WORKING DOCUMENT

THE IMPACT OF BARRIERS TO CLOTHING IMPORTS ON CANADIAN CONSUMERS AND THE CANADIAN ECONOMY

May 1981

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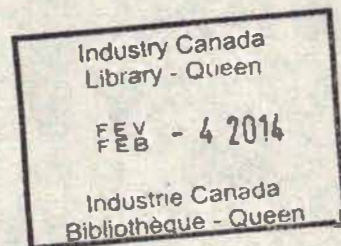
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SUMMARY AND CONCLUSIONS

Since December 1976, the Canadian customs tariffs on textile and clothing imports have been supplemented by quantitative restraints, limiting the volume of imports of most clothing and some textile items. A wide variety of government policy measures, commonly known as trade barriers, are capable of inhibiting imports into Canada. The imposition of a trade barrier confers a benefit on the Canadian economy by preserving Canadian employment (in the production of the commodity) which would otherwise be displaced by imports. However, a trade barrier also imposes a cost on the Canadian economy by raising the price of a particular commodity in Canada. This study proposes to examine the desirability of trade barriers to textiles and clothing imports by calculating the benefits and costs associated with them.

Canadian textiles and clothing producers are partially sheltered from import competition by high customs tariffs and quantitative restraints on clothing imports from exporting "low-cost" countries. These measures are representative of two major types of trade barrier now in force.

The customs tariff is a tax exacted by the government on imports of a commodity. It is usually collected as a specified percentage of the value of the imported goods. The cost of the tariff is passed on to consumers in the form of higher prices for imports. The same goods, produced in Canada, not being taxed in this way, are therefore more price competitive with imports and imports become less attractive to Canadian consumers because of their higher costs. The higher the tariff rate, the greater its impact on prices.

Currently, imports of clothing and some textiles from low-cost countries are further limited by Voluntary Export Restraints (VERs) negotiated between Canada and these countries. The quantitative restrictions are administered in the exporting country. The restriction of exports is implemented by distributing the rights to export among the individual exporting firms. Entitlements to export are scarce and so become valuable rights. The value of an entitlement to export one unit of the commodity is referred to as the "quota charge." This quota charge is passed on to Canadian consumers as higher prices for imports. As a result of the higher prices and limited availability of imports created by these restraints, Canadian consumers purchase more Canadian production than they otherwise would. Thus, VERs have a similar impact on the Canadian economy as the customs tariff. And both forms of barrier serve to discourage increases in the volume of imports. But Canadian production and employment are protected by the imposition of trade barriers only to the extent that Canadians are compelled to pay higher prices.

It must be recognized that an increased volume of imports is the direct result of purchasing decisions made by Canadian consumers. If the volume of imports increases, it is because Canadian consumers have decided that imports, rather than Canadian production, provide a better combination of type, quality, and price. An increase in imports occurs according to the normal functioning of market economies, whereby those producers who best fulfil the needs of customers are rewarded with increased sales.

An increase in the volume of imports does not imply that displaced Canadian products are necessarily unacceptable. Foreign producers may simply be able due to their location to produce at lower cost and thus supply Canadian consumers at a lower price. An apt, if extreme, analogy can be found in the production of citrus fruits. No one would dream of trying to grow oranges, lemons and grapefruit in Canada to compete with imports from their natural source of supply. The advantages in cost and quality accruing to sub-tropical growers are too clearly apparent. So we import our citrus fruit and benefit in two ways. We get the benefit of lower prices and our resources are employed in the production of commodities more suited to the potential of the Canadian economy. The normal, unrestricted operation of markets for commodities results in a commodity being produced by the lowest-cost suppliers.

The cost advantage of clothing producers in the Far East is attributable to their low levels of wages, combined with the high labour intensity of clothing production. The low wage levels reflect the stage of economic development these countries have reached. Their emergence as producers of clothing offers a more highly developed natural-resource-laden country such as Canada a long-term supply of low-cost clothing which would free our resources to be employed in activities better suited to Canada's stage of economic development and potential.

The Canadian textile and clothing industry, as we have seen, is highly protected from import competition by customs tariffs and, since December 1976, by quantitative restraints as well. Removal or reduction of these barriers would lower textile and clothing prices but would displace Canadians currently employed in these industries. They would be temporarily unemployed until their energies were directed to producing other goods. During the time interval between displacement and re-employment, the Canadian economy would suffer a loss in terms of the potential productive services from this labour. Therefore, some would say, barriers to textile and clothing imports benefit the Canadian economy by preventing this temporary loss.

However, these trade barriers adversely affect the performance of the Canadian economy by raising clothing prices. It is noteworthy that trade barriers impose this cost on Canadian con-

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sumers every year, whereas removal of trade barriers would imply a loss of production incurred only once, when Canadian resources displaced by clothing imports are temporarily unemployed, pending re-employment in other industries.

The analysis of the study shows that the loss to Canadian consumers resulting from trade barriers to clothing imports is as high as $700 million per annum in 1975 constant dollars, which corresponds to more than $1 billion per annum in 1980 dollars. The quantitative restraints on low-cost clothing imports alone cost consumers approximately $150 million in 1980. The ratio of these losses to the benefits of the restraints is of the order of 20:1. Since the costs far exceed the benefits, reduction of the barriers to clothing imports would enhance the performance of the Canadian economy. On this basis, it would be possible for consumers to fully compensate displaced textile and clothing workers for their loss of earnings during the period of temporary unemployment and still reap a net benefit. This compensation of displaced workers by consumers would be partially effected automatically through the income-tax system via manpower retraining and relocation assistance, and unemployment insurance benefits.

The findings of this study suggest that certain Canadian Government policies warrant reconsideration. In contrast with many other products manufactured in Canada, textiles and clothing were practically exempted from consideration for tariff reduction in the Tokyo Round of the Multilateral Trade Negotiations which concluded April 12, 1979. This study shows that, in fact, the tariff protection provided the Canadian clothing industry will not be reduced following the implementation of the Tokyo Round tariff concessions. This situation is worrisome, inasmuch as Canadian resources, over the next 8-10 years, will continue to be utilized in the production of textiles and clothing which can be obtained at lower cost from foreign producers. The analysis of this study shows that the benefits resulting from tariffs on clothing imports are much less than the costs imposed on Canadian consumers.

Quantitative restraints on imports of clothing and some textile items have been in force since December 1976. The restraint initially took the form of global quotas, limiting for each commodity the total of imports from all countries. In 1979, these quotas were replaced by bilateral agreements with low-cost exporting countries. These VERs expire in 1981. The report of the Textile and Clothing Board of June 30, 1980, recommends the extension of even tighter restrictions on such imports for an additional nine years. The objective of the Board in this report seems to be to indicate further import restraint measures required to maintain Canadian textile and clothing industries. The Board has not estimated the costs and benefits associated with this approach. The estimates in this study imply that the alternative phasing out of quantitative restraints merits consider-

ation, since their costs greatly outweigh their benefits.

The benefits of trade barriers as a means of preserving Canadian textile and clothing industry employment are widely recognized and the industry itself works hard to bring this aspect of the issue to public attention. On the other hand, the costs of trade barriers to Canadian consumers are not so well perceived by the public. While consumers are conscious of higher prices, they may not even be aware that increased costs are the result of either tariffs or other restraints.

This study represents an attempt to express in comparable units the benefits and costs of trade barriers to clothing imports, and to make an evaluation of the alternative solution -- reduced protection. It concludes that the temporary idleness of the Canadian labour displaced by imports would be the major cost of reducing trade barriers but that the gains to the consumer would far exceed the compensation necessarily provided displaced workers. In other words, reduced trade barriers would enhance the performance of the Canadian economy.

The length of the time interval from displacement to re-employment is, of course, an important determinant of the size of the loss occurring as a result of reduced trade barriers. Data from past textile and clothing plant closures provide estimates of this time interval. It should be noted, too, that, in the event of a plant closure, the unemployed worker bears only a portion of the adjustment cost to the Canadian economy. Such programs as unemployment insurance and manpower training transfer a large portion of the loss to the public treasury. These costs do not in any way increase the adjustment cost to the economy, but merely transfer part of the burden from the displaced worker to the taxpayer/consumer.

This study makes no attempt to evaluate costs and benefits that are not quantifiable, such as "security of supply," self-sufficiency, and preservation of employment in certain regions, all of which are qualitative. Quantification of costs and benefits is essential to an evaluation of policy options even if there are relevant qualitative factors to be considered.

It has been argued that the social costs of temporary unemployment would exceed the dimensions suggested above. The sector Task Force on the Canadian Textile and Clothing industries reported that "clear correlations have been found between unemployment and suicide attempts, rape, mental hospital admissions, prison admissions, homicide, family breakdown, cirrhosis of the liver, mortality and cardiovascular-renal disease mortality."[1] Given the complexity of the inter-relationship between such variables, it is doubtful that a causal relationship can be infer-

1. Report by the Sector Task Force on the Canadian Textile and Clothing Industries, June 22, 1978. Page 19, Appendix 1.

red. A more reasonable interpretation is that these occurrences
are symptomatic for individuals who are unable to cope with or
adapt to social norms, including the duties of employment. It
can hardly be argued that such individuals are representative of
those currently employed in the Canadian textiles and clothing
industry. Even if a causal relationship can be identified for
trade barrier reduction, such social anguish must be compared
with that caused by the lower real income of Canadians due to
higher clothing prices resulting from the maintenance of trade
barriers. Further, the burden of higher clothing prices is born
disproportionately by low-income Canadians. Except to conclude
that a priori trade barrier reduction may increase or decrease
social anguish, this paper does not address the issue.

The costs and benefits of unilateral reduction in trade bar-
riers have been estimated in this study. Traditionally, however,
reciprocity has been the principle invoked at multilateral trade
negotiations. Canada could offer to reduce trade barriers on
textile and clothing imports and expect in return a reduction in
foreign trade barriers to other Canadian exports. If reduction
of Canadian barriers to textile and clothing imports were used
strategically to obtain reciprocal concessions from other na-
tions, benefits additional to those estimated in this paper could
be realized.

An Evaluation of Policy Options
For Canada's Primary Textile and Clothing Industries

Canada's textile and clothing industries benefit from measures for industry assistance (such as the Enterprise Development Program, Regional Development Incentives Program and the Adjustment Assistance Program) and from barriers to import competition. This paper concentrates on evaluation of the costs and benefits of alternative trade barriers, measuring them against the situation that prevails today.

It is generally recognized that reduced trade barriers benefit consumers in the form of lower prices and benefit the economy in terms of efficient allocation of resources. Better trade relations with countries benefitting from reduced barriers and reciprocal reductions of trade barriers raised by them against Canadian exports can be additional benefits.

The major cost of reduced protection lies in the adjustment costs resulting from the displacement of Canadian resources -- particularly labour -- from existing uses. This cost may be particularly high for isolated communities due to the lack of alternative employment opportunities. In addition, reduced self-sufficiency or security of supply is sometimes regarded as an additional cost of reduced protection. In order to assess policy options, the advantages and disadvantages must be quantified and expressed in comparable units. By quantifying the benefits of reduced protection net of the adjustment costs due to displaced resources, the cost of non-quantifiable considerations is made explicit.

The relationship of Canada's primary textile industry to its clothing industry is so close that, in order to evaluate the impact of a policy option on either industry, an assumption must be made regarding the policy option to be adopted for the other. That is the approach taken in this paper.

The Canadian clothing industry is the main market for the Canadian primary textile industry, whose access to world markets is impeded by trade barriers erected by foreign countries. Protective measures taken on behalf of the Canadian textile industry raises the costs, and thus influences the viability, of the Canadian clothing industry. Some of the trade barriers provided to help the clothing industry are merely compensatory for protection provided the primary textile industry.

Policy Options

The policy option combinations of trade barriers concerning the two industries are presented in Table 1. The options are denoted by Roman numerals. Options available which would provide increased protection from import competition are not considered in this study, since they are inferior to the status quo. In-

creasing the barriers to import competition would raise prices of textiles and clothing in Canada but would not generate a net increase in employment in this country.

Policy Option I (the status quo) in Table 1 is the standard against which alternative policy options will be compared. Option II considers termination of Voluntary Export Restraints, which apply to clothing. Policy Options III, IV, and V consider, in addition, the removal of customs tariffs on fibre and filament yarn, spun yarn and fabric, and clothing, respectively. The analysis in this study indicates the impact such tariff reductions would have. Policy option combinations III and IV, which provide for reductions of tariffs on primary textiles, include compensatory reductions in tariffs on clothing as an intrinsic part of the policy option. These reductions have been calculated so as to preserve the effective rate of protection of the clothing industry at the level resulting from the existing tariff structure. They have been included as intrinsic parts of the policy options considered, for a number of reasons.

