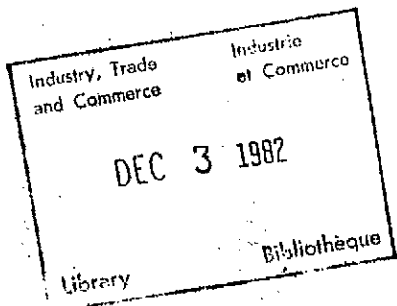


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**THE IMPACT OF THE MULTILATERAL TRADE NEGOTIATIONS
ON INDUSTRIAL ADJUSTMENT**

by W. Johnson, A.J. Sarna and H. Krauklis



Trade and Structural Analysis Directorate
Office of Policy Analysis
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Dennis DeMelto
Director General
Office of Policy Analysis

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1. Introduction

A) Objective

The purpose of this study is to assess the nature and implications of the industrial adjustments that will be required in response to the conclusion of the Multilateral Trade Negotiations (MTN). A special effort has been made to determine the impact on a sectoral level over the medium term.

Assessment of these results must take into account the limitations of the tools and assumptions employed. First, the simulation exercise was based on the tariff cuts arising from the Tokyo Round and only qualitative reference can be made to non-tariff agreements where Canada is expected to be a net gainer. Second, the methodology employed models static economic effects but is an incomplete representation of reality in as far as dynamic efficiency effects are concerned. Third, the setting of these impacts is itself artificial in that Canada could not, realistically, have opted out of the MTN without more serious consequences than are represented by the no-MTN or status quo case shown here.

If we take the base case to represent circumstances in which the MTN took place but Canada chose to opt out, then the effects of foreign retaliation and the potential impact on Canada of being required to compete against higher tariffs than those faced by our competitors in export markets, not taken into account here, would have to be included. Alternatively, to represent the base case as one in which the Tokyo Round never took place is also unrealistic in that the decision to initiate the Tokyo Round was taken by others and the negotiations would have taken place regardless of the position adopted by Canada. Moreover, in the absence of the Tokyo Round other international repercussions (e.g. increased protectionism) could have had other negative effects on Canada and required different kinds of industrial adjustment.

Finally, while the MTN may have produced a minor aggregate impact albeit with more significant repercussion on individual sectors when compared to other shocks that have occurred in the meantime, its real impact may have been to stem the tide of protectionism which arose during the negotiations, while providing a framework for future discussions of non-tariff issues. The objective of this piece is not therefore to assess the MTN negotiations per se, or the impact of Canada's decision to participate in them, but rather to place the resulting sectoral adjustments to tariff changes into the context of a view of the overall Canadian economic outlook for the 1980's.

B) The adjustment issue

Industrial adjustment can be defined as the process of structural adaptation by industry to changing competitive conditions which involve both opportunity elements and problem areas. It goes

without saying that growth and change in the industrial structure have always been highly essential features of Canadian economic development. Throughout the course of its history Canada has experienced and benefitted from structural change.

A causal factor which has been with us throughout the post-war period has been the movement to more liberalized trade under the GATT. The most recent international initiative in this area was the Tokyo Round of Multilateral Trade Negotiations, the results of which are to be phased in during the 1980's. The outcome of the negotiations provides Canadian industry with improved access to foreign markets, thus facilitating industrial development. While in general the domestic tariff adjustments, averaging 6-7 percentage points, are not expected to be substantial especially since certain sectors sensitive to import competition were exempted from tariff cuts, individual sectors anticipate both major new export opportunities and the necessity of undertaking competitive adjustments to increased import competition. The negotiation in the MTN of codes of conduct on non-tariff barriers may also cause some adjustment domestically although these are thought to be more than offset by improved trade access benefits on the export side.

Other developments, which may be individually or jointly of great consequence to medium term growth and adjustment in the Canadian economy include:

- (a) the present world economic slowdown characterized by low rates of growth in our leading markets, extensive underutilized capacity, upward cost and price pressures and fierce competition for available markets -- a situation which will not likely change for at least several years;
- (b) the industrialization aspirations and competitive potential of the developing countries affecting both resource products and standard manufactured goods;
- (c) the shifting comparative advantage among countries as well as within Canada caused by sharp relative price increases for energy and the changing competitive supply base of other resources;
- (d) declining Canadian population growth and changes in its age composition which will affect the overall growth of consumption and relative levels of demand for many products; and
- (e) the accompanying slowing of Canada's labour force growth and changing skill requirements, the latter less likely to be satisfied by immigration than previously.

These pressures imply opportunities as well as problems for Canadian business and workers. These changing conditions will demand adjustment on the part of Canadian industry: the modernization of

production machinery; changes in product lines; the rationalization of production in various Canadian sectors; new skills and trades for Canadian workers; and new product demands for Canadian producers. The ability of Canadian firms to accomplish these adjustments has been enhanced at least temporarily by the depreciation of the dollar which has significantly improved Canadian cost and profit performance against that of other nations, especially the U.S. However, it cannot be expected that these reduced competitive pressures will be indefinitely sustained or that producers can afford to ignore the need for longer term adjustment measures.

For most restructuring situations, it is likely that demand and profit prospects will be sufficient to ensure an efficient outcome. In some instances, however, this may not be the case. Some firms may lack the financial reserves, management expertise, or R&D capacity necessary to re-equip a plant, build up a sales organization in an unfamiliar market, or develop new products and more efficient production processes. Canadian subsidiaries of multinational corporations may be inhibited by corporate global strategies, or Canadian firms may be competitively disadvantaged by foreign government policies. Finally, Canadian resources may be less than optimally mobile with respect to individual adjustment situations, creating inflationary bottlenecks, lost opportunities and/or a concentration of adjustment costs in certain locales (equity problems).

In some situations, adjustment to changing market pressures can lead to plant closures and a loss of employment, either out of an inability to survive or as part of a corporate rationalization. The difficulty confronting Canada at this time is that a normal reallocation of resources is by no means assured in all cases because of continued slack in the global and Canadian economies. Indeed, there may be calls for adjustment to be indefinitely postponed in some cases until an economic recovery has occurred or is underway. On the other hand, the opportunity facing Canada is that the adaptations made to existing operations will lead to more internationally competitive and viable industries with improved long-term growth prospects.

The regional dimension of industrial adjustment can also involve special problems given the traditional concentration of industrial activity in Quebec and Ontario. Further, problems may be compounded when plant closures occur in communities with a limited industrial base. Some workers may face difficulties in relocating to other geographic areas or occupations. Finally, and of particular relevance to the medium-term, much of the adjustment may take place against the background of apparently durable trends which indicate a continuing westward shift in opportunities and economic activity in the country.

C) The role of government

Governments in the industrial economies have participated in the ongoing process of adjustment through a wide range of policies and programs. Some of these are broad in scope and are designed to establish and influence the economic environment in which growth and change take place. Others deal with specific problems encountered in industrial development. In general, they are either aimed at removing obstacles to the full working of market forces in order to provide a more efficient outcome, or at modifying the results and avoiding or alleviating any disruptions on the basis of equity considerations. In these and similar situations it has been appropriate in the past for government to lend a hand, particularly in the form of selective interventions to alleviate cases of true hardship and overly rapid adjustment.

Nonetheless, while it may be tempting for governments to delay the need for adjustment and its immediate disruptions by policies of protection or subsidy, experience has shown that non-competitive activities require an ever-increasing battery of aid. Workers and capital become locked into situations which remain marginal and the perverse situation can easily develop where new labour and capital may also be drawn in. Finally, more efficient activities are drained because they bear the cost of these support measures. While defensive tactics may at times be justifiable in order to phase adjustment, they cannot be regarded as permanent solutions.

Industrial adjustment policies include measures to facilitate adjustment by business, labour, and communities or regions. On the business side, this involves the provision of support to firms for modernization and reorganization of existing production facilities, for shifting into new product lines, and for identification and exploitation of new market opportunities. On the labour side, it means assistance for retraining, for job search and relocation to support affected workers in finding new employment opportunities and, in some cases, income maintenance. Aid to regions and communities entails concentrated efforts to rebuild and redeploy or retrain the local industrial base and labour force.

