	232	4.2	12.7	7.1	316	5.3	16.4	8.5
Central America and Antilles - Food, Feed, etc.	228	4.2	53.3	8.3	306	5.6	49.5	9.4	297	5.0	49.2	8.0

1 Relative to imports of all commodity groups from developing countries.
2 Relative to all commodity groups from indicated region.
3 Relative to total Canadian imports of indicated commodity group.
4 Excluding South Africa.
5 Excluding Japan.
6 Excluding Australia and New Zealand.
— Amount too small to be expressed.

Source Imports by Countries, Statistics Canada, Cat. No. 65-006, January-December 1978.

cent of all such imports in 1978); food, feed, beverages, and tobacco (14 per cent); and fabricated materials, inedible (10 per cent). The first of these is essentially what one thinks of as "fully manufactured goods", while at least a part of the other two come into the "manufactured" classification as usually defined -- processed foods, for example, and items like primary textiles, bulk chemicals, and basic steel products -- which in most instances are, in principle, potentially competitive with Canadian domestic production. Canada relied on the developing countries in 1978 for 22 per cent of its overall imports of food, feed, beverages, and tobacco but for less than 7 per cent of all its purchases from abroad of inedible fabricated materials and under 4 per cent of those of inedible end products.*

Of the six regions of the developing world, the most important suppliers of food, feed, beverages, and tobacco to Canada in 1978 were first South America and second Central America and the Antilles, the former of which sold us approximately $315 million and the latter just under $300 million worth of commodities in this category. Such sales represented about one-sixth of South American total shipments to the Canadian market but almost a half of the

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* These proportions were much the same in 1979.

overall movements of products to this country from Central America and the Caribbean; however, in terms of Canadian imports from the world as a whole the shares were almost identical -- 8½ per cent and 8 per cent respectively.* Turning to inedible fabricated materials, the only developing region that is a major source for Canada is Asia (excluding Japan), which in 1978 was the origin of $260 million worth of goods in this category -- equivalent to 17 per cent of Canadian purchases from the region or 3 per cent of its global imports.** Finally, developing Asia was alsothe main supplier among proper countries of Canadian imports of inedible end products, of which it provided a value of over $1 billion in 1978; this was more than two-thirds of total imports to Canada from the developing Asian region and a little under 3½ per cent of Canada's foreign purchases of such fully manufactured goods from the world as a whole.***

In truth, there are very few "manufactured" agricultural products from the developing countries that are seriously competitive with Canadian output, and we may

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* There were increases in absolute amounts in these imports in 1979 but no substantial change in relative importance.

** Although these imports rose to $389 million in 1979, the proportional figures remained unaltered.

*** In 1979 these imports increased to $1.4 billion, but their importance relative to total purchases from the region and from the world in the end-product category were virtually unchanged from 1978.

therefore largely concentrate on "fabricated materials, inedible" and "end products, inedible". The major Third World sources of Canada's imports in those categories are listed in Tables 3 and 4. It will be seen that, as regards the former, many supplying countries are providing in large measure a class of item that, from the viewpoint of this study, again falls largely outside the terms of reference: such things as fuel oil from Venezuela and the Netherlands Antilles, gem stones from Israel, and semi-fabricated copper from Chile do not, as a practical matter, provide imports to this country that compete directly with Canadian production. The most substantial suppliers in this sphere from our perspective are thus South Korea and Taiwan, each of which is responsible for providing about 10 per cent of all Canada's imports of inedible fabricated materials from developing countries or 0.7 per cent of its imports of such items from the world as a whole. Then follow Brazil (8 per cent and 0.6 per cent) and a number of other nations, the most important all being in developing Asia and Latin America.

Fully Manufactured Goods

The category of greatest interest in the context of this paper is, however, inedible end products - or, in popular language, fully manufactured goods -- the twelve biggest developing-country suppliers of which are shown in

Table 3

Principal Developing-Country Suppliers to Canada of Partially Manufactured Products [1]

Selected Years

	1970			1976			1977			1978		
	$ Million	% of Imports from All Dev'g	World	$ Million	% of Imports from All Dev'g	World	$ Million	% of Imports from All Dev'g	World	$ Million	% of Imports from All Dev'g	World
Venezuela [2]	57.4	24.1	2.0	48.6	12.3	0.8	33.3	7.5	0.5	76.8	13.1	0.9
Korea, South	3.5	1.5	0.1	45.7	11.6	0.7	59.7	13.4	0.9	60.8	10.4	0.7
Taiwan	12.5	5.2	0.4	35.7	9.1	0.6	40.2	9.0	0.6	57.9	9.9	0.7
Brazil	4.5	1.9	0.2	29.7	7.5	0.5	46.3	10.4	0.7	49.0	8.4	0.6
Israel [3]	8.2	3.4	0.3	18.5	4.7	0.3	24.1	5.4	0.3	29.3	5.0	0.3
Malaysia	23.7	10.0	0.8	20.6	5.2	0.3	21.4	4.8	0.3	25.2	4.3	0.3
Argentina	1.6	0.7	0.1	9.0	2.3	0.1	8.7	2.0	0.1	25.1	4.3	0.3
India	19.1	8.0	0.7	18.3	4.6	0.3	16.1	3.6	0.2	22.6	3.9	0.3
China	2.2	0.9	0.1	15.9	4.0	0.3	12.3	2.8	0.2	21.3	3.6	0.2
Netherlands Antilles [2]	53.8	22.6	1.9	4.1	1.0	0.1	40.7	9.1	0.6	21.2	3.6	0.2
Puerto Rico	4.0	1.7	0.1	6.6	1.7	0.1	6.5	1.5	0.1	19.1	3.3	0.2
Chile [4]	0.8	0.3	--	9.6	2.4	0.2	6.4	1.4	0.1	17.6	3.0	0.2
Total of Top Twelve	191.3	80.3	6.7	262.3	66.4	4.3	315.7	70.9	4.6	425.9	72.8	4.9

1 Statistics Canada category "fabricated materials, inedible".
2 All, or virtually all, of these imports consist of fuel oil.
3 A large proportion of these imports consists of natural and synthetic gem stones.
4 A substantial share of these imports consists of copper and alloys.
-- Amount too small to be expressed.

Source Imports by Countries, Statistics Canada, Cat. No. 65-006, January-December 1978.

Table 4

Principal Developing-Country Suppliers to Canada of Fully Manufactured Products [1]

Selected Years

	1970			1976			1977			1978		
	$ Million	% of Imports from All Dev'g	% of Imports from World	$ Million	% of Imports from All Dev'g	% of Imports from World	$ Million	% of Imports from All Dev'g	% of Imports from World	$ Million	% of Imports from All Dev'g	% of Imports from World
Taiwan	35.5	23.2	0.4	229.6	22.1	1.0	253.6	23.7	1.0	318.1	26.2	1.0
Hong Kong	67.4	44.1	0.8	247.4	23.9	1.1	247.6	23.1	0.9	297.9	24.5	1.0
Korea, South	10.9	7.1	0.1	242.8	23.4	1.1	242.5	22.6	0.9	283.4	23.3	0.9
Mexico	4.1	2.7	--	48.4	4.7	0.2	52.8	4.9	0.2	52.8	4.3	0.2
China	12.1	7.9	0.1	57.1	5.5	0.3	51.3	4.8	0.2	51.0	4.2	0.2
Singapore	2.8	1.8	--	32.1	3.1	0.1	37.3	3.5	0.1	40.9	3.4	0.1
Brazil	1.2	0.8	--	61.7	6.0	0.3	60.0	5.6	0.2	40.5	3.3	0.1
Puerto Rico	2.2	1.4	--	30.0	2.9	0.1	43.4	4.0	0.2	28.4	2.3	0.1
India	5.0	3.3	0.1	20.6	2.0	0.1	18.7	1.7	0.1	25.4	2.1	0.1
Philippines	0.5	0.3	--	10.6	1.0	--	10.7	1.0	--	17.9	1.5	0.1
Malaysia	0.4	0.3	--	9.6	0.9	--	10.8	1.0	--	10.5	0.9	--
Israel	2.8	1.8	--	14.0	1.4	0.1	12.2	1.1	0.1	10.1	0.8	--
Total of Top Twelve	144.9	94.7	1.7	1,003.9	96.9	4.4	1,040.9	97.0	4.0	1,176.9	96.8	3.8

1 Statistics Canada category "end products, inedible".
-- Amount too small to be expressed.

Source Imports by Countries, Statistics Canada, Cat. No. 65-006, January-December 1978.

Table 4 with relevant data for 1970 and 1976-78. By far the largest shares of Canadian imports of such products derive from three rather small Asian economies: Taiwan, Hong Kong, and South Korea. These states have each accounted in recent years for roughly a quarter of Canada's purchases from the developing world, or one per cent of its global imports, in this category -- that is, approximately 75 per cent (and 3 per cent) for the three together. The dollar amounts in 1978 were about $300 million each, compared with less than $250 million each in 1976.* One may note that, in 1970, 44 per cent of our end-product imports from the developing countries (or 0.8 per cent of our total imports) came from Hong Kong, 23 per cent (or 0.4 per cent) from Taiwan, and a mere 7 per cent (or 0.1 per cent) from South Korea -- again giving these three around 75 per cent of the developing-country total but only 1.3 per cent of Canada's world-wide manufactured-goods imports. The values of the end-product purchases by Canada from the three in that year were respectively $67 million, $36 million, and $11 million, so the increases have been spectacular -- especially for South Korea -- even though the absolute amounts of these imports are still relatively small.

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* The values rose in 1979 to over $400 million (Taiwan), $375 million (Hong Kong), and $350 million (South Korea), yet such was the growth in Canada's overall import trade in manufactures that the proportions of total foreign purchases in this category stayed the same or declined a litle.

No other developing country comes near the northeast Asian trio as a supplier of fully manufactured goods to Canada. Mexico, China, Singapore, and Brazil each provided around $40-50 million worth of such products in 1978 -- which is individually between 3 per cent and 4½ per cent of Canada's total end-product imports from developing countries or from 0.1 per cent to 0.2 per cent of relevant Canadian imports as a whole.* If one adds the quite small inflows from Puerto Rico, India, the Philippines, Malaysia, and Israel, some 97 per cent of all Canadian purchases of end products from the developing world (or 3.8 per cent of our overall imports in that category) are accounted for.** (Shipments from the twelve countries thus included represented 95 per cent and 1.7 per cent, respectively, of the totals back in 1970).

It is among the first eight of these twelve that one finds all the individual manufactured-goods classes, in both the inedible-fabricated-materials and the inedible-end-products categories, whose imports to Canada from a single supplier exceeded $10 million in value in any of the three years 1976-78 (Table 5). Perhaps the most striking (if not surprising) feature of this listing is the

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* In 1979 imports of end products from these four countries increased quite substantially, to between $65 million and $85 million each, and their relative significance as suppliers of manufactured goods to Canada grew somewhat.

** These figures for the top twelve countries remained, in total, virtually unchanged in 1979.

Table 5

Canadian Imports of Manufactured Goods[1] from Developing Countries:
Major Items from Principal Suppliers[2]

	Selected Years							
	1970		1976		1977		1978	
	$ Million	% Total Imports[3]	$ Million	% Total Imports[3]	$ Million	% Total Imports[3]	$ Million	% Total Imports[3]
Taiwan								
Plywood and wood building boards	0.4	2	19.9	19	21.5	27	24.5	31
Broad woven fabrics, mixed fibres	0.1	--	2.4	2	3.0	2	11.7	6
"Other" transportation equipment[4]	0.2	--	11.7	4	15.9	5	7.4	2
Televisions, radios and phonographs	3.9	4	14.6	4	13.8	4	22.7	5
"Other" telecommunication and related equipment[5]	2.2	1	14.3	3	12.1	2	12.4	2
Outerwear, except knitted	3.5	5	24.7	7	25.8	9	29.6	10
Outerwear, knitted	10.1	19	69.9	27	58.3	25	76.9	31
Other apparel and apparel accessories	2.3	5	10.5	7	16.4	10	22.1	11
Footwear	6.6	9	22.6	11	26.7	12	35.9	14
Watches, clocks, jewellery and silverware	0.3	1	4.2	3	10.2	6	11.6	6
"Other" personal and household goods[6]	0.9	1	8.1	4	10.6	4	14.8	5
Hong Kong								
Televisions, radios and phonographs	2.7	3	21.8	6	21.9	6	18.3	4
Miscellaneous equipment and tools	0.5	--	4.4	1	6.8	1	16.0	2
Outerwear, except knitted	17.8	23	67.0	20	50.2	18	64.0	22
Outerwear, knitted	8.9	17	57.1	22	55.0	24	54.8	22
Other apparel and apparel accessories	5.3	11	15.0	10	15.5	10	20.4	10
Watches, clocks, jewellery and silverware	1.6	4	7.2	5	13.4	8	20.1	10
Games, toys and children's vehicles	7.3	20	19.2	19	26.4	21	29.0	20
"Other" personal and household goods[6]	1.9	3	4.7	2	6.4	3	10.1	3
Korea, South								
Plywood and wood building boards	0.6	2	17.9	17	22.5	28	18.0	23
Televisions, radios and phonographs	0.3	--	24.2	7	29.6	8	30.6	7
"Other" telecommunication and related equipment[5]	--	--	10.7	2	13.1	2	13.1	2
Outerwear, except knitted	2.1	3	76.4	22	58.2	21	65.1	22
Outerwear, knitted	4.1	8	48.8	19	42.2	18	42.5	17
Other apparel and apparel accessories	0.3	1	18.2	12	20.9	13	26.7	14
Footwear	1.8	2	22.8	11	22.6	10	28.5	11
"Other" personal and household goods[6]	0.1	--	8.5	4	9.8	4	16.5	5
Mexico								
Motor vehicle parts, except engines	--	--	5.7	--	13.6	--	10.1	--
"Other" telecommunication and related equipment[5]	0.3	--	11.8	2	11.7	2	17.6	2
China								
Broad woven fabrics, cotton	1.2	2	10.5	7	8.0	6	12.2	8
Outerwear, except knitted	3.3	4	23.4	7	18.4	7	15.6	5
House furnishings	2.9	6	12.0	7	11.9	8	13.5	9
Singapore								
Televisions, radios and phonographs	0.2	--	12.5	4	12.9	3	14.1	3
Brazil								
"Other" iron and steel and alloys[7]	0.2	--	4.7	3	15.2	8	11.4	6
Motor vehicle engines	--	--	37.7	7	35.4	6	6.8	1
Footwear	0.6	1	9.8	5	8.9	4	12.8	5
Puerto Rico								
Organic chemicals	2.0	1	4.1	1	4.2	1	14.1	2
Outerwear, except knitted	--	--	11.5	3	13.1	5	3.2	1
Medicinal and pharmaceutical products, in dosage	0.1	--	9.4	5	12.8	6	4.8	4

1 Classes of goods chosen from the fabricated materials and end products categories as being most generally considered as output of secondary industry, potentially competitive with Canadian manufacturing production.
2 The items included are those of which the value of imports from the country concerned exceeded $10 million in at least one of the last three years. Countries are listed in order of their overall importance as suppliers to Canada of end products, inedible (see Table 4).
3 Percentage of Canada's total imports of indicated product from all countries -- developing and developed.
4 That is, other than road motor vehicles, railway rolling stock, ships and boats, and aircraft. (Actually, mainly bicycles and tires.)
5 Other than telephone and telegraph equipment, television and radio sets, etc., and electronic tubes and semi-conductors.
6 Other than clothing, footwear, watches, jewellery, sporting equipment, games and toys, house furnishings, and kitchen utensils and tablewear.
7 Other than bars and plates, etc., structural shapes, etc., pipes and tubes, wire and wire rope.
-- Amount too small to be expressed.

Source Imports by Countries, Statistics Canada, Catalogue No. 65-006, various issues.

importance of shipments of clothing. Apparel items are the biggest Canadian imports from our three major developing-country suppliers -- Taiwan, Hong Kong, and South Korea -- as well as substantial elements in Canada's purchases from China and Puerto Rico. What is more, these sources loom large in total Canadian imports of clothing: the five countries provided us in 1978 with 60 per cent of all our imports of "outerwear, except knitted" (compared with 35 per cent in 1970), while just the three Far-Eastern majors alone supplied 70 per cent of our total imports of "outerwear, knitted" (against a 1970 figure of 44 per cent) and 35 per cent of those of "other apparel and apparel accessories" (1970 proportion, 17 per cent). Primary textiles were actually a far less significant item from this perspective,[7] but in 1978 some 6 per cent of Canadian foreign purchases of broad woven fabrics in mixed fibres came from Taiwan (as against an insignificant amount in 1970) and 8 per cent of our imports of broad woven fabrics in cotton were obtained from China (compared with 2 per cent eight years earlier).

The other "traditional" industrial product that Canada imports heavily from the developing world is footwear, which was a substantial figure in the 1978 trade of this country with Taiwan and South Korea, as well as with

Brazil: together these three countries accounted for 30 per cent of all Canada's imports of shoes, up from 12 per cent in 1970.

Among less familiar manufactured (or partially manufactured) goods, one item that stands out is plywood and wood building boards, with respect to which Canada depended on Taiwan and Korea in 1978 for 54 per cent of its total imports, a gain from only 4 per cent in 1970. A much more sophisticated item was televisions, radios, and phonographs, where Canadian imports from Taiwan, Hong Kong, Korea, and Singapore represented 19 per cent of all foreign purchases in the product class in 1978, roughly two and a half times the share of these countries in the total eight years before. The rather miscellaneous item "other telecommunication and related equipment" was a fairly important one in Canadian purchases from Taiwan, Korea, and Mexico in 1978, since these three nations provided 6 per cent of all Canadian requirements from abroad in the indicated products, in contrast with only 1 per cent in 1970. Watches, clocks, jewellery, and silverware from Taiwan and Hong Kong accounted for 16 per cent of all Canadian imports of those goods in 1978, up from 5 per cent at the start of the seventies. And shipments of "other personal and household goods" -- a very broad item -- derived from Taiwan, Hong Kong, and Korea made up 13 per cent of total Canadian foreign purchases in that sphere, some three times the proportion in 1970.

The remainder of the list consists of items that were present in the "over-$10-million" volume for single countries only, and their importance is readily perceived from the table. For the most part, they are until now fairly small elements in the Canadian import bill, save in the case of "games, toys, and children's vehicles" from Hong Kong, which supplied 20 per cent of all Canadian imports in this classification in 1978; however, that is by way of being a traditional Hong Kong item, and its share in Canada's overall imports has not altered materially for a number of years.

The Overall Position

In summary, then, one may say that the volume of Canadian imports of manufactured goods from the developing world is really very small, by reference to the purchases of this country from all foreign sources: for "end products, inedible" it is less than 4 per cent,* and although the processed food and semi-manufactured categories are somewhat harder to estimate from aggregate data it is clear that their inclusion would not greatly alter the arithmetic. Since Canada acquires from abroad close to a third of all its requirements of manufactures, this means that a little over one per cent of the domestic market for such goods is being supplied from developing nations.

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* Slightly more than 4 per cent in 1979.

On the other hand, the range of items coming from these countries is quite narrow, and in the case of a few product classes the major Third World suppliers in fact account for rather large proportions of total Canadian imports. This is particularly true with respect to all the main types of clothing, to footwear, and to plywood and wood building boards, and it applies to a lesser extent as regards some other classes of products: televisions, radios, and phonographs; watches, clocks, jewellery, and silverware; "other personal and household goods"; games, toys, and children's vehicles; etc.

These indicators are, however, of only limited relevance to the question of Canadian vulnerability to competition from such imports, since the relationship between inflows of goods from developing countries and those from other areas of the world is only part of the story. More pertinent is the share of the whole domestic market -- home production as well as imports (and, indeed, subtracting Canadian exports) -- that is captured by products from the Third World. Moreover, this share needs to be assessed over time to see whether it is actually increasing in importance or is merely static and therefore not creating any problem that has not long since been accommodated by the producers and workers in Canada that are manufacturing competing goods. Given those requirements, the first task of the research effort whose results are presented here was to

analyze Canadian market shares achieved by developing countries, in considerable product detail, over a reasonably typical time period in the recent past.

3. The Affected Sectors

According to our evaluation of material prepared for this study, there were in the period 1971-74 just 127 product categories, out of over 900 produced domestically and traded with other nations, in which imports from the Third World appeared to be competing effectively with Canadian manufacturers in their own market.[8] These categories, listed in Appendix B, were mainly in the sectors of primary textiles, knitted goods, clothing, wood products, electrical apparatus, leather goods and footwear, toys, and sporting equipment. While the data are not all-inclusive, an impression of the dimensions of this challenge is obtained by examining the list of 29 items of which imports from developing countries rose most rapidly between 1971 and 1974, as shown in Table 6.

Several points need to be made about these indicators. First of all, the main body of the table records the trend as expressed in value data, which may well understate the role of imports from developing countries for at least two reasons: the goods made in such countries are likely to be inherently lower in cost; and there is no clear assurance that the basis of valuation of imports and of domestic shipments is always precisely the same.

Table 6

Product Categories in Which Values of Imports from Developing Countries Have Shown Strong Growth[a] (With Data on Trends in Total Imports and in Value of Canadian Manufacturers' Shipments)[1]

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1. (a) Imports from developing countries doubled (or more)[b] between 1971 and 1974, in terms of shares of the Canadian market, to account for over 50 per cent of that market in the latter year:

   336 8 Lumber cores (multiplied eight times) [?] ($2 million, ?)

   338 1 Plywood, hardwood, unfinished [unchanged/33%] ($34 million, $58/50 million)

   (b) Doubled, to approximately 40-50 per cent of the Canadian market: none

   (c) Doubled, to approximately 30-40 per cent of the Canadian market: none

   (d) Doubled, to approximately 20-30 per cent of the Canadian market:

   785 3-4 Sweaters, blouses, etc., women's and girls' [4x/37%] ($66 million, at least $99/128 million)

   841 21 Rugs, mats, runners, textile [1½x/67%] ($10 million, $10/5 million)

   (e) Doubled (or more), to approximately 10-20 per cent of the Canadian market:[c]

   111 3 Cocoa and chocolate, in blocks or granule [1¼x/42%] ($10 million, $14/16 million)

   339 9 Miscellaneous wood fabricated materials (multiplied three times) [?] ($10 million, $25 million)

   364 71 Spun yarn, pure cellulosic (six times) [?] ($6 million, $32 million)

   369 5 Rope (nine times) [1¼x/28%] ($6 million, $10 million)

   370 111 Apparel fabrics, wool, worsted (eight times) [unchanged/32%] ($19 million, $15/25 million)

Table 6 cont'd

681	9	"Other" lighting equipment [unchanged/24%] ($6 million, $10/12 million)
682	5	Lamps, miniature (four times) [2x/55%] ($18 million, $14/13 million)
788	3	Gloves, rubber and plastic (three times) [1¼x/43%] ($7 million, $11 million)
789	3	Handbags, purses, wallets, etc. [1¾x/34%] ($29 million, $30/33 million)
864		Luggage (four times) [?] ($24 million, at least $36 million)
944		Buttons, needles, pins, etc. (eleven times) [decreased/30%] ($32 million, $36 million)
945	61-62	Candles and votive lights (three times) [?] ($5 million, ?)

2. (a) Imports from developing countries rose by a half between 1971 and 1974, in terms of share of the Canadian market, to account for over 50 per cent of that market in the latter year: none

(b) Rose by a half, to approximately 40-50 per cent of the Canadian market:

788	2	Gloves, fabric [?] ($4 million, $6/5 million)

(c) Rose by a half, to approximately 30-40 per cent of the Canadian market:

794		Rubber and plastic waterproof footwear [unchanged/35%] ($29 million, $37/33 million)

(d) Rose by a half, to approximately 20-30 per cent of the Canadian market:

835		Toys [1¼x/46%] ($51 million, $67/77 million)

(e) Rose by a half, to approximately 10-20 per cent of the Canadian market:

622	3	Non-electric equipment for cooking and warming food, commercial [1¼x/48%] ($2 million, $4 million)
781	6	Shirts, not knitted, men's and boy's [unchanged/17%] ($73 million, $97 million)
786	3	Outerwear, knitted, children's [1¼x/26%] ($22 million, $25/30 million)

Table 6 (cont'd)

847 1	Table cloths, napkins, etc., textile [unchanged/69%] ($2 million, $3/2 million)

3. Imports from developing countries increased several-fold between 1971 and 1974, in terms of share of the Canadian market, even though they still accounted for less than 10 per cent of that market in the latter year:

336 5	Flooring, wooden (eighty times) [6½x/24%] ($17 million, $22/11 million)
633 4	Radio/phono combinations (thirty times) [1½x/54%] ($26 million, $23/20 million)
633 6	Television receiving sets (four times) [1½x/35%] ($162 million, $214/176 million)
637	Electronic equipment components, etc. (six times) [1¼x/74%] ($94 million, $249/151 million)
782 4	Suits, not knitted, women's and girls' (ten times) [1½x/7%] ($22 million, $37 million)
832 1	Sporting equipment (three times) [1¼x/44%] ($64 million, $100/90 million)

a A whole range of items would show deeper penetration into the Canadian market in 1974 (but not necessarily faster import growth from 1971) if quantity figures were employed -- including radio/phonograph combinations (633 4) 18 per cent, television sets (633 6) 12 per cent, shirts for men and boys (781 6) 7 per cent, beachwear for women and girls (782 7) 40 per cent, sweaters and blouses for women and girls (785 3-4) 49 per cent, outerwear for children (786 3) 34 per cent, and handbags and wallets (789 3) 40 per cent.

b Among the categories in which imports from developing countries probably also doubled (or more) in value between 1971 and 1974 are tire tubes (622) and leather gloves (788 1), of which the indicated quantitative shares of the Canadian market obtained by developing-country products in 1974 were 38 per cent and 10 per cent, respectively.

Table 6 (cont'd)

c Some other categories might find their way into the "doubled, to approximately 10-20 per cent" measurement if a quantitative basis were used -- as, for example, suits for women and girls (782 4), where imports from developing countries, calculated in numbers of garments, captured 12 per cent of the domestic market in 1974 from what seems (given the value data) to have been a much lower proportion in 1971.

1 Figures in square brackets show the corresponding growth in total imports to Canada -- that is, [1½x/67%] means increased one and a half times, to 67 per cent of the Canadian market. The following amounts in round brackets give the value of manufacturers' shipments in 1971 and in 1974 and 1975. (Where the second number contains only one amount, it means either that 1975 data are not available or that the value for that year was the same as is shown for 1974).

Source Summarized from Appendix B.

Unfortunately, for many items quantity figures are not available, while for others they make relatively little sense, in the present context, because of the heterogeneous nature of the products concerned. An instance of this latter problem is provided by the category "Canoes, rowboats, sailboats, and outboard motor boats" (591 5), where imports from developing countries, although more than doubling in value terms as a proportion of the Canadian market between 1971 and 1974, still accounted for only 1.5 per cent of that market in the latter year, whereas in terms of quantities the share of market in 1974 was 21 per cent. This must mean that the values of different boats differ enormously and that there is a systematic bias toward the import from developing nations of low-cost craft, while more elaborate and costly vessels are manufactured in Canada or imported from rich countries. Obviously, an "apples-and-oranges" problem of such dimensions renders quantity measurements quite ludicrous.

Nevertheless, some valid quantity data do exist, and they allow us to suggest a few additions and amendments to the list, as shown in the footnotes to Table 6.

A second point to be taken into account, in any such appraisal, is that substantial and growing penetration of the Canadian market by goods from the developing countries need not, of itself, always mean jeopardy to

domestic manufacturing. One reason for this is that the increase in imports from the Third World may be occurring essentially at the expense of other imports, rather than at that of shipments from Canadian factories. Among the list of items shown in Table 6, total imports in several categories experienced no change over the specified period, which means that the success of developing nations in securing a larger share of apparent domestic availability for those products was offset by a corresponding deterioration in the position of some other foreign supplier(s). Such was the case for items 338 1, 370 111, 681 9, 781 6, 794, 847 1, and 944. In these instances, therefore, we should not consider that Canadian industry is, in principle, vulnerable to competition from the developing countries.

Another reason why significant and rising penetration of Canadian markets by Third World imports may be felt not necessarily harmful to domestic industry, at least in the most literal sense, is that overall demand for the product concerned may be rising so strongly that home manufacturers continue to enjoy expanding sales despite the competition from overseas. Looking at Table 6 again, domestic shipments between 1971 and 1974 (and, indeed, into 1975, for which shipments data were available at the time of writing) showed substantial gains in all but a relatively few categories -- 336 5, 370 111, 633 4, 633 6, 682 5, 789 3, 841 21, 847 1, and 944. It is arguable that, except

in those instances, no damage to the relevant Canadian industries could, in fact, be claimed.

The problem with this view is, however, that it assumes static industrial conditions -- a fixed set of relationships governing the domestic manufacturer's circumstances -- which is obviously quite artificial. Continuing profitability, for example, in today's business environment tends to require constantly growing production, not merely stable production. Likewise, so long as labour productivity keeps rising, an unchanged rate of output for any given product implies less employment; indeed, even increasing output does not guarantee that employment will not decline. Similar detriment can afflict other aspects of the operations of Canadian industry, by virtue of the enlargement of imports, despite the fact that shipments are expanding in absolute terms. Furthermore, one could suggest that, even if such clearly adverse consequences do not arise, the failure to obtain a constant (or rising) share of home sales has to be seen as disadvantageous to Canadian firms and workers, as it represents potential output foregone.[9] In other words, market position is the only meaningful measure of satisfactory performance in a dynamic, growth-oriented economy, and so the absolute level of shipments must not be allowed to influence unduly our perception of vulnerability to Third World competition.

Thus, while these factors may have the effect of removing a few items from the list, they do not alter the overall impression of vulnerable sectors or change the potential results in any systematic way.