First, if a compensatory reduction in the tariff on clothing is not included as part of the policy option, there may be no benefit to either the consumer or to the Canadian economy. The uncompensated reduced tariff on primary textiles merely provides increased protection for the clothing industry, which may only result in displacement of imports by Canadian clothing, rather than a reduction in the price to Canadian consumers. Thus production effficiency distortion resulting from the tariff structure is merely transferred from textile production to clothing production. Therefore no efficiency gains would be reaped and the economy would bear the adjustment costs as resources move from textile to clothing production. Hence, in the absence of compensatory reductions, reduced tariffs on primary textiles would not be an attractive policy option.

Cost-benefit Analysis of Policy Options

The costs and benefits associated with Policy Options II, III, IV, and V are evaluated relative to the status quo (Option I). The estimates have been calculated assuming that reduced trade barriers are phased in over five years. The cost of adjustment to each option has been estimated by multiplying an estimate of the proportion of industry which will be displaced by the estimated cost if the whole industry was displaced. The estimated adjustment costs appear in Table 2.

The benefits of the policy options are calculated in terms of the consumer benefit from lower prices on clothing as a result of reduced trade barriers. The benefits are also evaluated in terms of the consumer benefit from lower prices net of tariff revenue changes. These estimates are displayed in Table 3 and developed in Chapters 2 and 3.

It should be noted that the adjustment costs occur only once in the time interval between displacement and re-employment of resources. On the other hand, the benefits of the policy options will accrue each year. To make costs and benefits comparable, these estimates must be expressed in terms reflecting the different time profile of costs and benefits. To this end, the present value of the consumer benefit is presented in Table 4. It is assumed the policy option is also phased in over 5 years and the social time rate of discount is 10% per annum. The present value of the net benefit and benefit/cost ratio of the policy options relative to the status quo are presented in Table 5. The incremental net benefits and benefit/cost ratios for policy option combinations II through V appear in Table 6.

Interpretation of Results

Since trade barriers raise the prices received by Canadian producers of textiles and clothing, they, in effect, subsidize Canadian production. To the extent that this subsidy compensates for the higher costs of Canadian producers, the barriers create deadweight efficiency losses in the Canadian economy by inducing Canadian firms to produce commodities that can be more cheaply produced by foreign manufacturers. Under these circumstances, the main effect of a trade barrier is to induce a subsidy from consumers to Canadian producers. In this case, one might argue that lower prices resulting from trade barrier reduction should not be regarded as a net benefit, since income is merely being transferred within the economy.

However, due to the very large number of producers in the Canadian clothing industry and the low degree of industrial concentration, competition among domestic producers ensures that trade barriers do not increase the long-run profits of the Canadian clothing industry. Therefore the implicit subsidy provided the domestic clothing industry by trade barriers is a loss to the economy.

The situation in primary textiles is quite different. There are only a few Canadian producers of many primary textile products. Foreign producers, because of their larger home markets, however, are able to achieve economies of scale which reduce production costs significantly below those attainable by Canadian producers. The high level of penetration of the Canadian primary textiles market by imports from the developed countries in spite of high tariffs is evidence of this.

Thus it can be seen that the implicit subsidies of both domestic textile and clothing production by Canadian conssumers are losses to the Canadian economy. Where the trade barrier is a tariff, the higher price of imports accrues to the Canadian government as tariff revenue and the equivalent purchasing power is transferred from consumer to the federal government. Where the

trade barrier is a quantitive restraint administered in the ex-
porting country, part of the higher price of imports accrues to
foreign producers as quota charges.

The measure of the benefits resulting from reduced trade
barriers in this study does <u>not</u> include the increased consumption
of clothing that would occur in response to lower prices. To the
extent that higher prices for clothing resulting from trade bar-
riers induce consumers to reduce clothing consumption, the meas-
ures in this study understate the benefits from trade barrier
reduction. The estimates of the costs of adjustment utilized in
this study are biased upwards for a number of reasons (See Chap-
ter 4 for details). Therefore the figures in this study should
be regarded as lower bound estimates of the net benefits avail-
able from trade barrier reduction.

Evaluation of Policy Alternatives

The results displayed in Tables 5 and 6 indicate that reduc-
tion of trade barriers to imports of primary textiles and cloth-
ing would produce benefits which far exceed resultant adjustment
costs. In fact, as we proceed through policy options I to V, the
net benefit to the Canadian economy increases.

When the benefits of barriers to clothing imports (i.e.,
textile and clothing industry employment) and the costs of these
benefits (higher clothing prices) are quantified and compared, it
is clear that the gains from reduced protection greatly exceed
the costs. Maintenance of the existing textile and clothing
industries, for whatever reasons, imposes substantial costs on
the Canadian economy as measured by the net benefits of reduced
protection shown in Tables 5 and 6.

The evaluation of policy options in this study proposes re-
duction of trade barriers -- including tariffs -- to textile and
clothing imports as available policy options. The impact of
adopting such a policy option would, of course, depend on how
much trade barriers are lowered. The analyses in this paper
indicate the impact of <u>removal</u> of tariffs on fibre and filament
yarn, spun yarn and fabric, and clothing as policy options III,
IV, and V, respectively. However, the benefit/cost ratios are
indicative of the impact of tariff <u>reduction</u>, rather than removal,
al, assuming that a reduction in tariff produces a proportional
reduction in the size of the Canadian industry. A reduction of a
tariff by less than 100% would entail proportionately smaller ad-
justment costs and benefits than removal. Therefore the benefit/
cost ratio for tariff <u>reduction</u> is the same as for tariff <u>remov-
al</u>. If a reduction in tariffs produces a less than proportional
reduction in the size of the domestic industry -- as is the case
for the usual convex specifications of the industry supply curve
-- the benefit/cost ratios in Tables 5 and 6 are underestimates
of the impact of tariff reductions, the benefits of which are ob-
tainable only after quantitative restraints and other trade bar-
riers are removed. It is worthy of note that the estimates have

been calculated on the assumption that tariff removal or reduction is phased in over five years.

Economic forces call for a shift in textile and clothing production toward other nations. The shift implies lower prices to Canadians but also reduced employment in the Canadian textile and clothing industry. This study makes a quantitative comparison of the benefits and costs associated with reducing or raising trade barriers. It should be noted that displacement of employment due to other changes in market conditions is not usually subject to government review. The effects of such factors as changes in technology, in consumer tastes, or in climatic conditions are not deemed to warrant government intervention. The adjustment induced by market forces is assumed to be the appropriate social response to such changes. But where market forces imply displacement of Canadian production by imports, the tendency is to interfere, as witness (a) the protection provided against "low-cost" textile and clothing imports, particularly during the last four years; (b) the global quota on footwear imports imposed Dec. 1, 1977; (c) recent efforts by Canadian government officials to restrict automobile imports; and (d) Canadian agricultural policy.

It does not appear to be recognized that imposing trade barriers to prevent reduction of domestic production frustrates the achievement of the benefits which would result from letting natural marketing forces determine the issue. This study shows that the benefits resulting from trade barrier reduction (or non-erection) far exceed the costs of adjusting the employment of Canadian productive resources.

Discussion of Results

The estimated benefit/cost ratios (Tables 5 and 6) for the policy options considered in this study are much greater than 1:1. Moreover, the estimates possess biases such that they understate the actual ratio which would result from reduced protection.

Although all estimated benefit/cost ratios associated with reduced protection for these industries exceed 1:1, there are significant differences in the rations for the various options and for the alternative measures of this ratio.

With the exception of policy option II, the benefit/cost ratio is lower if the benefit is measured net of changes in tariff revenue. This is so because if a tariff is reduced a portion of the resultant consumer benefit is merely a transfer from government tariff revenue. The ratio for policy option II, which contemplates removal of quantitative restraints, not reduction of customs tariffs, is not so affected.

The benefit/cost ratio for option IV is lower than that for

option III and that for option V is lower than that for option
IV. Options III, IV, and V provide for reduction of tariffs on
textile and filament yarn, spun yarn and fabric, and clothing,
respectively. The lower benefit/cost ratio for reduction of the
tariff on clothing imports is attributable to the higher labour
intensity and somewhat lower effective rate of tariff protection
of the Canadian clothing industry relative to the Canadian prim-
ary textile industry.

An exception to this pattern is column 7 in Table 6. The
estimated benefit/cost ratio for reduction of the tariff is high-
er than the figures corresponding to reducing tariffs on primary
textile imports, because these figures measure benefit as custom-
er benefit net of tariff revenue changes. This reversal of the
pattern reflects the high levels of import penetration of the Ca-
nadian market for primary textiles, which mean that a higher pro-
portion of the consumer benefit from reducing such tariffs would
be merely a transfer from government tariff revenue.

TABLE 1

Policy Combinations Evaluated in this Study

Clothing

		Options for Clothing Industry		
		MAINTENANCE OF VERs (STATUS QUO)	TERMINATION OF VERs	TERMINATION OF VERs AND REMOVAL OF TARIFFS ON CLOTHING
	Status Quo	I	II	
Options For (PRIMARY) TEXTILES Industry	Removal of Tariff on Fibre and Filament Yarn		III	
	Removal of Tariff on Spun Yarn and Fabric (in addition to tariffs on Fibre and Filament Yarn)		IV	V

TABLE 2

Costs of Adjustment

1975 Constant Dollards ($000's)

	Primary Textiles						Clothing Industry			
	Man-made Fibre and Filament Yarn			Spun Yarn and Fabric						
Policy Option Combination	Proportion of Industry Displaced (1)	Adjustment Cost if 100% Displaced (2)	Adjustment Cost (3)	Proportion of Industry Displaced (4)	Adjustment Cost if 100% Displaced (5)	Adjustment Cost (6)	Proportion of Industry Displaced (7)	Adjustment Cost if 100% Displaced (8)	Adjustment Cost (9)	Total Adjustment Cost (10)
II	.061	41,376	2,524	.061	115,123	7,023	.061	495,486	30,225	39,722
III	1.00	41,376	41,376	.061	115,123	7,023	.061	495,486	30,225	78,624
IV	1.00	41,376	41,376	1.00	115,123	115,123	.061	495,486	30,225	186,724
V	1.00	41,376	41,376	1.00	115,123	115,123	1.00	495,486	495,486	651,985

(1) Appendix to this chapter
(2) Chapter 4
(3) = (1) X (2)

(4) Appendix to this chapter
(5) Chapter 4
(6) = (4) X (5)

(7) Appendix to this chapter
(8) Chapter 4
(9) = (7) X (8)
(10) = (3) + (6) + (8)

TABLE 3

Benefits of Reduced Trade Barriers
1975 Constant Dollars ($000's p.a.)

Policy Option Combination	(1) Consumer Benefit	(2) Change in Tariff Revenue	(1) + (2)
II	+103,776	-4,966 to +10,991	+98,810 to +114,767
III	+200,770	-67,264 to -83,221	+117,549 to +133,506
IV	+332,872	-152,743 to -168,700	+164,172 to +180,129
V	+698,829	-233,553 to -249,570	+449,259 to +465,276

SOURCE OF DATA: Appendix to this chapter.

TABLE 4

Present Value of Benefits of Reduced Trade Barriers
1975 Constant Dollards ($000's)

Policy Option Combination	Present Value of Consumer Benefit	Present Value of (Consumer Benefit Net of Tariff Revenue)
II	881,131	838,966 to 974,452
III	1,704,678	998,073 to 1,133,559
IV	2,826,136	1,393,935 to 1,529,421
V	5,933,547	3,814,523 to 3,950,519

SOURCE OF DATA: Table 3

TABLE 5

Net Benefit and Benefit/cost Ratio for Policy Combinations

1975 Constant Dollars ($000's)

Policy Option Combination	(1) Present Value of Consumer Benefit ($000's)	(2) Present Value of (Consumer Benefit Net of Tariff Revenue) ($000's)	(3) Total Adjustment Cost ($000's)	(4) Present Value of Consumer Benefit Less Total Adjustment Cost ($000's)	(5) Present Value of (Consumer Benefit Net of Tariff Revenue) Less Total Adjustment Cost ($000's)	(6) Ratio: Present Value of Consumer Benefit to Total Adjustment Cost	(7) Ratio: Present Value of (Consumer Benefit Net of Tariff Revenue) to Total Adjustment Cost
II	881,131	838,966 to 974,452	39,772	841,359	799,244 to 934,680	22.15	21.09 to 24.50
III	1,704,678	998,073 to 1,133,669	78,624	1,626,054	919,449 to 1,955,045	21.68	12.69 to 14.42
IV	2,826,316	1,393,935 to 1,529,421	186,724	2,639,592	1,207,211 to 1,342,697	15.14	7.47 to 8.19
V	5,933,547	3,814,523 to 3,950,519	651,985	5,281,562	3,162,538 to 3,298,534	9.10	5.85 to 6.06

SOURCE OF DATA: Tables 2, 3, and 4.