D) The MTN situation

During the course of the MTN, a good deal of public concern was expressed about the possible impact of the Tokyo Round on the Canadian economy. Businessmen questioned whether Canada could afford to expose itself to more competition at a time when domestic industries were facing many difficult problems, including pressure from existing imports¹. Concerns were expressed of Canadian subsidiaries

¹ Allan J. MacEachen, "Canada and the Trade Negotiations - Building Blocks or Barricades", Feb. 9, 1978

moving their operations to the U.S. and of firms ceasing manufacturing operations in favour of distribution activity, on the assumption that import competition in particular lines would become too intense.

A reassessment of the MTN impact at this stage leads to less dire conclusions than initially anticipated, while pointing out a number of bright spots which received less public attention in earlier discussions. This reevaluation results from a number of factors. First, the modest degree of tariff cuts on industrial products - about 30% compared to the originally-envisaged 40-60% - will have less of an impact. Second, these cuts are being phased in over seven years. Third, sufficient safeguard provisions exist to allow quick border control measures to be applied where unfair and injurious competition can be substantiated. Fourth, the Enterprise Development Program of the Department of Industry, Trade and Commerce has already been amended to provide a specific window for MTN-affected firms and a special community based adjustment program (ILAP) have been introduced. Finally, the depreciation of the Canadian dollar has stimulated Canadian exports to an unprecedented level, while at the same time rendering imports of manufactured goods, particularly consumer items, less price-competitive in the Canadian market.

A neglected area of analysis in this and other studies, due to the virtual absence of quantitative estimates, has been the putative impact of the non-tariff barriers liberalized in the MTN as well as the effect of the five NTB codes of conduct that have been negotiated. These cover subsidies/countervail, government procurement, import licensing, product standards, anti-dumping and customs valuation. A study supported by the Department of Industry, Trade and Commerce is currently being conducted by the Institute for Research on Public Policy in Canada and the National Planning Association in the U.S. in a first attempt at quantifying a number of NTB issues.

E) The pattern of industrial adjustment intervention

During the 1970's, governments of OECD member states heightened their intervention in their mixed market economies. The economic prospects for the 1980's are likely to precipitate further demands for government intervention. The basic cause for the expansion of government in the economy and the concomitant diminution of the role played by the private sector lies in the perceived failure of the market system to allocate resources efficiently and to provide a socially acceptable (equitable) distribution of the benefits and costs of growth. It must be recognized however that many so-called market failures result from distortions derived from extant domestic policies or as the product of policy intervention by other governments. In fact, the definition of equity is subjective and a good degree of the problem may be influenced by the changes in our perception of equity caused in large part by the undertakings of governments conceived in a more favourable economic and fiscal climate.

While there is recognition by both public and private sectors of the negative consequences of too high a state profile in the economy, (i.e. adversely affecting the incentives necessary to keep the private sector producing efficiently), the rapid course of global change has ironically induced the business community to seek government assistance to "remain competitive". Domestic and export subsidies, trade protection, R&D incentives, and a host of tax concessions have been requested by the private sector from government. There appears to be no indication that the demand for government largesse will diminish in the 1980's. OECD reports suggest, however, that the recent improvements in manufacturing prospects in many industrial countries, coupled with the search for stimulative but non-inflationary growth policies, have brought greater focus on the structural or supply side and to questions of the inefficiencies, rigidities and growth distortions caused by previous government policies. Higher priority is being given to improved efficiency and innovation, and greater control over and reductions in government spending.

The remaining task of this paper will be to overview the MTN-related industrial policies of other countries, to provide a survey of MTN analysis to date, and to assess the significance of the impact of the MTN tariff cuts in the current medium-term outlook for Canada.

F. Adjustment policies of OECD countries

The industrial policies of OECD countries have typically been a mixture of heavy state intervention in the economy (Britain, Japan, Austria, France, and Belgium) and laissez-faire policies (West Germany, United States, Australia). Recent developments indicate that even the latter three countries have moved towards increasing state intervention in a number of industrial sectors. In the process, these countries are struggling with the problems faced by others in reconciling or striking a new balance between the conflicts inherent in the equity-efficiency model of intervention. This has recently necessitated the dropping of some support measures, the refocussing of employment promotion programs and attempts to reduce the financing of selective measures which threaten to trap resources in non-viable activities.

Based on national submissions to the OECD Industry Committee, the principal goals of the industrial policies of OECD countries can be summarized as follows¹:

- a) the reduction of unemployment and inflation;

¹ Annual Perspective Review of Industrial Policies, OECD Industry Committee, 1978, 1979, 1980

- b) the reduction of dependence on imported petroleum supplies, diversification amongst sources of supply, the search for alternative energy sources and measures to improve conservation;
- c) the attainment of balanced and sustained growth in the industrial sector;
- d) assistance to industrial sectors and regions in difficulty without unduly interfering with international competition and trade flows;
- e) development of high technology industries and increased R&D;
- f) aggressive export strategies;
- g) encouragement of small and medium enterprises.

At a micro level, the rethinking of industrial policies is leading to a greater rationalization of programs and simplification of regulations. This has often necessitated institutional changes and a greater degree of private sector input into the generation of effective industrial policies. As a companion to these endeavours, most countries have adjusted policies at various levels to influence the investment climate, including such policies as the removal of payroll taxes; investment incentives (tax credits and depreciation rules); sales tax suspensions for new facilities; and interest rate reductions.

The differing historic roles that governments have played in stimulating their economies has determined the nature of their response to MTN-related adjustment. The result has been that, apart from the U.S. and Canada, no specific MTN-response mechanisms have been developed by other OECD countries.

Japan's system of administrative guidance, less open foreign import trade regime (compared to the U.S. and EEC) and the import monopoly position enjoyed by the "Sogo Susha" trading companies who operate world-scale manufacturing operations in their own right, provide a tool for smoothing any industrial disruption or adjustment that would be required to trade liberalization. The extensive adjustment policies carried out by the Japanese for reasons unrelated to the MTN in such sectors as textiles and shipbuilding have involved scrapping of excess capacity given technological change and shifts in market demand abroad, and the creation of "depression" cartels. A policy of "picking the winners" has resulted in large funding for high technology industries such as aerospace and computers.

Similarly, standing policies of sector financial support and non-tariff barriers against imports into the EEC (government procurement in high technology sectors, quantitative and licensing restrictions) act to cushion the impact of the MTN. Nationalization and state equity in such sectors as steel and automobiles in France, Italy, West Germany and Britain also mitigate trade liberalization impacts, although at a high cost to the public treasury. In traditionally weaker sectors such as textiles, clothing, footwear, tableware, consumer electronics, toys, housewares and tires, some EEC countries make use of mandatory import quotas which significantly reduce the impact of foreign imports, especially from low-cost state-trading countries such as China and East European nations.¹ As well, developed countries as a group made minimal tariff reductions in these sectors and in many cases such sectors were excluded entirely from the MTN.

In sum, the adjustment policies of many European countries, and Japan relate mainly to aiding depressed regions and specific sectors, stimulating modernization, and facilitating technological and market changes rather than to specific MTN or other trade effects.

The U.S. was the first developed country to initiate trade-related adjustment policies following the Dillon Round of trade negotiations under the GATT. U.S. policy recognizes that import-related problems need not be industry-wide but may be concentrated in specific geographic areas or communities and involve individual firms and groups of workers. Congress established trade adjustment assistance in the belief that government bears a special responsibility towards firms and workers adversely affected by increased imports resulting from federal policies to liberalize trade. These policies may bring about dislocations that differ somewhat in nature from dislocations due to other causes, and Congress felt it necessary to provide a level of assistance beyond what was available through regular business and social programs.

Under the Trade Act, firms must demonstrate that increased imports contributed importantly to declines in sales or production and employment. During 1979, most firms assisted were in the textile, apparel, footwear, and handbag industries. Assistance takes the form of direct loans and guarantees of bank loans to supply working capital to enable firms to implement their adjustment proposals and for acquisition, construction, installation, modernization, development, conversion or expansion of such fixed assets as land, plant, buildings, equipment, facilities, or machinery. Financial assistance is also provided for technical assistance projects to hire consultants to assist firms in implementing their recovery plans. Trade Adjustment Assistance Centres have been set up across the U.S. to provide outreach assistance to trade-impacted firms. On the labour side, 92,000 workers were certified eligible to qualify for income

¹ General Agreement on Tariffs and Trade, Doc. L/4730, 1979.

maintenance payments to supplement regular unemployment insurance bringing their total benefits close to 70% of their average weekly wage.