A third consideration to be mentioned is that the products showing strong growth in our list did so, of course, despite Canadian tariff and non-tariff protection, so they may well not be the ones that would capture the largest shares of the Canadian market in the event that trade with developing countries were further liberalized. It is evident that any realistic assessment of Canadian industry's vulnerability to competition from the Third World would require, in addition to such a listing as has been presented, the calculation and submission of another catalogue: those goods in which developing countries have capacity to compete in our market but are largely prevented from doing so. For obvious reasons, there is great difficulty in isolating such goods effectively, because obstacles to trade introduce distortions that make it hard to determine what would happen in their absence. Nevertheless, one may fairly readily find some kind of proxy for that evaluation.[10]

The best available indication of additional product categories that might be expected to show vulnerability is provided by evidence of present levels of

import barriers, with particular reference to the protection aimed especially at developing countries. The goods that Canada has induced overseas producers to make subject to "voluntary export restraints" are certainly relevant for this purpose, as are all those items expressly excluded from the provisions of the "generalized system of preferences", with its special access to Canadian markets for most products from developing countries. In essence, including those items would simply mean augmenting the catalogue already presented with a further range of other textiles, knitted goods, clothing, and footwear products, plus certain electronic components. Since these five main sectors already figure so prominently in the list, it is broadly true to say that they are the industries in which the greatest problems of adjustment seem to be appearing now and might be expected to show themselves even more clearly in the event of further liberalization of trade with the developing world.[11]

Five Main Categories

We can assume, then, that for most purposes we may devote our attention to five principal sectors:

- Leather goods (including footwear)
- Textiles[12]
- Hosiery and knitted goods

- Clothing
- Electrical and electronic products

Certainly this is not a wholly adequate list, as it omits some industrial activities that are vulnerable and includes others that are not. Wherever possible, therefore, we should amend the catalogue to reflect more closely the precise areas of susceptibility to competition from developing-country imports. Our evidence suggests that little amendment will be necessary in regard to the first four sectors, whose problems with such imports seem pervasive. No doubt some parts of these industries are more vulnerable than others -- especially in regard to trade from developing countries. It is often pointed out, for example, that the imports of textile products from such sources are mainly cottons, rather than synthetics and woollens, and that the clothing items are generally of poorer quality and styling than garments made in Canada or in other advanced countries. But these differences are becoming less and less distinct all the time, so that it would be hazardous in the extreme to separate textiles and apparel into subsectors that are vulnerable on the one hand and not vulnerable on the other, even though such differences doubtless exist.[13]

Even in electrical and electronics products there are risks in attempting such a division, but it is more

defensible and likely to be of greater usefulness. Certain Third World countries like Taiwan, Hong Kong, and Korea are in a position to export large quantities of several consumer electrical and electronic items to Canada, as well as other electrical equipment of relatively simple type. The range of such goods and their sophistication is growing, as is the number of potential suppliers. However, at present it is not to be supposed that very complex heavy electrical apparatus will emerge from such sources for some time to come. Therefore, we feel justified in making a distinction, where the data permit it, between electrical subsectors as follows:

Vulnerable

Small electrical appliances

Lighting fixtures

Household radio and television receivers

Miscellaneous electrical products

Not Vulnerable

Major electrical appliances

Communications equipment

Electrical industrial equipment

Electric wire and cable

Admittedly the distinction between these two groups is somewhat arbitrary; and it is perfectly arguable that certain of the products in the subsectors deemed "not

vulnerable" might well become so in the future. This is very possible, especially, for some items of communications equipment and electric wire and cable. All we can say now is that these categories are not currently vulnerable, for the most part, to competition from developing countries. We feel it best to deal with what can be shown by the data rather than to attempt to guess the pattern of forthcoming problems.

On the other hand, it appears that the list of vulnerable activities should include some additional subsectors -- notably parts of the wood-products industry, for example, and miscellaneous categories like cutlery, toys, and sporting goods. Unfortunately, the classification of data in the census of manufactures is (as it must be) rather widely aggregated, so that a complete matching of the indicated categories of products imported against these industrial subsectors cannot easily be made. As an instance, the wood-products subsector "veneer and plywood mills" includes manufacturers of both hardwood and softwood materials of this kind, of which the former are vulnerable to competition from developing country imports while the latter (broadly speaking) are not.[14] Consequently the only other subsector that it seems practically feasible to add, at this stage of the analysis, is "sporting goods and toys", which falls in the category of miscellaneous manufactured products.

While the grouping of vulnerable industries possible under these circumstances is certainly not perfect, it may be considered valid for most (although admittedly not all) aspects of our task. There is nothing very surprising about the sectors or about the pertinent factors revealed. Problems from import competition in the textiles, clothing, and footwear industries have been a stock subject of political concern for decades; and worry about the inroads of foreign-produced electrical equipment have grown rapidly in recent years. The vulnerability of particular regions of the country devoted to manufacture of these items is well enough known. But it can be useful to have some of the facts pulled together. This assessment pays particular attention to the phenomenon of community dependence on the industries involved and to the characteristics of labour in those communities and industries.

4. The Size of the Problem

On the basis of the calculation derived from our broad-gauge statistical evaluation, with its admitted shortcomings, one can see from Table 7 approximately the overall dimensions of the vulnerability problem as it is posed by imports from developing countries. In terms of readily ascertainable direct impact -- that is, limiting the examination to the four main sectors and parts of the fifth, plus the one additional subsector -- employment that would be rendered, in principle, "at risk" amounted in 1976 to some 260,000 workers. That is a very substantial figure, equal to between 2½ per cent and 3 per cent of the total labour force. We will be suggesting some refinement in the estimation shortly, with the effect of revising it downward, but let us first note how the broad approximation breaks down by industry and what the recent growth or decline in numbers of workers has been in such industries.

As Table 7 indicates, the largest single concentration of these workers -- 102,000 (or 1.1 per cent of the labour force) as of 1976 -- is to be found in the clothing industry. Next in importance is the primary textile sector (68,000 workers in 1976), then the relevant parts of the electrical and electronics sector (30,000 employees), the leather goods industry (26,000), the knitted goods industry (24,000), and the sporting goods and toys subsector (11,000).

Table 7

Employment in Six Vulnerable Industries, by Sex, Canada, 1971 and 1976[1]

	All Workers			Male Workers			Female Workers		
		As a proportion of:			As a proportion of			As a proportion of	
	Total	Manufacturing Employment	Total Employment	Total	Manufacturing Employment	Total Employment	Total	Manufacturing Employment	Total Employment
	('000)	(Per cent)		('000)	(Per cent)		('000)	(Per cent)	
Leather goods	26 (29)	1.4 (1.7)	0.3 (0.3)	12 (14)	0.8 (1.1)	0.2 (0.3)	14 (14)	2.8 (3.6)	0.4 (0.5)
Textiles	68 (69)	3.5 (4.0)	0.7 (0.8)	41 (43)	2.8 (3.3)	0.7 (0.8)	27 (26)	5.5 (6.4)	0.8 (0.9)
Knitting mills	24 (18)	1.2 (1.1)	0.2 (0.2)	8 (7)	0.6 (0.5)	0.1 (0.1)	15 (12)	3.1 (2.9)	0.4 (0.4)
Clothing	102 (95)	5.2 (5.5)	1.1 (1.1)	26 (27)	1.8 (2.1)	0.4 (0.5)	76 (68)	15.2 (16.7)	2.1 (2.3)
Electrical (vulnerable subsectors only)	30 (31)	1.5 (1.8)	0.3 (0.4)	17 (19)	1.2 (1.5)	0.3 (0.3)	12 (12)	2.6 (3.0)	0.4 (0.4)
Sporting goods and toys	11 (10)	0.6 (0.6)	0.1 (0.1)	6 (6)	0.4 (0.4)	0.1 (0.1)	5 (4)	1.1 (1.0)	0.1 (0.1)
Total	261 (252)	13.7 (14.7)	2.7 (2.9)	110 (116)	7.6 (8.9)	1.8 (2.0)	150 (136)	30.2 (33.7)	4.3 (4.6)

1 1976 figures are shown first, with those of 1971 in brackets.

Source 1971 Census of Canada: Industries, Cat. No. 94-749 (Ottawa: Statistics Canada, 1975); Manufacturing Industries of Canada: National and Provincial Areas, 1976, Cat. No. 31-203 (Ottawa: Statistics Canada, 1979).

Because this analysis will involve an exploration of the locations and other characteristics of these groups of workers in some detail, we will be obliged most of the time to utilize data only available from the last full official census of the population, which occurred in 1971. Is such information too old to be of much value? Table 7 in part answers the question by providing an impression of what happened to the relative positions of the affected industrial sectors in the five years 1971-76. It will be seen that there were slight declines in the numbers of workers involved in the manufacture of leather goods (-3,000), textiles (-1,000), and the relevant electrical and electronic products (-1,000), along with somewhat greater increases in the numbers of those employed by knitting mills (+6,000), clothing factories (+7,000), and the firms making sporting goods and toys (+1,000). The total work force encompassed by the affected industries consequently rose in the half decade by nearly 10,000, from 252,000 to 261,000, but its importance relative to all Canadian employment fell from 2.9 per cent to 2.7 per cent. Interregional changes were equally trivial (Table 8). Thus, any assessments made on the strength of 1971 data seem unlikely to be seriously obsolete in terms of the situation five years later.

There is little relevant available information for the period since 1976, at the time of writing, except for rather piecemeal statistics that do not fully correlate with

the above-mentioned series, but in general the picture has not changed radically. While employment has, for example, dropped by several hundreds in consumer electronics (as noted in Appendix A), and other ups and downs have taken place in specific subsectors, the dimensions of the vulnerability issue as a whole have not greatly altered.

One feature of the problem that stares out of Table 7, and to which this paper will return repeatedly, is that jobs potentially in jeopardy by virtue of competition from developing countries are, to a thoroughly untypical extent, held by women workers: in 1976 there were 150,000 such positions filled by women compared to 110,000 held by men, which is 4.3 per cent of all female employment against 2.7 per cent in the case of males. That peculiarity has a very great bearing on the kinds of adjustments implied and the kinds of government policies called for.

Are the Vulnerable Jobs Really at Risk?

How many of these jobs -- both men's and women's -- might really be lost in the event of a significant enhancement of the opportunities of developing countries in Canadian markets -- as through increased liberalization of the relevant trade -- is impossible to say. No doubt much of the Canadian clothing industry, for example, is actually quite competitive with Third World imports -- not perhaps

in price but on the basis of more fashionable styles, superior fabrics, and special attention to local requirements. The size of the wardrobe of any typical middle-class Canadian indicates the degree to which sheer economy is not the main consideration in most people's buying habits where clothing is concerned. As incomes rise, this focus on non-price factors increases, making it clear that a manufacturer can survive in the face of heavy competition from low-wage countries if he displays adequate ingenuity in design, marketing, and other determinants of business success in a highly innovative field.

On the other hand, however, additional cases of employment vulnerability can arise, beyond the industries directly affected, by virtue of dependencies between those activities and the ones immediately involved. Some of the indirect consequences relate to the backward and forward linkages from the level of industry specifically impacted by competition and other levels. That is, when clothing is imported into Canada it can hurt not only domestic garment-makers but also primary textile manufacturers -- both those who weave fabrics and those who produce fibres and yarns -- whether or not the latter are encountering foreign competition themselves. The effect may then ripple back down the industrial system to suppliers such as chemical companies, for instance, which provide synthetic materials for man-made textile products, and even to the petroleum corporations furnishing the chemical firms with their inputs.

Other employment that may be susceptible to damage in the event of cutbacks in directly affected industries is, of course, that in service and related enterprises catering to laid-off workers, as well as more generally in any sphere that derives part of its raison d'etre from demand originating with those workers. In the majority of cases, the effects here will arise as a straightforward multiplier to the jeopardy suffered in particular communities where direct damage occurs from foreign competition, so that pinpointing the initial impact will simultaneously locate such "spread effects". Quantification of the second-order repercussions is feasible, using input-output models, but will at best be only as accurate as the assumption about first-order results, which as we have commented are essentially unpredictable.

Speculative, by the same token, are the employment-creating consequences deriving from an increase in imports from developing countries. Because the foreign goods made available would be cheaper than domestic products, consumers would have more money left over to buy other things, most of which would be of Canadian origin. These price effects are known to be considerable, but once again there is little point in pursuing the matter further here. Nor can we usefully explore the employment prospects of a reduction in other countries' trade barriers, as would most likely be part of the context within which Canada opened up its market to the developing world, as any kind of

immediate compensatory implication of Canadian import concessions in the areas we are now considering. Work on these interrelationships has been undertaken at the Department of Industry, Trade and Commerce, using the "Explor" model,[15] and it serves to underline the importance of avoiding a narrow view of direct employment losses from trade liberalization. However, the problem is that offsetting gains are often in different parts of the country from those in which the losses occur, which is why adjustment tends to be so painful. We will return to the matter of new employment possibilities later in this study. In the first instance, our task must be the identification of points of potential difficulty, simply in respect of the clear prospect of first-round impacts from increased imports from the developing world, as discussed above.

Where, then, are the industries that stand to be adversely affected? What features do they have that give clues to their capacity to adjust successfully? How dependent are various regions and communities on the employment they provide? Are their work forces well or ill equipped to find other jobs if that is what ultimately faces them?

We will seek to answer some of these questions by isolating the relevant features of the industries. It should be noted, however, that data availability will not

always permit the breaking out of subsectors, so that in certain cases some industries -- the electrical and electronics sector, in particular -- will have to be considered en bloc. The qualifications made necessary by that shortcoming will be considered as we proceed.

Industry Characteristics

One feature of the listed sectors that is not strictly relevant to the adjustment problem as such, but that provides nevertheless an interesting comment on the specifications of vulnerable industries (or industries containing vulnerable elements), is contained in the figures on labour productivity and remuneration. (See Appendix D). Value added per employee in these activities is almost uniformly below the national average for manufacturing industries in Canada. Exceptions include the subsectors involved in the production of automobile fabric accessories, small electrical appliances, major electrical appliances, communications equipment, and batteries. (However, two of these five are not considered vulnerable, as noted above.) All the others -- a total of more than 45 categories -- are characterized by below-average value added per employee; indeed, in parts of the clothing sector the levels are less than half the national average. (However, these figures improved somewhat, relative to manufacturing as a whole, in the leather goods and clothing industries over the years 1973 to 1976).

Similarly, except in four subsectors of the total group -- three of which are again not vulnerable categories as we have defined them -- average wages per employee are below typical levels in Canadian manufacturing, occasionally getting down to not much more than half the national average figure. (Those numbers did not materially change, relative to total manufacturing, in the 1973-76 period).

These characteristics are reflective of the underlying economic determinants encouraging a challenge from Third World imports. Competition from developing countries is mainly concentrated in those spheres where production is labour-intensive; it also tends to occur in sectors where the levels of marketable skills among workers are relatively low. However, there are other inferences to be drawn from such data, and it would be a mistake to reach simplistic conclusions in this respect. Further analysis of these matters would take us beyond our mandate, and we will merely leave the figures to speak for themselves.

5. Regional Focus

The regional concentration of the listed industries is not always as clear as it might be because of insufficient recent data for regions other than Quebec and Ontario -- and even sometimes for these two provinces. However, it is very evident from Table 8 and Appendix E that the two central provinces are, in truth, the regions most affected. As between Quebec and Ontario, one may observe that, relative to manufacturing as a whole, employment in the leather goods, textiles, knitted goods, and clothing sectors is mainly focused in Quebec rather than Ontario, whereas the reverse is true in the case of the electrical and electronics industry. One may also note from the tables some shifts in the regional employment proportions over time, but they do not appear to be pronounced or systematic -- except perhaps for a slight growth in textile jobs in Ontario relative to those in Quebec.

Thus, allowing for some minor changes since 1971, about 130,000 to 140,000 jobs in the indicated industries are in Quebec -- that is, between a quarter and a third of all Quebec manufacturing employment or perhaps 7 per cent of total employment in that province. In Ontario the jobs at risk amount to something under 100,000, which means roughly one-eighth of the province's manufacturing work force or 3½ per cent of all Ontario employment. From the fragmentary data available, it seems that nothing approaching that

Table 8

Employment in Six Vulnerable Industries, by Region, Canada, 1971 and 1976[1]
(Thousands)

	Atlantic Provinces	Quebec	Ontario	Prairie Provinces	British Columbia	Canada
Leather goods	x(0.3)	11.9 (13.6)	13.1(13.4)	1.0(1.0)	x(0.4)	26.5 (28.7)
Textiles	x(1.7)	34.1 (35.5)	29.9(28.6)	1.8(1.6)	1.1(1.3)	68.2 (68.8)
Knitting mills	x(1.2)	14.4 (9.8)	7.0 (6.4)	x(0.5)	x(0.3)	23.5 (18.3)
Clothing	x(0.6)	66.2 (61.7)	23.2(21.2)	x(8.7)	2.5(2.4)	101.7 (94.7)
Electrical (vulnerable sub-sectors only)	x(0.3)	8.5 (7.3)	19.9(21.5)	x(1.4)	x(0.8)	29.8 (31.4)
Sporting goods and toys	x(0.1)	4.0 (3.2)	6.8 (6.2)	0.2(0.2)	0.1(0.3)	11.1 (10.0)
Total	x(4.2)	139.1(131.1)	99.9(97.3)	x(13.4)	x(5.5)	260.8(251.8)

1 1976 figures are shown first (where available), with those of 1971 in brackets.

x Figure is either zero or is confidential according to requirements of the Statistics Act (see footnote to Appendix E). (Curiously, however, some of these data appear readily calculable by subtraction.)

Source 1971 Census of Canada: Industries, Cat. No. 94-740 (Ottawa: Statistics Canada, 1974); Manufacturing Industries of Canada: National and Provincial Areas, 1976, Cat. No. 31-203 (Ottawa: Statistics Canada 1979).

degree of dependence on the relevant sectors occurs in other regions -- although, as we shall see, there are one or two Maritime and western cities where employment in these sectors is fairly important. Noteworthy in the Quebec and Ontario statistics is the significance of jobs in the clothing industry in Quebec: almost 13 per cent of Quebec manufacturing manpower, or close to 3 per cent of all the province's work force, is employed in garment factories. A comparable emphasis is evident in the electrical and electronics sector in Ontario, which accounts for 10 per cent of manufacturing jobs, or rather more than 2 per cent of total employment in that province; however, the sub-sectors of the electrical industry that we believe are immediately vulnerable to developing-country imports employ less than 3 per cent of Ontario manufacturing workers or well below 1 per cent of the province's total labour force.

Vulnerable Communities

These calculations become most pertinent, though, at the level of the individual community, where they may well suggest whether local labour does or does not have any alternative source of employment in the event a given industry materially reduces its operations. At the same time, this is also the point at which the particular nature of the activity and its competitive capability vis-à-vis imports from developing nations become crucial: since, in a

small city, the employment concerned may be very largely in a single plant, it makes all the difference in the world if the work going on at that one plant is or is not really vulnerable to such competition. Therefore the following indications need to be treated with a good deal of caution, pending further investigation of the character of enterprises in respective cities.

Taking big cities first, one may note that, among Canada's major metropolitan centres, only three are to any significant extent dependent on these industries for the provision of employment: Montreal, Toronto, and Winnipeg. In Table 9, the percentage of all the relevant city's workers that were employed, as of 1971, in the vulnerable sectors and subsectors appears first, in each case, followed in parentheses by the same information expressed as a percentage of manufacturing workers only. Then the most important of the industries in terms of job dependence is indicated, with the proportion of the city's workers to be found in that sector. (In instances where more than one industrial sector is rather significant as an employer, several are listed). Also included are similar data for the principal districts and suburbs, within each of these metropolitan areas, in which employment is heavily dependent on production competing with imports from developing countries.[16]

Table 9

Employment Vulnerable to Developing-Country Competition
I: Major Metropolitan Centres

Montreal	7.1%	(27.6%)	Clothing	4.1%
			Textiles	1.1
Côte-St-Luc	13.6	(58.2)	Clothing	9.1
			Textiles	1.7
Chambly	11.0	(38.0)	Leather goods	3.8
			Clothing	3.5
			Electrical	2.5
Montreal (city)	9.6	(37.6)	Clothing	5.8
			Textiles	1.2
Outremont	9.4	(48.6)	Clothing	5.9
St-Léonard	9.1	(33.7)	Clothing	5.4
			Knitted goods	1.1
Montréal Nord	7.0	(26.7)	Clothing	4.0
			Textiles	1.2
Mont-Royal	6.9	(37.3)	Clothing	2.8
			Electrical	1.6
			Textiles	1.5
Ste-Thérèse	6.5	(20.5)	Clothing	3.1
			Textiles	2.4
St-Laurent	6.4	(23.6)	Clothing	3.9
Longueuil	5.5	(21.2)	Clothing	3.5
Toronto	3.6	(14.3)	Clothing	1.1
			Electrical	1.0
York	6.3	(21.4)	Clothing	2.4
			Electrical	1.1
			Textiles	1.0
Winnipeg	3.4	(18.7)	Clothing	2.4
West Kildonan	6.2	(29.1)	Clothing	4.3

Note The list of districts in Montreal and (to a lesser extent) Toronto might be augmented if dependence on the electrical

Table 9 (cont'd)

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industry were taken as prima facie evidence of vulnerability even where subsector detail is not available to distinguish the vulnerable from non-vulnerable cases (see footnote to Table 11). We have chosen, because it does not affect the overall Montreal and Toronto situations, to omit the districts where this problem arises here, although similar instances involving communities outside major metropolitan communities are listed in Table 11.

Source Statistics Canada, 1971 Census of Canada: Industries, Cat. No. 94-742 for the metropolitan centres themselves (census metropolitan areas) and Cat. No. 94-744 (municipal subdivisions of 30,000 and over) and Cat. No. 94-745 (municipal subdivisions from 10,000 to 30,000) for districts within cities.

In view of the very wide range of job opportunities in a large city, it would not seem that the dependence on vulnerable industries in some parts of Toronto and Winnipeg -- 6.3 per cent in York and 6.2 per cent in West Kildonan, respectively -- is very likely to cause substantial problems of adjustment. Apart from the relatively low levels of vulnerability in the two metropolitan areas as a whole, which are equivalent to one job in twenty-eight in Toronto and one in twenty-nine in Winnipeg, in no case does a single industry among the five affected sectors and subsectors account for more than about one job in forty in Winnipeg or one in ninety in Toronto. It can surely be assumed that workers in those fields would fairly readily be absorbed by other industries, even in the unlikely event that competition from the developing world drove such industries totally out of business.

The problem in the big cities seems therefore to be confined largely to Montreal, whose situation we will examine in detail in a moment.

The Smaller Cities

What of the position in cities outside these major metropolitan centres? Tables 10 and 11 list the vulnerable cases here, classified as before. Attention should be paid to the note at the foot of Table 11, explaining that for the

Table 10

Employment Vulnerable to Developing-Country Competition
II: Medium Sized Cities

Drummondville, Qué.[1]	21.4%	(56.2%)	Textiles	15.9%
			Electrical	2.7
			Clothing	2.1
Victoriaville, Qué.[1]	15.2	(46.5)	Clothing	13.4
			Toys & sports goods	1.2
Granby, Qué.[1]	15.1	(36.8)	Textiles	10.3
			Clothing	2.5
St. Jean, Qué.[1]	13.6	(43.5)	Textiles	6.6
			Clothing	2.1
			Electrical	2.0
			Toys & sports goods	1.9
St-Hyacinthe, Qué.[1]	13.2	(45.0)	Clothing	6.3
			Textiles	3.8
			Knitted goods	2.4
Valleyfield, Qué.[1]	10.8	(31.1)	Textiles	8.6
			Clothing	1.5
Cornwall, Ont.[3]	9.9	(31.4)	Textiles	6.8
Kitchener, Ont.[2]	9.2	(23.6)	Textiles	3.3
			Leather goods	2.2
			Electrical	1.4
			Clothing	1.3
Brantford, Ont.[1]	8.9	(22.2)	Textiles	3.6
			Knitted goods	1.5
			Clothing	1.4
			Toys & sports goods	1.2
Shawinigan, Qué.[1]	8.5	(23.3)	Textiles	5.6
			Leather goods	1.6
			Clothing	1.1
Trois-Rivières, Qué.[1]	7.5	(26.8)	Textiles	3.3
			Clothing	2.6
St-Jérôme, Qué.[1]	7.4	(26.2)	Textiles	2.9
			Knitted goods	2.1
			Clothing	1.2

Table 10 (cont'd)

Trenton, Ont.[1]	7.4	(29.7)	Leather goods	5.4
			Textiles	1.4
Sherbrooke, Qué.[1]	7.3	(33.8)	Textiles	4.2
			Clothing	1.3
Joliette, Qué.[1]	6.0	(26.2)	Clothing	3.6
			Textiles	2.1
Guelph, Ont.[1]	5.7	(19.3)	Textiles	2.5
			Clothing	2.1
Sorel, Qué.[1]	5.7	(13.9)	Textiles	3.8
			Clothing	1.2
Barrie, Ont.[1]	5.2	(26.8)	Electrical	3.3
			Leather goods	1.5

Note Several series of census statistics are published for cities' work forces by industrial breakdown, and a given city may appear in more than one depending on whether the inner core or a wider municipal region is being considered. In the above tabulation, data are based on the series providing the best impression of relevant employment throughout each city and its environs, viz:

1) Census agglomeration;

2) Census metropolitan area;

3) Municipal subdivision.

Source Statistics Canada, 1971 Census of Canada: Industries, Cat. No. 94-743 for census agglomerations, Cat. No. 94-742 for census metropolitan areas, and Cat. No. 94-744 for municipal subdivisions.

Table 11

Employment Vulnerable to Developing-Country Competition
III: Small Cities and Towns

Magog, Qué.	33.1%	(77.0%)	Textiles	28.9%
			Clothing	3.9
Cowansville, Qué.	26.4	(59.7)	Textiles	21.3
			Electrical	2.5
			Clothing	1.9
Brockville, Ont.	16.8	(50.3)	Electrical	16.0
Midland, Ont.	14.7	(42.0)	Electrical	7.4
			Textiles	4.4
			Leather goods	1.6
			Clothing	1.2
Montmagny, Qué.	13.9	(54.4)	Electrical	7.1
			Textiles	6.3
Woodstock, Ont.	12.9	(33.0)	Knitted goods	6.1
			Textiles	4.7
			Electrical	1.3
Lindsay, Ont.	8.5	(29.5)	Textiles	4.2
			Electrical	3.0
Lachute, Qué.	8.4	(27.4)	Textiles	7.6
Truro, N.S.	7.1	(48.4)	Knitted goods	4.0
			Textiles	2.5
Stratford, Ont.	6.5	(17.1)	Electrical	2.2
			Textiles	2.2

Note Unlike the preceding table, material in the above calculations derives from data in which there is no breakdown of industries into sub-sectors. Accordingly, the extent of potential vulnerability is almost certainly distorted in those cases -- notably Brockville, Midland, Montmagny, Stratford, etc., -- where the electrical sector is important. This factor definitely influences the position of some of those cities in the order of vulnerability shown, but it is unlikely to alter totally their susceptibility to developing-country competition.

Source Statistics Canada, 1971 Census of Canada: Industries, Cat. No. 94-745, Municipal Subdivisions 10,000 to 30,000.

smallest cities no breakdown into industrial subsectors is available. Because of this shortcoming, it was decided to use some judgement about the cities to be included or excluded, depending partly on what could be discovered of the nature of firms in each community, plus the proximity of the indicated vulnerability to a lower limit -- employment in the five indicated sectors amounting to 5 per cent of total employment in the community -- below which adjustment problems would not be considered as serious. In addition, both in that table and the preceding one some judgements were made about the communities to be taken as autonomous or as part of a neighbouring and larger city, and these decisions too may affect the figures shown in some cases.[17]

With these qualifications, one can fairly suggest that the communities listed are the ones that would be most vulnerable, among medium-sized and smaller Canadian cities, to further growth in the inflow of goods now entering our market from developing countries. And the likelihood of adjustment difficulties is clearly greater for workers in most of these places than it is in the major metropolitan centres, except possibly Montreal.

Analysis by Census Division

As a further investigation of the location of potentially affected workers, an assessment was also carried

out on a county-by-county (or, put more exactly, a census-division-by-census-division) basis. Unfortunately, data limitations made it impossible to undertake this task for more than three of the industries -- textiles, knitted goods, and clothing -- but on the whole it is only in these three that plants are to be found in rural areas or small towns, so the effort to catch all remaining instances of vulnerability has been reasonably successful.

The most striking feature of the new analysis was the number of counties in Quebec where work forces appeared vulnerable to Third World competition (Table 12). Using the "over-five-per-cent" rule again -- though here only for the three industries -- a total of 23 counties in that province were found to be potentially vulnerable, with a couple more fairly close to the line. By contrast, only 8 counties in Ontario had over five per cent of their labour forces in the three industries, with four more just below the five-per-cent level. No counties or census divisions outside the two central provinces were indicated as susceptible according to this evaluation. In addition to the greater number of counties revealed in Quebec, the extent of vulnerability was likewise far more marked there than in Ontario, with nine Quebec counties shown as having more than 10 per cent of their work forces in the potentially affected sectors (indeed, four of them more than 15 per cent), as compared with one in Ontario.

Table 12

Census Divisions with More than Five Per Cent of Labour Force in Textiles, Knitted Goods, and Clothing: Estimates Based on Census and Industry Employment Data

Census Division	Province	Area	Per Cent
Stanstead	Quebec	Eastern Townships	23.3 %
Huntingdon	Quebec	Montreal region	19.7
Missisquoi	Quebec	Eastern Townships	19.5
Maskinonge	Quebec	Mauricie	17.5
Drummond	Quebec	Eastern Townships	17.1
St-Hyacinthe	Quebec	Montreal region	14.9
Shefford	Quebec	Eastern Townships	14.8
St-Jean	Quebec	Montreal region	12.9
Lennox and Addington	Ontario	East Central Ontario	11.3
Frontenac	Quebec	Eastern Townships	11.1
Arthabaska	Quebec	Eastern Townships	9.9
Stormont	Ontario	Eastern Ontario	9.9
Montmagny	Quebec	Bas-St-Laurent	8.9
Beauharnois	Quebec	Montreal region	8.8
Bagot	Quebec	Eastern Townships	8.8
Beauce	Quebec	Eastern Townships	8.6
Berthier	Quebec	Mauricie	8.0
Prescott	Ontario	Eastern Ontario	7.9
Sherbrooke	Quebec	Eastern Townships	7.9
St-Maurice	Quebec	Mauricie	7.4
Ile-de-Montréal	Quebec	Montreal region	7.0
Brant	Ontario	South Central Ontario	6.9
Dundas	Ontario	Eastern Ontario	6.2
Richelieu	Quebec	Montreal region	6.1
Rouville	Quebec	Montreal region	6.1
Waterloo	Ontario	South Central Ontario	5.7
Frontenac	Ontario	East Central Ontario	5.6
Joliette	Quebec	Mauricie	5.5
Megantic	Quebec	Eastern Townships	5.3
Glengarry	Ontario	Eastern Ontario	5.2
Champlain	Quebec	Mauricie	5.1

Source Statistics Canada, annual industry sector reports for textiles and clothing, Cat. No. 34-202 to 34-222, various years.