TABLE 6

Incremental Net Benefit and Incremental Benefit/cost Ratio for Policy Combinations

1975 Constant Dollars ($000's)

	(1) Incremental Present Value of Consumer Benefit ($000's)	(2) Incremental Present Value of (Consumer Benefit Net of Tariff Revenue) ($000's)	(3) Incremental Adjustment Cost ($000's)	(4) Incremental Present Value of Consumer Benefit Less Total Adjustment Cost ($000's)	(5) Incremental Present Value of (Consumer Benefit Net of Tariff Revenue) Less Total Adjustment Cost ($000's)	(6) Ratio: Incremental Present Value of Consumer Benefit to Total Adjustment Cost	(7) Ratio: Incremental Present Value of (Consumer Benefit Net of Tariff Revenue) to Total Adjustment Cost
II-I	881,131	838,966 to 974,452	39,722	841,359	799,244 to 934,680	22.15	21.12 to 24.50
III-II	823,547	159,107	38,852	784,695	120,365	21.20	4.10
IV-III	1,121,639	395,862	108,100	1,013,538	287,652	10.38	3.66
V-IV	3,107,231	2,420,588	465,261	2,641,970	1,955,837	6.68	5.20

SOURCE OF DATA: Table 5.

CHAPTER 2

The Cost to the Canadian Consumer of Tariffs on Clothing

A tariff on a commodity raises its cost to Canadian consumers above the price at which the commodity is traded internationally by as much as the amount of the tariff. The tariff results in consumers paying a higher price, not only on imported goods, but also on Canadian production. It permits Canadian producers of the commodity to sell at the internationally traded price plus tariff. Thus the consumer bears the burden of tariff in the form of higher prices on both imported and domestically produced goods. This chapter provides estimates of the cost to the Canadian consumer of tariffs on clothing.

This chapter assumes that the price of clothing in Canada fully reflects the world value plus tariff. If the tariff is set very high, the world price plus tariff may be higher than the figure at which Canadian producers are able to offer their goods profitably. In this case, the tariff would be prohibitive of trade because the price in Canada was below the world price plus tariff. It would be difficult to argue that this situation prevails in the Canadian market for primary textiles and clothing. In fact, the increased penetration by imports over the existing tariff barrier prompted additional measures of protection in 1976.

The higher price of imported goods resulting from the tariff constitutes a transfer in the form of tariff revenue from the consumer to the federal government. The higher price of Canadian production resulting from the tariff constitutes a subsidization by consumers of Canadian final and intermediate goods production. The division of this subsidy between Canadian producers of final and intermediate textile goods depends on the levels of tariff applied to each and the proportions of the various intermediate goods in the value of the final product.

The subsidy by Canadian consumers of (i) the Canadian clothing industry (final goods) and (ii) the primary textile industry (intermediate goods) is estimated in this chapter. The excess value-added in Canadian production permitted by the tariff structure (calculated by using effective rates of tariff protection) provides these estimates.

Data Issues

(i) Choice of Year

The estimates of the cost to consumers have been constructed using data for 1975 and therefore reflect conditions at that time -- notably, the level and composition of imports and Canadian production. In order to reflect as closely as possible the current level and composition of the Canadian market for clothing, it would be desirable to use the most recent data available.

However, value data for some clothing imports from 1976 onward reflect customs valuation rather than actual transaction prices. Moreover, the Canadian market in 1976 may have been distorted by anticipatory purchasing by importers who sought to augment their entitlement under the forthcoming quota regime. Therefore, 1975 was chosen as the most recent year for which reliable data were available. Further, the level of imports in 1975 has been the basis for establishing the levels of imports to be permitted since the imposition of a global quota in December, 1976. In order to separate the impact of the tariff from that of quantitative restraints on imports, it is important that the data selected be related to a time before comprehensive quantitative restraints were imposed on imports.

(ii) SIC[1] versus "All Industries" Shipment Data

The shipments of firms classified to the SIC producing a particular kind of goods can be used as a source of data on Canadian shipments. However, other firms, classified to other SICs, also produce the same goods and their production would not be reflected in SIC shipments data. In addition, firms in the SIC also produce goods other than clothing and such production would be included in SIC shipments data.

On the other hand, Canadian production of a particular product by all firms (from all SICs) is available. These data have the advantage of comparability with import and export data. Unfortunately, data on inputs corresponding to "All Industries" shipments are not available, while data on inputs corresponding to SIC shipments are. In addition, SIC data include the shipments of small establishments not reporting in detail, whereas "All Industries" shipments do not reflect the shipments of such firms.

This study has utilized "All Industries" shipment data, adjusted to include the shipments of small establishments by increasing the "All Industries" shipments in proportion to the shares of shipments accounted for by small establishments in the corresponding industry SIC. In the absence of input data for the "All Industries" classification, shipments of a particular commodity have been attributed (i) the effective rate of protection and (ii) the ratio of value added to shipment value of the corresponding of the corresponding SIC industry.

The ICC[2] commodity shipments which have been grouped to form the commodity categories used in this study are indicated in the appendix to this chapter.

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1. The mnemonic SIC denotes Standard Industrial Classification. SIC shipments are those of firms in the industry as defined by the Standard Industrial Classification code.

2. The mnemonic ICC denotes Industrial Commodity Classification.

"All Industries" and SIC shipment data are compared in Tables 1 and 2.

(iii) Exports

Domestic shipments of textiles and clothing for export are not protected by tariffs on imports, as they must sell at international market prices. Such shipments do not impose costs on Canadian consumers and, therefore, must be subtracted from Canadian shipment data prior to calculating the costs arising to consumers as a result of the tariff. Accordingly, export data were constructed to correspond to shipment commodity catergories. The ICC code exports which have been grouped to form the commodity categories used in this study are indicated in the appendix to this chapter.

Calculations and Detailed Results

The value of imports and the duty collected on imported clothing are indicated in Table 3. The tariff corresponding to the composition of Canadian clothing production by commodity category is shown in Table 4. These tariffs are combined with shipment data to measure the excess value of Canadian shipments due to the tariff on the finished product in Table 5.

The total costs to the consumer of tariffs on clothing are indicated in Table 6. It is apparent that the cost to the consumer of the excess value of Canadian clothing shipments is several times the duty paid on clothing imports.

Table 7 provides estimates of the share, by commodity category, of this subsidy to Canadian production paid by Canadian consumers. Canadian shipments of each commodity category by large and small establishments are added and exports are subtracted from the total. The value added is calculated as a proportion of shipment value. This estimated value added and the effective rate of protection combine to yield the excess value permitted by the tariff structure and thus an estimate of the consumer subsidy for each commodity category.

Summary Results

The cost to consumers of tariffs on clothing imports is summarized in Tables 10 and 11. In 1975 the figure was approximately $600 million. This figure corresponds to approximately $900 million in 1980, due to the rise in the general price level. About 40% of this figure is attributable to the tariff protection provided Canadian primary textile producers.

The difference between the excess value of Canadian clothing production and the sum of the estimated components is a residual, reflecting the impact of tariffs on other inputs (thread, narrow fabrics, buttons, fasteners, etc.) and the net error in the estimates of the subsidies to textile and clothing industries.

TABLE 1

Comparison of Shipment Data: SIC Versus "All Industries"

Commodity	"ALL INDUSTRIES" Canadian Shipments All Industries Data - 1975	SIC Shipment 1975	SIC Industry	SIC
	$000's	$000's		
Cotton Yarn and Cloth	185,268	319,196	Cotton Yarn & Cloth Mills	181
Wool Yarn and Cloth	93,490	160,389	Wool Yarn & Cloth Mills	182
Man-made Fibre and Filament Yarns	254,694	266,666	Fibre & Filament Yarn	1831
Man-made Spun Yarn & Fabric	298,186	452,720	Throwsters, Spun Yarn & Cloth	1832
Knitted Fabric	224,800	231,643	Knitted Fabric Mills	2391

SOURCE OF DATA: "All Industries" shipment data from Products Shipped by Canadian Manufactures 1975, Statistics Canada publication, 31-211, commodity aggregations displayed in Appendix to this chapter.
SIC shipment data from 1975 Census of Manufactures.

TABLE 2

Comparison of Shipment Data: SIC Versus "All Industries"

Commodity	"ALL INDUSTRIES" Canadian Shipments All Industries Data – 1975	Shipment 1975	SIC Industry	SIC
	$000's	$000's		
Men's Clothing	691,320	877,859	Men's Clothing	2431
Women's Clothing	621,859	847,014	Women's Clothing	2441
Children's Clothing	133,224	171,043	Children's Clothing	245
Knitted Clothing	623,808	289,177	Other Knitting Mills	2392
Hosiery	94,734	103,670	Hosiery Mills	231
Foundation Garment	58,871	68,815	Foundation Garment	248
Miscellaneous Clothing	69,212	59,179	Miscellaneous Clothing	249

SOURCE OF DATA: "All Industries" shipment data from Products Shipped by Canadian Manufactures 1975, Statistics Canada publication, 31-211, commodity aggregations displayed in Appendix to this chapter.
SIC shipment data from 1975 Census of Manufactures.

TABLE 3

Clothing Imports
1975

	Value of Imports $000's	Duty Collected $000's
Outerwear (except knitted)	208,432*	
Outerwear (knitted)	190,496*	
Other apparel and apparel accessories	144,175*	
TOTAL	543,103	
Less Excluding Clothing Commodities	93,434**	
TOTAL CLOTHING IMPORT	449,669	108,206***

Average Nominal Tariff on Clothing Imports = .241

SOURCE OF DATA: * Summary of External Trade, December 1975, Statistics Canada publication 65-001.

    ** See Appendix to this chapter, Imports of Excluded Clothing Commodities, 1975.

    *** See appendix to this chapter, Duty Collected Clothing Imports, 1975.

TABLE 4

Average Nominal Tariff Corresponding to

Composition of Canadian Clothing Production

1975 Constant Dollars ($000's)

	Excess Value Canadian Production $000's	Value at World Prices of Canadian Shipments $000's	Average Nominal Tariff Corresponding to Composition of Canadian Shipments
1974			
Hosiery Mills SIC 231	20,251	74,361	.272
Other Knitting Mills SIC 2392	54,342	197,511	.275
Men's Clothing SIC 2431	154,999	623,278	.249
Women's Clothing SIC 2441	148,046	590,571	.251
Children's Clothing SIC 245	34,546	135,822	.254
Foundation Garments SIC 248	12,333	49,330	.250

SOURCE OF DATA: Chapter 5.

TABLE 5

Excess Value of Canadian Shipments

Due to Tariff on Final Good

(1) Commodity	(2) Average Nominal Tarriff Corresponding to Composition of Canadian Shipments	(3) Value Net Canadian Shipments (1975)	(4) $\frac{(2)}{1 + (2)}$ (3)
		$000's	$000's
Clothing			
Men's Clothing	.249	711,954	141,964
Women's Clothing	.251	646,038	129,595
Children's Clothing	.254	135,276	27,407
Hosiery	.272	103,524	22,133
Knitted Clothing	.275	644,296	138,975
Foundation Garments	.250	62,127	12,425
Miscellaneous Clothing	.250	71,739	14,348
TOTAL CLOTHING		2,374,952	486,847

SOURCE OF DATA: Average nominal tariffs from Table 4.
Net Canadian shipment data from Table 7.

TABLE 6

Cost to Consumer of Clothing Tariffs

1975 Constant Dollars ($000's)

	$000's
Duty Paid on Imports	108,206
Excess Value of Canadian Shipments due to Tariffs on Clothing	486,847
TOTAL	595,053

Canadian Market for Clothing

Canadian Shipments	2,439,255
Less Exports	64,303
Net Canadian Shipments	2,374,952
Plus (Imports and Duty)	557,875
Apparent Canadian Market	2,932,827

SOURCE OF DATA: Shipment and Export data from Table 7.
Import and Duty Paid data from Table 3.
Excess Value of Canadian Shipments from Table 5.