Subsequent analysis¹ has indicated that liberalization of the program in 1974 necessitated significant increases in funding and that it is being used for a multiplicity of purposes including the extra subsidization of temporary layoffs. The U.S. has used the Trade Act to assist the depressed automotive industry (except Chrysler Corporation which was the subject of a separate piece of legislation) on the grounds of import-related competition.

Sectoral assistance programs also exist to revitalize the footwear and stainless steel flatware sectors. Of potentially much greater importance is the steel industry program for which \$500 million has been established for modernization loans. A change in commitment to large-scale government financing of industrial and labour adjustment assistance has recently been proposed by the Reagan Administration in an effort to curtail excessive expenditures.

2. Multilateral Trade Negotiations

A) Overview of outcome

The Tokyo Round of Multilateral Trade Negotiations was substantially concluded in Geneva in mid-1979. These negotiations were launched in Tokyo in 1973 and involved nearly 100 countries. Their general objective was to achieve the expansion and greater liberalization of world trade and the improvement of the international trading framework, including better rules and procedures for dealing with unfair trading practices. The negotiations focussed on both tariff and non-tariff barriers to trade, and on agricultural and fisheries as well as industrial products.

All provincial governments in Canada participated in preparations for the negotiations and, through a continuing series of consultations, contributed to the development of specific Canadian objectives and negotiating positions. The federal government also held extensive and frequent consultations, on a scale unequalled in any previous round of trade negotiations, with private sector interests including business, labour and consumer groups. Apart from direct representations to Ministers, these consultations were carried out through the Canadian Trade and Tariffs Committee and the Office of the Canadian Coordinator for the Multilateral Trade Negotiations.

In the case of industrial products, many important concessions were made by our trading partners. The average weighted depth of tariff cut on Canadian exports to the United States, the EEC

¹ J.D. Richardson, "Trade Adjustment Assistance under the U.S. Trade Act of 1974", (forthcoming).

and Japan taken together will be close to 40 percent. The average reduction in the Canadian tariff will be comparable. The overall weighted cuts by all MTN participants is closer to 30 percent. A key disappointment for Canada was the failure of our trading partners to agree to very significant concessions on non-ferrous metals and forest products (with the exception of the U.S. on the latter) which would have permitted increased access abroad for processed Canadian resource products.

The non-tariff agreements include codes on subsidies and countervailing duties, technical barriers to trade, government procurement, import licensing procedures and customs valuation; a revised agreement on anti-dumping duties; and an understanding on ways in which certain of the general obligations of the GATT should in future be applied with a view to improving the international trading framework, including the provision of a firmer basis for special and differential treatment for developing countries. In general, the codes should bring under better control many non-tariff barriers which have been faced by Canadian exporters. Moreover, the improved international surveillance and dispute settlement procedures which have been agreed to help ensure that the anticipated benefits will in fact be realized. The extent of such benefits will vary from code to code and will particularly depend upon how many countries signify their adherence (few developing countries have signed so far).

Proposals currently before Parliament to amend Canada's import régime would permit Canada to take full advantage of its rights under the new agreement on subsidies and countervailing duties and the agreed revisions to the existing anti-dumping code. They would also strengthen Canada's capacity to deal speedily and effectively with unfair trade practices and injurious imports. At the same time, the new rules will limit the capacity of foreign governments to act arbitrarily against Canadian exporters. Acceptance by the U.S. government that injury must be found before countervailing duties can be applied is a particularly notable gain for Canada.

The agreement on valuation will establish uniform rules to be applied by all governments in determining the value of imported goods for customs purposes. Canada's acceptance of this code is subject to an agreed four year delay in implementation, during which time the government is to determine what changes may need to be made in nominal rates of duty to offset any significant loss of protection which might otherwise result.

As a general rule, the agreed reductions in tariffs are taking place in eight annual steps beginning in 1980. Once these reductions are fully implemented, tariffs on most manufactured goods imported into the EEC and Japan will be of the order of 5 to 7 percent, while raw materials will, with some exceptions, enter these markets free of duty or at low rates. Aircraft, aircraft engines and parts will also enter these countries, Canada, the U.S. and a number of other countries duty free as of January 1, 1980 under a specially

negotiated agreement. For the U.S., the average tariffs on manufactured goods will be in the area of 4 percent. For the most part, industrial materials will be free or the tariffs will be at very low levels. Of particular importance for Canada, a number of U.S. tariffs covering an important proportion of Canadian exports will be eliminated. Well over 90 percent of current Canadian exports will enter at tariffs of 5 percent or less and close to 80 percent will be duty free, taking into account trade under the Auto Pact.

Where tariffs apply in Canada's case, the average rate on industrial imports will be reduced to between 9 and 10 percent. Most industrial raw material imports will continue to be free of duty.

Like other participants, Canada made no reductions - or comparatively small reductions - in the level of tariffs on such items as rail cars, ships, textiles, clothing and footwear. With regard to the latter three categories, Canadian rates of duty will range from 8.5-25% for textiles; 22.5-25% for apparel; and 22.5% for footwear. U.S. tariff rates on textile and clothing products will generally remain higher. The EEC reduced duty rates in these sectors by a trade-weighted average of about 25% while Japan maintained its global footwear quotas (as did other countries) and made few significant concessions in the sensitive textiles sector.

While the general outcomes for agricultural and fisheries products have been heavily criticized, some important results were achieved for Canada here as well. Concessions have been exchanged with our major trading partners covering over \$1 billion worth of Canadian exports. Of particular significance is the breadth of the concessions obtained from the U.S. Agricultural trade may also benefit from the agreements on some of the more general non-tariff barriers. Agreement has also been reached that further consideration will be given, within the GATT framework, to the establishment of improved consultative measures to address trading and related problems in agriculture. Important foreign concessions have been gained for certain fish products which will benefit both East Coast and West Coast producers although the degree to which foreign countries were willing to open their markets for fish and fish products was less than Canada sought. Finally, improved access has been obtained for Canadian whiskey in the U.S., European and Japanese markets.

B) Continuing international discussion of unfinished business

Final agreement on safeguards, that is to say mechanisms for emergency action against injurious imports, was not achieved in the MTN. Discussions, however, are continuing. One of the crucial points to be resolved concerns the application of safeguards on a discriminatory basis rather than against all sources of disruptive imports as is presently required by the GATT.

The code on government procurement is not as extensive as had been hoped at the time. The fact that it was not possible to obtain agreed coverage for entities which are major purchasers of telecommunications equipment, power generation and transmission equipment and some transportation machinery diminishes the value of the code for Canada.¹ While bilateral discussions between Canada and the U.S.A. are ongoing in this area, it is expected that Japan and the EEC will be requested to further liberalize their procurement practices under American pressure.² The code's coverage is to be the focus of further negotiations in the period leading up to the end of 1984.

Contracting parties to the GATT have recognized that existing GATT rules on export controls need to be assessed on a priority basis. Canada has made it clear that this issue should be linked to trade liberalization in processed resource products - a key Canadian objective advanced through a sector approach which was not met in the MTN.

C) Policy analysis and programs to date

In the IT&C study, A Structural Analysis of the Canadian Economy to 1990, produced in May 1978, impacts of a phased 40% tariff reduction were produced to determine potential macro and sectoral results. This study amongst others³ pointed out that there would be an aggregate loss of 57,000 jobs, mainly in manufacturing, offset by job gains of 37,000 in other sectors, chiefly services, if straight multilateral tariff cuts took place with no success in sectoral negotiations or in removing non-tariff barriers. These results thus recognized the importance of the NTB codes for Canada, which was central in the Canadian negotiating position since, to a considerable extent, the results of gains in liberalizing non-tariff measures would more than reverse for Canada the potential adjustments required due to reduced tariffs.

Looking only at the tariff analysis of the above study, the major adversely affected sectors were textiles, clothing, footwear, household appliances, organic chemicals, paper products, electrical industrial equipment, plastics, electric and electronic household equipment, miscellaneous metal fabricating, household chemicals, and non-metallic mineral products. The major gainers in manufacturing

¹ "Results of the Multilateral Trade Negotiations", Release of the Deputy Prime Minister, April 12, 1979

² Japan recently agreed to open tenders for procurement by its telephone and telegraph authority.