Given the capacity of many workers to commute over substantial distances, the county seems to represent a fairly satisfactory unit within which to consider availability of jobs. Therefore, while data shortcomings beyond the three industries made it impossible to gauge the situation entirely by reference to counties, an estimate of total vulnerable labour on this basis was attempted. Its results were reassuring in one respect but disturbing in another.

That is, on the assumption that workers in the six potentially vulnerable industries would not be viewed as facing serious adjustment difficulties if they accounted for less than five per cent of the labour force in their county, only some 120,000 to 160,000 workers across Canada appeared to be involved out of the overall relevant employment total of 260,000. However, the concentration in Quebec showed up as much greater on this assessment than on the earlier general calculation of relevant jobs: some 100,000 to 125,000 workers in that province and only 20,000 to 35,000 in Ontario appeared, on this revised basis, to be vulnerable to Third World competition. The reason for the drop in the Ontario figure is essentially a consequence of the choice of five per cent as the crucial proportion of the labour force above which a county would be considered vulnerable. It turned out that most of the large urban centres of Ontario (including Toronto) fell in counties where affected workers

did not amount to that large a share of the total. On the other hand, the county that includes Montreal did qualify for inclusion, and several other fair-sized cities in Quebec were also to be found in counties in the greater-than-five-per-cent category.

Needless to say, the five per cent is arbitrary, and choice of a different level -- say, ten per cent -- would produce significant changes in these estimates. A Department of Consumer and Corporate Affairs report, using the ten-per-cent basis, has calculated jobs at risk in the textile, knitted goods, clothing, and footwear industries at only 34,000 in Quebec and 13,000 in Ontario (plus a further 1,000 in other provinces).[18] Nevertheless, we are encouraged to maintain the less optimistic position in this respect by a similar assessment undertaken in the Department of Regional Economic Expansion, which estimated susceptible employment in those four sectors and the electrical industry (approximately our own grouping) at 122,000 in Quebec and 14,000 in Ontario.[19] Accordingly, the numbers in our evaluation will be used as a rough guide to the scale and nature of the problem in the various regions, although it should be borne in mind that they are no more than a general indicator and may well be overstated -- or understated -- in certain respects.

The Revised Estimate

What we are talking about, then, is perhaps something of the order of 65,000 to 75,000 jobs in Montreal, another 35,000 to 50,000 elsewhere in Quebec, and probably no more than 20,000 to 35,000 in Ontario (Table 13). Of the Quebec jobs outside Montreal, 10,000 to 15,000 are indicated as located in the fringe areas of the Montreal region, 20,000 to 25,000 in the Eastern Townships, and up to 10,000 in the Mauricie (the region centred on Trois-Rivières). The greatest concentration of vulnerable labour in Ontario would be in Brant and Waterloo counties (around Brantford and Kitchener), where approximately 20,000 jobs could be at risk. Higher proportions of the total work force are, however, indicated as susceptible in some of the eastern and east central counties, even though the total number there appears to amount to only 10,000 or so. An impression of the regions affected is provided in Figure 1.

Breaking down the figures by industry, the estimates provide totals of 35,000 to 50,000 jobs in textiles, about 10,000 to 12,000 in knitted goods, and 55,000 to 65,000 in clothing -- that is, 100,000 to 125,000 in these three together. The more dubious evaluation of the position for leather goods, electrical products, and sporting goods and toys yields a combined number of 20,000 to 35,000, thus giving the overall aggregate of 120,000 to 160,000 in all six affected industries.

Table 13

Jobs at Risk in Vulnerable Industries:
A Synoptic View[1]

(Thousands)

	Primary Textiles (a)	Knitted goods (b)	Clothing (c)	Sub-total Columns a-c	Other Vulnerable Industries	Approx. Total[2]
Montreal	7-10	5	40-45	52-60	15	65-70
Outer Montreal	5-7	2	3-5	10-14	1	10-15
Montreal region	12-17	7	43-50	62-74	16	75-90
Eastern Townships	12-15	2	5-7	19-24	2	20-25
Mauricie	3-4	1	2-3	6-8	1	5-10
All Quebec[2]	25-35	10	50-60	85-105	15-20	100-125
Eastern Ontario	3-4	-	-	3-5	-	5
East Central Ontario	3	-	-	3	-	3-5
Central Ontario	1	-	-	1	-	1-2
West Central Ontario	5-6	2	2	9-10	5	12-20
All Ontario[2]	10-15	3	3	15-20	5-15	20-35
Total[2]	35-50	10-15	55-60	100-125	20-35	120-160

1 This overall presentation of job vulnerabilities is based on a simple addition of the employment indicated as being at risk, in the various locations, by virtue of exceeding 5 per cent of the relevant labour force.

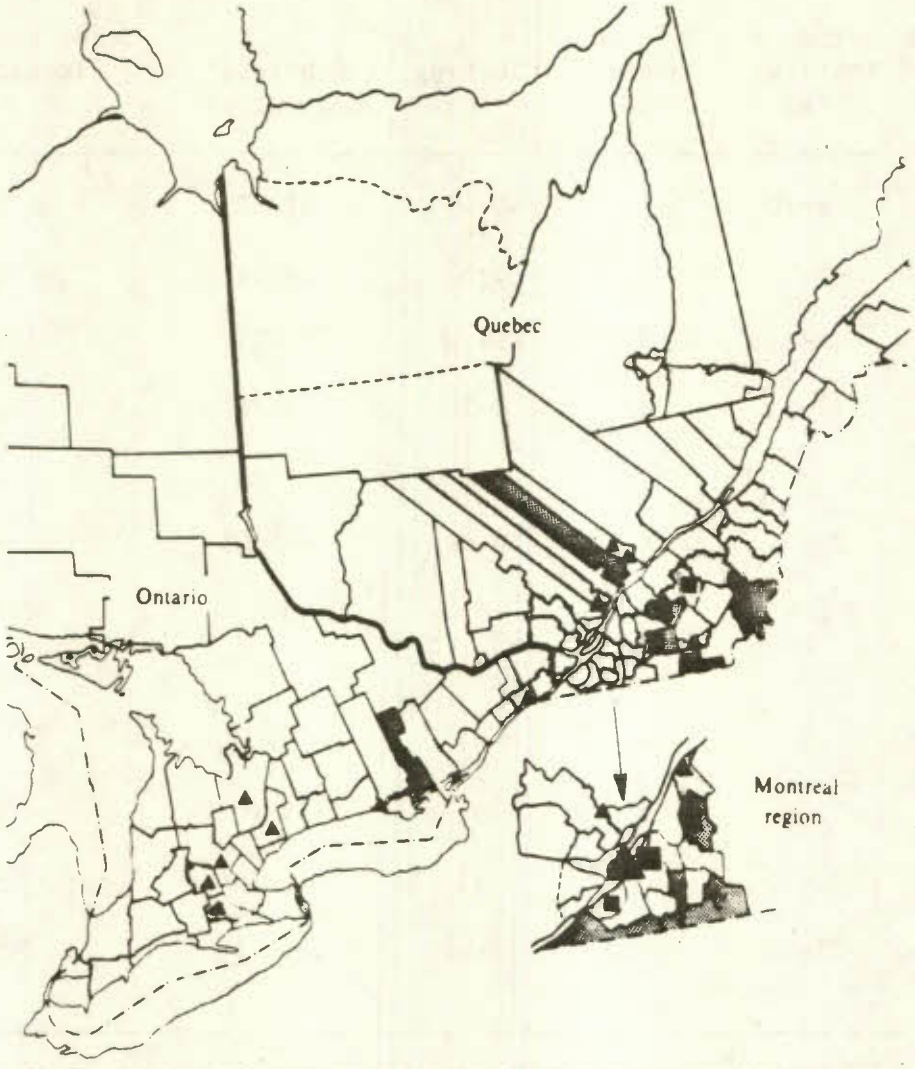
2 Totals are rounded to give an approximation, usually expressed to the nearest 5,000.

Source Derived from estimates indicated in text and earlier tables.

Figure 1

Counties and Cities Vulnerable to Competition from Manufactured-Goods Imports from Developing Countries[1]

(on basis of 1971 census)



▲ Cities and towns in which 10 per cent or more of all workers are employed in six "vulnerable" sectors and subsectors (see text).[2]

■ Cities and towns in which 5 to 9.9 per cent are in those six.[2]

Counties (census divisions) in which 10 per cent or more of all workers are employed in the textile, knitted goods, and clothing industries.

Counties in which 5 to 9.9 per cent are in those three.

1 In addition to the cities shown, there is evidence of some possible vulnerability in a few other Ontario and Quebec communities, as well as in one district of Winnipeg and one area of Nova Scotia (see text and tables).

2 The large square represents cases of "more-than-10-per-cent" vulnerability in two cities (or districts) of the greater Montreal area; the large triangle represents "5-to-9.9-per-cent" vulnerability in the City of Montreal itself and seven other cities (or districts) of the greater Montreal area.

Source: Based on data in Tables 9, 10, and 11.

When one looks at these figures, two points stand out:

- In terms of regional focus, a half of the affected workers are in Montreal.

- Viewed by industry, close to a half are in clothing -- or fully a half if one includes knitted goods.

6. The Montreal Clothing Industry

The biggest single potential problem, therefore, is related to the concentration of garment workers in Montreal: these 40,000 to 45,000 people account for almost a third of the entire vulnerable group. Accordingly, we will examine their situation first.

Two-thirds of Montreal's clothing workers are women (and two-thirds of those women are married). As of the last census, the following characteristics were observable:

- About a half of the female employees in the Montreal garment industry were immigrants, mostly fairly recent arrivals and mainly from Southern Europe (predominantly Italy), while the rest were native-born and overwhelmingly francophone;
- They were slightly older than most women workers, the proportion of women over 35 years of age being 53 per cent, compared with 47 per cent for all Montreal's women factory workers and 43 per cent for that city's female work-force as a whole; and
- Three-quarters of all women workers in the Montreal clothing industry had less than grade 9

education, as against one-quarter for the total female labour force of Montreal or one-fifth for the overall population of working women in Canada.

Some of these data are presented in Tables 14, 15, and 16.

The role of immigrants in the clothing industry is an important factor when the implications of manpower adjustment are being considered, since in general people born outside Canada choose a new home region largely by virtue of its apparent capacity to offer rewarding employment.[20] Clearly, if there were a decline in the kind of industry in which many immigrants who settle in Montreal find jobs, then those immigrants would tend to gravitate to other parts of Canada or not to come to this country at all. Even in cases where the clothing factories provide work for wives, while their husbands are in jobs in different industries, the prospect for families as a whole would soon become known to potential immigrants and often lead them to take up residence elsewhere.

In the mid-1970s an average of 12,000 to 15,000 immigrant workers arrived annually in Montreal, something over a third of whom were women, and between 4,000 and 5,000 of these people indicated that they planned to work in

Table 14

Sex and Age of Workers in Montreal Clothing Industry, All Manufacturing, and All Activities: A Proportional Comparison Derived from 1971 Census Data

(Per cent)

	Clothing Industry	All Manufacturing	Total Work Force
Men workers	34.5	69.8	64.8
Women workers	65.5	30.2	35.2
Both sexes	100.0	100.0	100.0
Men aged 15-19	8.7	5.5	5.8
aged 20-24	12.6	14.0	13.8
aged 25-34	19.9	25.6	26.1
aged 35-44	18.6	22.6	22.4
aged 45-54	17.2	19.0	17.9
aged 55-64	17.6	11.4	11.2
others	5.4	1.8	2.7
All men workers	100.0	100.0	100.0
Women aged 15-19	9.7	10.8	10.2
aged 20-24	14.0	19.2	21.3
aged 25-34	21.2	22.2	23.3
aged 35-44	23.9	21.0	17.6
aged 45-54	18.5	16.8	15.7
aged 55-64	10.8	8.7	9.2
others	1.9	1.3	2.7
All women workers	100.0	100.0	100.0

Source 1971 Census of Canada: Industries, Cat. No. 94-755 (Ottawa: Statistics Canada, 1975).

Table 15

Immigrants Working in Clothing Industry and All Industry
Selected Cities and Total Canada
At Time of 1971 Census

		Labour Force	Born Outside Canada	Per Cent
Montreal workers				
Clothing:	men	15,110	7,290	48.2
	women	28,750	14,725	51.2
All industries:	men	699,305	144,565	20.7
	women	380,480	76,155	20.0
Toronto workers				
Clothing:	men	4,480	3,230	72.1
	women	9,295	8,010	86.2
All industries:	men	769,970	336,415	43.7
	women	474,875	197,610	41.6
Winnipeg workers				
Clothing:	men	1,450	825	56.9
	women	4,460	2,860	64.1
All industries:	men	150,045	34,170	22.8
	women	93,755	18,930	20.2
Canadian workers				
Clothing:	men	27,090	12,465	46.0
	women	67,610	30,985	45.8
All industries:	men	5,665,720	1,146,535	20.2
	women	2,961,210	590,785	20.0

Source 1971 Census of Canada: Industries, Cat. Nos. 94-754, 94-755, 94-756 (Ottawa: Statistics Canada, 1975).

Table 16

Education Levels Among Workers in Montreal Clothing and Related Industries[1] (and a Comparison with Levels of All Montreal and Canadian Workers) from 1971 Census

	Montreal			Canada
	Clothing and Related Activities		All Occupations	All Occupations
	Number	Per cent	Per cent	Per cent
Men workers				
University degree	165	1.2	10.4	7.9
Some university	510	3.5	9.6	7.7
Grades 12 and 13	800	5.6	12.0	19.5
Grades 9-11	4,200	29.2	34.8	34.2
Less than Grade 9	8,695	60.5	33.2	30.8
All men workers	14,365	100.0	100.0	100.0
Women workers				
University degree	95	0.3	6.5	4.9
Some university	440	1.4	9.0	8.5
Grades 12 and 13	1,025	3.3	16.3	29.1
Grades 9-11	6,725	21.6	41.7	36.8
Less than Grade 9	22,905	73.4	26.5	20.7
All women workers	31,185	100.0	100.0	100.0

1 The category of occupation that is employed for this analysis is indicated in the census data as "fabricating, assembling and repairing occupations: textiles, fur and leather products."

Source 1971 Census of Canada: Occupations, Cat. Nos. 94-729 and 94-735 (Ottawa: Statistics Canada, 1975).

manufacturing. A switch in the destination of immigrants might be expected to lead to an automatic decline of several hundred, if not more, in the number of prospective entrants to the clothing industry each year. In this sense, therefore, the problem is of an essentially medium-run nature, requiring temporary relief before it solves itself.

So far as the native-born workers in the Montreal garment industry are concerned, the situation is obviously very different. These people cannot readily move elsewhere -- indeed, as French-speaking (often virtually unilingual), low-skilled, poorly educated women they are probably among the least mobile of all Canadian workers. A proportion of them are better equipped to shift to other locations and different employments, these being the younger cohorts that predominate in the hosiery sector (and to a lesser extent in other knitted goods). But the bulk of the clothing industry has a typical age structure (Table 17). Given the tradition among Montreal working-class women of taking jobs in this field, many rather far-reaching changes in economic and social patterns are implied by a pronounced decline in garment production.

Montreal and Toronto Compared

Some hints as to the direction of these changes may be gained by comparing a breakdown of employment by

Table 17

Sex and Age of Workers in Montreal Clothing Industry and Its Sub-Sectors
At Time of 1971 Census

	All Clothing		Men's Clothing		Women's Clothing		Children's Clothing		Fur Goods		Foundation Garments		Miscellaneous	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Men workers	15,110	34.5	5,525	43.7	6,260	27.3	1,115	28.7	1,270	69.2	220	27.2	715	40.4
Women workers	28,750	65.5	7,110	56.3	16,655	72.7	2,775	71.3	565	30.8	590	72.8	1,055	59.6
Both sexes	43,860	100.0	12,635	100.0	22,915	100.0	3,890	100.0	1,835	100.0	810	100.0	1,770	100.0
Men workers:														
Aged 15-19	1,310	8.7	470	8.5	555	8.9	130	11.7	75	5.9	15	6.8	70	9.8
20-24	1,910	12.6	660	11.9	805	12.9	185	16.6	105	8.3	70	31.8	80	11.2
25-34	3,005	19.9	1,210	21.9	1,235	19.7	205	18.4	210	16.5	25	11.4	115	16.1
35-44	2,805	18.6	1,010	18.3	1,145	18.3	210	18.8	265	20.9	55	25.0	120	16.8
45-54	2,605	17.2	905	16.4	1,145	18.3	145	13.0	245	19.3	20	9.1	140	19.6
55-64	2,655	17.6	925	16.7	1,065	17.0	200	17.9	310	24.4	20	9.1	135	18.9
Others	820	5.4	345	6.2	310	5.0	40	3.6	60	4.7	15	6.8	55	7.7
Total	15,110	100.0	5,525	100.0	6,260	100.0	1,115	100.0	1,270	100.0	220	100.0	715	100.0
Women workers:														
Aged 15-19	2,790	9.7	795	11.2	1,480	8.9	290	10.5	15	2.7	85	14.4	130	12.3
20-24	4,025	14.0	1,160	16.3	2,185	13.1	400	14.4	35	6.2	90	15.3	145	13.7
25-34	6,085	21.2	1,660	23.3	3,445	20.7	615	22.2	75	13.3	110	18.6	175	16.6
35-44	6,875	23.9	1,620	22.8	3,995	24.0	785	28.3	165	29.2	90	15.3	230	21.8
45-54	5,310	18.5	1,075	15.1	3,295	19.8	415	15.0	170	30.1	155	26.3	190	18.0
55-64	3,110	10.8	655	9.2	1,900	11.4	240	8.6	85	15.0	55	9.3	175	16.6
Others	555	1.9	145	2.0	355	2.1	30	1.1	20	3.5	5	0.8	10	0.9
Total	28,750	100.0	7,110	100.0	16,655	100.0	2,775	100.0	565	100.0	590	100.0	1,055	100.0

Source 1971 Census of Canda: Industries, Cat. No. 74-755 (Ottawa: Statistics Canada, 1975).

occupation in Montreal and Toronto, two cities that could be expected, if everything else were equal, to have rather similar work-force cross-sections. Indeed, in most respects the parallels are remarkable, the proportion of total employment in each category of occupation being time and time again either identical or the merest fraction apart (Table 18). In only two instances is there a much heavier emphasis in a particular occupational category in Montreal than in the same category in Toronto: "processing occupations" and "product fabricating, assembling, and repairing occupations". If the proportion of Montreal's work force devoted to these occupations were the same as the share of Toronto's, there would be 7,000 fewer people in processing and 13,000 fewer in product fabricating, etc. And the factor contributing most to the extra weight of Montreal in both cases is the importance of activities having to do with "textiles, fur, and leather products" -- that is, for the most part, the manufacture of clothing (Table 19).

On the other hand, Toronto is substantially stronger than Montreal in three categories: "clerical and related occupations", "machining and related occupations", and "construction trades occupations". The second of these three, if it loomed as large in Montreal's labour force as it does in Toronto's, would employ 9,000 more workers than it actually does, while the third would employ 12,000 more.

Table 18

Breakdown of Labour Force in Montreal and Toronto, By Occupation, from 1971 Census

	Montreal		Toronto	
	000s	per cent	000s	per cent
All occupations	1,080	100.0	1,245	100.0
Managerial, admin., etc.	65	6.0	74	6.0
Nat. sciences, engineering, etc.	34	3.2	45	3.6
Social sciences and related	12	1.1	15	1.2
Religion	2	0.2	2	0.2
Teaching and related	43	3.9	42	3.4
Medicine and health	42	3.9	42	3.4
Artistic, literary, recreational	15	1.4	18	1.5
Clerical and related	213	19.8	277	22.3
Sales	109	10.0	129	10.4
Service	108	10.0	119	9.5
Farming, forestry, etc.	7	0.6	13	1.0
Mining, quarrying, etc.	1	0.1	1	0.1
Processing	34	3.2	32	2.5
Machining and related	29	2.7	43	3.5
Product fabricating, etc.	106	9.8	107	8.6
Construction trades	50	4.7	70	5.7
Transport equipment operating	41	3.8	42	3.3
Materials handling and related	22	2.0	33	2.6
Other crafts and equip. operating	16	1.5	21	1.7
Occupations not elsewhere class'd	25	2.3	26	2.1
Occupations not stated	106	9.9	94	7.5

Source 1971 Census of Canada: Occupations, Cat. No. 94-735 (Ottawa: Statistics Canada, 1975).

Table 19

Occupational Pattern within Category "Fabricating, Assembling and Repairing", Montreal and Toronto, at Time of 1971 Census

	Montreal		Toronto	
	Number	Per Cent	Number	Per Cent
Men workers:				
Fabricating, assembling, repairing, etc.				
Metal products not elsewhere classified	5,440	0.8	10,520	1.4
Electrical, electronic, and related products	10,260	1.5	12,140	1.6
Wood products	2,665	0.4	2,795	0.4
Textiles, fur, and leather products	14,365	2.1	8,105	1.1
Rubber, plastic, and related products	1,575	0.2	3,190	0.4
Mechanics and repairers excluding electrical	27,210	3.9	28,050	3.6
Other product fabricating, assembling and repairing occupations	7,220	1.0	10,675	1.4
Total occupational category	68,730	9.8	75,475	9.8
All occupations	699,305	100.0	769,975	100.0
Women workers:				
Fabricating, assembling, repairing, ect.				
Metal products not elsewhere classified	340	0.1	2,220	0.5
Electrical, electronic, and related products	2,350	0.6	7,470	1.6
Wood products	150	0.0	330	0.1
Textiles, fur, and leather products	31,185	8.2	15,385	3.2
Rubber, plastic, and related products	400	0.1	1,345	0.3
Mechanics and repairers excluding electrical	280	0.1	435	0.1
Other product fabricating, assembling and repairing occupations	2,155	0.6	4,690	1.0
Total occupational category	36,865	9.7	31,875	6.7
All occupations	380,480	100.0	474,875	100.0

Source 1971 Census of Canada: Occupations, Cat. No. 94-735 (Ottawa: Statistics Canada, 1975).

The really big difference, however, is in clerical occupations (Table 20), where a change in Montreal to the Toronto percentage in that category would see an extra 28,000 people so engaged. Given the predominance of women in clerical jobs, this may be the field of greatest opportunity for redirecting redundant clothing workers if that industry should shrink. We will return to this question later.

Still looking at the women in the Montreal garment industry, Tables 14 and 17 show that at the time of the 1971 census there was a cohort of somewhat under 10,000 (approaching a third of the total) who were 45 years of age or over, then the main body of some 12,000 to 15,000 (almost 40 per cent of all women clothing workers in Montreal) aged between 25 and 44 years, and a relatively small number -- substantially less than 10,000 (under a quarter of the total) -- below 25 years old. (Each set of these numbers could, in fact, be expanded slightly and would then include the female component of the work force in other vulnerable industries in Montreal, such as leather goods and textiles, where the men/women ratio is more typical of industry generally.) It may be useful to consider the three age blocks separately.

On the whole, the adherence of women clothing workers to their jobs appears to be relatively tenuous. Despite high unemployment in the sections of Montreal where

Table 20

Occupational Pattern within Category "Clerical and Related"
Montreal and Toronto, at Time of 1971 Census

	Montreal		Toronto	
	000s	per cent	000s	per cent
Men workers:				
Stenographic and typing	2.0	0.3	1.7	0.2
Bookkeeping, accounts, etc.	16.5	2.4	16.2	2.1
Office machine operators, etc.	2.6	0.4	3.6	0.5
Material recording, scheduling, etc.	23.0	3.3	29.0	3.8
Library, file, correspondence clerks	1.0	0.1	1.6	0.2
Reception, information, mail, etc.	10.1	1.4	11.2	1.5
Other clerical and related	26.2	3.8	18.9	2.4
Total occupational category	81.6	11.7	82.2	10.7
All occupations	699.3	100.0	770.0	100.0
Women workers:				
Stenographic and typing	53.0	13.9	65.3	13.7
Bookkeeping, accounts, etc.	31.2	8.2	56.6	11.9
Office machine operators, etc.	5.4	1.4	9.8	2.1
Material recording, scheduling, etc.	3.0	0.8	6.8	1.4
Library, file, correspondence clerks	2.7	0.7	7.5	1.6
Reception, information, mail, etc.	13.0	3.4	19.3	4.1
Other clerical and related	23.5	6.2	30.0	6.3
Total occupational category	131.7	34.6	195.3	41.1
All occupations	380.5	100.0	474.9	100.0

Source 1971 Census of Canada: Occupations, Cat. No. 94-735 (Ottawa: Statistics Canada, 1975).

they tend to live, there is little long-term attachment to jobs in the garment factories, which are always advertising for employees.[21] In many sections of the industry, turnover rates are very high, and job vacancy levels in trades such as sewing machine operator are habitually well above average.[22] The obvious conclusion from these indicators is that work of the kind usual in the clothing industry is unattractive, and also possibly that the women who make up the bulk of the labour force in this sphere are not involved because of the satisfaction of having a continuing job but simply take work there when they have need for the money.

In such a situation, one could expect that women aged over 45 years might well be happy to take early retirement if a suitable scheme were set up between the government and the employers. It is arguable that, on the contrary, the people in that group might be more interested in their work -- or, at least, in the social contacts it provides -- than younger women who have children and other commitments to provide a positive value to staying home. Be that as it may, the greater difficulty that older women are likely to have in finding alternative jobs makes it almost inevitable that governments' assistance to these people, if serious adjustments become necessary, will take the form of helping them out of the labour force.

Of interest in this connection is one of the findings of the Department of Industry, Trade and Commerce's "Labour Force Tracking Project". It was determined that, after losing their jobs, fully 29 per cent of the women workers in the clothing industry left the labour force -- usually giving as their reason "to keep house" -- the proportion being twice as high for those more than 55 years old as it was for younger employees.

One may probably assume that this readiness to leave the labour force -- whether from relative lack of interest in their work or greater than average difficulty in finding new jobs -- shows no pronounced discontinuity at age 55 but is apparent to a lesser extent for women aged 45 years and over. Given the fairly short period, in actuarial terms, that remains before retirement for all these people, support for early retirement might not be impossibly expensive if all other adjustment devices failed. Much harder to assess than the feasibility of such arithmetic, we suspect, is the practical politics of organizing a scheme for early retirement in particular industries subjected to particular kinds of competitive challenges. However, governments have grappled with equally sensitive issues and contrived a workable response.

So far as the group of women workers aged under 25 is concerned, it does not seem necessary to envisage any

extensive adjustment measures. A high proportion of these women are likely to be unmarried or at least without children, still quite mobile and flexible as to location and type of work, and in many cases even living with their parents. No special provision by government would appear to be called for in respect to these people. Nevertheless, there is of course a general requirement that governments interest themselves in the provision of adequate employment in the economy as a whole, so that these workers, like others, may have a chance to find a job somewhere if they are energetic and resourceful.

The group most evidently requiring aid to ensure satisfactory redirection in employment is that aged 25 to 44 years. This is so despite the fact that, according to the ITC "Labour Force Tracking Project", the age group 25-44 characteristically has shorter unemployment periods following layoff than does either the 15-24 group or the group aged more than 45. On the one hand, need is likely to be in general greater and mobility poorer among women of middle years than among their younger sisters; on the other hand, the practicality of early retirement is obviously less.

Given the problems involved, an extensive effort would clearly be desirable, in advance of any indication of increased competition from imports, to match the prospective

labour surpluses in affected occupations against expanding opportunities elsewhere in the Montreal economy. Careful manpower planning should make it possible to develop the specifications of new job potential more exactly, so that retraining programs could be established ahead of time. These programs would have to be tailored to the capabilities of women in general not very well educated and sometimes not even completely fluent in French or English. Nevertheless, the orientation that ought to be given such training is none too evident. The expectation must be that, in many instances, the fields towards which retraining efforts should be directed are in services rather than in other parts of manufacturing. We will consider this aspect of the matter, as well as the more general question of revitalizing the economy of adversely affected regions, in Chapter 9.

7. The Textile Sector

About equal in terms of numerical importance to Montreal clothing workers, in the present context, are employees of the primary textile industry, which accounts for somewhere between 35,000 and 50,000 people in vulnerable situations as we have measured them. Some data on this industry are presented in Tables 21 and 22. The jobs here are very different from those in the case of garment workers, since labour forces in textiles are much closer to the usual pattern of manufacturing in most respects: male/female ratio, age profile, educational levels. Moreover, the firms concerned are generally large, integrated corporations rather than small to medium-sized enterprises as is usual in clothing. Finally, the majority of plants are large and are located outside metropolitan centres -- or, at least, outside the core areas of these centres in industrial regions at the periphery. In all these senses the characteristics of the industry roughly approximate those of other vulnerable activities like the relevant parts of the electrical and electronics sector, and one may thus consider textiles, for this purpose, as illustrating far more effectively than clothing the position of the bulk of Canadian manufacturing industry vulnerable to Third World competition.

Table 21

Concentration of Primary Textile Workers in Quebec and Ontario
As of 1971 Census

	Canada			Quebec			Ontario		
		Percentage of Canadian Total			Percentage of Canadian Total			Percentage of Canadian Total	
	Number	In Category	Over-all[1]	Number	In Category	Over-all[1]	Number	In Category	Over-all[1]
Total primary textile industry	68,785	100.0	100.0	35,495	51.6	51.6	28,590	41.6	41.6
Cotton yarn and cloth mills	13,285	100.0	19.3	8,490	63.9	12.3	4,030	30.3	5.9
Wool yarn and cloth mills	6,400	100.0	9.3	3,005	47.0	4.4	3,065	47.9	4.5
Man-made fibre, yarn, and cloth mills	17,215	100.0	25.0	9,190	53.4	13.4	7,560	43.9	11.0
Felt and fibre processing mills	1,475	100.0	2.1	605	41.0	0.9	795	53.9	1.2
Carpet, mat and rug industry	5,350	100.0	7.8	2,270	42.4	3.3	2,530	47.3	3.7
Canvas products, and cotton and jute bags industries	3,035	100.0	4.4	550	18.1	0.8	1,500	49.4	2.2
Miscellaneous textile industries	18,345	100.0	26.7	11,245	61.3	16.3	5,825	31.8	8.5
Other[2]	3,680	100.0	5.4	140	3.8	0.2	3,285	89.3	4.8

1 This column shows the percentage that employment in the indicated sub-sector and location represents relative to the Canadian primary textile work force as a whole.