TABLE 7

Excess Value Added in Canadian Shipments by Commodity

Attributable to Tariff Structure
1975 Constant Dollars ($000's)

Commodity	(1) Canadian Shipments All Industries Large Establishments 1975	(2) Canadian Shipments Small Establishments 1975	(3) = (1) + (2) Canadian Shipments All Industries 1975	(4) Exports 1975	(5) = (3)-(4) Shipments Less Exports	(6) Value Added as a Proportion of Shipment Value	(7) =(5)X(6) Value Added	(8) Effective Rate of Protection	(8) = $\frac{(8)}{1+(8)}$ X 7 Excess Value Added
Men's Clothing	691,320	55,306	746,626	34,672	711,954	.470	334,618	26.2%	69,467
Women's Clothing	621,859	44,152	666,011	19,973	646,038	.436	281,673	26.4%	58,841
Children's Clothing	133,224	3,064	136,288	1,012	135,276	.431	58,304	27.0%	12,395
Knitted Clothing	623,808	24,329	648,137	3,841	644,296	.560	360,806	39.1%	101,423
Hosiery	94,734	9,379	104,113	589	103,524	.511	52,901	40.9%	15,357
Foundation Garment	58,871	3,768	62,639	514	62,125	.605	37,586	26.7%	7,919
Miscellaneous Clothing	69,212	6,229	75,441	3,702	71,739	.530	38,022	26.4%	7,943
TOTAL CLOTHING			2,439,255	64,303	2,374,952				273,345

TABLE 7 (cont'd)

Excess Value Added in Canadian Shipments by Commodity

Attributable to Tariff Structure
1975 Constant Dollars ($000's)

Commodity	(1) Canadian Shipments All Industries Large Establishments 1975	(2) Canadian Shipments Small Establishments 1975	(3) = (1) + (2) Canadian Shipments All Industries 1975	(4) Exports 1975	(5) = (3)-(4) Shipments Less Exports	(6) Value Added as a Proportion of Shipment Value	(7) =(5)X(6) Value Added	(8) Effective Rate of Protection	(8) = (8) X 7 1+(8) Excess Value Added
Cotton Yarn and Cloth	185,260	0	185,268	13,825	171,443	.428	73,378	39.5%	20,781
Wool Yarn and Cloth	93,490	2,805	96,295	1,516	94,779	.477	45,210	48.1%	14,684
Man-made Fibre and Filament Yarn	254,694	0	254,694	10,582	244,112	.483	117,906	39.2%	33,202
Man-made Spun Yarn & Fabric	298,186	6,262	304,448	39,949	264,499	.384	101,568	32.6%	24,976
Knitted Fabrics	224,800	14,612	239,412	4,664	234,748	.341	80,049	51.5%	27,209

| TOTAL PRIMARY APPAREL TEXTILES | | | | | | | | | 120,852 |

SOURCE OF DATA: Canadian Shipments, Large Establishments, 1975 from Census of Manufactures.
Canadian Shipments, Small Establishments, 1975 calculated by multiplying large establishments shipments by ratio of small establishment to large establishment shipments from Table 8.
Exports 1975, see Appendix to this chapter.
Value Added as a Proportion of Shipment Value from Table 9.
Effective Rates of Protection from Chapter 5.

TABLE 8

SIC	Value of Shipments Small Establishments $000's	Value of Shipments Large Establishments $000's	Ratio Shipments Small Large
181	28*	370,019*	.000
182	4,666	155,723	.030
1831	0	266,666	.000
1832	9,298	443,422	.021
231	9,329	94,341	.099
2391	14,104	217,539	.065
2392	10,810	278,367	.039
2431	65,247	812,612	.080
2441	56,152	790,862	.071
245	3,771	167,272	.023
248	4,130	64,685	.064
249	4,908	54,271	.090

* 1975 small establishment data confidential, therefore, ratio
calculated using 1974 data.

SOURCE OF DATA: Census of Manufactures 1975.

TABLE 9

SIC	Value of Shipments Shipments 1975 $000's	Value Added 1975 $000's	Value Added Value Shipments
181	319,196	136,450	.428
182	160,389	76,479	.477
1831	266,666	128,711	.483
1832	452,720	173,606	.384
231	103,670	52,995	.511
2391	231,643	79,083	.341
2392	289,177	161,993	.560
2431	877,859	412,892	.470
2441	847,014	369,522	.436
245	171,043	73,768	.431
248	68,815	41,607	.605
249	59,179	31,366	.530

SOURCE OF DATA: Census of Manufactures 1975.

TABLE 10

Summary Results
1975 Current Dollars ($000's)

Division of Cost to Consumer of Clothing Tariffs

	$000's per annum
Duty Paid on Clothing Imports	108,206
Duty Paid on Primary Textile Imports	114,625
Implicit Subsidy of Canadian Clothing Production	273,345
Implciit Subisidy of Canadian Primary Textile Production	120,852
Residual (Subsidy of Canadian Producers of Other Imports, Duty Paid on Imports of Other Inputs, and Errors in the above estimates)	- 21,975
TOTAL	595,053

SOURCE OF DATA: Duty paid on clothing imports from Appendix to this chapter.
Duty paid on primary textile imports from Appendix to this chapter.
Total consumer cost from Table 6.
Subsidy data are excess value added data from Table 7.

TABLE 11

Summary Results
(percentage terms)

Division of Cost to Consumer of Clothing Tariffs

	per annum
Duty Paid on Clothing Imports	18.2%
Duty Paid on Primary Textile Imports	19.3%
Implicit Subsidy of Canadian Clothing Production	45.9%
Implicit Subisidy of Canadian Primary Textile Production	20.3%
Residual (Subsidy of Canadian Producers of Other Imports, Duty Paid on Imports of Other Inputs, and Errors in the above estimates)	-3.7%
TOTAL	100.0%

SOURCE OF DATA: Table 10.

CHAPTER 3

The Cost to Canadian Consumers of Quantitative Restraints on Clothing Imports

Historical Perspective

Prior to 1976, the customs tariff provided the main barrier to import penetration of the Canadian market for clothing. The quotas on men's and boys' shirts of woven fabric since 1960 constitute notable exceptions. In 1976, "voluntary" quantitative restraints were effected on imports of sweaters, hosiery, men's suits, work gloves and outerwear from some low-cost suppliers. These quotas were superseded by global quotas imposed on imports of all major clothing items in November, 1976. In 1978, the global quotas on clothing imports were replaced by voluntary export restraints (VERs), which are administered by the exporting country and negotiated with all low-cost sources of supply. Judging by the recommendations in a report of the Textile and Clothing Board, dated June 30, 1980, these VERs threaten to become a permanent feature of the structure of protection provided the Canadian clothing industry.

The objective of this chapter is to quantify the cost to Canadian consumers and the Canadian economy of these quantitative restraints.

Quantitative Restraints -- Theoretical Considerations

If the restraint on imports is effective, consumption in excess of the level of the quota must be higher-priced Canadian production. In other words, quota-type barriers induce the same two types of distortion as do tariffs -- Canadian production is increased and the price to consumers is higher. And, as is the case for a tariff, Canadian consumers bear the cost of the quantitative restraints in the form of higher prices on both imports and Canadian production. Because the effect of both measures is similar, one could (if the appropriate information is available) calculate the tariff equivalent of import quotas. This equivalent can then be used to estimate the proportion of the price in Canada resulting from the import quota. Using the tariff equivalent of the quota and the data on the size in value terms of the Canadian market for the commodity, the cost of the quantitative restraints to Canadian consumers can be calculated.

Although tariffs and quantitative restraints have similar effects, they differ in certain respects. For a tariff, the excess of the price of imports in Canada over the internationally traded price accrues to the federal government as tariff revenue. For a quota, the excess of the price of imports accrues to the holder of the quota as a scarcity rent. If the quota is administered in Canada, as were the global quotas introduced in November, 1976, the scarcity rents accrue to the importer. If it is administered by the exporting country, as is the case for

VERs, the scarcity rents (i.e., quota charges) accrue to the foreign holder of quota rights.

The effects of quantitative restraints and equivalent tariffs differ in dynamic respects. Where quantitative restraints are in effect, the price of a commodity in Canada reflects the production costs of Canadian producers. The difference between the costs of Canadian production and those of low-cost foreign producers is the value of the quota right (for one unit). If the costs of Canadian producers increase, the rise is fully reflected in the price of the commodity in Canada and in the value of the quota right. On the other hand, if an equivalent tariff were in effect instead, a rise in Canadian production costs would not affect the Canadian price level, other things being equal, but would result in a lower demand for Canadian production.

When the exporting country administers quota rights (as is the case for VERs), its share of the Canadian market is protected from erosion by increases in its costs relative to other exporters. That is, imports to the Canadian market will not necessarily come from the least-cost foreign suppliers. Since the level of VERs is usually based on historical export performance, Taiwan, Hong Kong, and South Korea have been assigned the lion's share of the total quota Canada has established. China and other less-developed countries are emerging as exporters possibly capable of displacing, on the basis of costs, imports from those three countries but cannot compete for a greater share of the Canadian market because of their negligible historical export performance, on which VERs allocations are based. If a tariff equivalent of the quota were instead in effect, orders for the Canadian market would go to the least-cost foreign suppliers on the basis of relative cost.

Measuring the Cost of Quantitative Restraints

Estimates of the tariff equivalent of quantitative restraints and the size of the Canadian market for "low-cost" imports can be combined to provide estimates of the cost of VERs to Canadian consumers. The division of this cost between (i) the scarcity rents accruing to foreign quota holders, and (ii) the implicit subsidization of Canadian clothing and textile producers is also estimated.

The problem of product definition for clothing items is extreme. A single commodity category includes of a wide range of per-unit values, as typified by the example in Table 1, which indicates that a single commodity group includes items which consumers regard as different commodities. Since VER levels are established by product and by country, and since different countries produce different products, the value of the quota charge will vary by country as well as by product.

Moreover, for the time period of the global quota, the scarcity rent of the quantitative restraint accrued to Canadian importers. The import data available for this period show the landed price of imports which does not reflect the scarcity rent. For the period that the VERs have been in effect, the import data do include the scarcity rent accruing to foreign quota holders. If appropriate per-unit data were available, it would of course be necessary to separate the effect on per-unit value of all other factors, such as exchange rate or relative wage movements, from the effect of the VER. Comparable data further down the distribution chain are not available; therefore the size of the quota charge cannot be inferred from the per-unit data available. These problems of product definition, which impede derivation of the tariff equivalent of the quota charge, also hinder estimation of the portion of the Canadian market vulnerable to low-cost import penetration.

For these reasons, the cost of the quantitative restraints cannot be measured directly. As difficult as it may be to identify and separate the impact of quantitative restraints on clothing imports from other factors affecting the Canadian market, such an analysis would seem necessary in order to evaluate the options available regarding the future removal, extension, or modification of such measures. The Textile and Clothing Board in its report of June 30, 1980, does not separate the impact of the VERs from other dynamic influences in the Canadian market for clothing, although it is difficult to see how recommendations can be made for the future of import restraints without identifying the impact of the current situation.

Measurement of Tariff Equivalent of Quantitative Restraints

The approach used in this study to calculate the tariff equivalent of a quantitative restraint was as follows: Assuming perfectly elastic supply curves for imports and Canadian production of a specific clothing item, the effect of quantitative restraints on the price in Canada is equivalent to that of the lowest tariff which makes imports more expensive in Canada than Canadian production. Thus the first step is to estimate the minimum tariff which would be too prohibitive for clothing imports from low-cost sources to occur.

Using data on effective rates of tariff protection, low-cost producer wage rates relative to Canadian wage rates, clothing industry input proportions, freight and insurance costs to land low-cost goods in Canada, and assuming that the comparative advantage of low-cost producers derives from low wages net of transportation costs, the tariff equivalent of the quantitative restraint can be calculated by subtracting the actual tariff on clothing imports from the estimated prohibitive tariff.[1]

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1. For method of calculation see explanation in Appendix to this chapter.

The source of the effective rates of tariff protection for the Canadian clothing industry is Chapter 5. Data on low-cost producer wage rates relative to Canadian wage rates are derived from Men's Wear Magazine, August 27, 1980. Clothing industry input proportions were inferred from 1975 Census of Manufactures data. The sources of transportation cost data were isolated references in the literature which provide breakdown of the landed cost of "low-cost" imports.[2]

These estimates of the tariff equivalent, shown in Table 2, have been calculated by commodity categories corresponding to the SIC classification of the Canadian clothing industry. The actual tariff corresponding to the clothing category is also shown. The quantitative restraints amount to approximately double the already high tariff protection provided to the Canadian industry against low-cost exports.

The approach utilized in this study to measure the tariff equivalent (i.e., scarcity rent) of the quantitative restraints on low-cost clothing imports differs from that employed in other studies, notably those of the Canadian Textile Importers Association[3] and Dr. G. P. Jenkins,[4] which utilize actual data on sample transactions to provide a breakdown of the cost of low-cost imports between FOB value, quota charge, and duty paid. In contrast, the estimates in this study attempt to measure the equilibrium tariff equivalent of the quantitative restraints, based on cost of production differences between Canadian and the low-cost producers. The results of these studies and of others are compared in Tables 3 and 4. Differences between the results derive from different methods of measurement and also of commodity classification. The other studies cited state the results in terms of the total cost of tariff and quota protection. These results have been reformulated by this author to separate the implied tariff equivalents of quotas.