³ See Quantitative Section - MTN impact for references to some of this work.

were precision instruments, transportation equipment and wood products. Aggregate consumer incomes were also increased and large potential gains in productivity were identified.

As far as non-tariff barriers are concerned, however, it was not possible to quantify the effects of their reduction. As mentioned earlier, the Department of Industry, Trade and Commerce is undertaking, through support to the Institute for Research on Public Policy and the National Planning Association, a first attempt at quantifying the effects of non-tariff barriers in the North American context. However, the limited scope of the code on government procurement and the lack of major liberalization of agricultural non-tariff barriers suggest that the MTN codes on NTB's will have a positive but not dramatic impact on increasing Canadian export access and that Canada still has much to gain from further trade liberalization. Nevertheless, it should be pointed out that the NTB codes do provide for dispute settlement and surveillance procedures which will act to ensure that trade rules are made more certain and less arbitrary.

While a large number of briefs received from the business community during the course of the MTN tended to emphasize potential negative implications, it should be noted that survey questions included in the IT&C Capital Expenditure Survey over the period indicated that the announced tariff reductions have had very little effect on investment planning by larger firms, as well as pointing out a level of concern by certain business sectors about the high costs of operating in Canada due to the protection afforded some intermediate input products.

Policy proposals and programs to date developed by the federal government in response to representations from business, labour and the provinces have taken the form of new adjustment initiatives covering a variety of adjustment situations including adjustment to trade liberalization.

In October 1978, an expansion of federal financial support programs to help Canadian industry meet the world trading competition of the 1980's was announced. The main elements consisted of last resort financing as follows:

- a) an increase in the Enterprise Development Program loan guarantee ceiling from \$350 million to \$1 billion to assist industry restructuring, including that occasioned by the MTN;
- b) an increase in the annual EDP budget for grants to encourage high risk research, design and development from \$25 million to \$60 million;
- c) the provision of \$20 million per year in 100 percent loan guarantees to forestall bankruptcies until viable takeovers can be arranged, and \$4 million for consulting studies to promote mergers;

- d) the introduction of new instruments to finance restructuring necessitated by injury arising from the MTN: \$20 million of 100 percent loan insurance annually, \$5 million per year in direct loans, and \$2 million per year in consulting services; and
- e) the introduction of a specialized panel of the Enterprise Development Board to ensure ready access to EDP by companies requiring adjustment assistance due to the implementation of the MTN results.

A variety of trade policy instruments are also available to deal with specific situations related to injurious imports, in conformity with Canada's international obligations. These include import quotas, anti-dumping and countervail duties, possible renegotiation of tariff concessions and duty remission schemes. In addition, Canada has availed itself of the inherent adjustment provisions agreed to in the MTN with respect to a seven-year phase-in period for tariff reductions and partial or full exemptions from the tariff reduction formula. (No reductions were made by Canada on most types of clothing and rail cars and minimal reductions were made on other products sensitive to import competition such as footwear and primary textiles.)

Other measures designed to assist the upside adjustment capabilities of Canadian industry include:

- a) the expansion of the Promotional Projects Program by over \$2 million per annum for fairs and missions abroad to sell Canadian manufactured goods;
- b) an increase in the overall budget of the Program for Export Market Development by \$5 million per year to support the establishment of sustained market activities and the allocation of an additional \$2.5 million yearly to broaden PEMD coverage to market identification and incoming buyers' activities vis-à-vis the U.S.;
- c) an increase of \$ 2 million per year in the budget of the Federal Business Development Bank for counselling, training and information services to small and medium sized businesses and the raising of both its and the Small Business Loan Act ceilings;
- d) raising of the Export Development Corporation's loan ceiling from \$8.5 billion to \$26 billion, significantly increasing its ability to contribute to Canadian export performance, particularly in manufactured goods;
- e) the establishment of an industrial credit insurance program for small and medium sized business to encourage long-term financing by private financial institutions;

- f) introduction of the Shop Canadian Program to impress upon retailers and consumers the advantages of choosing domestically manufactured goods;
- g) the recent introduction of industrial benefits guidelines.

On the labour side, retraining, job search, and relocation assistance is being provided to workers in finding new employment and, in some hardship cases, income maintenance over and above that available from unemployment insurance is granted.

The October 28, 1980 federal budget also provided a special allocation of \$350 million over four years to promote industrial restructuring and manpower retraining and mobility in areas of particular need. A series of initiatives is now being undertaken that concentrates on assisting adjustment problems in adversely impacted communities.

3. Quantitative Impacts

A) Introduction

In order to provide a quantitative overview and sectoral sensitivity test on the question of MTN-related industrial adjustments, impacts of the effects of the MTN tariff results discussed earlier have been carried out with the use of the IT&C Canadian Explor Model (CEM). The model has been developed as a structural and trade simulator for medium and long term impact analysis. It is thus not a forecasting tool in the usual sense. As a comparative static model, CEM provides results that are conditioned on the assumptions incorporated in the impact scenario vis-à-vis the base scenario (the base case). The simulations contained herein were run on the 1979 CEM specification for 1985 of the Department of Finance Medium Term (Budget) Track (the base case) in order to show separately, in some sectoral detail, how much of that base case is made up of adjustment to the MTN.

The CEM has at its core an input-output system and is capable of providing both macro economic results for the economy as a whole and consistent structural detail for 68 sectors.¹ This consistent disaggregation of external trade and domestic activity variables permits ranking of the effects of a variety of indicators.

The CEM does not however include policy variables nor the cyclical dynamics found in econometric forecasting models. Operation of CEM requires an exogenously constructed base scenario, in this case

¹ The model is currently undergoing redevelopment with new annual input-output data and disaggregated to 140 sectors.

provided by the Department of Finance, that explicitly states global parameters such as demographic trends, the total economy wage rate, foreign demand and foreign price variables. The CEM then acts as a consistent sectoral accounting framework for these exogenous assumptions. In either base case or simulation mode CEM does not incorporate endogenous macro stabilization policies, financial feedbacks or foreign capital and service flows. Therefore, any adjustments to changes in government balances, for example, must be introduced exogenously. Since wages and participation rates are exogenous, the labour market need not clear; the result is that, in any impact, labour can be left idle or over-employed. Alternative behavioural reactions can, however, be tested or introduced from other sources.

In addition to direct trade and income effects, the model captures inter-industry flows and cost induced price adjustments and hence indirect effects through the input-output system. It must be noted, however, that because the model has fixed input coefficients, it does not capture such phenomena as substitution between commodities as a result of changes in relative prices. Therefore price changes feed directly through domestic costs and prices via a mark-up mechanism and cause changes in domestic real incomes and international competitiveness.

B) MTN impact

The MTN round which was concluded in 1979 provides for tariff cuts to be phased in over a seven year period starting in 1980 and for non-tariff concessions to be implemented during 1980 or as soon thereafter as necessary legal changes can be made. Consequently, in 1985, the target year of the Medium Term Track, the participating economies will find themselves in the middle of the adjustment process to the MTN. It follows therefore that the quantitative assessment of the MTN offered below cannot be definitive.

The choice of CEM for this assessment resulted from the need for consistent sector detail, integration of IT&C Sector Branch views, and an interdepartmentally agreed base scenario. The CEM has been employed in an earlier MTN assessment based on across-the-board rather than sector-specific tariff cuts¹.

To put the CEM results into perspective it is useful to review the work of several earlier studies, using alternative econometric models for estimation of the MTN tariff effects on the Canadian economy. These include:²

¹ See A Structural Analysis of the Canadian Economy to 1990, Discussion Paper, Economic Analysis Branch, IT&C, May 1978.

² More recently as well J. Whalley "An Evaluation of the Recent Tokyo Round Trade Agreement - The General Equilibrium Model of World Trade Involving Major Trade Areas", University of Western Ontario, Centre for the Study of Int'l. Economic Relations, Working Paper #8009.