2 Mainly automobile fabric accessories industry.

Source 1971 Census of Canada: Industries, Cat. Nos. 94-749 and 94-751 (Ottawa: Statistics Canada, 1975).

Table 22

A Comparison of Characteristics of Textile Sector Workers with those of Workers in Other Industries: Canada, Quebec, Ontario, from 1971 Census

	Women as Percentage Total Workers	Average Age	Percentage Married
Canada			
Primary textiles	38	37/36	73/66
Knitted goods	64	38/35	68/67
Clothing	71	41/36	72/65
All manufacturing	24	38/35	76/65
Quebec			
Primary textiles	31	37/33	72/54
Knitted goods	59	36/32	67/60
Clothing	70	39/35	69/60
All manufacturing	26	37/34	74/54
Ontario			
Primary textiles	44	38/37	75/77
Knitted goods	70	41/38	72/76
Clothing	71	45/37	78/76
All manufacturing	25	38/36	79/72

1 Men/women.

Source 1971 Census of Canada: Industries, Cat. Nos. 94-749 and 94-751 (Ottawa: Statistics Canada, 1975).

As with most of the other industries, textiles have experienced considerable structural reorganization over recent times, and one of the features of such changes has been a slow but perceptible movement of plants from outlying regions of Quebec and Ontario towards the St. Lawrence Valley. This movement involves two principal factors: one, the concentration of capacity for manufacture of synthetic fibres in a few very large factories in Eastern Ontario, is interesting but of relatively minor significance in terms of the total number of workers involved; the other, the clustering of a more general run of textile mills in the region dominated by Montreal, has substantial implications for the future of the industry and its manpower.

A study by the C.D. Howe Research Institute[23] suggests that this latter tendency will in time greatly ease potential adjustment problems for Quebec textile workers, since proximity to a major city like Montreal, with its increasingly extensive highway system, will make possible fairly ready redeployment of laid-off employees to other work.

However, we have some reservations about this prediction. In the first place, the area within which the observed concentration is occurring is what is known as the Administrative Region of Montreal, a zone of 26 counties that was found by the Institute's study to account for 64

per cent of all Quebec textile employment in 1972 as against 56 per cent in 1961. That is a very large geographic unit, and we are not sure that workers could really move about the great distances involved as if it were a single labour market system. Our own definition of the Montreal region encompasses only about a half of all textile workers in vulnerable Quebec communities or around a third of those in the relevant textile operations in Quebec and Ontario together (Table 13). In other words, we see this as still an industry based mainly away from metropolitan centres, with their opportunities for increasing the range of job possibilities open to displaced workers.

A second reason why we are not wholly convinced of the Howe Research Institute's point is that it seems to conflict with the findings of the Industry, Trade and Commerce "Labour Force Tracking Project" in one significant regard. That is, while the early work in that project appeared to show a positive correlation between laid-off workers' proximity to metropolitan centres and the speed with which they found new jobs, later results displayed no such consistent relationship.[24] On the strength of such a very thorough analysis, we have to assume for the moment that the potential adjustment difficulties of textile workers are much the same in any community where dependence on vulnerable activities is substantial.[25]

Specialization and Diversification

One attempt to cast further light on this matter has been made by the Department of Regional Economic Expansion, in an analysis of the degree of specialization or diversification of employment in communities where industries are vulnerable to foreign competition.[26] The method is based on the number of industries that provide employment to 75 per cent of the local labour force and the proportion of the work force attached to each of these industries. Effort is taken to try to define communities according to a realistic concept of manpower watersheds. As a result, a set of indexes is developed giving an impression of the industrial concentration within relevant cities, towns, and even tiny villages right across the country.

It is not clear whether the Industry, Trade and Commerce findings and the DREE study are mutually supportive, for the incidence of actual lay-offs (as examined in the ITC work) is inevitably too spotty and infrequent to check out systematically against a community-by-community specialization indicator. We will use the DREE evaluation guardedly as one factor in suggesting where adjustment may present special challenges. The other factors we will particularly note are the sheer numbers of people involved and the extent of the dependence (in terms of percentage of the local labour force) on vulnerable activities.

The greatest concentration of textile workers whose jobs are vulnerable to Third World competition is the Eastern Townships of Quebec, where we estimate there are some 12,000 to 15,000 in this position. In other parts of that province, another 7,000 to 10,000 are located in Montreal and 5,000 to 7,000 in the outer fringes of the Montreal area, plus a further 3,000 to 4,000 in the Mauricie region of the St. Lawrence north shore. In Ontario there are 5,000 to 6,000 in the Waterloo-Brant area, some 2,500 in the east-central region around Kingston, and perhaps 3,000 to 3,500 in the extreme eastern counties of the province. (See Table 13).

Almost certainly, the most serious difficulties of adjustment in the case of further trade competition in textiles would be faced by places like Stanstead county in Quebec's Eastern Townships, where there are about 2,500 textile workers in the relevant categories, most of them in the town of Magog but some also in a small community called Coaticook. Our estimates show the proportion of the county's labour force involved in textiles and other vulnerable sectors to be over 23 per cent, while the percentage of the local work force in Magog that is in these activities appears to exceed 33 per cent. DREE's index of industry specialization reads "highly specialized" for Magog and "specialized" for Coaticook. If (contrary to ITC's present indications) proximity to a major industrial centre <u>does</u>

help in the adjustment process, Stanstead county is not well situated, since Montreal is over 100 kilometers away. Clearly, this is a region that is very much exposed to the kinds of problems that might be envisaged.

Placing together the elements in each situation along the above lines suggests a listing of what we have called "textile counties" -- census divisions where employment is mainly to be found in the primary textile industry -- as shown in Table 23. The counties are classified according to (a) the proportion of the local labour force that is dependent on textiles, clothing, and knitted goods for employment and (b) the degree of specialization/diversity found by the DREE study to prevail in relevant cities and towns. Approximate numbers of jobs in primary textile production are indicated, with those in the other two sectors given in parentheses; overall dependence on the three vulnerable industries is shown as a percentage of the local work force. One might see the first section of the list as characterized by potential for very considerable adjustment difficulties, the second and third sections as involving the likelihood of rather less acute dislocations, and the fourth section as probably giving rise to the least serious problems in the group. While counties from different regions are to be found in each section, a feature of the picture presented is that some of the most sensitive are

in the Eastern Townships; one may also note that counties in Ontario tend to fall lower down the list than those in Quebec.

It must be stressed that the figures in this table are necessarily rather approximate, as well as being more than a little outdated. However, the general pattern of area-by-area potential difficulty seems to offer a certain sense of the problem as a whole that can be useful for policy-making. Obviously, there is no easy solution: even if progressive shifts in textile employment towards an integrated Montreal super-region were to continue, the extent of the populations in outlying places that depend on textile jobs means that something more would need to happen to prevent large-scale social and economic disruption. In essence, what is required is either a revitalization of the Eastern Townships, and to a degree the Mauricie and several Ontario regions also, with new industries capable of replacing textiles -- which probably means providing 10,000 alternative jobs as an absolute minimum -- or a coherent and well organized scheme for relocating large numbers of workers from those regions in other parts of the country. As a practical matter, it appears likely that a combination of both of these strategies would be called for, depending on the relative chances of success of each in individual communities and areas.

Textile Counties Vulnerable to Import Competition from Developing Countries[1]

1. High dependence, highly specialized or specialized				
Stanstead	(E. Townships)	23.3 %	2,500	(+ 500)
Huntingdon	(Montreal)	19.7	1,000	(+ 200)
Missisquoi	(E. Townships)	19.5	2,000	(+ 500)
Maskinonge	(Mauricie)	18.5	1,000	(+ 500)
2. High dependence, fairly diversified or diversified				
Drummond	(E. Townships)	17.1	3,500	(+ 750)
Shefford	(E. Townships)	14.8	3,000	(+ 800)
St-Jean	(Montreal)	12.9	2,000	(+ 500)
Lennox and Addington	(E. Cent. Ont.)	11.3	1,500	
3. Moderate dependence, highly specialized or specialized				
Bagot	(E. Townships)	8.8	500	(+ 250)
Dundas	(E. Ontario)	6.2	500	
Richelieu	(Montreal)	6.1	750	(+ 250)
Frontenac (Ont.)	(E. Cent. Ont.)	5.6	2,500	(+ 100)
Champlain	(Mauricie)	5.1	1,000	(+ 1,000)
4. Moderate dependence, fairly diversified or diversified				
Stormont	(E. Ontario)	9.9	2,000	(+ 1,000)
Montmagny	(Bas-St-Laurent)	8.9	750	
Beauharnois	(Montreal)	8.8	1,500	(+ 250)
Prescott	(E. Ontario)	7.9	500	(+ 200)
Sherbrooke	(E. Townships)	7.9	2,000	(+ 1,200)
St-Maurice	(Mauricie)	7.4	1,600	(+ 1,200)
Brant	(W. Cent. Ont.)	6.9	1,500	(+ 2,500)
Waterloo	(W. Cent. Ont.)	5.7	4,000	(+ 7,000)
Glengarry	(E. Ontario)	5.2	350	
Victoria	(Cent. Ontario)	4.7	500	(+ 400)

1 For explanation, see text. The columns show: county name; region (Eastern Townships, Montreal, Mauricie, Bas-St-Laurent, Eastern Ontario, East Central Ontario, Central Ontario, West Central Ontario); proportion of local work force in textiles, clothing, and knitted goods; approximate number of workers, as of 1971 census, in textile operations; approximate number of additional workers (as of 1971) in other vulnerable activities such as clothing, electrical products (indicated subsectors), leather goods, etc.

2 This is the one county where vulnerable jobs appear to increase to more than 5 per cent of the local work force (actually about 6.1 per cent) if an attempt is made to include affected industries beyond the three for which firm data are available. (Electrical workers are an important group.)

Source See text.

8. The Clothing Industry in Rural Quebec

The final industry/region phenomenon that we are inclined to deal with separately is that of the clothing sector in rural Quebec. In some respects this is only an extension of the Montreal clothing industry. In other senses it presents characteristics very similar to the primary textile industry as it exists in areas outside the metropolitan centres. Nevertheless, the potential adjustment problems associated with changes in protection to vulnerable manufacturing activities would have special qualities where they affected plants in outlying parts of Quebec, and these qualities would be rather different from either the Montreal garment workers' case or the situation of textile workers in smaller cities and towns. Accordingly, even though the division of clothing from textiles in many instances is somewhat artificial, we have set out in Table 24 a listing of the specifications of the leading counties outside greater Montreal in which clothing production provides important numbers of jobs to a labour force heavily dependent on such work.

Essentially, the major reason why clothing operations in areas outside big cities present a different situation from that obtaining in otherwise similar textile factories is that the former employ far larger proportions of women in their labour forces (Table 25). Prima facie,

Table 24

Rural Counties with Clothing Operations Vulnerable to Competition from Developing Countries[1]

1.	High dependence, highly specialized or specialized			
	Frontenac (Que.)	(E. Townships)	11.1%	1,000
2.	High dependence, fairly diversified or diversified			
	St-Hyacinthe	(Montreal)	14.9	2,000 (+ 1,000)
3.	Moderate dependence, highly specialized or specialized			
	Arthabaska	(E. Townships)	9.9	1,500 (+ 500)
	Rouville	(Montreal)	6.1	700
	Megantic	(E. Townships)	5.3	800 (+ 200)
4.	Moderate dependence, fairly diversified or diversified			
	Beauce	(E. Townships)	8.6	1,500 (+ 500)
	Berthier	(Mauricie)	8.0	750
	Joliette	(Mauricie)	5.5	700 (+ 300)

1 Meaning of columns in this table is similar to that in Table 23.

Source See text.

Table 25

Typical Communities in which (a) Primary Textiles, (b) Clothing, Provide Major Employment: Proportion of Women in Work Forces as of 1971 Census

		Percentage Women[1]
(a) Textile communities		
Cowansville	(Co. Missisquoi, E. Townships)	24
Grand'Mère	(Co. Champlain, Mauricie)	38
Montmagny	(Co. Montmagny, Bas-St-Laurent)	25
Sorel	(Co. Richelieu, Montreal region)	24
Valleyfield	(Co. Beauharnois, Montreal region)	25
(b) Clothing communities[2]		
Joliette	(Co. Joliette, Mauricie)	78
St-Hyacinthe	(Co. St-Hyacinthe, Montreal region)	80
Victoriaville	(Co. Arthabaska, E. Townships)	63

1 This refers to the ratio of women workers to total workers in the respective industry in each case -- i.e., among those producing primary textiles in Cowansville, among those fabricating clothing in Joliette, etc.

2 Communities where clothing manufacture is concentrated are usually very small and employment detail is available for only a few; however, the cases cited appear typical in respect to the emphasis on women workers.

Source 1971 Census of Canada: Industries, Cat. Nos. 94-744 and 94-745 (Ottawa: Statistics Canada, 1975).

this may not seem a major distinction, but its social and economic implications appear to be significant. Small clothing factories in little towns typically offer jobs to married women who without them would simply stay home. Since the husbands usually work in other fields, the question is whether lack of the second source of income would cause the couple sufficient hardship that they would be likely to leave the area or whether they would remain there at a rather reduced standard of living. Obviously if the latter were the response the implications would be less far-reaching than in the former case, but even so some difficult personal and family adjustments would doubtless be called for.

Because of these unusual characteristics, the role of the garment industry in small towns and villages is quite unique. It is a significant factor only in Quebec, where about 10,000 to 15,000 people are in vulnerable employments in these non-urban clothing factories. (In Ontario the number that might be threatened by virtue of the considerations we have explored is less than 3,000). A few of the operations concerned are at the extreme periphery of Montreal, in places like St-Hyacinthe, and there are others in Trois-Rivières and similar medium-sized cities. But the activities we are mainly describing are in essentially rural areas, such as Beauce County, where the towns are all small and the clothing manufacture is scattered among little facilities of anything from a dozen or so people to 100 or

more. This is almost a cottage industry, and the lifestyles surrounding it are a peculiarity of small communities. In contemplating the challenge posed by drastic amendments in such a pattern of economic affairs, one is really examining the ramifications of social change, and it is in that light that the problem should probably be approached.

For the economist, however, these matters necessarily pose questions of a different kind. Why is it that so distinctive a pattern of industrial development should exist in one particular part of the country -- and what connection is there, if any, between that phenomenon and the larger issue of Quebec's concentration on economic activities of a sort peculiarly susceptible to low-wage competition? Anyone familiar with the literature on the Quebec experience as an economic entity within Canada's federal system and "common market" will know that these concerns are, indeed, part and parcel of a long-standing discussion about the regional effects of national policy. It is perfectly apparent that events have, for at least thirty years and probably more than half a century, caused the prime focus of industrial expansion in Canada to be Ontario rather than Quebec. The emphasis on manufacturing activities such as textiles, clothing, and footwear is one that accorded well enough with the needs of a growing economy in the early years of Canadian industrialization. What has happened is that the structure of Quebec industry

has not sufficiently altered, in more recent times, in the direction of those endeavours that provide the major elements of expansion to a modern economic system. Seemingly the persistence of something close to cottage industry in the manufacture of certain types of clothing is merely a facet of the curious obsolescence of much of Quebec's industrial structure.[27]

9. Potential for New Growth

Much has been made for years of the differences between eastern Canada's economic experience and the evolution of the region lying immediately south of Quebec -- the New England states. There, too, industries like textiles and footwear were well entrenched until after the Second World War, and the pattern of settlement reflected this focus. As in Canada, also, it seemed that most new U.S. industrial development occurred in other areas than the extreme northeast, with the result that New England was becoming a backwater. The apparent divergence from events in this country arose by virtue of two almost simultaneous occurrences: a rapid exodus of textile operations in the United States from New England to North and South Carolina, where wages were substantially lower and markets were growing rapidly; and the emergence of Boston and its environs as a major centre of high-technology industries in fields like electronics and aerospace.

It would be a mistake to assume that this combination of factors has revitalized the New England economy with minimal transitional cost. There were, for a long time, huge adjustment problems as populations moved away from many of the areas where textiles had provided employment, such as upstate New Hampshire, to the points of opportunity around Boston or outside the region altogether.

Furthermore, New England remains one of the less prosperous areas of the United States. Nevertheless, the transformation has largely taken place to an economy with much greater long-term viability that it could have retained as a centre of textile and shoe manufacture. The lesson of the example is essentially that massive adjustment out of declining industries is made more manageable when other industries are expanding somewhere in the same general region. For Quebec and eastern Ontario, that suggests the need to find new sectors with substantial growth potential before any move to reduce protection in the vulnerable industries dealt with here will probably appear socially (which also means politically) acceptable. That is, indeed, the point to which all discussion of this subject ultimately returns and the issue that seemingly cannot be avoided if any analysis is to be considered relevant to public policy. Much as the researcher may wish to indicate that substitute employments will become available as a consequence of normal market forces, the citizen and voter has long since demonstrated his need for more concrete assurances.

In the Economic Council report to which this study is a background document, it is recommended that a very substantial program of adjustment be initiated for the regions adversely affected by a move to liberalize trade in products of interest to Third World manufacturers.[28] Such a program, the cost of which (over a fifteen-year period) is

envisaged as some $4 billion, would be designed to ensure a successful shift of human and capital resources out of unviable activities into viable ones. While one can assume that some of the new activities would in fact be found within the same industry and even the same firm, as a result of reorganization and improved efficiencies, many of them would have to appear elsewhere. It seems clear, therefore, that a guide to the potential for successful adjustment into new lines of activity is urgently needed.

Unfortunately, no simple indication of "winner industries" can be offered. A few thoughts on the subject will be presented in a moment, but first one may consider in general terms what is being sought. The analogy with New England, whatever its merits in other respects, almost certainly deserves attention by virtue of the evidence that economic survival of a major region, under today's conditions, tends to be very heavily dependent on what happens in the principal metropolitan centre dominating it. The story of the transition of New England has been primarily one of growth in employment opportunities in and around Boston, rather than of noteworthy revitalization of the old textile or shoe manufacturing towns of the hinterland. And, of course, it is striking that the parts of Canada affected by the adjustment requirements now being examined are overwhelmingly -- 27 out of 31 counties, including over 80 per cent of the workers involved -- in the region of which the

hub is Montreal.[29] In these circumstances it is extremely probable, to say the least, that the job-creation challenge for that city will not only relate to the clothing industry and other vulnerable enterprises at present located within its immediate ambit; it will also involve the activities now further afield -- in the Eastern Townships, the Mauricie, Eastern Ontario, etc. -- a substantial proportion of whose workers are likely to have to migrate toward the metropolitan centre if their current employments decline.

That presumption is the more reasonable if one bears in mind the unusually labour-intensive nature of most of the threatened industries, which means that any replacement endeavours in the manufacturing sector could not be expected to have as great a need for workers as the existing ones. Moreover, the implication is, in broad terms, that along with the migration from the periphery to the focus of the region there would be a shift in occupation away from manufacturing toward service employments, which is where most of the job opportunities tend to arise in modern economies. Interestingly, something of this kind was indicated by the "Labour Force Tracking Project" of the Department of Industry, Trade and Commerce, which found that 48 per cent of the sample of redundant workers in the textile industry who subsequently obtained jobs were re-employed in the service sector, compared with only 10 per

cent in the textile sector itself and 39 per cent in other manufacturing industries. In clothing the respective proportions were 38 per cent, 37 per cent, and 24 per cent. Only the experience of electrical and electronic industry workers in that survey showed a less evident shift to services -- 31 per cent by comparison with 19 per cent staying in the original sector and 46 per cent moving to other manufacturing jobs.

Likely Adjustment Prospect

In other words, the most plausible "adjustment scenario" is one that would see a certain number of new manufacturing endeavours fostered somewhere in the relevant regions, most likely in the greater Montreal area, coupled probably with a rather widespread movement of labour from the outlying parts of Quebec and Eastern Ontario toward Montreal and almost certainly from goods-producing pursuits toward services.[30]

Such a scenario has many important implications, but perhaps the most noteworthy in view of the foregoing analysis has to do with certain structural characteristics of the Montreal work force, most particularly the male/female ratios in different occupational sectors referred to earlier. As is shown in Table 26, the proportion of women workers in the labour force of Montreal, at the time of the

Table 26

Women in the Labour Force, Montreal and Toronto, at Time of 1971 Census

	Montreal		Toronto	
	Number	Women as percentage of total	Number	Women as percentage of total
All occupations	380,480	35.2	474,875	38.1
Managerial, administration, etc.	9,065	13.9	11,830	16.0
Natural sciences, engineering, etc.	2,835	8.2	3,660	8.2
Social sciences and related	3,970	34.4	5,620	37.9
Religion	565	22.7	290	14.7
Teaching and related	25,355	59.5	25,490	60.2
Medicine and health	29,335	70.2	30,715	72.9
Artistic, literary, recreational	3,740	25.0	5,210	28.5
Clerical and related	131,720	61.8	195,330	70.4
Sales	26,820	24.7	37,670	29.2
Service	40,645	37.6	50,950	43.0
Farming, forestry, etc.	665	9.8	1,865	14.1
Mining, quarrying, etc.	5	0.6	15	2.4
Processing	7,815	22.9	7,300	23.1
Machining and related	1,475	5.0	3,960	9.2
Product fabricating, etc.	36,865	34.9	31,875	29.7
Construction trades	615	1.2	825	1.2
Transport equipment operating	475	1.2	1,020	2.5
Materials handling and related	6,420	29.6	11,295	34.5
Other crafts and equipment operating	2,170	13.6	3,550	16.6
Occupations not elsewhere classified	3,655	14.6	5,275	20.6
Occupations not stated	46,265	43.4	41,145	43.9

Source 1971 Census of Canada: Occupations, Cat. No. 94-735 (Ottawa: Statistics Canada, 1975).

1971 census, was somewhat below the corresponding figure for Toronto -- 35 per cent against 38 per cent. However, the situation in the category "product fabricating, assembling, and repairing", which is the main one associated with the actual manufacturing process, was quite different: 35 per cent of the work force in that occupational class was female in the case of Montreal, against only 30 per cent in the case of Toronto. The reason, as we have already observed in Chapter 6, is the significance of the clothing industry to the structure of occupations in Montreal, with the unusually high ratio of women to men that it habitually employs.

Despite the changing attitudes toward the appropriate role of women in the work world, it seems very probable that any manufacturing industries that replaced clothing, whether to a large or to a small extent, would have a much more male-oriented labour force. That is to say, such jobs would tend to mop up unemployment among men -- most readily available from the textile and other vulnerable sectors, inside and outside the city, rather than from the clothing industry -- leaving women garment workers to find alternative livelihoods. Since (as has been noted from the outset) the entire problem of adjustment in the industries we are studying is unusually strongly focused on female labour anyway, the question of what happens to these women represents a major aspect of the issue as a whole. Thus, aside from the urgent need to find such manufacturing

activity to establish an essential element of business growth if and when vulnerable industries begin to run down, the other main ramification of the prospect is crucial: a reordering of Montreal's employment structure to accommodate many thousands of displaced women workers, most of them poorly educated.

This requirement draws us back to the points made earlier, in Chapter 6, regarding the pattern of clerical occupations in the Montreal work force, as compared to that in the data for Toronto. The comments to follow do not in any sense constitute a policy, or even a firm basis for reconsidering the nature of the problem, but they may help to reveal some of the less obvious aspects of this structural issue. One cannot help but be struck by the fact that, if clerical and related occupations were to employ as great a proportion of the work force in Montreal as they do in Toronto, there would be 28,000 more jobs in Montreal, some 17,000 of which (assuming the present male/female ratio in those fields) would be for women. That could go a long way toward absorbing those laid off from the garment industry and other vulnerable fields.

Such a line of reasoning might well be pursued in conjunction with some further analysis of a more general peculiarity of the Montreal labour force as compared with that of Toronto -- at least as it existed at the time of the

most recent census: the substantially smaller proportion of women in virtually all categories of occupation, except those associated with textiles and clothing manufacture (Table 26). While this phenomenon may have cultural and sociological roots mainly unrelated to the greater importance of the textile and clothing group in the one city than the other, a researcher is bound to ask himself whether the mere existence of extensive employment opportunities for women in these trades has not helped to hold down the pace of growth in female employment elsewhere in the Montreal economy.

Be that as it may, a change in the male/female ratio of Montreal occupations to conform with that in Toronto would increase the number of women's jobs in Montreal by over 30,000. Of these, more than 20,000 would be in clerical activities. Thus, an expansion of Montreal's clerical sector to the Toronto proportion of the total city work force, as outlined earlier, plus a shift as indicated above in the share of jobs in that sector held by women, would yield something in excess of 35,000 extra clerical positions in Montreal for women workers. The main sources of these added positions would be bookkeeping, account recording, and related occupations, which would provide 18,000 more jobs, while many more would derive from such activities as office machine and electronic data-processing operations (3,000), material recording, scheduling, and

distributing occupations (3,000), library, file, and correspondence clerks (3,500), and reception, information, mail, and message distribution services (4,000). (Almost none would come from stenographic and typing occupations.)

Because many -- though by no means all - the posts that might become available in clerical employments require a fair degree of education, whereas occupations like sewing machine operator need very little, there may be some implications from such arithmetic for the schooling of Montreal's women workers: less than three-quarters of that city's female labour force has education above grade 9, and below a third has grade 12 or better, compared to more than four-fifths and almost a half, respectively, of Toronto's. However, this observation is essentially based on some notion of insufficiency of skills in the supply of labour in Montreal, and it is equally likely that any problem in such respects can be traced to inadequate demand; experience has shown that, when available jobs call for a certain level of education, people are generally able before long to acquire the requisite schooling.

In any case, of course, the sort of women that might be laid off from clothing factories are not likely, in most instances, to find jobs as office workers. What tends to happen in these situations is a whole series of moves through the labour market, as people and jobs become

adjusted to the new set of factors in the employment picture and realign skills to tasks accordingly. The processes involved occur, moreover, only relatively gradually and in the context of a very dynamic manpower milieu. Some idea of the changing opportunities for women workers in Montreal is provided by Table 27, with its story of profound employment shifts between 1961 and 1971: a rise of almost 140,000, or 58 per cent, took place in total female employment in the city over that decade, while the increases in sectors such as education, services to business management, and provincial and local administration all exceeded 100 per cent.

The Larger Question of Regional Stimulus

The above discussion reveals that there seems, in principle, to be some scope at least in the Montreal occupational structure for an appropriate transition affecting women now in the clothing and other vulnerable industries, which in turn might provide more openings for the workers from additional industries (with more typical male/female ratios) involved in any change. It does not say how the general expansion of the Montreal economy that would initiate and sustain the overall adjustment might be made possible, nor how the necessary basic replacement industries might be identified and then induced to locate where they are needed.

Table 27

Changes in Employment of Women Workers in Montreal between 1961 Census and 1971 Census

	1961		1971		1961-71
	Number[1]	Per Cent	Number	Per Cent	Percentage Change
All industries	241,005	100.0	380,480	100.0	58
Primary sector					
Farming, forestry, mines, etc.	1,090	0.5	310	0.1	-72
Secondary sector					
Manufacturing industries	72,225	30.0	83,490	21.9	16
Food and beverage	6,790	2.8	7,110	1.9	5
Tobacco products	2,850	1.2	1,920	0.5	-33
Rubber industries[2]	445	0.2	1,230	0.3	176
Leather industries	4,020	1.7	3,825	1.0	-5
Textile industries	4,005	1.7	4,865	1.3	21
Knitting mills	3,115	1.3	3,845	1.0	23
Clothing industries	25,150	10.4	28,750	7.6	14
Wood industries	235	0.1	505	0.1	115
Furniture and fixture industries	920	0.4	1,490	0.4	62
Paper and allied industries	2,130	0.9	2,675	0.7	26
Printing, publishing industries, etc.	3,585	1.5	4,545	1.2	27
Primary metal industries	1,050	0.4	985	0.3	-6
Metal fabricating industries	1,875	0.8	2,550	0.7	36
Machinery industries (excluding electrical)	765	0.3	1,275	0.3	67
Transportation equipment industries	1,815	0.8	1,645	0.4	-9
Electrical products industries	4,835	2.0	6,310	1.7	31
Non-metallic mineral products industries	905	0.4	1,055	0.3	17
Petroleum and coal products industries	520	0.2	575	0.2	11
Chemical and chemical products industries	4,520	1.9	5,045	1.3	12
Miscellaneous manufacturing industries	2,690	1.1	3,290	0.9	22
Construction industry	1,545	0.6	2,820	0.7	83

Table 27 (cont'd)

	1961		1971		1961-71
	Number[1]	Per Cent	Number	Per Cent	Percentage Change
Tertiary sector					
Transportation, communications, etc.	13,490	5.6	17,835	4.7	32
Transportation	5,085	2.1	6,965	1.8	37
Storage	100	--	250	0.1	150
Communications	7,505	3.1	9,335	2.5	24
Electric, gas, water utilities	805	0.3	1,285	0.3	60
Trade	34,330	14.2	52,740	13.9	54
Wholesale trade	8,340	3.5	12,400	3.3	49
Retail trade	25,990	10.8	40,335	10.6	55
Finance, insurance, real estate	17,575	7.3	29,215	7.7	66
Finance industries[2]	9,330	3.9	17,115	4.5	83
Insurance and real estate[2]	8,245	3.4	12,105	3.2	47
Community, business and personal services	88,395	36.7	137,100	36.0	55
Education and related	17,310	7.2	37,590	9.9	117
Health and welfare services	26,655	11.1	45,115	11.9	69
Religious organizations	4,525	1.9	3,950	1.0	-13
Amusement and recreation[2]	1,475	0.6	2,810	0.7	91
Services to business management[2]	5,700	2.4	12,210	3.2	114
Personal services[2]	17,370	7.2	13,745	3.6	-21
Accommodation and food services[2]	12,655	5.3	16,560	4.4	31
Miscellaneous services[2]	2,705	1.1	5,130	1.3	90
Public administration and defence	6,260	2.6	12,110	3.2	93
Federal administration	3,220	1.3	5,335	1.4	66

(cont'd)

Table 27 (cont'd)

	1961		1971		1961-71
	Number[1]	Per Cent	Number	Per Cent	Percentage Change
Provincial administration	1,490	0.6	3,565	0.9	139
Local administration	1,350	0.6	2,970	0.8	120
Other government offices	200	0.1	240	0.1	20
Industry unspecified or undefined[2]	6,875	2.9	44,090	11.6	541

1 Figures for 1961 have been rounded to nearest five to conform with practice in 1971 census.

2 Definition of this category in the two years may not be identical due to reclassification. (In some cases, categories have been adjusted by the author for improved consistency.)