Extent of Canadian Market for Low-Cost Imports

The analysis of the preceding section provided ad valorem tariff equivalents of the quantitative restraints on low-cost clothing imports. Canadian consumers bear the cost of these restraints in the form of higher prices for both imports and

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2. For detailed references, see Appendix to this chapter.

3. Emergency Interim Submission to the Textile and Clothing Board, Canadian Textile Importers Association, December 1979, Montreal.

4. G.P. Jenkins, Costs and Consequences of the New Protectionism, sponsored jointly by The World Bank and the North-South Institute, 1980.

domestic production. Using the tariff equivalents of VERs and a measure in value terms of the size of the Canadian market for low-cost imports, the cost to consumers of VERs can be calculated.

The labour cost advantage of low-cost producers is such that tariffs on clothing do not inhibit low-cost imports. It has been estimated that countries with wage rates less than 64.5% of Canadian wages can compete with domestic clothing production in the Canadian market on a purely cost-of-production basis[5]. Wages in Taiwan and South Korea (the two the major sources of low-cost imports) are approximately 10% of Canadian wages. Thus, the cost advantage is such that the tariff alone is far from a prohibitive barrier to clothing imports from low-cost sources.

One might be tempted to argue that, in the absence of quantitative restraints, low-cost imports would completely displace domestic production. But then, how would one explain the co-existence of significant imports (even prior to the imposition of quantitative restraints) from developed nations whose wage rates are too high, given the tariff structure, to compete with even Canadian production on a strictly price basis (see Table 5)? Why did Canadians not substitute lower priced low-cost imports for these high-cost imports?

It is apparent that high-cost imports and Canadian production compete in dimensions other than price. One of these may be the dimension of time. Due to their proximity to the market, domestic producers require a shorter time lag between placing of order and delivery than do many foreign exporters. A statement on page 100 of the report of the Textile and Clothing Board dated June 30, 1980 refers to "the large retailers' practice of allowing lead times up to one year on orders for imported goods, whereas lead times of as little as three to four weeks were being given to domestic (Canadian) suppliers." In addition, fabric availability as well as unique (country specific) factors may account for the survival of high-cost imports. However, determination of what portion of domestic production would be viable in the absence of quantitative restraints requires sophisticated analytical techniques.

Ideally, one might measure the impact of the quantitative restraints on low-cost imports by comparing the actual level of low-cost imports to a prediction of the level which would have occurred in the absence of restraints. The Department of Industry, Trade and Commerce[6] has attempted to measure the impact of

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5. See Chapter 4 for detailed explanation of the derivation of this figure.

6. Cross Sectional Analysis of Clothing Imports, Micro Economic Analysis Branch, Department of Industry, Trade and Commerce, March 1980.

quantitative restraints by comparing the actual level of imports from low-cost sources during the global quota to a prediction of the level which would have obtained in the absence of the restraints. The prediction is based on an econometrically estimated equation which explains the level of imports as a function of prices, the exchange rate, domestic wages, and trend factors. In this way, an attempt has been made to isolate the impact of global clothing quotas from other influences. Inasmuch as the volume of low-cost imports has not differed significantly from the 1975 level during the time periods of global quotas or VERs, estimating the impact of the global quota does provide an estimate of the impact of the VERs.

The Industry, Trade and Commerce study concludes that the quantitative restraints reduced the volume of low-cost imports by 38% to 47% and their value by 34.8% to 42.7%.[7] These estimates indicate the impact of the quotas on total clothing imports but, unfortunately, not by every clothing category. Due to the nature of the sample data, one would expect that these estimates somewhat underestimate the impact of the quantitative restraints on imports. The impact of the quota has been estimated using a dummy variable which takes on the value zero for the pre-global quota time periods and the value unity for the time the global quota was in effect. Therefore, the dummy variable measures the differential impact of the VERs already in existence (most notably on shirts) and the new global quota system. The impact of the quantitative restraints measured in this way, therefore, does not include the impact of quantitative restraints existing prior to the global quota.

Moreover, the IT&C estimate provides a measure of the restrictive impact on low-cost imports of the global clothing quotas net of the expansionary effect on low-cost imports of special protective measures provided coincidentally to the primary textile industry. The special protective measures provided for the primary textile industry (see Table 6) raised the costs of domestic producers and, by thus reducing their viability, served to increase imports. The IT&C study estimates the impact of the quantitative restraints on clothing imports net of the special measures applying to textiles and thus underestimates the restrictive impact of the quantitative restraints on clothing imports.

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6. Cross Sectional Analysis of Clothing Imports, Micro Economic Analysis Branch, Department of Industry, Trade and Commerce, March 1980.

7. Ibid., page 2.

Consumer Cost of Quantitative Restraints on Clothing Imports

The estimates of the cost to Canadian consumers of the quantitative restraints on low-cost imports are shown in Table 7. The IT&C study estimated that the quantitative restraints lowered low-cost imports by 40.9%.[8] The global quotas of 1976 restricted imports to 1975 levels. In addition, 1975 is the most recent year for which data are available undistorted by comprehensive quantitative restraints. Therefore, the size of the Canadian market for low-cost imports has been determined by increasing the actual 1975 low-cost imports by the IT&C estimate of the impact of the quantitative restraints on the volume of low-cost imports.

It is noteworthy that the IT&C study defines as "low-cost" the imports from all countries but the United Kingdom, Ireland, Austria, Belgium/Luxembourg, Denmark, Finland, France, West Germany, Iceland, Italy, Netherlands, Norway, Sweden, Switzerland, South Africa, Japan, Australia, New Zealand, and the United States. Thus, according to this definition, the share of low-cost imports can be determined by subtracting the imports of these nations from total imports. The import data by category has been constructed according to this definition.[9]

The estimate of $104 million per annum indicates that, had the quantitative restraints been in effect in 1975, they would have increased the cost of clothing to Canadians by 3.6%, equivalent to $158 million in 1980 dollars if adjustment is made for the increase in the all-items consumer price index.

Division of Cost to Consumers of Quantitative Restraints Between Foreign Producers, Domestic Producers, and Tariff Revenue

Canadian consumers bear the cost of the quantitative restraints in the form of higher prices paid for domestic production which would have been displaced by low-cost imports in the absence of quantitative restraints. Canadian consumers also bear the cost of these restraints as higher prices on low-cost imports. This higher price accrues to foreign holders of quota rights as a rent (quota charge). The higher price also accrues to the Canadian government because the ad valorem tariff is applied to the value of low-cost imports inclusive of quota charge. Further, in 1977 Canadian authorities began adjusting

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8. 40.9% is the average of their upper- and lower-bound estimates for impact of global quotas on low-cost imports by volume and value.

9. For details of the construction of import data, please refer to the Appendix for this chapter.

the value upon which the tariff is calculated for clothing imports from Taiwan, Hong Kong, and South Korea, which are the major sources of low-cost imports. The percentage by which the value of imports from these countries has been increased for the purpose of calculating duty is typically 25% and the tariff is calculated on the basis of this advanced value. This increases the effective tariff above the normal ad valorem rate. Since the duty paid is calculated on the basis of value (inclusive of quota charge), a large share of the exporters' potential rent as holders of quota rights has been appropriated by the Canadian government as increased tariff revenue. Utilizing the tariff equivalent of the quantitative restraints and a 25% increase in value for duty, it gas been possible to estimate this additional tariff revenue.

The breakdown of the cost to the consumer of quantitative restraints appears in Table 9, which shows the increase in tariff revenue and the decrease in returns to the exporter when a 25% advancement of dutiable value is imposed. This was felt advisable because the advancement for duty is currently applied only to imports from Taiwan, Hong Kong, and South Korea, which are currently the major sources of such imports. The value of imports from other low-cost sources is not advanced for duty. In addition, the differential in tariff revenue under the two alternative assumptions indicates the major impact of these advances of value for duty has been on the distribution of the scarcity rent between foreign holders of quota rights and the Canadian government. Details of the calculations yielding these estimates are shown in the Appendix to this chapter.

It is noteworthy that the excess value of domestic clothing production arising from quantitative restraints accrues to domestic producers of both primary textiles and clothing subject to quantitative restraint. The division between the two segments of the industry would require information on the tariff equivalent of the quantitative restraints on primary textiles. Unfortunately, the data required are not available.

Comparison of Results with Estimates of Other Studies

The Canadian Textile Importers Association has estimated the cost to consumers of quantitative restraints to be $400 million per annum[10] in 1978 current dollars. Dr. G. P. Jenkins estimates the cost to consumers as $193 million per annum[11] in 1979 dollars (equivalent to $177 million in 1978 current dollars). The

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10. Emergency Interim Submission to the Textile and Clothing Board, Canadian Textile Importers Association, December 1972, Montreal, Appendix D, page 4.

11. Ibid., page 17.

estimate of this study corresponds to $132 million per annum in 1978 current dollars.

Inasmuch as these three studies seem to have employed basically the same approach, one might reasonably seek to explain the difference in the results. Unfortunately, this author is unable to ascertain the types of measures of the extent of the Canadian market for low-cost imports that were utilized in the other two studies.

In contrast with the techniques utilized in this study and the two others just mentioned, Industry, Trade and Commerce has estimated the cost to consumers by econometrically estimating the impact of the quantitative restraints on the retail price of clothing in Canada.[12] Its study estimates the cost to consumers of the quantitative restraints as between $50 million and $250 million per annum (1978 current dollars)[13].

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12. Impact of Import Restraints on the Clothing Industry in Canada, Micro Economic Analysis Branch, Department of Industry, Trade and Commerce, October 1979.

13. Ibid, page 3.

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TABLE 1

The Price Dispersion by Country

Imports of Men's and Boy's Knitted
Wool Sweaters and Cardigans 1975

1975 Constant Dollars ($000's)

Country	Value per Unit* ($)
United Kingdom	8.33
Ireland	9.01
Austria	14.63
Belgium-Luxembourg	24.50
Denmark	14.39
France	11.29
Germany West	17.68
Greece	2.82
Iceland	20.51
Italy	6.43
Norway	16.35
Spain	16.84
Switzerland	18.40
Israel	4.63
Hong Kong	4.34
India	12.82
Afganistan	3.51
Peoples Republic of China	6.27
Japan	5.76
South Korea	2.90
Taiwan	3.41
Australia	5.22
New Zealand	14.44
Bolivia	8.33
Brazil	21.53
Ecuador	13.33
Uruguay	9.54
Mexico	6.22
United States	8.14
Total All Countries	6.33

* Value per unit does not include duty collected

Source of Data: Commodity item 784-40, Imports - Merchandise Trade 1973-75, Statistics Canada publication 65-203.

TABLE 2

Tariff Equivalent of Quantitative Restraints

Clothing Category	(1) Ad Valorem Tariff	(2) Ad Valorem Tariff Equivalent of Quantitative Restraint	(3) =(1)+(2)	(4) =(2) (3)
Men's Clothing	.249	.287-.319	.536-.568	.535-.562
Women's Clothing	.251	.194-.218	.445-.469	.436-.465
Children's Clothing	.254	.253-.284	.507-.538	.499-.528
Foundation Garments	.250	.303-.333	.553-.583	.548-.571
Hosiery	.272	.214-.245	.486-.517	.440-.474
Knitted Clothing	.275	.286-.317	.561-.592	.510-.536

Source of Data: Appendix to this chapter.

Table 3

Tariff Equivalent of Quantitative Restraints

| | Jenkins Study | | This Study | |
| | | Tariff | Tariff | Clothing |
Clothing Item		Equivalent	Equivalent	Category
1. Outerwear		.46	.30	Men's Clothing
2. Structured Suits		.25	.30	Men's Clothing
3. Shirts with Tailored Collars		.88	.30	Men's Clothing
4. Blouses and Shirts		.14	.21	Women's Clothing
5. Sweaters, Pullovers, and Cardigans		.13	.30	Knitted Clothing
6. T-Shirts		.38	.30	Knitted Clothing
7. Trousers, Slacks Men's and Boys'		.16	.30	Men's Clothing
8. Trousers, Slacks Women's and Girls'		.19	.21	Women's Clothing
9. Overalls		.35	.30	Men's Clothing
10. Dresses and Skirts		.13	.21	Women's Clothing
11. Underwear		.55	.30	Knitted Clothing
12. Shorts		.34	.30	Men's Clothing
13. Sleepwear		.01	.30	Men's Clothing
14. Foundation Garments		.10	.32	Foundation Garments
15. Swimwear		.27	.30	Knitted Clothing
16. Overcoats, Topcoats, Rainwear		.18	.30	Men's Clothing

SOURCE OF DATA: Tariff Equivalent of scarcity rent resulting from quantitative restraints on "low-cost" imports implied by data in Jenkin's study derived from Table 2, page 30, Costs and Consequences of the New Protectionism, G.P. Jenkins, sponsored jointly by the World Bank and the North-South Institute, 1980.