1) Economic Council of Canada: A 1977 study using version 1.0 of the CANDIDE Model estimated the effects of tariff removal under bilateral Canada-United States free trade for a period starting in 1969. The resulting employment loss of about 25,000 jobs could be reversed into a gain of 24,000 jobs with a fiscal stimulus and additional private investment totalling \$1.4 billion in 1985 dollars.

2) Bank of Canada and Department of Finance, 1977: This study used RDX2 to consider the effects of a 50% multilateral tariff reduction phased in over four years, in the presence of a floating exchange rate. The employment loss varied between zero and 13,000 jobs, with pronounced cyclical and seasonal variations. In the fourth year of tariff cuts employment was reduced by 9,000 jobs.

3) Brookings Institution, 1977: W. Cline et al. applied twelve tariff cutting formulas to a model embodying international trade flows but lacking income effects. The employment impact for Canada varied between 31,000 and 85,000 jobs lost, depending on the tariff formula used.

4) U.S. Senate, Committee on Finance, June 1979: This study, prepared by Deardorff and Stern, was the first one to incorporate the actual results of the MTN rather than a generalized tariff formula. Results are derived from a world trade model that incorporates supply and demand functions for each of 22 tradeable and 7 non-tradeable industries by 18 major industrial countries and the rest of the world. The supply and demand functions interact with each other on both the domestic and world markets until equilibrium is achieved in production and trade. The demand functions also determine employment in each industry and country.

The main results were that

- i) there would be small gains in employment for all countries except Japan and Switzerland. Gains for the U.S. would be 15,000 jobs and for Canada 2,200 jobs;
- ii) exchange rates would adjust slightly for most countries, leaving the Canadian dollar virtually unaffected by the MTN;
- iii) import and hence consumer prices would decline somewhat, with a 0.28% drop in the Canadian price level;
- iv) all countries except Switzerland would experience modest welfare gains. Canada would benefit to the extent of 0.17% of GDP.

All the above mentioned studies suggest that the aggregate impact on Canada will be small; however, individual sectors may be significantly affected.

Since the 1985 CEM version of the Medium Term Track implicitly includes the MTN, the impact scenario attempts to show what the economy might look like if the MTN did not take place. It thus shows how much the MTN tariff changes are contributing to expected medium term sectoral adjustments. The general assumptions behind the impact include:

- 1) World prices and income levels are assumed constant at base 1985 levels. Deardorff and Stern estimate that the full MTN effect, say in 1990, would amount to a welfare gain of 0.08% of GNP and a drop in the price level of 0.20% for all countries. Only a portion of these effects would have been realized by 1985 and have been ignored in this analysis.
- 2) No specific allowance has been made for either the maintained tariff levels of non-signatories or developing countries, or potential export gains by the above countries.
- 3) "Normal long run" domestic profit margins are maintained sectorally; thus all the effects of tariff reductions feed through costs and prices, resulting in changes in domestic real incomes and in international competitiveness.
- 4) No significant changes in behaviour are assumed on the part of multinational companies and the existing institutional arrangements such as the Auto Pact are taken as given.
- 5) Government reacts to the eventual MTN results by offsetting lost tariff revenue, through income tax measures.
- 6) Dynamic adjustments such as increased productive efficiency or rationalization gains are excluded from the present analysis because of the difficulty in quantifying them on a sectoral basis. To the extent that such adjustments occur, gains to Canada from the MTN will be understated.
- 7) The no MTN impact clearly understates the impact on Canada of opting-out of the negotiations since the loss of export market shares through potential retaliation, or at least the effect of Canada facing higher tariffs than competitors in export markets, have not been modeled.

C. Tariffs

For this simulation, pre- and post-MTN tariff rates have been calculated by CEM sector for Canadian imports from and exports to the U.S., the EEC and Japan. GATT data for the U.S., EEC and Japan were obtained for 1976, the base year used in the negotiations. The MTN dealt only with bound* tariff rates. In the U.S. and EEC, the

* "Bound" rates are incidences of tariff application at set ad valorem or specific duty levels which are the legal maximum tariff which result from internationally negotiated commitments.

applied rates are usually equal to the bound rates. Japan, however, has a more complex system in that only about 20% of Japanese bound rates are actually applied at that level.¹ Since Canadian exports to that country are largely non-manufactured goods entering at low rates, the upward bias on tariffs should not be large.

Canadian tariff data was obtained from the Department of Finance, including current actual and bound (base) rates and future bound (concession) rates. All bound rates were given in ad valorem terms. However, those actual tariffs expressed as specific duties had to be converted to appropriate ad valorem rates. Actual concession rates were calculated as the lower of actual current tariffs or bound concession rates agreed to at the MTN.

According to the 1976 Tariff Items Summary prepared by Statistics Canada, total Canadian imports amounted to \$38 billion. Of that total, \$14.7 billion was dutiable and duty collected amounted to \$2.073 billion. As a result, the average tariff rate on dutiable imports was 14.1%, dropping to 5.5% if "free" imports are included. Imports from the U.S., EEC and Japan amount to approximately 85% of total non-oil imports. Accordingly, the average tariff rate levied on imports from this group of countries is somewhat different, at 11.9% for dutiable imports and 5.7% for all imports.

MTN tariff cuts were made on the basis of bound rates. Canada's average of bound concession rates at 7.3%, represents a 38% tariff cut as weighted by 1976 imports. In terms of actual concession rates, the tariff cuts amount to only 27%, resulting in a trade-weighted average concession rate of 4.2% vis-à-vis Canada's major trading partners. Actual Canadian tariff rates for some sectors differ significantly from those calculated from 1971 data and used in the previous MTN exercise, primarily because of the changing composition of imports, adding a further qualification to the results impacted for 1985.

D. Non-tariff barriers

Changes in NTB's that flow from the MTN should have net positive effects on Canada's trade since improved GATT disciplines have been put into place in a number of areas, although it is difficult to quantify exactly what the sector specific impact will be. They have therefore not been accounted for in the quantitative results which follow. The study by Deardorff and Stern, referenced earlier,

¹ The Japanese file did not contain agricultural tariff items and existing 1971 tariff rates have been used for CEM sectors 1-17. Other sources (e.g. Stern & Deardorff) showed virtually no Japanese agricultural concessions, hence the 1971 rates are also used as concession rates.

is the only recent one that attempts to estimate sectoral impacts of changes in NTB's relating to government procurement and agriculture. They did not try to evaluate the even less certain effects on trade of the harmonization of technical standards and other changes to NTB's agreed to in the Tokyo Round.

The Deardorff and Stern estimates of the global trade effect on Canada of changes in government procurement practices and agricultural trade barriers amount to about 40% of the tariff change effect for both imports and exports. This assessment indicates how small the effect of NTB changes may in fact be.

There is uncertainty with regards to the sectoral estimates given in the above study. With respect to imports, changes in procurement practices of the federal government and designated agencies that have been negotiated in the MTN are estimated to have little impact. Changes in customs valuation agreed to by Canada might adversely affect textiles, clothing and footwear in particular, but Canada has reserved the right to make countervailing tariff changes to maintain the level of protection. Harmonization of technical standards could lead both to larger imports and exports of electrical goods and precision instruments.

On the export side, changes in procurement practices of foreign governments could have positive effects on Canadian sales. Items of particular interest to Canada such as telecommunications equipment will continue to be shut out of Japan and Western Europe unless changes are made in their tendering procedures. Sales of newsprint and electrical equipment could also be expected to benefit from harmonization of technical standards. Removal of the "American Selling Price" system on benzenoid chemicals by the U.S. may increase exports of chemicals to that country. Finally, agreement by the U.S. to produce proof of injury before invoking countervailing duties will reduce for Canadian exporters the level of uncertainty in dealing with the U.S.

E. Model results

The impact of the MTN tariff cuts on major Canadian economic indicators is shown in Table 1. As was the case with the other studies mentioned earlier, the aggregate impact on Canada is seen to be relatively small. Canada, along with other MTN participants' benefits from the "trade creation effect" of a general decrease in tariffs through increased exports. These export gains vary from sector to sector depending on the depth of the sectoral tariff cut and the change in sectoral non-tariff protection, as well as the price elasticity of demand for Canadian exports.

As Canadian tariffs decline, the domestic price of imports drops, given the assumption of no change in profit margins and hence a pass-through of the tariff reductions. The change in import prices

after tariff cuts brings about increased demand for imports. Additional imports due to tariff induced price changes are calculated with the use of sectoral import price elasticities.