Sources 1961 Census of Canada: Labour Force, Cat. No. 94-519 (Ottawa: Dominion Bureau of Statistics, 1964); 1971 Census of Canada: Industries, Cat. No. 94-742 (Ottawa: Statistics Canada, 1975).

Clearly, that is an immensely complicated and difficult issue. Whole departments of government have been devoted to the question for years, without spectacular success. It is not likely that much could be resolved in this regard in the last few pages of a text mainly concerned with the vulnerability question. All we will do is to offer a small contribution to the subject out of the same body of analysis already presented above for the other purpose. That is, we will use again the Statistics Canada series of data on shipments and trade, previously employed to assess import penetration, as a means of showing where Canadian manufacturers have been successful in either expanding their share of the home market, increasing their export trade, or both. To do this, one needs merely to note the cases where, over the period of years for which the material is available, the ratio of factory shipments to "apparent domestic availability" was substantial and increasing; however, as a cross check we will catalogue specifically the instances where that performance was accompanied by a significant decline in import penetration and/or a marked enlargement of exports.

The results of such an evaluation are presented in Appendix C. At face value the exercise does not seem to be too helpful, in that there is little apparent coherence to the set of product categories revealed as "good performers" during the years in question. However, the

nature of modern industrial structures and trade patterns does, of course, often tend to give individual countries competitive advantages in relatively narrow fields of specialization, scattered in a somewhat haphazard fashion across the range of manufacturing activities. Thus on closer attention the listing may have value. There are several features that stand out.

- First, considerable success in home and foreign markets was clearly achieved by several of the partly fabricated Canadian staples: wood pulp, lumber, and other forest products; a fairly wide variety of semi-processed and processed foods; and a few additional non-food agricultural commodities.

- Second, a number of particular items are to be found in the list which relate closely to Canadian primary product specialties: steel pipe for the transmission of oil and gas, rock drilling and earth boring machinery and parts, machinery for the pulp and paper industry -- to which might perhaps be added parts for chain saws, mobile homes, distribution and power transformers, and a few others.

- Third, there is a reasonably broad grouping of chemical products, of iron and steel in the fabricated state and in certain manufactured items, and (curiously enough, in light of the preceding work) of textile yarns and fabrics.[31]

The rest of the listing is almost totally unsystematic, so far as one can see, but it is not lacking in ostensibly interesting opportunities. Whether these and the other items indicated are appropriate candidates for manufacture in the regions suggested by this paper as ones liable to be hard hit by Third World competition, now or in the future, is another question. In any event the methodology that has lain behind our efforts is now familiar to some of the policy analysts in the Department of Regional Economic Expansion, who will be incorporating it into their own approaches to this issue.

10. Afterword

In all the foregoing there is nothing like a "master plan", suggesting in specific detail the elements of a strategy that would ensure the adjustment of these vulnerable economic sectors and regions we have isolated -- and the workers engaged in them -- to new spheres less susceptible to competition from the Third World. In truth, the nature of this problem, as it affects Canada, is very much more subtle than most of the conventional literature on "transitional difficulties" in the progress to freer world trade would have one believe. Here is a prospect of regional dislocation of major proportions, calling into question the future of the economy of Quebec and of the eastern and east-central counties of Ontario. In particular, the issue hinges on the role of Montreal as a growth centre for that part of the country -- the lower reaches of the Great Lakes-St. Lawrence River basin -- which historically has been one of the most important areas of commercial and industrial endeavour in North America.

The focus of this dilemma on Montreal and its surrounding economic watershed is a clear indication of the extent to which various forces determining the relative growth potential of different regions of Canada -- forces of great complexity that are not well understood -- seem to be operating against the continued predominance of Quebec and

eastern Ontario in the nation's economic life. Long before imports from developing countries became a challenge to domestic manufacturers -- and long before separatism became an effective political movement in Quebec -- it was evident that Toronto had begun to supplant Montreal as the Canadian business capital, and once the increasing power of western regions such as Alberta and British Columbia started to manifest itself the sense of a shift of industrial potential away from Quebec was enhanced. Perceptions of the best response to this apparent trend of events have been factors in the arguments of Quebec economists about their province's development for many years. With the emergence of a forceful French-Canadian nationalism in the 1960's and 1970's, these matters have been projected into the centre of national political debate.

The analysis in preceding chapters has attached considerable significance to the opportunities for greater employment (especially of women) in the clerical and other service jobs offered by a large city like Montreal. Yet obviously the trends at present are moving in an opposite direction, and possibilities along those lines will be seriously jeopardized for years to come if there are movements of company headquarters from Montreal to Toronto and elsewhere.[32] In the currently prevailing circumstances, there are unquestionably some gains of job openings for French-speaking Quebecers by virtue of the growing

"francisation" of Montreal and the migration of nervous anglophones to other places; but redistribution of these positions between the linguistic groups will benefit francophones only up to a certain point, beyond which an increase in the total number of employment opportunities must appear if such advantages are to be sustained.

On the face of it, the present policies of both the federal and the Quebec governments are none too attractive. There would seem to be a need for much more innovative thinking if the ultimately untenable reliance of the economy of Quebec -- with its important implications for much of eastern Ontario -- on industries of failing viability is to be turned into a renewed dynamic based on more effective utilization of the region's human and material resources.

The report For a Common Future proposed a device by which large sums of money might be channelled from Canada's development assistance budget into an effort to revitalize the areas of our own country that are vulnerable to competition from imports of Third World manufactured goods. This paper has merely defined a few of the aspects of the problem posed by these imports and related them to the larger economic issues -- and to some degree the political environment -- that must be dealt with in any

realistic program of action. What that program might be is a political question, at bottom, and in any case transcends the particulars of an assessment such as this one by virtue of its concern with broader requirements of economic and social development, whether in a national or a regional context. However, the highlighting of a subject of far-reaching significance to our own population, and to our basic political institutions, through examination of an international phenomenon -- the capacity of developing countries to produce and export manufactured goods -- may contain the hint of constructive approaches to this problem. The Canadian situation is peculiar but not unique, and the last thirty years have witnessed the establishment of many initiatives for resolving national difficulties by means of international mechanisms and accords.

There have to be better kinds of world cooperation than agreeing to freeze countries' production into the patterns of an earlier phase of economic evolution. If that fundamental point can be agreed among the international community, and the notion of a timetable for phased reorientation of national and regional economies set firmly as a goal of global policymaking for the 1980's, the way may be open for more ingenious and imaginative expedients in this respect.[33] But it is up to individual countries to begin the movement in such a direction. Canada might start

the process by initiating a high-level commission or study group on issues of structural maladjustment in manufacturing industry and their relevance to regional difficulties.

A precedent has been established in this regard by the Australian government, which in 1977 brought into being a study group of distinguished independent economists to examine the nature and extent of adjustment problems in Australian manufacturing industries and to advise on the essential elements of a long-term policy to deal with those problems. The group, which submitted its report[34] in 1979, offered a number of ideas worthy of consideration elsewhere. It served to emphasize the usefulness of Australia's "Industries Assistance Commission" (founded 1974), a body whose detailed studies of industrial adjustment could well serve as a model for Canadian activity in this sphere. In a less official fashion (although with considerable government interest and encouragement) the predominent West German international economic research institute of Kiel University -- Institut für Weltwirtschaft an der Universität Kiel -- has undertaken extensive work on the implications for German industry and its employment of growing competition from overseas.[35] These efforts are more elaborate than anything that has until now been attempted in Canada, even though some useful beginnings have been made under the auspices of the Department of Industry, Trade and Commerce.[36]

Conclusion

That such thoroughgoing analyses are now necessary can no longer be doubted. Despite the relatively modest inroads that imports from developing countries have so far made, in total, in the Canadian market, we have seen that their impact is very significant on a sectoral and regional basis and promises to spread more widely with the progressive expansion of the range of goods produced in the Third World (see following Appendix). As the recent publication of the OECD's "Interfutures" report[37] has helped to make clear, the world is inexorably changing in ways that render absolutely inevitable some fundamental shifts in the structure of established industrial economies. Like other countries, Canada must come to grips with this prospect if it is not to lose vast sums of potential national product in attempting to sustain an ultimately untenable position in the international system.

At the same time, the extent of these adjustments ought not to be exaggerated. Because of the open nature of the Canadian economy, it has always had to cope with extensive imports of manufactures from one source or another. The fact that certain goods which once came from the United States or Britain have been subsequently displaced by more competitive products from West Germany or Japan has made little difference to Canadian firms and their

workers, and a further change in the origin of such imports to Hong Kong or Brazil is equally unimportant. Naturally, the ouster of domestic production by foreign is the problem, but even here much of the most damaging substitution has already occurred. As Appendix A will show, Japan has effectively replaced European countries as the major supplier of economical small cars; what is more, it now just about dominates Canadian sales of television sets, an item once obtained principally from home factories.

In both cases, therefore -- and in many less dramatic instances -- the effective undercutting of Japanese imports by others from, say, Korea or Singapore next year, and perhaps from Pakistan and Colombia a decade or so hence, will require no significant transitions in Canada, for adjustments in domestic factors either have never been necessary or have by now taken place. Thus we should keep the scale of these difficulties in proportion; with proper attention they would appear amenable to solution without crisis.

Footnotes

1 The definition of "developing countries" is always rather arbitrary. In this paper the term is taken as including all parts of the Middle East, the rest of Africa except the Republic of South Africa, the rest of Asia except Japan, the scattering of islands that might be called Oceania except Australia and New Zealand, the whole of South America, and Central America (for this purpose including Mexico) and the Antilles.

2 Needless to say, the wage-cost factor may often be offset by differences in labour productivity or in the efficiency of other inputs to the productive process; this paper is about the cases where such differences do not suffice to negate the competitive advantage of poorer countries' low wage levels.

3 "Dynamic Products in the Exports of Manufactured Goods from Developing Countries to Developed Market-Economy Countries, 1970 to 1976," United Nations Conference on Trade and Development, Geneva, March 30, 1978.

4 See, for example, G.K. Helleiner, "Industry Characteristics and the Competitiveness of Manufactures from Less Developed Countries," Weltwirtschaftliches Archiv (Review of World Economics), Band 112, Heft 3, 1976, pp. 507-24.

5 A Report on the Labour Force Tracking Project: Costs of Labour Adjustment, issued in December 1979. The study was carried out by the Micro Economic Analysis Branch, Economic Policy and Analysis, Department of Industry, Trade and Commerce. We will draw at several points on the results of this survey, which traced the workers laid off from several industries to see what befell them in their search for new jobs.

6 There may be competition in third markets from things like Chilean copper, but that is another question.

7 In respect to the amounts (i.e., the "over-$10-million" limitation), though not of the import ratios, this difference is partly a reflection of the greater subdivision of the textiles group -- into four classes of yarns and cordage and seven classes of fabrics -- as compared with just the three classes of apparel.

8 These results are derived from a limited-circulation Statistics Canada publication, Apparent Domestic Availability of Selected Manufactured Products, 1971 (Manufacturing and Primary Industries Division, June 1976), along with a special data run, on the same

classification system, of imports of manufactured goods from developing countries. (The latter series was prepared for the author by the Manufacturing and Primary Industries Division and the External Trade Division of Statistics Canada.) The report on "Apparent Domestic Availability" has subsequently been published for 1975 also, but the comparison year here was calculated from unpublished 1974 figures, developed for us by Statistics Canada in respect of relevant categories only.

9 This is not, of course, to say that it is disadvantageous to consumers or to the economy as a whole over the longer term. That is another question, as we have noted.

10 There are many techniques for estimating levels of trade in the absence of import barriers, but it is hardly necessary to consider such refinements for the present purpose.

11 Note, however, the point in the Introduction about the future -- and the suggested relevance of Appendix A in that respect.

12 The term "textiles" is employed in different senses on occasion, and can give rise to confusion. In this paper it is always used to mean the so-called "primary" textile items as opposed to clothing -- that is, it refers to yarns and other fibres, cloths and fabrics, and generally inputs to the garment industry, plus a few additional products like carpets: see listing in Appendix D.

13 A hint of the possibilities for competitive production of textile items in Canada is contained in Chapter 9 and Appendix C, where there is reference to categories of such products that have succeeded in increasing their share of the home market and even of expanding into export markets.

14 Moreover, Canada's production of softwood veneers and plywood is several times as large as its output of hardwood items in this category. Therefore an identification of the whole subsector as "vulnerable" would be more wrong than right.

15 A model of the Canadian economy designed primarily to simulate the effects of trade policy changes, Explor was developed by the Department's Trade and Structural Analysis Branch.

16 "Heavily dependent" being taken as meaning that over 5 per cent of the local labour force is employed in the industries mentioned.

17 The ruling in regard to community boundaries flowed from the pragmatic approach indicated in a footnote to one of these tables. It may be worth noting that, as a result, places like Chambly and St-Thérèse were considered to be part of Montreal, Galt to be part of Kitchener, Cap-de-la-Madeleine to be part of Trois-Rivières, etc.

18 "Textile, Knitting, Clothing and Footwear Industries," unpublished paper by Consumer Research and Evaluation Branch, December 1978. Because of the ten per cent cutoff, this report found Montreal "not dependent" on the indicated industries, and the exclusion of that city largely accounts for the difference between the sets of figures. (By the accounting provided in the Consumer and Corporate Affairs paper, the addition of Montreal would bring the Quebec total to 118,000.)

19 "Community Dimensions of Industrial Development," unpublished paper by Analysis and Liaison Branch, April 1978. (This report also examined the vulnerability of other industries not referred to -- or counted -- above.) Its analysis, which utilized techniques different from those employed here, attached considerable significance to the position of Montreal, which it found dependent and therefore included.

20 It is perhaps one of the paradoxes of Canadian policy that a sizeable proportion of immigrants end up in the ranks of low-skill factory workers, whose output is then shielded by import barriers in order to "protect Canadian jobs." Of course, this is not the whole story, but there does exist a certain element of "circular reasoning" in much of the argument about immigration, on the one hand, and trade and industrial policies, on the other. Now that the principal sources of immigrants to Canada are increasingly in the Third World, while some of the most intense competition for industries like clothing derives from developing countries, we are in some danger of facing a rather curious predicament: the avowed need for special protection to keep out goods made in Asia, Africa, and Latin America so as to prevent unemployment from occurring among workers who immigrated from precisely those places.

21 The "Labour Force Tracking Project" (see Chapter 1) found that, of all laid-off clothing workers who subsequently found jobs as sewing machine operators, 50 per cent did so within four weeks.

22 Data cited by the Economic Council in its 1976 report People and Jobs: A Study of the Canadian Labour Market (p. 103) showed that in December 1974 the number of unemployed sewing machine operators was over 9,000 while the number of job vacancies in the same category was more than 3,000, both very high levels by comparison with most occupations.

23 Caroline Pestieau, The Quebec Textile Industry in Canada (Montreal: "Accent Québec" program of C.D. Howe Research Institute, 1978).

24 The Economic Council report For a Common Future mistakenly noted the preliminary finding in regard to this relationship (Appendix B of the report, p. 148).

25 A "preliminary examination" by the LFTP group did indicate, however, that laid-off workers in outlying areas were more likely than their opposite numbers in metropolitan centres to lose the next job they found -- that is, that although people in Montreal and Toronto took as long, on average, to find new employment as those in other parts of Quebec and Ontario, respectively, there was a higher probability in the case of big-city workers that these new positions would be permanent. Thus the conclusions of the project are somewhat equivocal on the matter of proximity to major urban centres as a factor in the re-employment of workers rendered redundant in their original jobs.

26 "The Industrial Structure of Communities: An Interprovincial and Intraprovincial Analysis," unpublished paper, 1977.

27 An attempt to explain the persistently differing evolution of the structure of manufacturing industry as between Quebec and Ontario is contained in Hugh McA. Pinchin, The Regional Impact of the Canadian Tariff, Economic Council of Canada, 1979, especially Chapter 1 and Appendix A.

28 Economic Council of Canada, For a Common Future: A Study of Canada's Relations with Developing Countries, pp. 60-61.

29 The role of Montreal as the growth centre for the whole Quebec -- if not eastern Canadian -- region has been much discussed, especially since the publication in 1970 of the Higgins-Martin-Raynauld study, Les orientations du développement économique régional dans la province de Québec (Ottawa: Department of Regional Economic Expansion, 1970).

30 Some interesting discussion of the trends and relationships in such processes is contained in Michel Boisvert, The Correspondence Between the Urban System and the Economic Base of Canada's Regions, Economic Council of Canada Research Study (Ottawa: Supply and Services Canada, 1978).

31 The appearance of this last category -- assuming its performance is more than an artificially induced or very temporary phenomenon -- serves to emphasize the possibilities for success in specific lines even within generally vulnerable industries.

32 The recent experience of Montreal as a commercial centre is assessed in Fernand Martin, Montreal: An Economic Perspective (Montreal: C.D. Howe Research Institute, 1979).

33 See Policies for Promoting Industrial Adaptation (Paris: Organisation for Economic Co-operation and Development, 1976).

34 Study Group on Structural Adjustment (Chairman, Sir John Crawford), a report in two volumes (Canberra: Australian Government Publishing Service, 1979).

35 Substantial bibliography in "Inventory of Research" (mimeo) available from the Institute's Department of Structural Change and Economic Growth.

36 Aside from the "Labour Force Tracking Project," the Department has sponsored other reports -- for example, Trade Adjustment Assistance: The Costs of Adjustment and Policy Proposals, prepared by Econanalysis Incorporated and published in 1978.

37 Interfutures, Facing the Future: Mastering the Probable and Managing the Unpredictable (Paris: Organisation for Economic Co-operation and Development, 1979).

Appendix A

Today's Japan as the Model for Industrializing Countries' Future Experience in Manufactured-Goods Export Trade

The idea that developing countries might follow closely in the footsteps of Japan as producers and exporters of manufactured products is not, of course, necessarily valid. Each nation's path of industrialization is different, and there is no reason to suppose that the Japanese model need be emulated elsewhere. Nevertheless, there are certain qualities to Japan's experience over the past half century -- and especially in the period since World War II -- that suggest its course of development may well provide a lead to other countries now moving from the early to the later stages of the industrialization process.

The long-established policy, seemingly endorsed by all Japan's economic interests, of utilizing mainly imported basic technology and then adapting it with great care to their own requirements is one that finds favour in many planning offices of developing nations. Their focus on the export of consumer products characterized by rather heavy content of diligent labour -- not in the earlier days always very highly skilled -- also fits the capabilities of a number of semi-industrialized states. Perhaps above all,

the purposeful evolution from an emphasis on things like textiles, clothing, toys, and similar items in the years before and immediately after the Second World War, to motorcycles, electrical goods, cameras, and housewares in the 1950's, and then to automobiles, electronic products, steel, ships, machinery, and so on in more recent times, seems thoroughly appropriate for countries where governments perceive themselves as having a key role in the shaping of industrial structures and the orchestration of economic behaviour.

Given this potential for setting the style and pattern of industrial development, with a strong concentration on exports, Japan's performance as a supplier of manufactured goods for Canadian markets is worth assessing in the context of an examination of the prospects of other countries seeking to achieve the same results. So far as the present study is concerned, an appraisal of the performance of Japanese manufacturers in selling to Canada may teach us something of what to expect when the more successful developing nations -- starting, no doubt, with some of Japan's near neighbours in northeast Asia like Taiwan, Hong Kong, and South Korea -- move further along the road to industrial advancement.

Accordingly, this appendix is devoted to an analysis of the impact on Canadian manufacturing industry of imports from Japan, using much the same techniques as those

employed in the main text to appraise the effects of imports from the Third World.*

Canadian Manufactured-Goods Imports from Japan

Of Canada's $2.3 billion worth of purchases from Japan in 1978 -- again the year we will principally use in assessing present trade patterns -- some $1.7 billion worth (or approximately three-quarters) consisted of "inedible end products", up from under 60 per cent in the early sixties (Tables A1 and A2).** This change reflects the fact that, whereas fifteen or twenty years ago our major purchases from Japan were items like textiles and clothing, today they tend to be goods characterized by a higher level of technological sophistication.

The largest single component in Canadian purchases from the Japanese is represented by motor vehicles -- automobiles, trucks, motorcycles and other vehicles as well as automotive parts; these goods together accounted for $670 million in imports from Japan in 1978 -- nearly 40 per cent of the inedible-end-product category or 30 per cent of all

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* Much of the material in this section of the study was first prepared as part of a paper for the conference "Canadian Perspectives on Economic Relations with Japan", organized by the University of Toronto-York University Joint Centre on Modern East Asia and the Institute for Research on Public Policy and held in Toronto May 9-11, 1979. The proceedings of that conference are to be published by the IRPP.

** Imports from the Japanese declined slightly in 1979 to $2.2 billion worth, of which a value of $1.6 billion was represented by inedible end products.

Table A1

Canadian Imports From Japan, 1960 to 1978
By Major Commodity Group

	Food, Feed, Beverages & Tobacco (incl. Live Animals)	Crude Materials, Inedible	Fabricated Materials, Inedible	End Products, Inedible	Special Transactions, Trade	Total	(Automotive Goods)
			(Millions of Dollars)				
1960	7	0	36	65	3	110	0
1961	7	0	37	69	3	117	0
1962	8	0	45	70	2	125	1
1963	7	1	52	69	2	130	1
1964	9	0	76	87	3	174	4
1965	9	0	95	123	2	230	17
1966	9	2	97	139	5	253	14
1967	12	1	109	179	4	305	13
1968	11	1	110	235	4	360	32
1969	12	1	152	327	4	496	71
1970	18	1	170	388	5	582	112
1971	21	2	251	525	5	803	201
1972	28	2	261	775	6	1,071	324
1973	38	2	237	728	6	1,011	251
1974	34	3	456	931	6	1,430	338
1975	34	6	355	806	5	1,205	251
1976	43	3	328	1,122	29	1,524	377
1977	46	11	371	1,351	24	1,803	449
1978	51	7	441	1,741	24	2,263	672

Source Statistics Canada, Summary of External Trade, Cat. No. 65-001, various issues.

Table A2

Merchandise Imports From Japan
Percentage Distribution by Major Commodity Group,[1] 1960-1978

	Food, Feed Beverages and Tobacco[2]	Inedible Crude Materials	Inedible Fabricated Materials	Finished Manufactured Goods (Inedible End Products)		Total Imports
				Total	(Automotive)	
1960	6.4	0.0	32.7	59.1	0.2	100.0
1961	6.0	0.0	31.6	59.0	0.3	100.0
1962	6.4	0.0	36.0	56.0	0.4	100.0
1963	5.4	0.8	40.0	53.1	0.9	100.0
1964	5.2	0.0	43.7	50.0	2.4	100.0
1965	3.9	0.0	41.3	53.5	7.3	100.0
1966	3.6	0.8	38.3	54.9	5.6	100.0
1967	3.9	0.3	35.7	58.7	4.2	100.0
1968	3.1	0.3	30.6	65.3	8.8	100.0
1969	2.4	0.2	30.6	65.9	14.4	100.0
1970	3.1	0.2	29.2	66.7	19.3	100.0
1971	2.6	0.2	31.3	65.4	24.9	100.0
1972	2.6	0.2	24.4	72.4	30.3	100.0
1973	3.8	0.2	23.4	72.0	24.8	100.0
1974	2.4	0.2	31.9	65.1	23.6	100.0
1975	2.8	0.5	29.5	66.9	20.8	100.0
1976	2.8	0.2	21.5	73.6	24.7	100.0
1977	2.6	0.6	20.6	74.9	24.9	100.0
1978	2.3	0.3	19.5	76.9	29.7	100.0

1 Share will not sum to 100 per cent because of the omission of special transactions, which accounted for 0.4 to 2.7 per cent of the total over the whole period.

2 Including live animals.

Source Calculated from Table A1.

our imports from the Japanese in that year.* Next in importance are radios, television sets, and other telecommunications and related equipment, imports of which were valued at close to $350 million in 1978 -- almost one-fifth of the end-product imports or 15 per cent of all Canada's 1978 purchases from Japan.** If other electrical and electronic equipment is added, the overall significance of this category is almost equal to that of motor vehicles at $530 million of imports from Japan in 1978. Thus motor vehicles and electrical and electronic products formed 70 per cent of the inedible-end-products imports, or more than one-half of the total imports, that Canada received in 1978 from Japan.***

Also included in what are generally considered manufactures are certain partially fabricated materials and some processed food and beverage items, both of which have been declining, in relative terms, in Canada's overall import trade with Japan but remain important in a number of instances -- such as iron and steel products ($187 million in 1978), textile yarns and fabrics ($99 million), chemicals ($43 million), and canned fish products (about $25 million). Although the analysis in this appendix will focus primarily on inedible end products, there will be some evaluation of

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* In 1979 Canada's purchases of Japanese vehicles fell to a value of only $470 million, less than a third of the inedible-end-products total and under a quarter of all imports from Japan.

** The figures in this category were almost unchanged in 1979.

*** Slightly less in 1979.

Table A3

Leading Categories of Imports from Japan
End Products, Inedible, Selected Years

	1972-74 Average	1975-77 Average	Percentage Change	1978
	($'000)			($'000)
Motor Vehicles and Parts				
Passenger cars	170,657	210,915	23.6	454,713
Other passenger autos	28,692	34,157	19.0	
Trucks	25,550	29,867	16.9	52,861
Other motor vehicles	54,642	59,889	9.6	123,207
Motor vehicle engines	4,537	261	-94.2	466
Motor vehicle engine parts	2,304	4,055	44.6	4,164
Motor vehicle parts except engines	16,641	19,711	18.4	36,318
TOTAL	303,523	358,855	18.2	671,729
Telecommunications Equipment				
Telephone and telegraph	4,509	4,120	- 8.6	3,590
TV's, radios, etc.	102,453	128,281	25.6	144,095
Electronic tubes, etc.	5,402	4,325	-19.9	5,004
Other telecommunications	69,012	121,459	76.0	192,601
TOTAL	181,376	258,185	42.3	345,290
Photographic Equipment				
Photographic film	3,938	13,046	231.3	22,415
Cameras and other	27,572	56,985	106.7	108,984
TOTAL	31,510	70,031	122.2	131,399
"Other" Transportation Equipment	30,707	45,372	47.8	66,003
Office Machines and Equipment				
Electronic computers	3,401	15,979	369.8	18,490
Other office machines and equipment	19,911	3,801	-80.9	44,112
TOTAL	23,312	19,780	-15.2	62,602
Mechanical Power Transmitting Equipment				
Engines and turbines, diesel	350	269	-23.1	448
Other engines and turbines	4,236	3,486	17.7	10,604
Electric generators and motors	8,539	13,825	61.9	32,841
Bearings	10,488	14,690	40.1	15,046
Other	817	2,083	155.0	1,760
TOTAL	24,430	34,353	40.6	60,699
Personal and Household Equipment				
Kitchen utensils and tableware	17,053	19.414	13.8	26,201
Other household goods	15,759	14,893	- 5.5	18,190
TOTAL	32,812	34,307	4.6	44,211
Watches, Clocks, Jewellery, Etc.	5,999	15,294	154.9	33,764
Miscellaneous Equipment and Tools	15,213	25,379	66.8	32,035
Hand Tools and Cutlery	11,699	15,979	36.6	30,659

Source Statistics Canada, Imports by Country, January-December 1974 and 1977, Cat. No. 65-006, and Summary of External Trade, December 1978, Cat. No. 65-001.

Table A4

Leading Categories of Imports from Japan
Fabricated Materials, Inedible, Selected Years

	1972-74 Average	1975-77 Average	Percentage Change	1978
	($'000)			($'000)
Iron and Steel Products				
Bars and rods, steel	26,193	26,221	0.1	21,863
Plate, sheet and strip, steel	77,807	56,129	-27.9	55,542
Structural shapes, steel and sheet piling	16,067	10,877	-32.3	4,038
Pipes and tubes, iron and steel	28,836	41,476	43.8	98,016
Wire and wire rope, iron and steel	8,387	8,516	1.5	6,180
Other iron and steel and alloys	278	3,871	1,292.4	1,489
TOTAL	157,568	147,090	-6.6	187,128
Textile Products				
Cotton yarn and thread	93	190	104.3	25
Man-made fibre yarn and thread	5,273	6,436	22.1	5,770
Other yarn and thread	466	1,166	150.2	2,023
Cordage, twine and rope	424	978	130.6	803
Broad woven fabrics, wool and hair	2,773	4,639	67.3	4,088
Broad woven fabrics, cotton	4,779	9,603	100.9	7,946
Broad woven fabrics, man-made	17,554	20,550	17.1	31,831
Broad woven fabrics, mixed fibres	8,113	16,207	99.8	23,893
Other broad woven fabrics	4,450	84	-46.5	522
Coated and impregnated fabrics	4,450	6,171	38.7	9,644
Other textiles fabricated materials	22,824	19,588	-14.2	12,352
TOTAL	66,906	85,612	28.0	98,897
Chemical and Chemical Products				
Vegetable oils and fats, except essential oil	41	100	143.9	160
Other oil, fats, waxes, extracts, etc.	183	122	-33.3	152
Inorganic chemicals	2,579	4,741	83.1	4,332
Organic chemicals	6,993	12,227	74.8	17,461
Fertilizers and fertilizer materials	10	373	3,630.0	5
Synthetic and reclaimed rubber	4,500	5,160	14.7	6,816
Plastic material, not shaped	9,237	5,484	-40.6	4,352
Plastic film and sheet	2,643	3,762	42.3	5,247
Other plastics basic shape or forms	3,813	1,445	37.9	1,590
Dye stuffs, except dyeing extracts	576	471	-18.2	519
Pigments, lakes and toners	353	359	1.7	210
Paints and related products	29	201	593.1	119
Other chemical products	946	1,013	7.1	1,346
TOTAL	31,903	35,458	11.1	43,309

Source Statistics Canada, Imports by Country, January-December 1974 and 1977, Cat. No. 65-006, and Summary of External Trade, December 1978, Cat. No. 65-001.

trends in the partially fabricated sector. General indications of the patterns and trends in leading categories of imports from Japan in these two sectors are revealed in Tables A3 and A4.