Tariff equivalent for this study from Table 2 of this Chapter.

Table 4

Tariff Equivalent of Quantitative Restraints

	Canadian Textile Importers Association		This Study	
Clothing Item	Tariff Equivalent 1979		Tariff Equivalent	Clothing Category
1. Boy's Snow Jacket	16%		27%	Children's Clothing
2. Boy's Poly/Cotton Pants	16%		27%	Children's Clothing
3. Men's Flannel Work Shirt	17%		30%	Men's Clothing
4. Men's Poly/Cotton Pants	17%		30%	Men's Clothing

SOURCE OF DATA: Tariff Equivalent of scarcity rent resulting from quantitative restraints on "low-cost" imports implied by data in Appendix D, Emergency Interim Submission to the Textile and Clothing Board, Canadian Textile Importers Association, December 1979, Montreal and Table 2 of this Chapter.

TABLE 5

Country	Clothing Worker Wages Relative to Canadian Wage 1976
United States	.921
Belgium	.921
France	.709
Germany	.796
Sweden	1.550

Clothing Category	Percentage of Imports in Value Terms from "High Cost" Countries 1975
Men's Clothing	.288
Women's Clothing	.269
Children's Clothing	.335
Hosiery	.413
Knitted Clothing	.155
Miscellaneous Clothing	.280
All Clothing	.228

* Austria, Belgium/Luxembourg, Denmark, France, W. Germany, Iceland, Netherlands, Norway, Sweden, Switzerland, South Africa, Australia, New Zealand and US.

Source of Data: Relative wages derived from data in Men's Wear Magazine, August 27, 1976.
Import data constructed from data in Imports - Merchandise Trade 1973-1975, Statistics Canada publication, 65-203, see Appendix to this chapter.

TABLE 6

Special Measures of Protection for Primary Textiles in 1976

Jan. 1, 1976   Global quota on imports of acrylic yarn (which is used extensively in knitting mills).

July 8, 1976   Global surtax on imports of textured polyester filament yarn (which is used extensively in knitted fabric production).

Oct. 8, 1976   Global quota on double knit fabrics.

1976   VERs (Voluntary Export Restraint) negotiated with Korea, Hong Kong, Japan and Taiwan on filament polyester fabrics.

1976   VERs negotiated with Japan, Taiwan and Korea on nylon fabric.

Source of Data: An Evaluation of the Net Benefits of Reduced Barriers to Import Competition - Canadian Footwear, Textiles, Knitting and Clothing Industry, C. Campbell, unpublished CCAC research, 1980.

TABLE 7

Estimate of Cost to Canadian Consumers of Quantitative
Restraints on Imports of Clothing from Low Cost Sources
1975 Constant Dollars $000's)

Clothing Category	(1) Total Imports	(2) Total Developed Country Imports	(3) Total Non-Developed Country Imports	(4) Canadian Market Non-Developed Country Imports	(5) Tariff Equivalent of Quota	(6) Ad Valorem Tariff	(7) Tariff Equivalent of Quantitative Restraint are Proportion of Pre-Quantitative Restraint Canadian Market by Value	(8) Cost to Consumer of Quantitative Restraint
Men's Clothing	169,871	59,689	110,182	155,246	.287	.249	.230	35,707
Women's Clothing	84,546	31,286	53,260	75,043	.194	.251	.155	11,632
Children's Clothing	4,137	1,607	2,530	3,565	.253	.254	.202	720
Foundation Garment	3.818	2,677	1,141	1,608	.303	.250	.242	389
Hosiery	15,142	9,058	6,084	8,572	.214	.272	.168	1,440
Knitted Clothing	247,744	77,005	170,739	240,571	.286	.275	.224	53,888
Misc. Clothing	23,716	14,768	8,948	8,948	0	.223	0	0
All Clothing	548,974	196,090	352,884	500,088				103,776

Sources of Data: (1) Appendix to this chapter; (2) Appendix to this chapter; (3) = (1) - (2); (4) = 3 X 1.409; (5) Table 2;
(6) Table 2; (7) = (5) ÷ (1 + (6)); (8) = (7) X (4).

Table 8

Chronology of Advance of Value for Duty

Country	Clothing Item	Advance	Memorandum	Memorandum Date
Republic of Korea	Acrylic Pullovers and Sweaters	30%	D34-41	Jan 2/76
Republic of Korea	Acrylic Sweaters	35%	D34-43	Feb 4/76
Republic of Korea	Wearing Apparel	15%	D34-52	April 18/77
Hong Kong	Wearing Apparel	25%	D34-65	Feb 8/80
Taiwan	Wearing Apparel	33 1/3%	D34-50	April 6/77
Taiwan	Wearing Apparel	25%	D34-50	Nov 24/78

TABLE 9

Division of Cost to Consumers of Quantitative Restraints Between Tariff Revenue, Domestic Clothing and Clothing Input Producers, High Cost Country Clothing Producers and Low Cost Clothing Producers

1975 Constant Dollars ($000's)

	Estimate (Assuming 25% Advance for Duty) $000's per annum	Estimate (Assuming No Advance for Duty) $000's per annum
Tariff Revenue	32,263	16,306
Low Cost Clothing Producers	41,418	57,375
Canadian Clothing and Clothing Input Producers	30,095	30,095
	103,776	103,776

Source of Data: Appendix to this chapter.

CHAPTER 4

Costs of Adjustment to Reduced Protection

In relative and absolute terms, Canadian production of textiles and clothing has been highly protected by customs tariffs. Since December, 1976 tariff protection has been supplemented by restrictions, of one form or another, on the volume of clothing imports. The Canadian textile and clothing industries are pressing for maintenance of quantitative restraints on clothing imports from low-cost countries.[1]

The Canadian government has basically two policy options available. It can choose to increase or maintain the protection provided these Canadian industries to keep their workers employed and thus continue to impose the deadweight losses on the Canadian economy (discussed in Chapters 2 and 3). Alternatively, it can reduce the protection provided these industries, which would result in reduced Canadian production (due to idle resources) during the time it would take for workers to find re-employment in other industry.

The deadweight losses that trade barriers create stem from two effects of a protectionist policy. The price of clothing is raised to the Canadian consumer and the existence of those barriers induce Canadian industry to make goods which could be obtained more cheaply by trade. In order to make a decision between these two options, it is first necessary to quantify the respective benefits and costs. The object of this chapter is to estimate the costs associated with reduced trade barriers.

Viability of Canadian Production under Reduced Protection

In order to evaluate the structural adjustment which would be required in response to reduced protection, it is necessary to identify the nature of the adjustment that would be required. To this end, data on the levels of protection of these industries, the degree of import penetration, and the major sources of imports are presented and interpreted.

Tariff Protection

Prior to December 1976, the main barrier to textile and clothing imports was the tariff structure. Tables 1 and 2 indicate that the level of tariff protection provided the Canadian textile and clothing industry is high, whether measured by effective rate

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1. For example, see A Report by the Sector Task Force - The Canadian Textile and Clothing Industries, 1978, page 11, or industry representations at hearings followed by The Textile and Clothing Board Report dated June 30, 1980.

of protection, minimum production-cost advantage of exporting country, or excess value added as a proportion of labour cost.

The effective rate of protection indicates the proportionate increase in value added permitted by the tariff structure. The effective rate of protection is superior to the nominal tariff on output as an indicator of the level of protection because it takes into account the tariffs on inputs which, other things being equal, reduce the competitiveness of Canadian production.

The maximum labour cost of the exporting country, as a proportion of domestic labour cost, indicates the maximum labour cost of an exporting country at which imports from that country would be competitive in the Canadian market. That is, assuming equally productive labour in Canada and the exporting country, the wage rate in the exporting country as a proportion of the Canadian wage rate must not exceed the maximum indicated in Table 2 for its products to compete in the Canadian market, taking the tariff structure into account.

It is often alleged that the high labour intensity of clothing production and the relatively low wages in some other countries have been responsible for import penetration of the Canadian market. In primary textiles, the developed nations are the most important source of Canadian imports. The competitive advantage of these nations, it appears, can be attributed to lower costs of production resulting from longer production runs permitted by their larger home markets. In order to surmount Canadian tariffs on imported textiles and remain price competitive with Canadian producers, the cost advantage of foreign producers, as a proportion of their production costs, must exceed the proportion shown in Table 2. These figures have been calculated on the assumption that the cost advantage of foreign producers stems purely from greater productivity from value-added inputs.

Excess value added as a proportion of domestic labour costs indicates the degree of subsidy of domestic production by the domestic market, through the tariff structure as a proportion of the wage bill of the Canadian textile and clothing industry. This measure of protection is relevant, since the argument most often raised to support maintenance of protectionist measures is preservation of Canadian employment in these industries.

Table 1 indicates that the tariff structure permits the value-added input costs of Canadian clothing producers to be approximately 30% higher than those of foreign producers. Because of the tariff structure, Canadian consumers of clothing implicitly subsidize Canadian clothing producers by an amount representing about 35% of labour costs. In order to be competitive in the Canadian clothing market on a purely cost basis, the wage rates in a foreign country cannot exceed 65% of Canadian wage rates.

As shown in Table 2, the tariff protection provided Canadian primary textile producers is even higher in terms of effective rate of protection and excess value added as a proportion of the wage bill. Because of tariffs on imports, the Canadian textile industry's production costs are permitted to be from 10% to 19% higher than foreign primary textile producers.

The Effect of Currency Depreciation on Import Sources 1976-78

The major sources of imports of primary textiles and clothing are indicated in Table 3. It is noteworthy that developed nations are the main source of primary textiles, whereas the main sources of clothing imports are developing countries in the Far East. A comparing of wage levels in such low-cost countries (in Table 4) with the maximum relative wage permitted by the tariff structure (Table 1), it becomes clear that, in spite of tariffs, imports from these sources are quite cost competitive in the Canadian market. Table 4 also makes it clear that this cost advantage has not been significantly affected by the depreciation of the Canadian dollar against the U.S. dollar. It is also noteworthy that the levels of wages in developed countries are too high, given the tariff structure, to be competitive in Canada on a purely cost-of-production basis. Inasmuch as significant imports did occur from these sources (even prior to quantitative restraints on imports), this implies that a large portion of the Canadian market, currently served by Canadian and developed country producers, is not vulnerable to low-cost import competition if tariff protection is maintained.

In contrast, import penetration of the Canadian market for primary textiles is attributed to economies of scale not available to Canadian producers because of their smaller home market. The population of Japan is approximately five times that of Canada. The populations of the United States and the European Economic Community are about ten times Canada's. The lower production costs attainable by producers in these markets have been of such magnitude that they are price competitive in the Canadian market. Canadian producers cannot as easily surmount equivalent tariff barriers of these large trading blocs because they are unable to reduce costs to the same degree that foreign producers can, because of the small relative size of the Canadian market.

Thus Canada is in an unenviable position with respect to primary textile production, since it is a small, industrialized nation not belonging to a larger customs union. The empirical data in Table 5 indicate that economies of scale are significant only up to a point, after which the per-unit cost of production levels off. The data in Table 2 indicate that the tariff structure permits Canadian production costs to be 10% to 18% higher than those of foreign producers. This suggests that the viability of the Canadian primary textile industry depends on the structure of the demand for primary textiles. If the Canadian

market for each is very small, then Canadian production of few products will be feasible. In contrast, if the Canadian demand for primary textiles is largely concentrated in a few items, Canadian producers will be capable of largely fulfilling it. The actual structure of Canadian demand for textiles lies between these two extremes, as this study will show.

Import Penetration

The degree of import protection, as measured by imports as a proportion of the Canadian market given the level of protection provided, is an indicator of the viability of Canadian production under reduced protection.

In 1975, imports accounted for approximately 19% by value of the apparent Canadian market for clothing.[2] Approximately one third of these imports, by value, were from developed countries.[3] If, instead, import penetration is measured by volume (number of units of clothing), imports accounted for 35% of the apparent market.[4] Low-cost sources accounted for 84% of imports by volume. The level of penetration by low-cost imports is higher measured by volume rather than value, because the average value per unit is much lower than that of Canadian production or other imports. The proportion of the Canadian market accounted for by imports of knitted clothing tends to be higher than these figures, while the import share of other clothing items tends to be lower. Clothing imports from low-cost sources have been stable at close to the 1975 levels, since quantitative restraints were first imposed the following year. The level of low-cost clothing imports would be approximately 41% higher (by volume or value) in the absence of these restraints.[5]

In contrast, developed nations are the dominant sources of primary textile imports. Only in cotton textiles are low-cost sources important. The levels of import penetration of the Canadian market for primary textiles are displayed in Table 6.