The now lower prices of imported intermediate inputs result in decreased producer prices which both generate additional export sales and also limit the direct increase in the penetration of imports due to the tariff cuts. To the extent that the absolute size of the Canadian tariff cuts exceeds those of major industrial countries, due to relatively higher Canadian pre-MTN tariff levels, the size of the price reduction of intermediate inputs enhances the international competitiveness of Canadian exporters. Tariff cuts accelerate the average rate of growth of both exports and imports from 3.75% to 3.89% per annum (as per Table 1) only marginally altering the current account balance.

As a result of a decrease in the domestic price of imports of 0.9% and its effect on domestic producer prices, the rate of increase of both the GNE price deflator and the consumer expenditures deflator is also somewhat lower.

Under the assumption of fiscal policy neutrality, tariff revenue losses are recouped through direct taxation. The necessary adjustment for 1985 is calculated at \$650 million in 1985 dollars and is implemented, for analytical purposes, through a change in personal income tax. Consumer welfare gains due to lower domestic prices are more than offset by the higher taxes required to recoup the lost tariff revenue so that without accounting for dynamic efficiencies and NTB gains, consumer expenditures, investment expenditures and GNE grow in real terms at a slightly lower rate than without the tariff cuts.

The model results outlined above attempt to measure only the static impact of tariff changes to 1985. Some of the studies referred to earlier acknowledge that the positive effects of trade liberalization resulting from dynamic adjustments, including scale and rationalization, may well outweigh the static effects - positive or negative - of tariff changes. Moreover, as noted in the earlier discussion on non-tariff barriers, Canada should be a net gainer from agreements reached in that area. In any event, Canada had no viable alternative to participation in the MTN and ensuring a successful conclusion of the negotiations. The model results, including the potential net loss of some 21,000 jobs from the static tariff impact, must be viewed therefore as a comparison with a hypothetical and unattainable scenario in which the MTN never took place. Moreover, the impact of trade liberalization is inextricably interwoven with those of technological change and adjustment to the energy situation. If Canadian industry is to remain competitive in world markets, an ongoing adjustment process is necessary to include all these factors. What is more important than these macro considerations, from the point of the emphasis of the study on structural adjustment, is the sectoral incidence of the results reported below.

TABLE 1

MTN Impact
Major Economic Indicators¹
 (Average Annual Growth Rates)

	1985 Base Case including MTN Tariff Effects	1985 Impact of a Hypothetical Situ- ation in which the MTN never occurred
	%	%
Consumer Expenditures	3.37	3.40
Investment (Public & Private)	5.62	5.64
Residential Construction	2.22	2.22
Government Current Expenditures	0.80	0.80
Exports of Goods & Services	3.89	3.75
Imports of Goods & Services	3.89	3.75
<u>Gross National Expenditure</u>	3.30	3.33
Total Production	4.01	4.02
Employment	2.65	2.68
(thousand jobs)	(11979)	(11999)
Unemployment Rate (%)	6.0	5.8
Productivity (GNE/employee)	0.63	0.63
	<u>1970=1.00</u>	<u>Percent Change from Base</u>
Production Prices	3.44	0.14
Domestic Price of Imports	3.75	0.91
GNE Price Deflator	3.51	0.22
Consumer Expenditure Deflator	3.28	0.09

¹ The model results presented in this table as well as the ones following are only best estimates and as such should be treated with caution. The precision of the figures shown is necessary to allow indication of the direction of tariff-induced changes which in general are very small.

TABLE 2

TARIFF Impact
Shares of Production by Major Subsector

	<u>Historical</u>		%	Base Case incl. MTN 1985	Change in ¹ Shares due to MTN Tariff Impact, 1985
	<u>1973</u>	<u>1978</u>			
Agriculture	2.66	2.77		2.49	+0.01
Forestry	0.88	0.75		0.64	0
Fishing and Trapping	0.16	0.14		0.20	0
Mines, Quarries, Oil Wells	4.06	2.99		3.32	+0.02
Construction	6.62	5.88		6.64	0
Manufacturing	23.46	22.88		23.31	-0.03
Utilities	2.82	3.13		3.64	0
Services	59.34	61.47		59.76	0
Total	100.00	100.00		100.00	

¹ The changes in shares of production as estimated by the CEM Model are very small and should be considered only as an indication of the direction of change.

TABLE 3

Annual Growth of Real Domestic Product
By Major Manufacturing Subsector

	<u>Base Case Incl. MTN 1978-85¹ Tariff Changes</u>	<u>Impact Excl. MTN 1978-85 Tariff Changes</u>	<u>Output Changes Due to Tariff Changes</u>
Food Processing	1.97	1.92	+2%
Petroleum Products	1.30	1.31	-
Textiles	1.95	1.95	-
Forest Products	2.43	2.49	-2%
Chemicals	3.99	4.00	-
Metals	4.15	4.13	-
Misc. Hardware	6.05	6.18	-2%
Electrical Products	6.04	6.58	-10%
Transportation Equipment	3.55	3.43	+4%
Machinery	4.50	4.50	-
Misc. Manufacturing	2.80	2.86	-
TOTAL MANUFACTURING	3.49	3.53	

¹ "Applied" from CEM commodity production estimates

F. Sectoral results

Table 2 shows the change in the distribution of production by eight major groups for both the base case including the MTN and the impact excluding the MTN. It can be seen that the changes in production shares due to the MTN are of a relatively small magnitude compared to the historical pattern. As a result, it is necessary to refer to a finer level of disaggregation to assess more precisely the impact of the MTN tariff cuts.

Even though the MTN would increase both exports and imports of manufactured goods, the combined effect of these two coupled with the measured lower domestic demand in the absence of efficiency gains and inclusion of NTB effects noted above would result in a small decline in the production of the manufacturing sector by 0.32% and decrease the growth rate from 3.53% to 3.49% p.a. as shown in Table 3. These results are so small both in absolute terms and relative to historical and forecasted conditions (Table 2) as to be insignificant, and again we must look at more detailed sector specific results.

Within the manufacturing sector, somewhat higher RDP growth is expected under the MTN for Transportation Equipment, and Food Processing. Those subsectors which are adversely affected include Electrical Products, Miscellaneous Hardware and Miscellaneous Manufacturing. Textiles, and Petroleum Products, Chemicals and Machinery are seen to be only marginally affected.

G. Major affected CEM sectors

At the lowest levels of aggregation which follow, the CEM results are intended only to identify and rank individual sectors according to their sensitivity to tariff reductions. Numbers attached to individual sectors have therefore been rounded so that the relativities can be highlighted and they should therefore be treated with caution. Nevertheless, CEM rankings do give an indication of where the main pressure points are and can be compared to other available evidence as well as the overall projections of the medium term track.

Table 4 presents the ranking of individual CEM sectors likely to be most affected by the MTN in terms of output. Among the gainers, aircraft would reap the largest benefits since effective January 1, 1980 all tariffs and quotas have been removed from civil aircraft, engines, parts, airborne avionics, flight simulators, repair and overhaul. These changes are mainly in the industry's favour, as Canada's aerospace manufacturing is predominantly for export into the U.S. market. The aerospace industry is well placed to exploit future opportunities and industrial restructuring, and adjustments are not seen as likely outcomes of the MTN.

TABLE 4

Production Effect Resulting From MTN Tarriff
Changes to 1985 Major Affected CEM Sectors¹

<u>Rank</u>	<u>Sector</u>	<u>Base Incl. MTN Tarriff Changes</u>	<u>Impact Excl. MTN (i.e. Preserving Pre-1980 Tarriff Levels)</u>
<u>Sectors With Expected Expansion of Output</u>			
1	Aircraft & Parts	6.0	5.5
2	Railway Equipment	3.8	3.6
3	Alcoholic Beverages	2.3	2.2
4	Plastics, Org. Chemicals	8.9	8.8
5	Precision Instruments	6.4	6.3
<u>Sectors With Expected Reduction in Output</u>			
1	Electric Hsld. Equipment	2.7	3.5
2	Electric Ind. Equipment	5.1	5.3
3	Metal Equipment	4.8	5.0
4	Appliances	4.2	4.3
5	Paper Products	3.2	3.3
6	Tools	5.3	5.5
7	Rubber Products	4.2	4.3
8	Explosives Inorg. Chemicals	4.2	4.3
9	Misc. Metal Products	4.9	5.0
10	Misc. Consumer Goods	7.1	7.2

¹ The CEM model results should be regarded only as an indication of the direction and approximate magnitude of change.