Motor Vehicles

Data on the principal Canadian manufactured-product import from Japan, motor vehicles, are given in Tables A3, A5, and A6. The major item in that category is, of course, passenger automobiles: Canada imported approximately 130,000 Japanese cars in 1978, worth more than $450 million.[1] In addition, there were received from Japan in that year over 14,000 trucks, valued at some $53 million, close to 100,000 motorcycles ($93 million), and nearly 14,000 snowmobiles ($20 million).

The figures on shares of total imports indicated in Table A5 are not very meaningful in the case of automobiles, since the Canada-U.S. auto scheme results in a heavy flow of these vehicles across the border that is bound to depress the relative importance of extracontinental trade. In fact, about two-thirds of all cars and trucks imported from overseas in 1978 were Japanese (Table A6). So far as motorcycles are concerned, Japan dominates the import business. With respect to snowmobiles, Japanese vehicles account for about 30 per cent of all imports.

More meaningful than the proportion of imports is the penetration of the Canadian market -- that is, imports from Japan as a percentage of "apparent domestic availability" (Canadian manufacturers' shipments minus exports

Table A5

Imports of Motor Vehicles from All Countries and from Japan, 1976 - 1978

	Quantity									Value ($000)								
	1976			1977			1978			1976			1977			1978		
	Total	Japan	%	Total	Japan	%	Total	Japan	%	Total	Japan	%	Total	Japan	%	Total	Japan	%
Automobiles																		
Passenger sedans	658,843	103,987	15.8	674,703	106,512	15.0	662,908	115,492	17.4	2,462,936	230,483	9.4	2,995,817	369,817	9.0	3,356,593	402,823	12.0
Station wagons	84,842	15,996	18.9	77,310	12,492	16.2	73,072	13,595	18.6	331,785	39,793	12.0	353,591	36,334	10.3	398,377	51,071	12.8
Other autos	3,477	22	0.9	2,193	329	15.0	6,064	221	3.6	11,077	103	0.9	6,909	837	12.1	33,710	849	2.5
All autos[1]	747,162	120,005	16.1	754,206	119,333	15.8	742,044	129,308	17.4	2,805,798	270,379	9.6	3,356,317	306,364	9.1	3,788,680	454,743	12.0
Trucks																		
Light trucks	61,787	13,743	22.2	55,705	10,757	19.3	32,704	14,174	43.3	239,828	31,393	13.1	265,526	29,213	11.0	148,512	52,861	35.6
Heavy trucks	83,628	18	--	92,362	440	0.5	114,038	14	--	599,136	154	0.02	744,622	3,066	0.4	1,070,632	153	--
All trucks	145,415	13,761	9.5	148,067	11,197	7.6	146,742	14,188	9.7	838,964	31,547	3.8	1,010,148	32,279	3.2	1,219,144	53,014	4.3
Motorcycles																		
Motorcycles	85,886	70,200	81.7	112,900	104,018	92.1	103,591	96,246	92.9	52,802	38,971	73.8	76,021	65,549	86.2	104,017	93,147	89.6
Motor scooters, etc.	3,455	20	0.6	1,170	40	3.4	4,185	23	0.5	609	6	1.0	152	9	5.9	1,143	6	0.5
All motorcycles	89,341	70,220	78.6	114,070	104,058	91.2	107,776	96,269	89.3	53,411	38,977	73.0	76,173	65,558	86.1	105,160	93,153	88.6
Snowmobiles	35,350	6,476	18.3	36,424	9,901	27.2	45,548	13,953	30.6	51,221	6,663	13.0	55,096	10,173	18.5	81,760	20,377	24.9

1 The discrepancy between these figures and those in Table A6 results from differences in methods of data collection: in one series the vehicles are counted at point of entry to Canada, in the other at point of sale.

Source Statistics Canada, Imports by Commodities, December 1976, 1977 and 1978, Cat. No. 65-007.

Table A6

Penetration of the Canadian Automobile Market by Imports from Japan, 1965 - 1978[1]

	Total Domestic Sales[2]	Total Imports (exc. from U.S.)[3]		Imports from Japan	
	Number	Number	% of Sales	Number	% of Sales
1965	686,828	74,919	10.9	2,834	0.4
1966	683,639	70,739	10.4	2,742	0.4
1967	667,814	72,987	11.0	5,617	0.8
1968	737,605	101,095	13.7	15,859	2.2
1969	756,015	124,487	16.5	39,033	5.2
1970	636,206	141,602	22.3	65,569	10.3
1971	745,026	181,402	24.4	106,552	14.3
1972	812,753	196,533	24.2	116,860	14.4
1973	935,533	185,229	19.8	110,225	11.8
1974	918,318	143,582	15.6	86,281	9.4
1975	839,942	115,588	13.8	72,226	8.6
1976	898,253	142,055	15.8	93,826	10.4
1977	953,078	182,277	19.1	127,058	13.3
1978	958,414	174,681	18.2	116,864	12.2

1 The discrepancy between these figures and those in Table A5 appears to result from differences in data collection -- see footnote to Table A5.

2 New passenger car registrations.

3 Because of Canada-U.S. auto pact, imports from the United States are not considered relevant to this analysis.

Source Transportation Industries Branch (Motor Vehicles Division), Department of Industry, Trade and Commerce, Ottawa.

plus total imports). The domestic market for passenger cars in 1978 amounted to approximately 960,000 vehicles, so that Japanese penetration was of the order of 12 per cent. In the case of trucks the total Canadian market was some 350,000 units, of which Japanese vehicles accounted for about 3 per cent. (On the basis of values the relevant proportions are closer to 10 per cent and 2 per cent respectively.)

Table A6 shows the breakdown of the market for passenger cars as between domestic and foreign suppliers -- treating both Canadian- and U.S.-built automobiles as home production for this purpose -- along with the share captured by imports from Japan alone. It is interesting to note that, while the proportion of all imports represented by Japanese vehicles has risen almost continuously since 1965, the penetration of the Canadian market by imported cars in general peaked in the early 1970's and then declined until 1975, after which it recovered only slowly. This means that in the years immediately following the 1970-72 peak Japan's success in the Canadian auto market was essentially at the expense of other foreign manufacturers rather than at that of Canada's own output; however, that situation has been gradually changing, to the relative detriment of domestic vehicle producers, since 1975.[2]

Electrical and Electronic Equipment

Japanese prominence in the market for domestic television receivers in Canada is well known. As is shown in Table A7, imports of this product from Japan in both 1976 and 1977 were around half a million sets, worth nearly $100 million in each year, or over 50 per cent of Canadian imports of television receivers from all outside sources. In 1978 the number of television sets received from Japan fell to 270,000 units, valued at $70 million, which was only 30 per cent of total imports. This sharp decline seems to be due to nothing more fundamental than an inventory correction, although the government's "duty remission programme" on television receivers and some parts may also have been a factor.[3]

In the field of radios, Japan is not quite as strong, although it shipped 400,000 sets to Canada in 1978, worth more than $40 million. These figures represent 11 per cent of total imports in volume terms but more than 30 per cent in terms of value.

Interestingly, the Japanese are of somewhat declining importance as suppliers of record players and similar equipment to Canada. In 1978 they shipped 1,100 phonograph record players and 375,000 combination radio-phonographs to this market, down from 1977 but together

Table A7

Imports of Electronic Consumer Products from All Countries and from Japan, 1976 - 1978

	Quantity									Value ($000)								
	1976			1977			1978			1976			1977			1978		
	Total	Japan	%	Total	Japan	%	Total	Japan	%	Total	Japan	%	Total	Japan	%	Total	Japan	%
Television sets																		
Colour, under 19"	190,685	163,279	85.6	174,689	150,707	86.3	141,589	79,157	55.9	36,265	30,208	83.3	37,368	32,038	85.7	35,577	19,985	56.2
Colour, 19"	18,081	16,318	90.2	27,402	17,889	65.3	79,440	14,565	18.3	5,343	5,015	93.9	8,841	6,415	72.6	26,421	5,463	20.7
Colour, over 19"	376,703	230,799	61.3	353,569	201,665	57.0	377,667	132,064	35.0	101,396	49,679	49.0	107,210	51,402	47.9	144,998	41,559	28.7
Other, under 19"	383,818	98,952	25.8	371,847	75,078	20.2	292,759	42,734	14.6	21,567	5,789	26.8	21,749	4,702	21.6	19,071	3,991	20.9
Other, 19"	7,633	1,445	18.9	4,393	383	8.7	21,011	8	--	489	119	24.3	430	56	13.0	1,931	1	0.1
Other, over 19"	67,727	29,212	43.1	29,671	11,186	37.7	7,940	1,222	15.4	5,549	2,132	38.4	2,510	897	35.7	632	127	20.1
All television sets	1,044,647	540,005	51.7	961,571	456,908	47.5	920,406	9,750	29.3	170,609	92,942	54.5	178,108	95,510	53.6	228,610	71,126	31.1
Radio sets																		
Automobile radios	1,003,067	143,074	14.3	815,996	132,783	16.3	929,141	113,349	12.2	35,917	3,282	9.1	42,943	3,575	8.3	60,387	4,093	6.8
Other radios	4,032,104	459,539	11.4	3,260,766	406,728	12.5	2,784,528	295,105	10.6	67,530	29,532	43.7	67,503	28,651	42.2	76,042	38,282	50.3
All radios	5,035,171	602,613	12.0	4,076,762	539,511	13.2	3,713,669	408,454	11.0	103,447	32,814	31.7	110,446	32,336	29.2	136,429	42,375	31.1
Phonographs, etc.																		
Phonograph record players	184,181	61,324	33.3	238,416	27,235	11.4	101,329	1,155	1.1	6,920	3,297	47.6	7,591	1,151	15.2	2,667	135	5.1
Combination radio-phono.	784,508	397,072	50.6	918,069	417,027	45.4	909,356	375,933	41.3	37,046	18,599	50.2	72,237	24,239	46.4	59,946	29,604	49.4
All phonographs	968,689	458,396	47.3	1,156,485	444,262	38.4	1,010,685	377,088	37.3	43,966	21,896	49.8	59,828	25,390	42.4	62,613	29,739	47.5
Tape recorders, etc.	1,333,438	774,009	58.0	1,136,857	673,359	59.2	1,047,578	505,918	48.3	52,249	35,793	68.5	59,682	42,673	71.5	73,526	54,877	74.9

Source Statistics Canada, Imports by Commodities, December 1976, 1977 and 1978, Cat. No. 65-007.

still worth close to $30 million. Their status among countries exporting to Canada was most significant in the case of the latter product, in which they accounted for over 40 per cent of the volume and nearly 50 per cent of the value of all Canadian imports.

The position of Japanese producers of tape players and recorders is also strong in the Canadian market: imports from Japan in this category in 1978 amounted to more than half a million pieces of equipment, worth nearly $55 million, which represented about a half of total imported apparatus of that kind in terms of quantity or three-quarters in terms of value.

In addition to the combined total value of almost $200 million for these "electronic consumer products" imported from Japan in 1978, Canada purchased nearly $140 million worth of Japanese communications equipment and components -- a value that represented some 14 per cent of imported items in these categories.

The remainder of the electronic sector includes office machinery, of which Canada imported almost $65 million worth from Japan in 1978, and electronic instruments, of which the Japanese supplied Canada with a value of nearly $30 million, bringing the combined electronic products imports from that source to approximately $430

million. Canadian purchases approaching $100 million worth of electrical appliances and equipment of various kinds -- $25 million of major appliances, $45 million of electrical industrial equipment, etc. -- give the grand total of almost $530 million for Canada's imports of all electrical and electronic products from Japan in 1978.

Relative to the Canadian market as a whole, imports of Japanese radios, television sets, and other electronic consumer products amounted to $199 million out of total apparent domestic availability of $716 million in 1978 -- that is, 28 per cent (Table A8). The proportion had been around 30 per cent in 1976 and 1977, but it was up from the neighbourhood of 20 per cent in the early 1970's. By comparison, communications equipment and components imported from Japan took 7 per cent of the Canadian market (up from 2 per cent in 1970). Outside of the telecommunications sector, office machines from Japan accounted for 6 per cent of the domestic market (against 3 per cent in 1970) and all other items took still smaller shares. The proportion for the electronic industry as a whole was 9 per cent, for the electrical industry just over 2 per cent, and for both together rather over 5 per cent. These shares compare with figures of 5 per cent, 1 per cent, and 3 per cent in 1970.

Table A8

Penetration of the Canadian Market for Electrical and Electronic Products by Imports from Japan, Selected Years

	1970						1975						1978					
	Shipments	Imports	Exports	Apparent Domestic Availability	Imports from Japan	Japanese Penetration of Market	Shipments	Imports	Exports	Apparent Domestic Availability	Imports from Japan	Japanese Penetration of Market	Shipments	Imports	Exports	Apparent Domestic Availability	Imports from Japan	Japanese Penetration of Market
	($Millions)					Per Cent	($Millions)					Per Cent	($Millions)					Per Cent
Total Electrical and Electronics Industry	3,095	1,276	603	3,768	118.6	3.1	5,387	2,759	995	7,151	252.5	3.5	6,479	4,523	1,592	9,411	527.6	5.6
Electrical Industry	1,747	418	191	1,974	20.9	1.1	2,958	976	256	3,678	49.0	1.3	3,638	1,461	406	4,693	97.4	2.1
Small Appliances	143	63	6	200	2.3	1.2	248	171	19	400	10.2	2.6	266	269	12	523	11.7	2.2
Major Appliances	287	67	31	323	5.6	1.7	504	152	46	610	9.7	1.6	613	245	91	767	25.0	3.3
Light Fixtures	91	18	7	102	0.6	0.6	160	38	9	189	0.4	0.2	178	52	13	217	0.4	0.2
El. Industrial Equip.	514	161	47	628	5.8	0.9	912	375	97	1,190	18.5	1.6	1,247	534	123	1,658	45.0	2.7
Batteries	64	18	5	77	0.8	1.0	109	43	7	145	2.0	1.4	155	63	17	201	2.4	1.2
El. Wire and Cable	442	15	71	386	0.6	0.2	646	51	31	666	0.8	0.1	759	60	56	763	1.6	0.2
Misc. Elect. Prod.	206	76	24	258	3.6	1.4	379	146	47	478	7.3	1.5	420	238	94	564	11.3	2.0
Electronic Industry	1,348	858	412	1,794	97.8	5.4	2,429	1,783	739	3,473	203.5	5.9	2,841	3,063	1,186	4,718	430.2	9.1
Radio and T.V. etc.	213	116	29	300	66.5	22.2	274	252	37	499	108.0	21.6	299	512	95	716	198.9	27.8
Comm. and Components	712	274	241	745	16.9	2.3	1,368	595	389	1,574	55.5	3.5	1,506	1,007	528	1,985	139.4	7.0
Office Machines	190	314	105	399	12.2	3.1	373	659	272	760	33.3	4.4	501	1,072	475	1,098	62.7	5.7
Instruments	233	154	37	350	2.3	0.7	414	277	51	640	6.7	1.0	535	472	88	919	29.2	3.2

Source Electrical and Electronic Industry: Abstract of Industry and Trade Statistics, Electrical and Electronics Branch, Department of Industry, Trade and Commerce, Ottawa, various issues of annual reports.

Impact on Canadian Output and Employment

The impact of these imports on Canadian manufacturing has, one suspects, been considerable. Many of the products bought from Japan have doubtless replaced goods Canada would otherwise have obtained from other outside sources -- as apparently in the case of automobiles in the early 1970's, cited above -- but a great number are directly competitive with Canadian output, and their acquisition has therefore affected domestic production and employment. To determine where the impacts have been most crucial, a detailed evaluation of import penetration was again carried out. In this case, we were able to have access to data for 1975 (as well as 1971) rather than 1974.

Assessment of Penetration

The results of that work are presented in full as Table A9.[4] They may be summarized as follows:

- In 24 categories of product (including, in some instances, sub-categories of a larger broad classification), penetration of the Canadian market by imports from Japan was substantial and rising during the period 1971-75;
- In 11 categories it was rising but not very substantial;
- In 6 more it was substantial and probably rising, although this is not certain;

Table A9

Categories of Product in Which the Extent and Actual or Possible Increase in Penetration of the Canadian Market by Japanese Goods Between 1971 and 1975 was Significant[1]

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1 (a) Imports from Japan doubled (or more) between 1971 and 1975, in terms of penetration of the Canadian market, to account for approximately 20 per cent of that market in the latter year:

448 2 Pressure pipes, tubes and tubing, steel, n.e.s. (multiplied four times, to 22%) [3x/72%] (Domestic shipments increased from $21 million in 1971 to $45 million in 1975.)

(b) Doubled (or more) to around 8-15 per cent of the Canadian market:

468 21 Pipe fittings, iron and steel (10%) [1¼x/52%] (Domestic shipments $42 million in 1971, $72 million in 1975.)

(c) Doubled (or more) to around 4-7 per cent of the Canadian market:

373 2 Man-made fibre broad woven fabrics, blended (4%) [2x/53%] ($41 million, fell to $19 million)

468 Valves and pipe fittings (6%) [1¼x/55%] ($127 million, $210 million)

472 2 Refractories (forty times, to 4%) [1¼x/60%] ($39 million, $68 million)

637 Electronic equipment components, chassis and cabinetry (8%) [1¼x/74%] ($94 million, $151 million)

661 2 Electric cooking appliances, minor (three times, to 4%) [2x/39%] ($23 million, $33 million)

696 1-2 Fans (excl. industrial) and power ventilators (incl. roof units, etc.) (4%) [1½x/30%] ($14 million, $20 million)

697 3 Personal care appliances, domestic, electric (6%) [decreased/29%] ($15 million, $37 million)

821 1 Watches (four times, to 5%) [unchanged/28%] ($22 million, $51 million)

967 1 Mirrors, glass (4%) [2x/29%] ($10 million, $12 million)

Table A9 (cont'd)

2 (a) Imports from Japan rose by roughly a half between 1971 and 1975, in terms of penetration of the Canadian market, to account for approximately 20 per cent of that market in the latter year:

633 6 Television receiving sets, domestic (16%) [1½x/35%] ($162 million, $176 million)

(b) Rose by a half, to around 8-15 per cent of the Canadian market:

449 5 Wire, twisted, braided or single strand, steel (8%) [4½x/36%] ($11 million, $17 million)

466 1 Chain, power transmission and conveyor (sprocket chain and drive chain) (15%) [1¼x/76%] ($5 million, $5 million)

495 1 Porcelain insulating fittings for electric equipment (9%) [1¼x/28%] ($19 million, $27 million)

(c) Rose by a half, to around 4-7 per cent of the Canadian market:

377 Warp knit (tricot) fabrics, broad knitted (excl. pile and elastic fabrics) (7%) [1½x/28%) ($83 million, $57 million)

465 11 Bolts, nuts, rivets, screws, washers and fasteners (4%) [unchanged/48%] ($93 million, $170 million)

82 Watches and clocks (4%) [1¼x/52%] ($40 million, $71 million)

3 (a) Imports from Japan rose by roughly a quarter between 1971 and 1975, in terms of penetration of the Canadian market, to account for approximately 20% of that market in the latter year:

036 Fish, canned (incl. fish products, canned) (18%) [1¼x/31%] ($73 million, $102 million)

046 2 Molluscs and crustaceans (incl. mollusc and crustacean preparations), canned (20%) [1½x/84%] ($9 million, $7 million)

(b) Rose by a quarter, to around 8-15 per cent of the Canadian market:

444 2 Wire rods, hot rolled or cold finished (11%) [1½x/32%] ($89 million, $169 million)

Table A9 (cont'd)

(c) Rose by a quarter, to around 4-7 per cent of the Canadian market:

370 112 Apparel fabrics, wool, worsted, wool blends (4%) [decreased/15%] ($9 million, $21 million)

387 1 Broad fabrics, coated or impregnated (5%) [1½x/62%] ($69 million, $49 million)

587 2 Snowmobiles, pleasure and sporting (5%) [2x/62%] ($192 million, $79 million)

4 Imports from Japan increased several fold between 1971 and 1975, in terms of penetration of the Canadian market, even though they still accounted for a quite modest share of that market in the latter year:

036 12 Salmon, canned (four times, to 2%) [1¼x/9%] ($60 million, $73 million)

065 1 Macaroni products, spaghetti and vermicelli, canned (cooked) (three times, to 1¼%) [1¼x/5%] ($39 million, $58 million)

321 2 Rubber belts and belting, V-type (2½ times, to 3%) [2¼x/33%] ($13 million, $17 million)

427 12 Polymerization and copolimerization resins (doubled, to 2%) [unchanged/39%] ($130 million, $248 million)

427 123 Polyethylene resins (doubled, to 2%) [1¼x/27%] ($57 million, $120 million)

427 126 2 Polyvinyl chloride resins (four times, to 2½%) [unchanged/34%] ($27 million, $44 million)

469 4 "Other" wire fabricated basic products (doubled, to 3%) [declined/31%] ($44 million, $15 million)

504 4 Mechanical power transmission and parts (5½ times, to 2½%) [unchanged/74%] ($19 million, $25 million)

523 1-2 Metalworking machine tools and parts (doubled, to 1½%) [1¼x/93%] ($19 million, $16 million)

634 9 Electronic navigation and related devices, n.e.s. (doubled, to 2½%) [1½x/39%] ($47 million, $23 million)

Table A9 (cont'd)

693 5 Parts and supplies for batteries (excl. plates, anodes, cathodes and rubber and plastic parts) (doubled, to 2½%) [1¼x/78%] ($3 million, $2 million)

5 (a) Imports from Japan accounted for a significant share of the Canadian market in either 1971 or 1975, but no data provided for the other year; however, various clues suggest that there was, in fact, substantial growth in market penetration by such Japanese goods over the period:

036 19 Fish, canned, n.e.s. (45% in 1975) [65%] (?, $19 million)

373 13 Polyester fibre broad woven fabrics, non-blended (22% in 1975) [66%] (?, $15 million)

468 2 Pipe fittings (9% in 1975) [53%] (?, $83 million)

503 1-5 Electrical generators and motors (6% in 1975) [57%] (?, $144 million)

504 1-2 Ball bearings, roller bearings, bushings (bearing type) and sleeve bearings, mounted or unmounted and parts (incl. motor vehicle) (12% in 1975) [79%] (?, at least $51 million)

637 4 Transformers, electronic (3% in 1971) [51%] ($10 million, ?)

(b) Accounted for a significant share in either 1971 or 1975, but no data provided for the other year; it is not possible from this series to tell whether growth in market penetration occurred over the period:

371 2 Cotton mixtures broad woven fabrics (6½% in 1971) [29%] ($49 million, ?)

373 12 Polyamide (nylon) fibre broad woven fabrics, non-blended (5% in 1975) [25%] (?, $29 million)

426 1-3 Crude synthetic rubber latex, synthetic rubber and compounded or semi-processed natural or synthetic rubber (3% in 1971) [53%] ($91 million, at least $137 million)

427 215-9 Plastic film and sheet, unsupported (incl. layflat tubing) -- polypropylene, polystyrene, vinyl, rubber hydrochloride and n.e.s. (3½% in 1971) [81%] ($16 million, ?)

Table A9 (cont'd)

445 12	Plate, unfabricated, alloy steel (5% in 1975) [38%] (?, $43 million)
496 4	Rags and wipers, washed and sterilized (5% in 1971) [28%] ($3 million, ?)
521 212	Excavator-type cranes and shovels, powered (6% in 1971) [83%] ($8 million, ?)
587 8	Motorcycles and powercycles (59% in 1971) [89%] ($1 million, ?)
619 1	Bicycles (8% in 1975) [41%] (?, $32 million)
619 2-9	Other miscellaneous vehicles (excl. bicycles) (26% in 1975) [64%] (?, at least $18 million)
633	Radio equipment and related devices (16% in 1971) [28%] ($238 million, at least $250 million)
634 1	Radar equipment (6% in 1975) [68%] (?, $22 million)
636 1	Record players (21% in 1975) [47%] (?, $4 million)
636 3	Audio frequency amplifiers (19% in 1971) [71%] ($3 million, ?)
752-758	Hand tools and other cutlery (excl. table and kitchen) (6% in 1971) [47%] ($58 million, at least $121 million)
771 6	Typewriters (4% in 1971) [33%] ($30 million, at least $72 million)
782 62	Slacks and shorts, not knitted, women's, misses' and girls' (4% in 1971) [6%] ($57 million, at least $62 million)
789 41	Umbrellas (incl. parasols and parts) (7% in 1971) [53%] ($3 million, ?)
793	Slippers and house footwear (excl. felt) (10% in 1971) [24%] ($11 million, ?)
813	Pearls, strung or pierced (excl. necklaces) (44% in 1971) [61%] ($0.2 million, $0.2 million)
833 1	Fishing equipment (11% in 1975) [65%] (?, $7 million)

Table A9 (cont'd)

845 9	Curtains and draperies, n.e.s. (4% in 1971) [29%] ($5 million, $5 million)
85	Kitchen utensils, cutlery and tableware (excl. silverware) (9% in 1971) [51%] ($62 million, $87 million)
855	Flatware and kitchen cutlery (excl. silverware) (22% in 1971) [43%] ($7 million, at least $7 million)
856 1	Tableware, ceramic, n.e.s. (15% in 1975) [90%] (?, $3 million)
864	Luggage (6% in 1971) [13%] ($24 million, at least $36 million)
867 2	"Other" wardrobe accessories (3% in 1971) [19%] ($3 million, at least $4 million)
867 7	Art and decorative ware (6% in 1971) [29%] ($26 million, ?)
902	Writing and draughting instruments (4% in 1971) [29%] ($22 million, at least $30 million)
902 1-5	Packaged correspondence paper, notebooks, scribblers, ruled and cut paper, graph and columnar paper, envelopes and similar paper products (4% in 1971) [18%] ($21 million, at least $30 million)
903	Desk accessories and office devices (4½% in 1971) [61%] ($8 million, ?)
905	Artists' materials (excl. pens, pencils and paper) (9% in 1971) [65%] ($2 million, ?)
911 2	Parts and accessories for still and cinematographic cameras (excl. lenses) (14% in 1971) [78%] ($3 million, ?)
919 9	Miscellaneous photographic equipment and supplies, n.e.s. (9% in 1971) [91%] ($3 million, ?)
944 3	Fasteners, slide, hookless or zipper and parts (12% in 1975) [18%] (?, $17 million)

(c) Accounted for a significant share in either 1971 or 1975, but no data provided for the other year; while various clues suggest that substantial growth in market penetration did not occur over the period, positive assurance to this effect is lacking:

Table A9 (cont'd)

370		Broad woven fabrics, wholly or in part wool and/or hair (6½% in 1971) [29%] ($43 million, at least $76 million)
445	11	Plate, unfabricated, carbon steel (7% in 1975) [28%] (?, $329 million)
448	61	Pipes and tubing, carbon steel, n.e.s. (21% in 1971) [37%] ($58 million, ?)
448	62	Pipes and tubing, alloy steel (incl. stainless), n.e.s. (14% in 1971) [65%] ($8 million, ?)
465	12	Nails, tacks and staples (4% in 1971) [10%] ($43 million, at least $81 million)
466	2	Chain, coil (4½% in 1971) [36%] ($7 million, $14 million)
581	3	Passenger automobiles, permanently closed models (14% in 1971) [68%] ($1,102 million, ?)
637	31	Capacitors, electronic (4½% in 1971) [70%] ($6 million, ?)
703	11	Thermometers and accessories (8% in 1971) [69%] ($1 million, ?)
921	1	Musical instruments (22% in 1971) [72%] ($8 million, $12 million)
921	2	Parts and accessories for musical instruments (3% in 1971) [54%] ($2 million, $1 million)
945	61-62	Candles and votive lights for religious purposes and household candles and wax specialties (9% in 1971) [25%] ($5 million, ?)

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1 Measured in terms of value of imports from Japan relative to "apparent domestic availability" (manufacturers' shipments minus exports plus imports). Figures in square brackets following indication of Japanese penetration show comparable experience for total imports -- e.g. [3x/72%] means multiplied three times, to 72% of the Canadian market. Figures in round brackets after that show Canadian factory shipments for 1971 and 1975, respectively.

Source Apparent Domestic Availability of Selected Manufactured Products, 1971 and 1975 issues, Statistics Canada, the former unnumbered and the latter classified as Cat. No. 31-529 (Ottawa: Statistics Canada, 1976 and 1979), plus special runs from Manufacturing and Primary Industries Division and External Trade Division of Statistics Canada.

- In 12 categories it was substantial and probably static or falling, but again this is not sure;
- And in a further 35 categories the penetration was substantial but there is no way of knowing, from the data provided us, whether it was rising, falling, or staying the same.

The small number of instances of relevant market penetration from Japan is perhaps the most noteworthy feature of this exercise. To simplify the conclusions and cite important specific cases, we can say that really significant and increasing penetration was evident, in what appears in principle a damaging combination, in thirteen product categories, as indicated below.

036 Fish, canned (incl. fish products, canned) -- value of 1975 imports from Japan $16.4 million.

046 2 Molluscs and crustaceans (incl. mollusc and crustacean preparations), canned -- $3.7 million.

444 2 Wire rods, hot rolled or cold finished -- $22.6 million.

448 2 Pressure pipes, tubes and tubing, steel, n.e.s. -- $11.1 million.

466 1 Chain, power transmission and conveyor (sprocket chain and drive chain) -- $4.0 million.

468 Valves and pipe fittings -- $23.1 million, of which:

468 21 Pipe fittings, iron and steel -- $16.8 million.

472 2 Refractories -- $5.6 million.

633 6 Television receiving sets, domestic -- $46.6 million.

637 Electronic equipment components, chassis and cabinetry -- $23.9 million.

661 2 Electric cooking appliances, minor -- $2.2 million.

697 3 Personal care appliances, domestic, electric -- $2.8 million.

821 1 Watches -- $3.9 million.