The high levels of tariff protection provided Canadian textile and clothing producers have not prevented imports from capturing large shares of the Canadian market. On this basis, it appears that, without this protection, much of Canadian textile and clothing production would not be viable. It is noteworthy that, in spite of higher tariff protection for primary textiles

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2. Table 6, Chapter 2

3. Table 7, Chapter 3

4. Textile and Clothing Inquiry, Textile and Clothing Board, June 30, 1980, Volume II, page 84.

5. See Chapter 3 for explanation of this figure.

relative to clothing, imports of primary textiles account for a somewhat larger proportion of the apparent Canadian market. Canada's textile producers are therefore even more vulnerable to import competition than its clothing manufacturers. Further, any reduction in the size of the Canadian clothing industry would aggravate the cost disadvantages of our primary textile producers relative to their competitors in other developed nations.

Costs of Structural Adjustment to Reduced Protection

The analysis above leads to the conclusion that the greater part of Canadian textile and clothing production would not be viable in the absence of substantial tariff protection. If the barriers were lowered, resources currently employed in these industries would be displaced by imports. The cost to the Canadian economy of reduced protection would be the production lost between the displacement and re-employment of resources in another activity.

But private losses of income from resources which have no alternative productive uses are not social costs. For example, the fall in the value of homes in an isolated community or in the value of machinery or, for that matter, the idleness of plant-specific skills resulting from reduced protection are not social costs because the resources invested in these inputs are irretrievable.

On the other hand, labour displaced by the reduced protection does have alternative uses. The value of labour in alternative uses is indicated by the wage in textile and clothing industries prior to displacement. This study will focus on the loss due to unemployment of labour as the cost of structural adjustment to reduced protection. To be sure, some productive capital (machinery, equipment, and buildings) will also be temporarily idled during the period of structural adjustment and the valuable services lost in this way will also be incurred. However, this paper envisions that reduction of trade barriers would be phased in over a number of years. Knowledge of the schedule for trade barrier reduction would facilitate the movement of non-labour resources into more highly valued uses. In this way, mobile non-labour inputs could be re-employed with minimum disruption to the flow of productive services. Two case studies, one of Lancashire Textiles[6] and another of the closure of a textile plant at Louiseville, Quebec[7], indicate that the export of

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6. Caroline Miles, Lancashire Textiles - A Case Study of Industrial Change, Cambridge, 1968.

7. J.B. Massicotte, An Estimation of the Costs of the Loss of Jobs in the Case of the Associatided Textiles of Canada Ltd. shutdown in Louiseville, Quebec, Economic Analysis Branch, Industry, Trade and Commerce, October 1979.

machinery and re-employment of buildings in other uses should be expected as part of the adjustment process. Of course, the value of non-labour inputs, lacking alternative uses, will fall. These losses, however, are not social costs for the reasons given above.

In contrast, the labour utilized in production is not owned by textiles and clothing manufacturers. Employees cannot fully anticipate their impending unemployment and thus are not able to act to minimize the resultant losses of income. Therefore, it is the loss of labour services during the time interval prior to re-employment which is the adjustment cost of trade barrier reduction.

Role of Government in Adjustment

In the event labour is displaced from employment, income support schemes such as unemployment insurance, and re-employment programs such as retraining and relocation assistance are available. The displaced worker is eligible for these benefits whether the cause of his unemployment is increased imports, a fall in market demand, a change in technology, or intense competition. Whether the set of existing programs is optimal with respect to allocative efficiency, social insurance, and distribution of income is beyond the scope of this paper. However, the design of any special adjustment assistance to workers displaced because of increased imports resulting from reduced protection must take into account existing programs.

It might be argued that adjustment assistance should be provided to encourage viable lines of production in order to hasten the structural adjustment and reduce adjustment costs. However, how does one distinguish viable from non-viable production? The decisions of the Textile and Clothing Board reflect an argument often made by industry representatives -- that protection should be extended or increased in order to permit the industry to adjust to the international competitive environment. However, extended protection encourages non-viable production and so merely delays the adjustment.

No one government department exercises control over industrial policy. Therefore, the government must ensure that an intention to reduce protection and encourage the re-employment of Canadian resources in other sectors is not negated by having different branches of government working at cross purposes. For example, if the government decides to reduce protection on imported textiles and clothing, Manpower Canada should not provide training programs to develop skills specific to these industries.

Similarly, the level of protection against imports and the government's longer-term intentions regarding the level of protection should be factors considered by DREE to ensure that DREE grants not subsidize further highly protected industries or

increase the eventual costs of structural adjustment.

With respect to immigration policy, adaptability to life in Canada has been the main criterion which must be met by prospective immigrants. Understandably, labour market qualifications are a major consideration. However, as indicated in Table 7, the viability of the Canadian industry in which the prospective immigrant has specialized skills does not appear to have been considered. This immigration has increased the costs of adjustment to lower trade barriers by increasing the amount of labour displaced when the barriers are reduced.

Estimated Adjustment Costs

Stated simply, the cost of adjustment can be estimated by utilizing the following equation: Cost of adjustment = (number of employees displaced) X (average wages per employee) X (average duration of unemployment) X (labour income multiplier). The labour income multiplier reflects unemployment induced in secondary sectors by the adjustment of employment in industries whose protection has been reduced.

This simple method of estimation has been used in other studies which have attempted to measure the adjustment costs of reduced protection.[8] In contrast with this approach, the Department of Industry, Trade and Commerce has made a study of the shutdown of a textile plant in Louiseville, Quebec[9] and has estimated the cost of lost jobs, utilizing a model of the regional labour market. This model included such considerations as the difference in wages before and after displacement, wages in base and secondary sectors, unemployment conditions in four sectors of the labour market, population, participation rates, rate of new job creation, demographic characteristics of the displaced workers, rate of migration, retirement rate, the time pattern of the layoff, and the degree of permanency of employment before and after displacement. This study concludes that the adjustment cost was $12,100 per employee.[10] Calculating the adjustment cost as the wage, times the duration of unemployment, times the labour income multiplier, one would arrive at a figure of $13,036 per

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8. For example, W. R. Cline et al, Trade Negotiations in the Tokyo Round - A Quantitative Assessment, The Brookings Institution, Washington, D.C., 1978.

9. J.B. Massicotte, An estimation of the Costs of the Loss of Jobs in the Case of Associated Textiles of Canada Ltd. Shutdown in Louiseville, Quebec, Micro Economic Analysis Branch, Department of Industry, Trade and Commerce, October, 1979.

10. Ibid., page 54.

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employee[11], an error of +7.7%. It would be very difficult to replicate the Industry, Trade and Commerce study for the number of plant shutdowns which would occur due to reduced protection of the textile and clothing industries. Moreover, using a simplified approach would seem to result in only a small upward bias in the estimated costs of adjustment. Judging by the sensitivity analysis in the Louiseville study, this bias is due to failure to consider the higher wages received by displaced workers, once re-employed.

The Labour Force Tracking Survey[12] of displaced clothing and textile workers provides estimates of the average duration of unemployment to be expected. The average durations of unemployment for textile and clothing workers were 29 weeks and 28 weeks, respectively. The average duration of unemployment resulting from the Louiseville plant shutdown was 14.5 months. Thus, it appears that the displaced Louiseville textile workers encountered greater problems in finding replacement employment than one might expect on the average. It is noteworthy that the Labour Force Tracking Survey found no relationship between the average duration of unemployment and the regional unemployment rate. This empirical finding is noteworthy because it is often argued that the already high regional unemployment rates in communities where textile and clothing producers are located reflect the lack of alternative employment opportunity.[13] It is implied that displaced textile and clothing workers face the prospect of extended unemployment. The data of the Labour Force Tracking Project do not support this contention. It is noteworthy that most displaced workers were re-employed at higher wages than they had been receiving prior to layoff.[14] The estimates of average duration of unemployment by the Labour Force Tracking Survey are probably biased upwards. This is the case because the average duration of unemployment for displaced workers who moved is not

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11. Weekly wage $156
     Average duration of unemployment   14.5 months
     Labour Income multiplier   1.33
     Estimate of adjustment cost = 156 x (14.5/12) X 52 X 1.33
                          = $13,036 per employee.
     Source of data: Ibid.

12. A Report on the Labour Force Tracking Project/Costs of Adjustment Study, Department of Industry, Trade and Commerce, Government of Canada, March 1979.

13. For example, Appendix I of the Report by the Sector Task Force on the Canadian Textile and Clothing Industries, June, 1978.

14. Page 20, Table 14, A Report on the Labour Force Tracking Project/Cost of Adjustment Study, Department of Industry, Trade and Commerce, March 1979.

included in the estimates. It might be expected that workers who moved did so because of an employment opportunity elsewhere.

The study of the shutdown of the textile plant at Louiseville provides 1.33 as an estimate of the labour income multiplier. The wage rate can be inferred from the 1976 Census of Manufactures data. In order to estimate the costs of adjustment to reduced production, an estimate must be made of the expected number of displaced workers. The arguments presented in this chapter indicate that, as a whole, Canadian textile and clothing industry would not be viable in the absence of tariff protection. Domestic production of some lines of textiles and clothing, however, would be viable for reasons such as a highly mechanized production process, or because proximity to market may be important, or minimum cost production may require only short runs. Therefore, it is improbable that Canadian textile and clothing industries would completely disappear, although it would require a great deal of data to determine what portion of the domestic industry will remain viable. Therefore, estimates of the cost of adjustment will be made, assuming that the removal of trade barriers results in the disappearance of domestic production. Obviously this approach will impart an upward bias to the calculated estimates.

Ideally, a valuation of the increased leisure time for displaced workers during the period of unemployment would be subtracted from the calculated adjustment costs. Inasmuch as the estimates in this study do not reflect this consideration, there is a further upward bias to the estimates of adjustment costs.

It is noteworthy that the data used in calculating the costs of adjustment consistently impart upward biases. Calculated estimates should therefore be considered upper bounds of the cost of adjustment.

It is assumed that lower trade barriers would be phased in over a number of years in order not to tax the absorption capacity of the market too severely. The present value of the costs of adjustment are estimated assuming that the lower trade barriers are phased in over five years.

In Table 8, the costs of adjustment to reduced trade barriers are estimated for the subsectors of the textile and clothing industries.

TABLE 1

Tariff Protection of Canadian Clothing Industries

Industry (SIC)	Effective Rate of Protection	Maximum Export Country Wage as a Proportion of Canadian Wage	Excess Value Added as a Proportion of Wage Bill
Hosiery Mills (231)	40.9%	.547	.453
Other Knitting Mills (2392)	39.1%	.579	.422
Men's Clothing (243)	26.2%	.675	.325
Women's Clothing (244)	26.4%	.737	.263
Children's Clothing (245)	27.0%	.668	.332
Foundation Garment (248)	26.7%	.740	.360
Clothing Aggregate	28.4%	.649	.351

SOURCE OF DATA: Effective Rates of Protection from Chapter 5.

For explanation of other data see Appendix to this Chapter.

TABLE 2

Tariff Protection of Canadian Primary Textile Industries

Industry (SIC)	Effective Rate of Protection	Minimum Proportionate Cost Advantage of Foreign Producers	Excess Value Added as a Proportion of Wage Bill
Cotton Yarn and Cloth (181)	39.5%	13.8%	.491
Wool Yarn and Cloth (182)	48.1%	18.3%	.540
Man-made Fibre & Filament Yarn (1831)	39.1%	15.6%	.492
Man-made Yarn & Cloth (1832)	32.6%	10.4%	.369
Knitted Fabric Mills (2391)	51.5%	13.4%	.593

SOURCE OF DATA: Effective Rates of Protection from Chapter 5.

For explanation of other data see Appendix to this Chapter.

TABLE 3

Sources of Textiles and Clothing Imports

Industry	Dominant Sources of Imports
Primary Textiles	U.S., Japan, U.K., BeNeLux, West Germany, France, Switzerland
Clothing	Hong Kong, Taiwan, South Korea

SOURCE OF DATA: Imports – Merchandise Trade, Statistics Canada, Catalogue 65-203.

TABLE 4

Wages Relative to Canadian

Clothing Industry Wages

Country	1976	1977	1978
Korea	.086	.093	.099
Taiwan	.109	.118	.126
United States	.921	.993	1.065
France	.709	.766	.820
United Kingdom	.505	.545	.583
Belgium	.921	.993	1.0605
Italy	.818	.884	.946
Germany	.800	.864	.925

SOURCE OF DATA: Relative wage rates derived from data in Men's Wear Magazine, August 27, 1976.
Relative wages for 1977 and 1978 estimated using $C/$US exchange rate in Bank of Canada Review.