While foreign tariff changes ought to favour increased exports of Canadian railway equipment, it must be recognized that exports will continue to be inhibited by informal purchasing preferences that exist in the U.S.

The adverse results for Electrical Equipment and Appliances flow largely from greater import penetration due to lower tariffs. For Electrical Equipment as well as for certain other more affected sectors, export gains exceed import gains in percentage terms; however, considering the smaller productive capacity relative to the domestic market, even modest growth rates of import penetration would have to be counterbalanced by unrealistically high rates of export growth to maintain sectoral trade balances.

Tariff reductions provide substantial opportunities for trade expansion in the electronics industry including precision instruments. However, adjustments will be necessary in several areas if the industry is to realize these gains. In the office machine subsector, tariff cuts should increase trade substantially if domestic manufacturers are given larger chunks of production responsibility. The elimination of all trade barriers in civil aircraft should also provide the electronics industry with further access to the U.S. aircraft market for simulators and a range of avionic equipment.

Nevertheless, lower tariffs, particularly in the consumer electrics subsectors and on heavy equipment for industrial application, represent an opportunity for these subsectors to expand export sales. In the case of major appliances, industry and plant rationalization has resulted in the establishment of cost competitive production units. Further rationalization is, however, required to take full advantage of opportunities offered by the MTN. In the heavy equipment area, Canadian firms are already competitive internationally and lower tariffs should help to further reduce input costs. This subsector faces growing competitive pressures and may need to further control costs, develop improved equipment and explore new markets in order to maintain its competitive position.

In the fine papers subsector, access to the U.S. market is made possible through elimination of duties on many printing papers. The Canadian industry, however, will require restructuring in order to maintain its share of the domestic market and to take advantage of the opportunities offered by lower tariffs. Plant modernization and improved productivity in relation to lower costs will be required. The industry has already started this process by moving towards the production of specialty grades. Further restructuring and investment in new production facilities will be necessary.

Among chemicals, rubber products, paint and other chemicals, and explosives and inorganic chemicals show losses in the impact from the MTN tariff cuts. These losses are in part counterbalanced by gains in the plastics and organic chemicals sectors, consisting mainly of petrochemicals.

4. Summary and Conclusions

As stated in the introduction, the quantitative results presented must be qualified with respect to both methodology and assumptions. At the same time, to say the aggregate MTN effects are small is to say that those effects which are measured in this study (i.e.: static tariff effects) roughly balance at the macro level. The study does, however, aid in putting the tariff outcome of the Tokyo Round into perspective vis-a-vis other sectoral growth and adjustment trends forecasted for the 1980's while providing some indication of where pressures for expansion or adjustment might be occurring.

It should be reiterated that the MTN would have occurred even without Canada's participation, and that opting-out by Canada would have invited retaliation by her trading partners. The expected results of the tariff impact are likely to be significantly modified by the dynamic effects of further rationalization and scale economies not accounted for here. As well, most estimates place Canada as a net gainer after taking into account non-tariff adjustments.

A) Aggregate impact

On the whole, the tariff reductions arising from the MTN are likely to have only a minor impact on the economy. Import prices are expected to drop marginally but the static real income benefits of this will likely be offset by the fiscal effects of foregone tariff revenue. The employment impact from the tariff cuts, by 1985, result in a 0.2% decrease in the level of aggregate employment on the basis of a static analysis but dynamic considerations of adjustment could easily turn this positive. At the same time, this result is so small as to be effectively zero. In any event, about one third of this employment adjustment would occur in manufacturing. In the static case, this is sufficient to imply a slightly lower rate of growth in GNE and investment to 1985 than without the MTN tariff cuts.

B) Sectoral impact

Tariff impacts are expected to lead to possible loss in domestic market shares or other disruptive effects for the electrical household and industrial products (appliances, etc.), metallic equipment, paper and rubber products, miscellaneous hardware, and miscellaneous consumer goods.

Growth opportunities arising out of MTN trade liberalization are identified by the CEM analysis for the aircraft and parts, rail equipment, food processing (alcoholic beverages), plastics and precision instruments sectors. Marginal benefits are foreseen for some chemicals, forest products, and petroleum products.

APPENDIX

Table A-1

1970-1985 Annual Growth of Production

<u>Sector Name</u>	<u>Base Incl. MTN Tariff Changes</u>	<u>Impact Excl. MTN Tariff Changes</u>	<u>Impact Induced¹ Change in 1985 Production</u>	<u>Rank²</u>
(percent)				
Agriculture, Food and Fish				
Grain	1.29	1.28	0.1	20
Fish & Fur	3.88	3.85	0.4	7
Live Animals	2.64	2.65	-0.1	31
Milk & Eggs	3.28	3.29	-0.1	38
Feeds	2.10	2.08	0.2	15
Agriculture, nes	2.75	2.74	0.3	13
Tobacco	1.30	1.31	-0.1	33
Meat & By products	2.62	2.62	0	21
Poultry & Dairy	2.65	2.65	-0.1	35
Oils & Fats	2.09	2.07	0.3	11
Fish Products	3.86	3.84	0.4	9
Fruit & Vegetables	2.01	2.01	0	25
Cereal Products	0.53	0.53	0	30
Confect. and Sugar	1.05	1.06	-0.1	34
Non-Alcoholic Beverages	1.14	1.15	-0.1	41
Alcoholic Beverages	2.33	2.17	2.3	3
Food, nes	2.48	2.47	0.1	17
Ores and Metals				
Coal	9.51	9.50	0.1	18
Metallic Ores	2.32	2.29	0.4	8
Iron & Steel	4.30	4.31	-0.2	45
Aluminum	5.24	5.24	0.1	19
Copper	2.60	2.58	0.3	12

¹ A positive change implies that a sector will experience gains as a result of increased trade liberalization under the MTN.

² Ranked according to percent change in 1985 production.

Table A-1 (cont'd)

1970-1985 Annual Growth of Production

<u>Sector Name</u>	<u>Base Incl. MTN Tariff Changes</u>	<u>Impact Excl. MTN Tariff Changes</u>	<u>Impact Induced¹ Change in 1985 Production</u>	<u>Rank²</u>
(percent)				
Non-Metallic Minerals and Products				
Non-metallic Products	4.62	4.64	-0.3	51
Glass Products	3.86	3.91	-0.6	58
Non-Metallic Minerals	4.76	4.74	0.2	14
Textiles and Consumer Products				
Leather & Products	2.80	2.79	0	23
Fabric & Yarn	2.30	2.32	-0.4	55
Synthetic Fibres	4.37	4.37	0	24
Textile Products	5.10	5.11	-0.2	48
Clothing	2.64	2.64	-0	27
Printing and Publ.	3.19	3.22	-0.4	57
Misc. Consumer Goods	7.11	7.17	-0.8	60
Paper and Wood Products				
Pulp & Paper	2.67	2.68	-0.1	42
Paper Products	3.19	3.33	-0.3	54
Crude Wood	2.67	2.68	-0.1	59
Wood Products	5.36	5.38	-0.1	32
Chemicals				
Rubber Products	4.16	4.27	-1.6	63
Household Chemicals	5.64	5.66	-0.3	53
Paint & Other Chemicals	5.37	5.39	-0.3	50
Industrial Chemicals	4.51	4.51	0	22
Plastics & Org. Chem.	8.91	8.81	1.3	4
Expl. & Inorg. Chem.	4.15	4.25	-1.5	62
Plastic Products	10.00	10.00	-0.1	36