One may add that, in the last two of these thirteen categories -- 697 3 and 821 1 -- there was no change over the period in total import penetration; that is, the growth in the share of the Canadian market achieved by products from Japan occurred essentially at the expense of other foreign suppliers rather than at that of domestic manufacturers. So, in terms of serious potential impact on output and employment in Canada, the list is reduced to eleven.

In addition, there are three categories in which significant and rising penetration by Japanese goods was probable:

036 19 Fish, canned, n.e.s. -- $15.3 million. (This is a sub-category of item 036, above.)

373 13 Polyester fibre broad woven fabrics, non-blended -- $13.5 million.

504 1-2 Ball bearings, roller bearings, bushings (bearing type) and sleeve bearings, mounted or unmounted, and parts (incl. motor vehicle) -- $18.9 million.

Finally, one must consider twelve items in which important penetration has certainly taken place but where these data do not permit positive determination of whether it is increasing or not:

587 8 Motorcycles and powercycles -- 1971 imports from Japan $17.0 million.

619 2-9 Other miscellaneous vehicles (excl. bicycles) -- 1975, $8.5 million.

633 Radio equipment and related devices -- 1975, $46.7 million. (This is the broad category that includes item 633 6, above.)

636 1 Record players -- 1975, $1.5 million.

636 3 Audio frequency amplifiers -- 1971, $2.1 million.

793 Slippers and house footwear (excl. felt) -- 1971, $1.4 million.

813 Pearls, strung or pierced (excl. necklaces) -- 1971, $180,000.

855 Flatware and kitchen cutlery (excl. silverware) -- 1971, $3.1 million.

856 1 Tableware, ceramic, n.e.s. -- 1975, $8.3 million.

905 Artists' materials (excl. pens, pencils and paper) -- 1971, $550,000.

911 2 Parts and accessories for still and cinematographic cameras (excl. lenses) -- 1971, $2.8 million.

919 9 Miscellaneous photographic equipment and supplies, n.e.s. -- 1971, $1.4 million.

Given the rather small value of the imports from Japan in categories 813 and 905, these two might also be left aside for our purposes, reducing this list to ten items.

In all other cases, penetration appears to have been either relatively minor or apparently stable, declining, or rising fairly slowly. That does not mean that problems of adjustment to this competition were entirely lacking, but it does imply that they should have been reasonably manageable.

Accordingly, an evaluation of the effects of imports of Japanese manufactured goods on production and employment in Canada may focus primarily on these twenty-four categories, with rather less emphasis on another fifty or sixty, out of a total of over 900 items.

There is one extra category, however, that simply has to be added, even though the data indicate its relatively declining significance in terms of import penetration over the 1971-75 period, and that is automobiles. As Table A6 makes clear, 1971 (and 1972) marked the peak of penetration of the Canadian market by Japanese cars, and 1975 represented the low point in recent years of that penetration. The fact that these independent data reveal the very temporary nature of the slowdown, plus the immense absolute importance of automobiles as an element in the total value of Canada's imports from Japan, encourage us to include that category in the remaining analysis despite its omission from the list revealed by this assessment.

Relative vs. Absolute Effects

Of course, the fact that certain imported goods increased their share of the domestic market between 1971 and 1975 need not, by itself, have given rise to problems for Canadian manufacturers nor have contributed to unemployment among Canadian workers. If the absolute size of the market was growing rapidly, the production of plants in this country during the 1971-75 period may have increased and employment held steady or expanded despite the greater penetration by imports. As the figures on factory shipments in Table A9 show, there was indeed a rise in the output of most of the relevant products over the five years: while

the data are, again, inadequate in many instances, where statistics provide the necessary picture they reveal declines in Canadian shipments only in categories 046 2, 373 2, 377, 387 1, 523 1-2, 587 2, 634 9, 693 5 and 921 2, plus unchanged values (which, given inflation, means a decrease in amounts) in categories 466 1 and 845 9 and something close to the same position in a few other cases, notably 633 6.

Several of the weak items are textiles, but the most important "loss" categories in terms of values of shipments are snowmobiles and television receivers. However, the rise in Japanese penetration of the snowmobile market was only a quarter in 1971-75, to 5 per cent. Indeed, the sole cases of both falling (or static) Canadian shipments and rapidly growing and really significant penetration from Japan are just three: 046 2 -- molluscs and crustaceans, canned; 466 1 -- chain, power transmission and conveyer; and 633 6 -- television receiving sets. The output of the last of these is fifteen times as valuable as that of the other two put together.

Nevertheless, as we noted in the main text of this paper (page 30), although falling production can almost invariably be considered an unambiguous problem for manufacturers and their employees, rising output is not so clearly always evidence of an absence of difficulty, particularly for workers. Because labour productivity is

often rising rapidly, a modest rate of gain in shipments may not spell stability in the demand for workers. If there are, in truth, declines in jobs under those circumstances, and the situation is accompanied by a pronounced expansion of imports relative to the market as a whole, then it is not unreasonable to attribute the damage at least in part to this enlarged import penetration.

In the light of such considerations, one may be wise to avoid discounting the possibility of adjustment disruptions throughout most of the indicated list. Admittedly, shipments of the new chemical items noted were rising so sharply in 1971-75 that it is hard to imagine that any problem existed in spite of Japanese competition. And many other products seem to have enjoyed sufficiently buoyant demand that there was room for rapidly growing Canadian production -- and thus probably stable or growing employment -- even though domestic manufacturers were losing ground, in relative terms, in their own market. But across the broad range of categories we have isolated, conditions were such that the prospect of dislocations for workers, associated in greater or lesser measure with competition from Japanese goods, cannot be dismissed whatever may have been happening to domestic output in absolute terms.

Moreover, regardless of the merits of the above, it is logically arguable -- and implicitly or explicitly is argued, very frequently -- that Canadians automatically suffer a loss if their own factors of production yield less than a constant share of the available market. In that rather simplistic sense, all the cases mentioned represent by definition a short-fall by Canadian producers -- a capture by foreign suppliers of markets that "might have been" Canada's if the competition from abroad had not made its inroads.

Summarizing the findings of this assessment, therefore, it may be said that the probability of detriment to Canadian producers and workers from imports from Japan arises across a fairly varied spectrum of manufactured items, in some of which the potential for damage is substantial. Broadly speaking, the affected classes of goods in 1971-75 were as follows: a small number of processed fish products, certain fabrics and other textiles, several fabricated steel products, some classes of road and off-road motor vehicles (other than cars), a wide range of electrical and electronic equipment and appliances, items of dining and kitchen cutlery and tableware, and camera equipment. Somewhat less susceptible were certain lines of machinery, just possibly a few chemicals, perhaps some small vehicles such as bicycles, several kinds of tools and hardware, one or two clothing items, and luggage. Not a

problem in 1971-75 but of potentially enormous significance is the situation of automobiles. In any case, looking at the whole list, by far the most important in terms of value of production and number of jobs provided are (as the more general assessment suggested) various classes of motor vehicles and electrical and electronic goods.

As we have already observed, it is the latter of these -- and especially consumer electronic products such as television sets -- that is clearly the more vulnerable of the two sectors. In terms of employment, the motor vehicle industry held virtually steady between 1971 and 1975 at around 100,000 workers, and it has since expanded to about 120,000. On the other hand, although the electrical and electronics sector as a whole employed roughly the same number of people in 1975 as in 1971, some 145,000, the number of jobs offered by its electronics component (which had reached a peak of 85,000 workers in 1969) fell off fractionally from 72,000 to 71,000 over the 1971-75 period, and the consumer electronics subsector declined from 8,000 to 7,000 employees. What is more, in the years since then employment has declined considerably further: in 1978 there were only 129,000 workers in the electrical and electronic industry, of which 60,000 were in electronics alone -- just 6,000 of them in consumer electronics.

Location of Affected Workers

The work involved in a detailed exploration of employment dependence in the range of goods characterized by strong and increasing import penetration from Japan proved to be beyond the scope of this project and must be left to another researcher. Because the research resources available for the appraisal of locations of affected labour, as reported in the main text, were not at hand when the appendix was written, a much more approximate estimation of such factors had to suffice. Table A10 provides a very superficial impression of the position of several of the main categories by reference to an industry breakdown of Canadian workers by cities and towns, as provided in the 1971 census. Table A11 then sets forth some indicators of the degree of difficulty that seems to have been faced by the relevant workers, in actual fact, over the period of our import-penetration assessment and also subsequently, as measured in terms of population growth and unemployment rates in the communities concerned.

It will be noted that the approach is somewhat different from that adopted, in the body of the paper, with respect to employment implications of imports from the Third World. There we assumed that all labour in the industrial sectors and/or subsectors identified by the preceding analysis was vulnerable, and we then merely determined in which locations the dependence of the work force on such

Table A10

Communities where Employment is Potentially Vulnerable to Competition from Imported Japanese Manufactured Goods[1]

Major Metropolitan Centres[2]			
Toronto[a]	2.7 %	(10.8)	Motor vehicles, electrical products, metal fabricating
[Oakville, Ont.[c]	9.6	(30.3)	Motor vehicles and parts]
Montréal[a]	1.6	(6.4)	Motor vehicles, textiles, electrical products
[Ste-Thérèse, Que.[d]	9.9	(31.2)	"Transportation equipment"]
Other Large Metropolitan Areas			
Hamilton, Ont.[a]	3.8	(10.9)	Motor vehicles, metal fabricating
Kitchener, Ont.[a]	8.1	(20.7)	Motor vehicles, textile products
London, Ont.[a]	4.1	(18.4)	Motor vehicles and parts
[St. Thomas, Ont.[d]	14.8	(50.1)	"Transportation equipment"]
St. Catherines/Niagara, Ont.[a]	10.4	(31.7)	Motor vehicles and parts
[Welland, Ont.[c]	12.5	(28.3)	Textile products, metal fabricating, motor vehicles and parts]
Windsor, Ont.[a]	19.3	(58.3)	Motor vehicles and parts
Smaller Cities and Towns			
Barrie, Ont.[b]	4.3	(22.2)	Electrical products
Brantford, Ont.[b]	3.2	(8.1)	Electrical products, motor vehicles
Brockville, Ont.[d]	16.0	(48.0)	"Electrical products" group
Chatham, Ont.[c]	14.4	(52.0)	Motor vehicles and parts
Cornwall, Ont.[c]	7.1	(46.2)	Textile products
Drummondville, Que.[b]	16.0	(45.6)	Textile products
Granby, Que.[b]	10.4	(25.2)	Textile products
Guelph, Ont.[b]	4.9	(16.6)	Textile products, metal fabricating
Kingston, Ont.[b]	4.3	(35.8)	Textile products
Oshawa, Ont.[b]	22.0	(56.0)	Motor vehicles and parts
St-Hyacinthe, Que.[b]	3.0	(10.2)	Textile products
St-Jean, Que.[b]	5.9	(18.8)	Textile products
St-Jérôme, Que.[b]	4.4	(15.6)	Motor vehicles and parts, textiles
Shawinigan, Que.[b]	5.3	(14.5)	Textile products
Sherbrooke, Que.[b]	3.7	(17.4)	Textile products
Trois-Rivières, Que.[b]	3.7	(13.2)	Textile products
Valleyfield, Que.[b]	7.5	(21.6)	Textile products

1 Columns represent: name of city; proportion of that community's total employment that is in industry sectors and subsectors where imports from Japan have shown strength (see text); the same indicator as a proportion of local manufacturing employment only; the principal sectors affected.

2 Only two major metropolitan centres in Canada are at all exposed to significant employment jeopardy by virtue of import competition from Japan -- Toronto and Montréal. In neither case is the extent of that exposure likely to be a problem, although in certain districts of the overall metropolitan region it might be. We have shown here the suburbs where automobile manufacturing is concentrated, Oakville and Ste-Thérèse, as they are perhaps potentially more vulnerable than areas specializing in electrical products, etc., by virtue of the very great importance of the employment they provide in their respective communities.

3 Because of their heavy emphasis on potentially vulnerable activities, we have included here two communities in metropolitan areas -- St. Thomas in the London area and Welland in St. Catherines/Niagara -- although (as in the cases noted above) the important factor is the situation in the urban region as a whole.

Sources Statistics Canada, 1971 Census of Canada: Industries:
a) Cat. No. 94-742 (Census Metropolitan Areas),
b) " " 94-743 (Census Agglomerations),
c) " " 94-744 (Municipal Subdivisions over 30,000),
d) " " 94-745 (Municipal Subdivisions 10,000 to 30,000) -- since this series contains no subclassification below "transportation equipment," "electrical products," as a group, etc., very sparing use has been made of it.

activities was relatively great. Here we identify the relevant workers and the communities where they are employed in much the same manner, but we look to the record of apparent job creation and redundancies in the localities in question as a means of assessing impact. That system has its advantages.

Nonetheless, this accounting is, in fact, extremely primitive, for several reasons. First, the matching of individual import items with data on employment location really requires the same detailed sifting of industry statistics as was undertaken in the main body of the study. Information from the decennial census, as utilized here, is too widely aggregated to provide an adequate picture of the situation. Among the sectors revealed as encountering serious competition from Japan, only eleven, associated with five major industrial groups, could be at all effectively correlated with product items in the analysis: the fish products industry from the food and beverage industries; cotton yarn and cloth mills, wool yarn and cloth mills, and man-made fibre yarn and cloth mills from the textile industries; steel pipe and tube mills, wire and wire product manufacturers, and hardware, tool and cutlery manufacturers from the metal fabrication sector; motor vehicles and parts manufacturers from the transportation equipment industries; and manufacturers of small electrical appliances, household radio and television

receivers, and miscellaneous electrical products from the electrical products industries. Although such an alignment may seem to compare well with the corresponding material in the assessment of developing-country imports, one must bear in mind the much greater range of products derived from Japan. Given that diversity, the grouping of industry sectors and subsectors here is a rather imperfect reflection of the pattern of trade.

Secondly, even the breakout indicated could not be made for cities of under 30,000 population, for which the census provides employment data only by broad industrial categories like "transportation equipment" (which could be automobiles or locomotives). This was a considerable shortcoming: among other effects, it made impossible the isolation of communities dependent on fish products manufacture because they are mainly smaller towns and cities not satisfactorily covered for our purposes.

A third reason why the effort is weak is that it treats motor vehicles as a potentially vulnerable sector, when the evidence on that score to date -- particularly from the item-by-item analysis -- is, as we have seen, decidedly equivocal. Inclusion of vehicles can, we feel, be defended on the grounds that a longer-term perspective shows imports from Japan in this category to have grown strongly and penetration of the domestic market, though subject to

considerable variation, to have increased over the years. In time, imports of vehicles from the developing countries may do the same. But the fact remains that inferences with respect to employment effects that are based largely (though not wholly) on the period -- the early 1970's -- when penetration of the market from Japan was falling, rather than rising, are rather suspect.

For all these reasons, the story presented in Tables A10 and A11 should not be treated too seriously -- at least, not in terms of the actual incidence of job loss or other labour disruptions over the period of the 1970's covered by our approach. Clearly, the relationship between apparent employment difficulty and this Japanese competition is too tenuous. On the face of it, Windsor and Welland, Ontario, have suffered some difficulties that may derive in part from the import challenge from Japan; but what we know about the fortunes of the automobile industry casts considerable doubt on whether the vulnerability of Windsor, at least, can be ascribed to that cause. More generally, the evidence from this calculation suggests that the St. Catherines/Niagara metropolitan region may be susceptible to dislocations stemming in some measure from Japanese success in the Canadian market, as may Brockville, Ontario, and Shawinigan, Quebec. Further down the scale of seeming vulnerability and difficulty in this respect may be Cornwall, Ontario, and then Chatham, Ontario, and Drummond-

Table A11

Indications of Possible Employment Difficulties
in Communities Vulnerable to Japanese Competition

	Population Growth 1971-76	Av. Unemployment Rate 1971-74[1]	Av. Unemployment Rate 1975-78[1]	Problem Rating[2]
Toronto	7.7%	4.3% FR	5.9% IS	--++
[Oakville, Ont.	19.1			.--++]
Montréal	2.6	6.4 FR	8.0 IR	?? -]
[Ste-Thérèse, Que.	1.7			.?? -]
Hamilton, Ont.	5.2	4.7 FR	6.2 V	?- -
Kitchener, Ont.	14.0	3.3 FR	6.8 IR	.-? +
London, Ont.	6.8	4.4 FS	6.5 FS	?- -
[St. Thomas, Ont.	6.5			*?- -]
St. Catherines/Niagara, Ont.	5.6	6.4 IS	9.0 IS	*XX -
[Welland, Ont.	1.4			*XX -]
Windsor, Ont.	-0.4	5.6 IS	8.3 V	*XX -
Barrie, Ont.	28.9	5.4 FS	7.5 IR	?X +
Brantford, Ont.	3.1	5.2 FS	7.7 IS	X? -
Brockville, Ont.	5.6	4.6 FS	7.1 IR	*XX -
Chatham, Ont.	9.5	5.1 V	7.5 V	*?? +
Cornwall, Ont.	-2.1	4.6 FS	7.1 IR	.X? -
Drummondville, Que.	-3.4	6.8 FR	8.3 IR	*?? -
Granby, Que.	5.5	6.8 FR	8.3 IR	*-? +
Guelph, Ont.	12.3	3.1 FR	5.5 V	-? +
Kingston, Ont.	5.6	4.6 FS	7.1 IR	?? -
Oshawa, Ont.	12.3	4.3 FR	6.0 V	*-- +
St-Hyacinthe, Que.	1.2	6.8 FR	8.3 IR	?? -
St-Jean, Que.	7.0	6.8 FR	8.3 IR	.-? +
St-Jérôme, Que.	3.2	6.8 FR	8.3 IR	?? -
Shawinigan, Que.	-6.5	7.7 IS	11.5 IS	.XX -
Sherbrooke, Que.	7.1	7.7 V	9.8 V	?? +
Trois-Rivières, Que.	0.6	7.7 IS	11.5 IS	XX -
Valleyfield, Que.	0.4	6.8 FR	8.3 IR	.?? -

1 Unemployment rates averaged over respective periods and also categorized as IR (increasing rapidly), IS (increasing slowly), FR (falling rapidly), FS (falling slowly), or V (volatile).

2 Situations of communities rated, according to preceding information, on following factors: (a) as they are more (*) or less (.) or least ( ) dependent on employment in specified industries; (b) as they appeared to be encountering employment difficulties relative to the provincial and national experience, in the early 1970s and later 1970s respectively (? indicates slight evidence of problems, X denotes stronger evidence of problems, and - means no evidence of problems); and (c) as they experienced employment growth in 1971-75 above (+) or below (-) the provincial average.

Note: Population growth in a community is clearly related in some significant measure to employment opportunities. Evidence from these data has been influenced, in the conclusions drawn, by the increase in national and provincial populations over the 1971-76 period: Canada 6.6%, Ontario 7.3%, Quebec 3.4%. A similar reference has been made to prevailing unemployment rates in the larger constituency: 1971-74, Canada 5.9%, Ontario 4.5%, Quebec 7.8%, and falling in each case; 1975-78, Canada, 7.6%, Ontario 6.7%, Quebec 9.5%, and all increasing.

Sources Statistics Canada, 1976 Census of Canada, Population: Geographic Distributions, Cat. No. 92-806; various issues of The Labour Force, Cat. Nos. 71-001 and 71-529.

ville and Valleyfield, Quebec. Some potential softness also appears to be present in the position of Ste-Thérèse, Quebec, but this is mainly associated with the relatively poor employment performance of the Montreal region as a whole.

Conclusion

However, if one treats the listing of potentially affected cities more as a general indicator of possible adverse consequences of imports from Japan -- and thus, by inference, ultimately perhaps of imports from countries now classed as developing -- it can provide a useful impression. Either considering the communities isolated by the method devised, with all its shortcomings, or just taking those where more than 5 per cent of the work force are employed in the relevant industries, the main features of the picture stand out clearly: first, unlike the prospect presented by the earlier assessment, Montreal does not figure on this list; second, several of the same smaller Quebec communities are again to be found in the evaluation; and, third, a number of Ontario cities not appearing in the preceding analysis now figure prominently among the group.

One implication of these results seems clear: that, if other nations, now semi-industrialized, follow the direction set by Japan in its successful penetration of Canadian markets, it is most likely there will be a

continued problem for certain Quebec centres, although not to any serious additional extent for Montreal. Another implication is that several new problem areas might be expected to develop in Ontario.

On the other hand, the extent of the threat posed for Canadian manufacturing industry and its employment by imports from Japan in the recent past does not appear to have been overwhelming -- except in a few lines of product such as television sets. Thus the severity of the challenge as "Japanization" spreads -- if that is indeed the prospect -- should be kept in perspective. On the whole, one might suspect that the workers most affected by the next set of vulnerabilities, given their principal locations and other characteristics suggested by the industries in which they are employed, may be rather better equipped to cope with industrial adjustment than are those already facing the consequences of low-wage competition.

This inference is derived from such evidence as the ITC Labour Force Tracking Project, which shows that labour adjustments -- that is, the average lengths of time laid-off workers take to find new jobs -- are of shorter duration where the employees concerned are in Ontario than where they are in Quebec, where they are men than where they are women, where their educational qualifications are relatively strong than where those qualifications are weak,

and where they are in middle life than where they are either younger or older. Setting these findings against the kind of indications revealed by the foregoing analysis, one observes the following:

- Ontario accounts for a much larger proportion of all workers in industries like motor vehicles and parts (89%), electrical products (64%), primary metals (61%), and metal fabricating (58%), which seem most likely to be challenged by the new wave of imports from "Japanizing" countries, than it does of those such as leather goods (47%), textiles (42%), and clothing (22%) that are principally encountering low-wage competition now;

- The ratio of men to women workers is also higher in the former group of industries -- primary metals 94/6, motor vehicles 87/13, metal fabricating 86/14, and electrical products 68/32 -- than in the latter -- textiles 62/38, leather goods 50/50, and clothing 29/71;

- Workers in the age group 25-44 years represent a greater percentage of the total in motor vehicles (56%), electrical products (50%), metal fabricating (48%), and primary metals (47%) than they do in textiles (44%), clothing (41%), and leather goods (38%); and

- Education through grade 11 or better is a considerably more frequent qualification of employees in electrical products (51%), metal fabricating (43%), motor vehicles (42%), and primary metals (41%) than it is of those in textiles (31%), leather goods (23%), and clothing (21%).

Footnotes

1 Discrepancies in the figures noted in the tables derive from differences in methods of gathering data by the source statistical agencies -- see table footnotes.

2 1978 and 1979 witnessed a slight drop in sales of Japanese cars in Canada, with an improvement in the market shares of both other imported vehicles and domestic production. It remains to be seen whether the development heralds another change in the direction of these relationships.

3 A scheme to encourage the rationalization of production in the television manufacturing industry was introduced on January 1, 1977, and somewhat expanded later.

4 The method employed was to consider the penetration of the Canadian market by imports from Japan (that is, the ratio of such imports to apparent domestic availability) in 1971 and 1975. Cases where penetration increased by less than a quarter (or decreased) over the period were ignored, as were those where the penetration in these years was only two or three per cent, respectively. Other features of the calculations are revealed in the text.

Appendix B

Manufactured-Goods Imports from Developing Countries as Percentage of Apparent Domestic Availability, 1971 and 1974[1]

ICC Category	Product	1971	1974
011 4	Horse meat, fresh, chilled or frozen	0.7%	0.3%
017 1	Meat and meat preparations (excl. poultry), canned	6.2	7.3
055	Honey	0.0	
065 1	Macaroni products, spaghetti, vermicelli and noodles, dry	0.4	0.8
069	Farinaceous substances and non-cereal flour for food	11.2	
073	Fruits and berries, dried or dehydrated	13.7	
074	Fruit juices, unfermented, not concentrated (incl. fruit juices reconstituted to single strength)	2.8	2.0
078 1	Fruit (excl. fruit mixtures), canned	13.2	11.8
082 1	Coconut, desiccated (incl. coconut meat, desiccated and shredded)	42.9	
082 9	Nuts, kernels and seeds, chiefly for food, shelled or prepared (excl. oil nuts), n.e.s.	19.8	18.1
095	Vegetables and vegetable preparations (excl. infant foods)	2.9	6.8
095 1	Asparagus, canned	3.8	6.2
095 5	Corn, canned	0.0	0.3
097	Pickles, sauces, dressings and other condiments, (excl. spices)	0.9	2.0
104 91	Fountain fruits, syrups and toppings	0.1	1.5
104 92	Soft drinks, concentrates and syrups	0.1	0.7
111 3	Cocoa and chocolate in blocks, crumb or granules	5.2	10.6

Appendix B (cont'd)

ICC Category	Product	1971	1974
111 4	Cocoa and chocolate powder	1.6	4.4
112 3	Coffee, instant	1.4	7.0
113	Tea	21.7	24.3
114	Spices (incl. spice seeds)	14.7	18.6
173	Distilled alcoholic beverages	2.5	
182 1-2	Tobacco leaf, processed, redried, whole leaf and lamina	0.1	
333 1	Railway ties, untreated (incl. narrow gauge and switch ties)	0.0	
336 1	Doors, wooden	0.3	2.3
336 2	Windows and sash, door and window frames, wooden	0.8	1.3
336 4	Moulding, wooden, construction	1.0	2.2
336 5	Flooring, wooden	0.1	8.7
336 7	Wooden partitions, prefabricated stairs and fabricated building components, n.e.s.	0.0	0.0
336 8	Lumber cores	7.6	61.5
337 1	Veneer, hardwood	18.0	17.5
338 1	Plywood, hardwood, unfinished	21.8	50.4
338 11	Plywood, hardwood, unfinished, birch	1.0	3.0
338 12-19	Plywood, hardwood, unfinished, n.e.s.	27.2	
339 9	Miscellaneous wood fabricated materials	2.9	10.2
357 21	Building board (wood fibre), hardboard	1.2	1.7
364 71	Spun yarn, pure cellulosic (95 per cent and over)	1.9	12.7
364 721	Spun yarn, pure acrylic (95 per cent and over)	2.1	2.4
369 1	Twine, baler and binder	47.4	

Appendix B (cont'd)

ICC	Category	Product	1971	1974
369	2	Twine (excl. baler and binder)	1.2	3.4
369	5	Rope	1.2	11.5
370	111	Apparel, fabrics, wool, worsted, all wool (95 per cent or more by weight)	1.2	9.6
371	1	Cotton broad woven fabrics	7.4	
373	1	Man-made fibre broad woven fabrics, non-blended	1.4	2.6
373	11	Cellulosic fibre broad woven fabrics, non-blended	2.3	3.8
378		Double knits fabrics, broad knitted (excl. pile and elastic fabrics)	0.7	
393	1	Vegetable oils and mixtures, crude	13.6	
401	3	Sulphuric acid (incl. oleum)	0.0	2.9
427	25-26	High pressure laminated plastics and reinforced plastic sheet (incl. low pressure laminates)	1.0	
431	2	Motor gasoline (excl. aviation)	1.5	0.0
432	1	Aviation turbo fuel	7.4	7.5
433		Lubricating oils and greases	1.8	4.2
449	6	Wire rope and multiple wire strand steel	1.3	3.2
453	2	Lead and lead alloy basic shapes	0.1	1.3
457	2	Zinc and zinc alloy basic shapes	0.0	
492	12	Sole stock (incl. outsoles and insoles), boot and shoe	3.8	
496	4	Rags and wipers, washed and sterilized	12.2	17.4
591	5	Canoes, rowboats, sail boats and outboard motor boats	0.6	1.5
591	6	Other pleasures and sporting craft	0.1	0.3
619		Other miscellaneous vehicles	0.8	

Appendix B (cont'd)

ICC Category	Product	1971	1974
622	Tire tubes	0.9	
633	Radio equipment and related devices	3.3	
633 4	Radio and phonograph combinations	0.3	8.6
633 6	Television receiving sets, domestic	0.9	3.7
637	Electronic equipment components, chassis and cabinetry	1.5	8.9
637 6	Printed circuits for electronic equipment	1.5	0.2
662 2	Other non-electric cooking stoves and ranges, domestic	0.0	
662 3	Non-electric equipment for cooking and warming food, commercial	7.0	11.9
681 9	Other lighting equipment	5.4	13.5
682 1	Lamps, incandescent (large size)	0.0	0.6
682 5	Lamps, miniature (incl. sealed beams and automotive lamps)	2.5	11.9
696 1-2	Fans (excl. industrial) and power ventilators (incl. roof, unit, etc.)	0.1	
703 11	Thermometers and accessories	1.4	
747 4	Shades and blinds	1.4	
761 1-4	Brooms (incl. whisks), household, industrial and commercial brushes, mops and parts and paint rollers and parts	0.5	0.9
781 31-32	Coats, not knitted, men's, youths' and boys'	4.4	
781 4	Suits (incl. separate jackets), not knitted, men's, youths' and boys'	0.1	0.9
781 6	Shirts, not knitted, men's, youths' and boys'	7.3	11.7
781 8	Uniforms and occupational clothing, not knitted, men's, youths' and boys'	2.5	2.7
782 1	Underwear, not knitted, women's and girls'	5.5	4.3

Appendix B (cont'd)

ICC Category	Product	1971	1974
782 3	Coats (incl. short coats and raincoats) jackets and blazers, not knitted (excl. fur), women's, misses' and girls'	2.2	3.6
782 4	Suits (incl. sport suits), not knitted, women's, misses' and girls'	0.6	6.5
782 5	Dresses, blouses and shells, not knitted, women's, misses' and girls'	2.2	3.9
782 61	Skirts (incl. culottes), not knitted, women's, misses' and girls'	0.6	1.5
782 7	Beachwear, not knitted, women's, misses' and girls'	14.0	11.3
783 2	Coats, not knitted (excl. fur) children's	0.9	2.9
783 3	Outerwear (excl. coats and snowsuits) not knitted, children's	3.6	2.2
784 1	Underwear, knitted or made from knit fabric, men's, youths' and boys'	1.9	2.0
784 3-4	Shirts and sweaters, cardigans and pullovers, knitted or made from knit fabric, men's, youths' and boys'	11.3	
784 8	Hosiery, knitted or made from knit fabric, men's, youths' and boys'	1.3	2.7
785 3-4	Sweaters, cardigans, pullovers, blouses (incl. man-tailored shirts), shells, knitted or made from knit fabric, women's, misses' and girls'	13.2	25.3
785 5	Other outerwear, knitted or made from knit fabric, women's, misses, and girls'	5.0	6.2
785 7	Hosiery, knitted, or made from knit fabric, women's, misses' and girls'	0.0	0.9
786 3	Outerwear, knitted or made from knit fabric, children's	11.5	17.4
786 5	Hosiery, knitted or made from knit fabric, children's	0.3	1.0
787	Apparel, fur goods	0.4	0.2
788 1	Gloves, leather	2.3	

Appendix B (cont'd)

ICC Category	Product	1971	1974
788 2	Gloves, fabric	25.7	41.6
788 3	Gloves, rubber and plastic	4.6	15.6
788 5	Headwear (excl. fur and safety)	30.9	28.2
788 7	Foundation garments	0.2	1.0
789 1	Neckwear	3.3	4.1
789 3	Handbags, purses, wallets and billfolds (incl. change purses, money pouches, etc.)	7.4	18.8
789 41	Umbrellas (incl. parasols and parts)	4.5	
79	Footwear	5.5	8.8
791	Boots, shoes and sandals (excl. athletic, orthopedic, felt footwear and rubber and waterproof plastic)	2.0	4.4
793	Slippers and house footwear (excl. felt)	5.3	
794	Rubber and plastic waterproof footwear	23.0	30.9
798 1	Sports and athletic footwear	8.0	5.2
821 1	Watches	1.3	2.2
832 1	Sporting equipment	2.0	7.0
834	Games (excl. amusement park and playground games)	50.4	21.4
835	Toys	11.6	19.4
841 21	Rugs, mats and runners (excl. automotive), textile	8.6	21.0
845 9	Curtains and draperies	2.5	0.7
846 2	Blankets (excl. electric)	3.2	4.7
847 1	Tablecloths, napkins and related articles, textiles	6.0	9.5
848 11	Towels, textile	5.7	6.2
855	Flatware and kitchen cutlery (excl. silverware)	5.5	

Appendix B (cont'd)

ICC Category	Product	1971	1974
864	Luggage	2.2	9.5
867 4	Household baskets, boxes, cans and bags, n.e.s.	6.9	
944	Buttons, needles, pins and miscellaneous notions	1.0	11.3
945 3	Identification plates, badges, emblems, tags and military insignia (excl. jewellery)	2.8	4.4
945 5	Wigs, hair falls, toupees and similar articles	99.4	44.6
945 61-62	Candles and votive lights for religious purposes and household candles and wax specialties	3.2	10.0
965 2	Sails	6.4	3.4
965 3	Tents	0.0	

1 The categories included in "manufactured goods" conform with Statistics Canada definitions: as will be seen, there are a number of partially processed food items on the list. "Apparent domestic availability" consists of manufacturers' shipments plus imports minus exports and re-exports. Calculations are based on dollar values.