Table A-1 (cont'd)
1970-1985 Annual Growth of Production

<u>Sector Name</u>	<u>Base Incl. MTN Tariff Changes</u>	<u>Impact Excl. MTN Tariff Changes</u>	<u>Impact Induced¹ Change in 1985 Production</u>	<u>Rank²</u>
	(percent)			
Metal Products				
Boiler & Plate	4.20	4.18	0.2	16
Misc. Metal Products	4.92	5.02	-1.4	47
Wire Products	6.39	6.41	-0.4	56
Tools	5.34	5.46	-2.8	64
Metallic Equipment	4.85	5.04	-2.8	66
Electrical and Non- electrical Machinery and Equipment				
	%		%	
Machinery	5.35	5.36	-0.1	39
Appliances	4.17	4.34	-2.4	65
Electrical Industrial Equipment	5.10	5.34	-3.4	67
Electric Household Equipment	2.72	3.52	-12.4	68
Precision Instruments	6.39	6.33	0.9	6
Transportation Equipment				
Aircraft	5.99	5.54	6.27	1
Auto & Truck	5.45	5.45	0	29
Auto Parts	6.88	6.88	0	28
Rail	3.80	3.64	2.8	2
Ships & Repairs	3.73	3.71	0.4	10

APPENDIX

Table A-2

Pre- and Post-MTN Tariffs

<u>Sector Name</u>	<u>Canadian Tariffs¹</u>		<u>"World" Tariffs²</u>	
	<u>Pre-MTN</u>	<u>Post-MTN</u>	<u>Pre-MTN</u>	<u>Post-MTN</u>
	(percent)			
Agriculture, Food & Fish				
Grain	2.435	1.516	7.979	7.908
Fish & Fur	.392	.336	2.538	2.238
Live Animals	3.220	2.309	4.302	2.198
Milk & Eggs	1.013	1.012	.564	.564
Feeds	3.722	1.798	2.348	1.436
Agriculture, nes	3.655	3.584	6.050	5.695
Tobacco	22.279	19.490	19.612	19.577
Meat & By products	1.205	.714	5.984	5.107
Poultry & Dairy	4.617	4.603	16.613	16.174
Oils & Fats	2.289	1.998	2.242	1.967
Fish Products	9.299	7.791	5.637	4.792
Fruit & Vegetables	6.873	6.771	8.270	6.834
Cereal Products	5.075	4.469	.531	.405
Confect. and Sugar	10.929	9.718	4.159	3.623
Non-Alcoholic Bev.	.905	.894	.588	.588
Alcoholic Beverages	4.240	4.180	10.994	4.589
Food, nes	2.065	1.920	6.785	5.922
Ores and Metals				
Coal	.000	.000	.000	.000
Metallic Ores	.016	.000	.342	.218
Iron & Steel	7.750	5.345	4.613	3.418
Aluminum	3.201	2.208	6.590	4.525
Copper	1.627	1.142	1.118	.576
Non-Metallic Minerals and Products				
Non-metallic Products	6.895	4.831	.976	.529
Glass Products	9.619	7.200	8.329	4.609
Non-Metallic Minerals	3.485	2.196	.407	.200

¹ Canadian Tariffs are calculated as weighted averages for imports from the U.S., EEC and Japan, using 1976 actual tariff rates for pre-MTN and the lower of 1976 actual rates or bound concession rates for post-MTN tariffs.

² "World" Tariffs are calculated as weighted averages of tariffs applied by the U.S., EEC and Japan on their imports from Canada. 1976 GATT-supplied rates were used for pre-MTN and concession rates for post-MTN tariffs.

Table A-2 (cont'd)

Sector Name	Canadian Tariffs ¹		"World" Tariffs ²	
	Pre-MTN	Post-MTN	Pre-MTN	Post-MTN
	(percent)			
Textiles and Consumer Products				
Leather & Products	11.153	10.190	3.221	2.661
Fabric & Yarn	16.560	15.433	11.598	7.126
Synthetic Fibres	19.798	18.108	10.012	5.881
Textile Products	22.607	19.360	10.702	5.816
Clothing	24.871	23.322	14.066	9.379
Printing and Publ.	5.141	2.391	1.615	.898
Misc. Consumer Goods	15.276	10.083	8.581	4.203
Paper and Wood Products				
Pulp & Paper	11.103	5.891	1.050	.725
Paper Products	12.244	6.769	4.267	3.057
Crude Wood	.000	.000	.013	.006
Wood Products	9.852	6.656	.630	.313
Chemicals				
Rubber Products	14.209	9.807	5.275	3.725
Household Chemicals	9.786	8.190	6.290	3.849
Paint & Other Chem.	8.761	7.829	4.591	2.040
Industrial Chemicals	5.354	4.591	.239	.153
Plastics & Org. Chem.	7.574	6.312	11.500	7.141
Expl. & Inorg. Chem.	6.477	3.307	3.129	2.032
Plastic Products	14.581	12.087	9.225	5.171
Metal Products				
Boiler & Plate	10.734	9.067	5.475	2.450
Misc. Metal Products	14.590	9.595	8.379	4.812
Wire Products	12.977	8.505	4.152	3.030
Tools	12.525	9.724	7.147	5.058
Metallic Equipment	16.204	10.071	6.421	3.691
Machinery	5.254	3.706	3.370	2.140
Appliances	14.327	10.289	4.908	3.558
Elec. Ind. Equip.	14.773	9.114	8.099	5.231
Elec. Hsld. Equip.	11.308	6.384	5.847	4.243
Precision Instruments	4.936	3.103	2.902	1.716
Transportation Equipment				
Aircraft	.009	.000	3.777	.252
Auto & Truck	1.525	1.450	.018	.017
Auto Parts	1.086	.595	.246	.143
Rail	7.759	6.423	6.711	4.010
Ships & Repairs	6.337	5.786	2.758	1.283

APPENDIX

Table A-3

Price Elasticities for Canadian Imports and Exports

(percent)

<u>Sector Name</u>	<u>Import Price Elasticity</u>	<u>Export Price Elasticity</u>
Agriculture, Food & Fish		
Grain	1.20	N/A
Fish & Fur	1.21	0.59
Live Animals	1.23	N/A
Milk & Eggs	0.40	N/A
Feeds	0.90	3.41
Agriculture, nes	0.40	1.76
Tobacco	.87	1.13
Meat & By products	2.88	2.55
Poultry & Dairy	2.08	1.13
Oils & Fats	1.94	1.13
Fish Products	2.95	1.13
Fruit & Vegetables	.63	1.13
Cereal Products	2.62	1.13
Confect. and Sugar	1.10	1.13
Non-Alcoholic Beverages	.87	1.64
Alcoholic Beverages	1.36	1.64
Food, nes	.96	1.34
Ores and Metals		
Coal	N/A	1.67
Metallic Ores	.98	2.00
Iron & Steel	.79	1.44
Aluminum	3.47	1.14
Copper	.38	1.38
Non-Metallic Minerals and Products		
Non-metallic Products	3.42	2.0
Glass Products	1.47	1.6
Non-Metallic Minerals	1.64	2.0
Textiles & Consumer Products		
Leather & Products	2.06	2.48
Fabric & Yarn	1.61	1.14
Synthetic Fibres	1.64	2.0
Textile Products	1.44	1.14
Clothing	1.61	2.88
Printing and Publ.	1.27	3.00
Misc. Consumer Goods	1.17	2.06

Table A-3 (cont'd)

Sector Name	Import Price Elasticity	Export Price Elasticity
Paper and Wood Products		
Pulp & Paper	.70	.67
Paper Products	5.49	4.20
Crude Wood	1.65	.69
Wood Products	1.26	1.25
Chemicals		
Rubber Products	1.93	3.08
Household Chemicals	1.39	.76
Paint & Other Chemicals	3.92	1.56
Industrial Chemicals	2.36	2.53
Plastics & Org. Chem.	2.09	2.53
Expl. & Inorg. Chem.	3.16	.60
Plastic Products	1.34	2.53
Metal Products		
Boiler & Plate	1.11	3.59
Misc. Metal Products	2.20	3.59
Wire Products	.94	1.42
Tools	2.99	2.77
Metallic Equipment	3.19	2.16
Electrical & Non- Electrical Machinery		
Machinery	1.13	1.02
Appliances	1.83	.81
Electrical Ind. Equip.	2.43	4.78
Electrical Hsld. Equip.	3.52	.71
Precision Instruments	1.18	5.49
Transportation Equipment		
Aircraft	2.47	2.08
Auto & Truck	.94	N/A
Auto Parts	3.24	N/A
Rail	.94	3.28
Ships & Repairs	.94	3.28

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