Source Statistics Canada, Apparent Domestic Availability of Selected Manufactured Products, 1971, Special Report, and Statistics Canada special print-out for Economic Council.

Appendix C

Manufactured-Goods Categories in Which Canadian Factory Shipments Increased, as a Proportion of the Home Market, in 1971-75 (With an Indication of the Performance of Imports and Exports)[1]

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1. Ratio of domestic shipments to apparent domestic availability doubled (or better) between 1971 and 1975:

341	Wood pulp [1,1]
341 31	Wood pulp, bleached sulphite, paper grade [1,2]
341 32	Wood pulp, unbleached sulphite, paper grade [2,2]
391 3	Animal oils and fats (excl. marine), deodorized [1,3**]
401 1	Hydrogen chloride [1,3*]
684 6	Industrial and residential enclosed protective equipment [3,1]
692 2	Floor polishers [1,3**]

2. Ratio of domestic shipments to apparent domestic availability increased by 50% to 99% between 1971 and 1975:

378	Double knit fabrics, broad knitted (excl. pile and elastic fabrics) [3,2]
400 4	Oxygen [2,-]
448 5	Line pipe for transmission of gas or oil, steel [2,3**]
455 1	Gold and gold alloys [3,1]
465 16	Automobile hardware (excl. springs) [2,3*]
469 4	"Other" wire fabricated basic products [2,2]
511 2	Parts for conveyors and conveying systems [1,3]
521 1	Rock drilling and earth boring machinery, drill bits and parts [1,3]
591 4	"Other" commercial vessels [3,3**]
636 4	Magnetic tape [2,1]

Appendix C (cont'd)

655 8 Parts for air conditioning and refrigeration equipment [2,3]

697 3 Personal care appliances, domestic electric [2,3*]

3. Ratio of domestic shipments to apparent domestic availability increased by 10% to 49% between 1971 and 1975:

011 2 Mutton and lamb, fresh, chilled or frozen [1,1]

011 4 Horse meat, fresh, chilled or frozen [2,1]

011 5 Fancy meats (edible offal), fresh, chilled or frozen [2,3]

013 1 Beef, cured [-,2]

017 2 Poultry and poultry meat, canned [2,3**]

073 Fruits and berries, dried or dehydrated [1,1]

146 51 Food powders [2,1]

155 1 Legume and grass meal [-,2]

159 2 Fur farm stock feed [-,3**]

331 25 Lumber, softwood, cedar [1,2]

338 4 Plywood panels, prefinished [2,1]

357 11 Building paper, not coated or impregnated [2,2]

365 1 Filament yarn, stretch, and other textures [3,1]

366 Other yarns [1,1]

369 2 Twine (excl. baler and binder) [2,3**]

373 1 Man-made fibre broad woven fabrics, non-blended [2,2]

373 11 Cellulosic fibre broad woven fabrics, non-blended [2,3*]

379 Other fabrics (incl. fabrics made by the Malimo, Arachne and similar processes), broad knitted [2,2]

381 21 Tire fabrics, not coated, polyamide (nylon) [1,-]

Appendix C (cont'd)

381 22	Tire fabrics, not coated, polyester [3,-]
400 12	Chlorine [1,3*]
400 3	Carbon [2,3*]
404 3	Sulphides, dithionites, sulphoxylates, sulphites, thiosulphates, sulphates and persulphates [2,3]
427 213	Polyethylene film and sheet, unsupported [1,3**]
429 54	Rubber and plastic compounding preparations [2,1]
429 63	Chemical specialties for textile industries [1,3**]
432 1	Aviation turbo fuel [3,3*]
442	Primary iron and steel [1,2]
443 2	Iron castings [3,2]
443 4	Steel forgings [1,2]
465 1	Basic hardware [1,2]
468 13-19	Valves, brass and bronze, automatic regulating, corporation brass, (main & curb stops etc.) and others and parts (excl. penstock) [1,3*]
475 6	Cast stone products (excl. structural products) [-,-]
475 9	Other concrete basic products [1,3**]
476 4	Abrasive cloth and paper [1,3**]
507 4	Fans, blowers and vacuum pumps, industrial [2,3]
520	Dies, moulds and cutting and forming tools (excl. rock drill bits and hand tools) [1,3**]
522	Construction and maintenance machinery and equipment (incl. respective tractor & truck attachment) [1,3*]
523 7	Jigs, fixtures and metalworking accessories (excl. machine accessories) [2,1]
524 5	Chain saws [1,2]
524 6	Parts for chain saws [1,2]

Appendix C (cont'd)

525	Pulp and paper industries machinery and parts [1,2]
584 2	Mobile homes [3,-]
655 21	Air conditioners, room [3,1]
683 1-2	Distribution and power transformers [3,1]
684 7	Cutouts and fuses (incl. links) and renewal elements for cartridge fuses [1,3*]
686	Wiring devices [1,3*]
781 2	Sleepwear and loungewear, not knitted, men's, youths' and boys' [2,3**]
783 1	Underwear and sleepwear (incl. bathrobes & kimonos), not knitted, children's [3,1]
788 6	Safety clothing (incl. safety hats) [2,3]
789 1	Neckwear [3,1]
893	Books and pamphlets [2,1]
944	Buttons, needles, pins and misc. notions [2,1]

4. Ratio of domestic shipments to apparent domestic availability increased by 1% to 9% between 1971 and 1975:

013	Meat, cured [3,1]
017 1	Meat & meat preparations (excl. poultry), canned [2,1]
031,032	Fish, round & dressed, fresh, chilled or frozen [1,1]
051 53-59	Whole milk, buttermilk, whey and other milk by-products, powdered [3,1]
062 1	Cereal grain flour [1,1]
062 15	Wheat flour [1,1]
065 1	Macaroni products, spaghetti, vermicelli and noodles, dry [1,3*]
074	Fruit juices, unfermented, not concentrated (incl. fruit juices reconstituted to single strength) [2,1]

Appendix C (cont'd)

075	Fruit juice concentrates (10% or less sugar) [1,1]
082 1	Coconut, desiccated (incl. coconut meat, desiccated and shredded) [1,1]
092	Vegetables, frozen [1,3*]
092 7	Peas, frozen [2,3**]
095 1	Asparagus, canned [1,2]
101 3	Sugar, refined, cane and beet [-,3**]
114	Spices (incl. spice seeds) [2,1]
142	Infant and junior foods [1,3*]
173 5	Whisky [1,2]
325 1	Battery containers and parts, rubber and plastic [1,-]
325 6	Plastic knobs and handles (furniture, appliance, cabinets, etc.) [1,3]
331 22	Lumber, softwood, pine [1,2]
331 24	Lumber, softwood, hemlock [1,1]
338 11	Plywood, hardwood, unfinished, birch [3,1]
356 11	Liners, paperboard [1,3]
362 1	Felt, pressed [2,3*]
370 111	Apparel fabrics, wool worsted, all wool (95% or more by weight) [1,3*]
370 112	Apparel fabrics, wool worsted, wool blends [2,-]
381	Special construction fabrics [1,2]
381 5	Papermakers' felts [1,2]
393 1	Vegetable oils and mixtures, crude [2,1]
412	Alcohols and their derivations (halogenated, sulphonated, nitrated, or nitrosated) [1,2]

Appendix C (cont'd)

423,424	Agricultural chemicals, formulated (crop and seed treatments and herbicides) and other pesticides and rodenticides [1,2]
427 11	Condensation, polycondensation and polyaddition resins [1,2]
427 111	Phenol-formaldehyde resins [2,1]
427 12	Polymerization and copolymerization resins [1,2]
427 22	Plastic pipes, tubes and rigid or semi-rigid tubing [3,1]
431 2	Motor gasoline (excl. aviation) [3,3**]
446 2	Structural shapes, fabricated steel [3,1]
449 2	Wire, plain or coated, steel [1,3]
449 3	Wire, plain, coated (excl. insulated) steel [1,2]
451 2	Aluminum and aluminum alloy basic shapes [2,1]
451 21	Aluminum castings and forgings [2,1]
453 2	Lead and lead alloy basic shapes [2,2]
461 3	Ceilings, partitions and panels, metal [1,-]
461 41,42	Roof decking and flooring, metal [2,3**]
461 5	Metal lath (expanded metal) corner head [1,-]
462	Tanks [2,3**]
465 11	Bolts, nuts, rivets, screws, washers and fasteners [1,2]
469 2	Stamped, pressed and perforated metal basic products [1,3**]
473 3	Glass, sheet and plate, laminated [1,-]
473 6-9	Fibrous glass basic products (excl. glass yarn, cordage & insulation) tubes, tubing, rods, canes, and other glass basic products [1,-]
474 1	Asbestos brake linings and clutch facings [1,2]

Appendix C (cont'd)

475 4	Concrete brick and building block [-,-]
479 4	Lime [2,1]
495 2	Pole line hardware [1,3]
521 12	Rock drill steel rods and bits [1,2]
634 3	Radio communication equipment [1,3*]
653 2	Air space heaters, electric, portable [2,2]
683 4-9	Instrument and other transformers (excl. telephone and telegraph) [2,1]
684	Switchgear and protective equipment (electric lighting distribution and control) [1,3]
684 3	Low voltage switchboards (excl. switchgear assemblies) [-,3*]
684 5	Distribution, lighting and residential panelboards [-,3*]
684 9	Other switchgear and protective equipment [1,3*]
687	Converter and inverter equipment [1,3*]
691	Other food preparation electric appliances [1,3*]
692 4	Parts and attachments for vacuum cleaners, floor polishers and floor sanders [2,1]
734 1	Vending machines [1,3*]
744	Hotel, motel, restaurant, store and office fixtures [2,3*]
747 5	Frames, picture, photograph and mirror [2,1]
787	Apparel, fur goods [1,1]
807 1	Cleaning preparations [2,2]
841 3	Rug underlay (excl. felt) [2,2]
849 6	Toilet paper, packaged [3,1]

Appendix C (cont'd)

866 11	Book matches [3,1]
883 4	Spectacles and eyeglasses, complete with lenses [2,1]
896	Advertising matter [1,3**]
901 6	Filing containers and accessories [2,3**]
904 3	Loose leaf binders and parts, complete with paper fill, or covers only [2,2]
941 2	Prefabricated buildings, metal [-,2]
942	Signs and advertising displays (excl. printed and lighting fixtures for vehicle routes and operation areas) [1,1]
942 2	Non-electric signs and signboards [2,1]
951 11	Barrels, drums and casings, metal [1,3**]
951 12	Cans, metals [2,1]
951 14	Collapsible tubes, metal [3,1]

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1 The figures in the square brackets show the behaviour of, first, imports relative to apparent domestic availability and, second, exports relative to shipments, in the category concerned, over the 1971-75 period. The performance numbers 1, 2, 3, 3*, or 3**, in the respective cases, mean:

Imports/ADA:

1 Increase, no change, or decrease of less than 10 per cent;
2 Decrease of 10 per cent to 49 per cent;
3 Decrease of 50 per cent or more.

Exports/shipments:

1 Decrease, no change, or increase of less than 10 per cent;
2 Increase of 10 per cent to 49 per cent;
3 Increase of 50 per cent to 99 per cent;
3* Increase of 100 per cent to 299 per cent;
3**Increase of 300 per cent or more.

Source Apparent Domestic Availability of Selected Manufactured Products, 1971 and 1975 issues, Statistics Canada, the former unnumbered and the latter classified as Cat. No. 31-529 (Ottawa: Statistics Canada, 1976 and 1979).

Appendix D

Value Added per Employee and Average Wages per Employee in Five "Vulnerable" Industries, 1973 and 1976

		Value Added Per Employee			Average Wages Per Employee		
		1973	1976	% Change	1973	1976	% Change
		(Dollars)					
04	Leather Industries						
172	Leather Tanneries	11,310	18,462	63.2	7,810	11,189	43.3
174	Shoe Factories	8,550	13,014	52.2	5,570	8,276	48.6
175	Leather Glove Factories	9,150	13,109	43.3	5,420	8,806	62.5
179	Luggage, Handbags, etc., Mfrs.	9,640	13,786	43.0	5,710	8,201	43.6
1792	Boot and Shoe Findings, Mfrs.	10,450	14,740	41.1	5,990	8,590	43.4
1799	Misc. Leather Products, Mfrs.	9,370	13,516	44.2	5,620	8,091	44.0
	Total	9,110	13,734	50.8	5,820	8,572	47.3
05	Textile Industries						
181	Cotton Yarn and Cloth Mills	10,550	16,654	57.9	6,670	9,616	44.2
182	Wool Yarn and Cloth Mills	12,190	15,516	27.3	6,490	9,339	43.9
183	Man-Made Fibre, Yarn and Cloth Mills	14,290	16,947	18.6	7,140	10,602	48.5
1831	Fibre and Filament Yarn, Mfrs.	24,100	22,926	-4.9	8,940	13,097	46.5
1832	Throwsters, Spun Yarn and Cloth Mills	10,040	14,163	41.1	6,370	9,440	48.2
184	Cordage and Twine Industry	14,650	13,976	-4.6	7,430	9,619	29.5
185	Felt and Fibre Processing Mills	15,390	16,920	9.9	7,610	9,634	26.6
1851	Fibre Processing Mills	15,340	16,990	10.8	7,590	9,489	25.0
1852	Pressed and Punched Felt Mills	15,480	16,771	8.3	7,630	9,941	30.3
186	Carpet, Mat and Rug Industry	16,970	21,300	25.5	7,340	10,358	41.1
187	Canvas Products, Cotton and Jute Bags	10,180	15,167	49.0	6,130	8,307	35.5
1871	Cotton and Jute Bags, Mfrs.	11,140	16,777	50.6	6,480	8,947	38.1
1872	Canvas Products, Mfrs.	9,800	14,650	49.5	5,990	8,101	35.2
188	Auto Fabric Accessories Ind.	17,490	24,860	42.1	9,410	13,205	40.3
189	Miscellaneous Textile Industries	12,000	16,552	37.9	6,380	9,014	41.3
1891	Thread Mills	13,190	19,445	47.4	6,790	9,926	46.2
1892	Narrow Fabric Mills	10,490	14,778	40.9	5,700	8,520	49.5
1893	Embroidery, Pleating, Hem Stitching	8,910	11,552	29.7	5,960	8,057	35.2
1894	Textile Dyeing and Finishing Plants	12,480	15,305	22.6	6,380	8,717	36.6
1899	Miscellaneous Textile Ind. n.e.s.	12,450	17,720	42.3	6,560	9,257	41.1
	Total	13,360	17,686	32.4	6,990	10,010	43.2

Appendix D (cont'd)

		Value Added Per Employee			Average Wages Per Employee		
		1973	1976	% Change	1973	1976	% Change
		(Dollars)					
06	Knitting Mills						
231	Hosiery Mills	8,840	12,206	38.1	5,620	7,816	39.1
239	Knitting Mills, except Hosiery Mills	9,670	13,011	34.6	5,500	8,303	51.0
2391	Knitted Fabric Manufacturers	12,870	16,089	25.0	6,370	9,215	44.7
2392	Other Knitting Mills	8,490	12,008	41.4	5,180	8,006	54.6
	Total	9,490	12,844	35.3	5,530	8,202	48.3
07	Clothing Industries						
243	Men's Clothing Factories	8,350	12,604	50.9	5,490	8,304	51.3
2431	Men's Clothing Factories	8,920	13,351	49.7	5,670	8,530	50.4
2432	Men's Clothing Contractors	5,740	8,841	54.0	4,660	7,165	53.8
244	Women's Clothing Industries	8,650	12,569	45.3	5,350	7,749	44.8
2441	Women's Clothing Factories	9,710	14,104	45.3	5,660	8,129	43.6
2442	Women's Clothing Contractors	5,470	7,781	42.2	4,450	6,563	47.5
245	Children's Clothing Industry	8,170	12,170	49.0	5,210	7,811	49.9
246	Fur Goods Industry	14,260	19,419	36.2	7,210	10,444	44.9
248	Foundation Garment Industry	9,240	15,100	63.4	5,520	8,847	60.3
249	Miscellaneous Clothing Industries	9,230	14,904	61.5	5,550	8,255	48.7
2491	Fabric Glove Manufacturers	8,480	13,818	62.9	4,810	8,031	67.0
2492	Hat and Cap Industry	8,910	14,471	62.4	5,670	8,181	44.3
2499	Miscellaneous Clothing Ind. n.e.s.	10,010	15,908	58.9	5,810	8,444	45.3
	Total	8,660	12,902	49.0	5,460	8,131	48.9
16	Electrical Products Industries						
331	Mfrs. of Small Electrical Appliances	18,020	25,092	39.2	7,710	10,331	34.0
332	Manufacturers of Major Appliances	16,610	24,561	47.9	8,300	11,606	39.8
333	Manufacturers of Lighting Fixtures	14,000	19,880	42.0	7,230	10,245	41.7
334	Mfrs. of Household Radio and TV	20,660	17,569	-15.0	7,830	11,137	42.2
335	Communications Equipment, Mfrs.	15,550	24,796	59.5	8,710	12,963	48.8
336	Mfrs. Electrical Industrial Equipment	14,800	20,972	41.7	8,960	12,747	42.3
338	Mfrs. of Electric Wire & Cable	19,620	22,739	15.9	9,360	13,226	41.3
339	Mfrs. of Misc. Electric Products	16,080	20,686	28.6	7,650	10,615	38.8
3391	Battery Manufacturers	19,150	25,060	30.9	8,200	11,635	41.9
3399	Mfrs. Misc. Electrical Products n.e.s.	15,350	19,433	26.6	7,530	10,323	37.1
	Total	16,310	22,647	38.9	8,500	12,218	43.7
All Manufacturing Industries		17,630	24,413	38.5	8,690	12,513	44.0

1 These sub-sectors are not considered generally vulnerable to developing country competition (see text).

Source Statistics Canada, Manufacturing Industries of Canada: National and Provincial Areas, Cat. No. 31-203, 1973 and 1976.

APPENDIX E

Regional Distribution of Employment in Five "Vulnerable" Industries, 1973 and 1976

	Percentage of Total									
	Atlantic		Quebec		Ontario		Prairies		B.C.	
04 Leather Industries	1973	1976	1973	1976	1973	1976	1973	1976	1973	1976
172 Leather Tanneries	X	X	X	X	74.5	76.3	X	X	X	X
174 Shoe Factories	X	X	49.9	46.4	46.1	50.4	X	X	X	0.5
175 Leather Glove Factories	X	X	57.2	49.5	25.2	27.6	X	X	X	X
179 Luggage, Handbag, etc., Manufacturers	X	X	X	X	38.9	40.1	X	X	2.7	X
1792 Boot and Shoe Findings, Manufacturers	X	X	67.5	69.9	32.5	30.1	X	X	X	X
1799 Misc. Leather Products, Manufacturers	X	X		x	41.0	43.0	X	X	3.6	X
Total	X	X	48.1	44.8	46.4	49.5	X	3.8	1.2	X
05 Textile Industries										
181 Cotton Yarn and Cloth Mills	X	X	X	X	X	X	X	X	X	X
182 Wool Yarn and Cloth Mills	X	X	51.2	64.0	44.9	33.3	X	X	X	X
183 Man-Made Fibre, Yarn and Cloth Mills	X	X	55.0	X	43.3	50.0	X	X	X	X
1831 Fibre and Filament Yarn Manufacturers	X	X	X	X	X	X	X	X	X	X
1832 Throwsters, Spun Yarn and Cloth Mills	X	X	X	62.2	X	X	X	X	X	X
184 Cordage and Twine Industry	X	X	X	X	X	63.2	X	X	31.6	25.2
185 Felt and Fibre Processing Mills	X	X	x	16.0	83.8	81.8	X	X	X	X
1851 Fibre Processing Mills	X	X	8.3	X	89.5	84.4	X	X	X	X
1852 Pressed and Punched Felt Mills	X	X	X	X	75.2	76.3	X	X	X	X
186 Carpet, Mat and Rug Industry	X	X	45.7	39.9	42.8	X	X	X	X	X
187 Canvas Products, Cotton and Jute Bags	X	X	29.2	31.1	43.7	44.5	X	X	X	X
1871 Cotton and Jute Bags, Manufacturers	X	X	61.5	55.7	16.5	19.7	X	X	X	X
1872 Canvas Products Mfrs.	X	X	16.5	23.2	54.4	52.4	X	X	15.4	5.6
188 Auto Fabric Accessories Industry	X	X	X	X	97.0	98.1	X	X	X	X
189 Miscellaneous Textile Industries	X	X	X	X	X	X	X	3.6	2.6	X
1891 Thread Mills	X	X	X	X	X	X	X	X	X	X
1892 Narrow Fabric Mills	X	X	80.6	80.7	19.4	18.1	X	X	X	X
1893 Embroidery, Pleating, Hemstitching	X	X	50.0	47.0	35.5	34.5	X	16.0	X	2.5
1894 Textile Dyeing and Finishing Plants	X	X	82.4	80.3	17.0	19.0	X	X	X	X
1899 Miscellaneous Textile Industry n.e.s.	X	X	50.2	49.6	39.2	42.3	X	X	4.5	3.7
Total	1.3	X	52.1	50.0	42.5	43.8	2.1	2.7	1.9	1.6

	Percentage of Total									
	Atlantic		Quebec		Ontario		Prairies		B.C.	
06 Knitting Mills	1973	1976	1973	1976	1973	1976	1973	1976	1973	1976
231 Hosiery Mills	X	X	62.4	61.7	37.6	38.3	X	X	X	X
239 Knitting Mills Except Hosiery Mills	X	X	61.8	60.9	26.1	27.4	X	X	X	X
2391 Knitted Fabric Manufacturers	X	X	63.8	55.0	24.4	X	X	X	X	X
2392 Other Knitting Mills	X	X	61.0	62.8	26.6	X	X	2.6	X	X
Total	X	X	61.9	61.0	28.6	29.7	X	X	X	X
07 Clothing Industries										
243 Men's Clothing Factories	X	X	55.9	55.4	25.9	27.2	X	X	3.2	3.5
2431 Men's Clothing Factories	X	X	49.6	48.8	30.4	31.4	X	X	3.8	4.2
2432 Men's Clothing Contractors	X	X	84.5	88.7	5.3	5.8	X	X	X	X
244 Women's Clothing Industries	X	X	73.1	74.0	16.4	16.9	X	X	2.1	1.9
2441 Women's Clothing Factories	X	X	65.9	67.4	20.4	21.2	X	X	2.8	2.5
2442 Women's Clothing Contractors	X	X	94.6	93.9	4.2	3.4	1.2	2.0	X	X
245 Children's Clothing Industry	X	X	82.6	81.1	X	X	X	X	X	X
246 Fur Goods Industry	X	X	71.4	71.4	20.5	19.2	5.8	6.8	X	X
248 Foundation Garment Industry	X	X	69.0	65.3	31.0	X	X	X	X	X
249 Miscellaneous Clothing Industries	X	X	57.0	52.4	X	X	X	X	X	X
2491 Fabric Glove Manufacturers	X	X	71.2	70.3	28.8	29.7	X	X	X	X
2492 Hat and Cap Industry	X	X	49.0	43.9	40.6	44.9	X	X	X	X
2499 Miscellaneous Clothing Industry n.e.s.	X	X	59.3	54.3	X	X	X	X	X	X
Total	X	X	65.4	60.6	22.0	22.8	X	X	2.3	2.4
16 Electrical Products Industries										
331 Manufacturers of Small Electrical Appliances	X	X	14.9	15.8	85.0	82.6	X	X	X	X
332 Manufacturers of Major Appliances	X	X	X	X	69.9	69.7	X	0.7	X	0.6
333 Manufacturers of Lighting Fixtures	X	X	50.4	52.7	41.4	38.5	4.9	4.8	3.3	4.0
334 Manufacturers of Household Radio and TV	X	0.8	13.8	15.1	84.8	78.9	X	3.4	X	1.8
335 Communications Equipment Manufacturers	X	X	31.5	29.6	59.8	59.8	X	X	3.2	4.5
336 Manufacturers of Electrical Industrial Equipment	X	X	13.6	13.0	77.6	77.1	X	X	2.8	2.3
338 Manufacturers of Electrical Wire & Cable	X	X	X	X	52.8	55.3	X	X	X	X
339 Manufacturers of Miscellaneous Electric Products	X	X	29.7	33.6	66.3	61.2	X	X	X	X

APPENDIX E (cont'd)

	Percentage of Total									
	Atlantic		Quebec		Ontario		Prairies		B.C.	
16 Electrical Products Industries	1973	1976	1973	1976	1973	1976	1973	1976	1973	1976
3391 Battery Manufacturers	X	X	11.5	13.1	67.9	67.6	X	X	X	4.1
3399 Manufacturers of Miscellaneous Electrical Products n.e.s.	X	X	33.9	39.5	65.8	59.4	X	X	X	X
Total	2.3	1.7	25.6	24.8	67.4	66.6	2.5	4.0	2.2	3.0
All Manufacturing Industries	4.7	4.8	30.5	30.1	49.2	48.9	7.2	8.1	8.3	8.1

1 These sub-sectors are not considered generally vulnerable to developing country competition (see text).

X Figure is either zero or is confidential -- a reflection of the Statistics Canada rule that data relevant to the operations of an industry (or sub-sector) will not be published where the number of firms is so small as to enable competitors to estimate each other's production, etc.

Source As for Appendix D.

APPENDIX F

Population Growth (or Decline), 1961-76, in Twenty-Eight "Vulnerable" Cities and Towns

City	Total Population			Percentage Change	
	1966	1971	1976	1966-71	1971-76
Drummondville, Qué.	46,220	46,635	45,018	0.9	-3.4
Victoriaville, Qué.	25,282	26,628	27,732	5.3	4.1
Granby, Qué.	39,470	39,283	41,462	-0.5	5.5
St. Jean, Qué.	43,640	47,044	50,363	7.8	7.0
St. Hyacinthe, Qué.	38,077	39,693	40,202	4.2	1.2
Valleyfield, Qué.	36,540	35,754*	35,920	-2.2	0.4
Cornwall, Ont.	45,766	47,116	46,121	2.9	-2.1
Kitchener, Ont.	192,275	238,574*	272,158	24.1	14.0
Brantford, Ont.	75,187	80,292	82,800	6.8	3.1
Shawinigan, Qué.	62,236	59,307*	55,414	-4.7	-6.5
Trois-Rivières, Qué.	95,468	97,930	98,583	2.6	0.6
St. Jérôme, Qué.	33,258	35,335	36,489	6.2	3.2
Trenton, Ont.	27,397	28,650	32,634	4.6	13.9
Sherbrooke, Qué.	79,667	97,550*	104,505	22.4	7.1
Joliette, Qué.	27,446	29,350	30,116	6.9	2.6
Guelph, Ont.	53,684	62,659	70,388	16.7	12.3
Sorel, Qué.	33,664	36,448*	37,029	8.3	1.5
Barrie, Ont.	24,016	38,176*	49,228	59.0	28.9
Magog, Qué.	13,797	14,383*	14,598	4.2	1.4
Cowansville, Qué.	10,692	11,920	11,902	11.5	-0.2
Montmagny, Qué.	12,241	12,432	12,326	1.6	-0.9
Midland, Ont.	...	23,510	26,239	...	11.6
Brockville, Ont.	...	26,278	26,883	...	2.3
Woodstock, Ont.	24,027	26,173	26,779	8.9	2.3
Lindsay, Ont.	12,090	12,746	13,062	5.4	2.5
Lachute, Qué.	10,215	15,485*	15,042	51.6	-2.8
Truro, N.S.	...	24,231	27,551	...	13.7
Stratford, Ont.	23,068	24,508	25,657	6.2	4.7

* Probably not strictly comparable because of a change in area or other revision since 1966.

1 City only
2 Town only

Source Statistics Canada, 1971 Census of Canada: Population, Cat. No. 92-708, Vol. 1, Pt. 1.

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