TABLE 5

Relative Cost of Product (Per Unit) Corresponding to Multiple Scales of Production

Commodity	Source	Relative Scale of Production								
		1	2	3	4	5	8	10	16	20
Synthetic Fibre	Pratten, page 64	100	71			51		42		
Synthetic Fibre	Pratten, page 65	100				89		84		80
Synthetic Fibre	Pratten, page 66	100			94			86		
Synthetic Fibre	Pratten, page 67	100				88		81		79
Cotton Textiles	Pratten, page 230	100	59			51	49		45	
Cotton and Synthetic Woven Fabrics	Gorecki, page 103	100	95		90					
Cotton and Synthetic Woven Fabrics	Gorecki, page 96	100		92.4						

TABLE 6

Fabric	Import Share of Domestic Market 1975
Man-made (fibre and fabric)	40%
Cotton	60%
Wool	35%
Knitted Fabrics (including double and warp knits)	25%

SOURCE OF DATA: The Sector Task Force Report on the Canadian Textile and Clothing Industries, June 1978, Appendix D, page 24.

TABLE 7

Textile, Knitting, Clothing and Footwear Workers Immigration
as a Proportion of Total Manufacturing Immigration
1964 - 1977

Quebec	Ontario	Manitoba
32.3%	21.2%	38.0%

SOURCE OF DATA: The Importance of Immigrant Labour in the TKCF
Industries, C. Campbell, CCAC - Unpublished
research, 1979.

TABLE 8

Commodity	(1) Shipments Minus Exports 1975 ($000's)	(2) Wages & Salaries as a Proportion of Shipment Value 1975	(3)=(1)X(2) Estimated Wages and Salaries 1975 ($000's)	(4) Duration of Unemployment (Years)	(5) Labour Income Multiplier	(6) Present Value of Adjustment Costs to Reduced Protection (time rate of discount=10%) ($000's) Adjustment Distributed Over 5 Years	(7) Adjustment Distributed Over 10 Years
Hosiery	103,524	.329	34,059	.5385	1.33	20,344	16,488
Knitted Clothing	644,296	.354	228,081	.5385	1.33	136,233	110,414
Men's Clothing	711,954	.361	257,015	.5385	1.33	153,515	124,421
Women's Clothing	646,038	.328	211,900	.5385	1.33	126,568	102,581
Children's Clothing	135,276	.334	45,182	.5385	1.33	26,987	21,823
Foundation Garments	62,125	.433	26,900	.5385	1.33	16,068	13,022
Miscellaneous Clothing	75,441	.35	26,404	.5385	1.33	15,771	12,782
Cotton Yarn & Cloth	171,443	.248	42,518	.5577	1.33	26,302	21,314
Wool Yarn & Cloth	94,779	.294	27,865	.5577	1.33	17,237	13,969
Man-made Fibres & Filament Yarn	244,112	.274	66,887	.5577	1.33	41,376	33,530
Man-made Spun Yarn and Cloth	264,499	.260	68,770	.5577	1.33	42,541	34,474
Knitted Fabric	234,748	.200	46,950	.5577	1.33	29,043	23,536

SOURCE OF DATA: (1) Table 7, Chapter 2.   (2) Annual Census of Manufactures 1975.

CHAPTER 5

The Effective Rate of Protection
of Canadian Textile and Clothing Industries

The purpose of this chapter is to indicate the method used to calculate the effective rates of protection of textile and clothing industries, which were used in Chapters 2, 3, and 4. Whereas the tariff on the output of an industry provides protection from import competition, tariffs on the inputs of an industry raise the costs and thus diminish the industry's competitive position. The effective rate of protection indicates the net protection provided by the tariff structure, taking into account the levels of input and output tariffs and the proportion of inputs in the value of the output.

The Concept of Effective Rate of Protection

Corden has defined this measure as "the percentage increase in value-added per unit (of output) in an economic activity made possible by the tariff structure relative to the situation in the absence of tariffs but with the same exchange rate."[1]

The general essence of this approach can be developed using the following diagram.
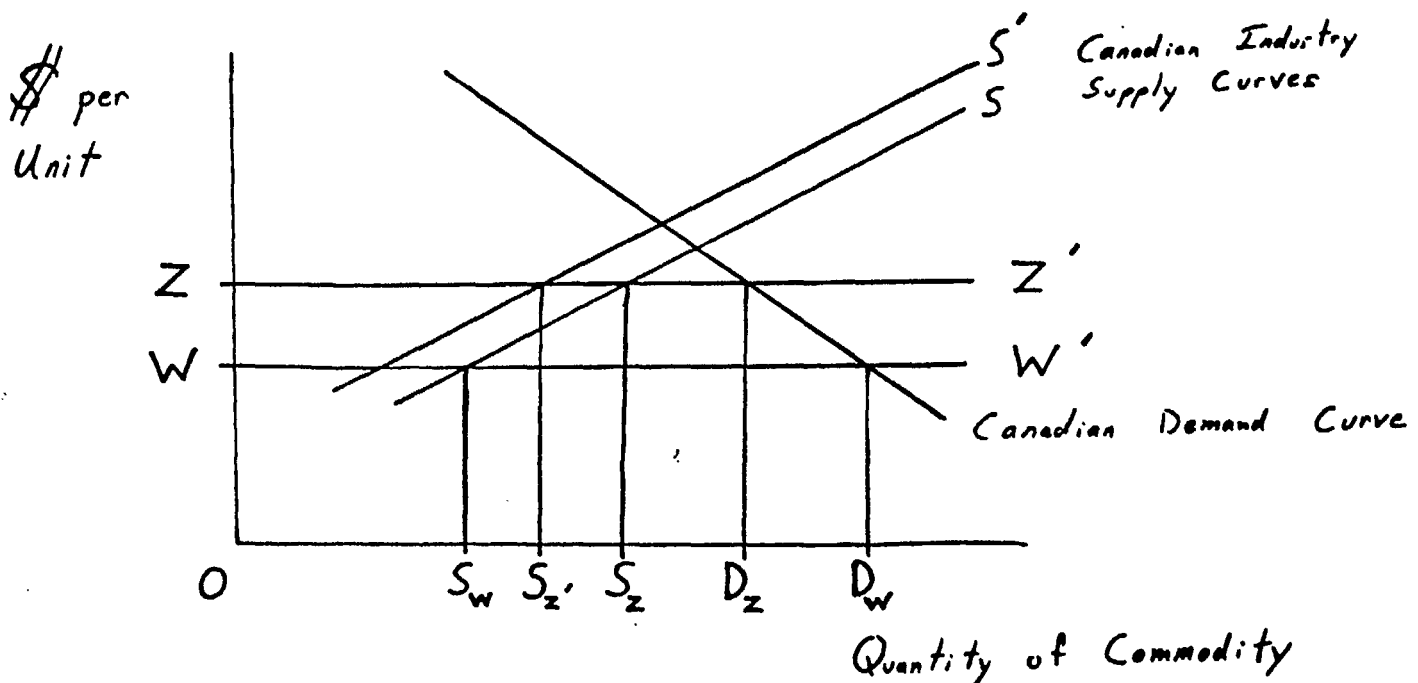
1. Page 222, M. W. Corden, "The Structure of the Tariff System and the effective protection rate," *Journal of Political Economy*, Volume LXXIV, June 3, 1966.

The international price of a tradable good is OW. At this price, Canadian producers in this small open economy supply OSw. Canadian consumers demand quantity ODw at this price. Thus the difference, SwDw is imported from foreign producers.

Suppose a tariff is levied on the final good so that the Canadian price becomes OZ. This encourages Canadian production of the final good: output rises to OSz. However, Canadian consumption drops to ODz; consequently imports drop to SzDz.

Suppose a tariff is next levied on another item which happens to be an input used in this production process. While the domestic price is unchanged at OZ per unit, Canadian production falls to OSz'. Imports rise to Sz'Dz. Thus the tariff on the intermediate good has in effect taxed the production process in the industry employing it, potentially countering the protective impact of the output tariff.[2] If the input tariff is of sufficient magnitude, Canadian production may fall below the free trade level OSw. The tariff structure would in this case impart negative protection.

The production effect of this system is determined by both input and output tariffs which, together, affect value added in the productive activity. It is this influence on value-added that is the focus of the concept of effective tariff protection.

A Numerical Example

The focus on effective protection of value added is most clearly illuminated using a numerical example (see Table 1).

A production process manufactures a good which sells for $1 under free trade conditions. This activity requires non-primary inputs worth 80 cents, with the residual accruing to the primary factors. This 20 cents is the value added in the production process.

Suppose a tariff of 20% is levied on the final output. The Canadian producer charges $1.20 per unit of output -- paying 80 cents for inputs. The 40-cent residual means that value added has increased by 100%. This is the effective rate of protection provided by the tariff.

Under these circumstances, since the price of inputs is determined in world markets, the only room for cost differences between Canadian and foreign producers lies with primary factors.

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2. Frequently, the historical development of the tariff structure runs in the other direction: tariffs on final goods are levied to compensate for tariffs levied to protect inputs.

In this example, imported items must be 50% cheaper in terms of labour and capital components in order to be competitive.

The imposition of a tariff on inputs will lower the effective protection enjoyed by the final goods producers, relative to what it would have been in the situation where output tariffs alone were in existence. However, using free-trade value-added as the point of reference, the imposition of this tariff structure will likely yield some positive effective protection. Suppose a 12½% tariff is levied on inputs, costs of which, therefore, rise to 90 cents. Given the 20% output tariff, the producer sells for $1.20 per unit. The residual is 30 cents. Thus the effective rate of protection is 50%.

<u>Algebraic Formulation for Calculating</u>
<u>Effective Rate of Protection</u>

$$ ERP = \frac{\sum_j \left(\frac{t_j}{1+t_j}\right) S_j - \sum_i \left(\frac{t_i}{1+t_i}\right) M_i}{\sum_j \left(\frac{1}{1+t_j}\right) S_j - \sum_i \left(\frac{1}{1+t_i}\right) M_i} $$

$$ = \frac{VA - VA!}{VA!} $$

where

ERP is effective rate of protection
VA is value added under existing tariff structure
VA! is value added in absence of tariffs
tj is tariff rate on output j
ti is tariff rate on input i
sj is dollar value of output j at domestic (reflecting tariff) prices
Mi is dollar value of input i at domestic (reflecting tariff) prices

Data Issues

(a) <u>Input-Output Proportions and Assignment of Nominal Tariff Rates</u>

This study has not been restricted by the level of aggregation of input-output table data. The Annual Census of Manufactures data with disaggregated classifications of inputs and out-

puts has been used directly. Also, the tariff rates applicable
to a commodity were chosen directly from the tariff schedule and
thus the limited disaggregation of import data was not a con-
straint.

The calculation of effective rates of protection in other
studies (using input-output tables) has limited the possibilities
for disaggregation. Still others have assigned tariff rates to
commodities on the basis of the ratio of duty paid to value of
imports, which linked the level of disaggregation to that of im-
port data. Disaggregation would be further limited by the neces-
sity of comparability between import data and input-output table
commodity categories.

Many studies use an import-weighted approach to determine
nominal tariff rates. This entails calculating the ratio of duty
paid to the (pre-duty) value of the imports of each commodity.
In practice, this procedure may lead to biased estimates. Not
only does import data aggregate items which are subject to dif-
ferent tariffs, but further aggregation is necessary to achieve a
composite bundle comparable to available data relating to Cana-
dian production. However, the proportions of different items
with each commodity category may vary between imports and Canadi-
an production.

Different nominal tariff rates apply to the various commod-
ities with these categories (and may vary, depending on the coun-
try of origin). Since particularly high tariff rates will prove
prohibitive, those items subject to such levies will be unrepre-
sented. This leads to a downward bias in the (import-weighted)
estimate of nominal tariffs.

The problem is alleviated in this study. Tariffs are as-
signed to the individual items (appearing in each industry's
input and output data) according to the official tariff schedule
(published as the Customs Tariff).

Studies undertaken by Grubel & Johnson[3] and Melvin & Wilkin-
son[4] used import-weighted tariffs, although the latter paper ac-
knowledges the disadvantages of this method. In a later study,

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3. H.G. Grubel and H.G. Johnson, "Nominal Tariffs, Indirect Taxes
   and Effective Rates of Protection," The Economic Journal, 1967

4. G.R. Melvin and B.W. Wilkinson, Effective Protection in the
   Canadian Economy, Special Study No. 9, Economic Council of
   Canada, 1968.

Wilkinson and Norrie[5] used this technique to some extent when data limitations required. Basevi[6] also used import-weighted tariffs but made adjustments in an attempt to offset the expected downward bias.

Depending upon the country of origin, the British Preferential Tariff, Most Favoured Nation Tariff, General Tariff or General Preferential Tariff may be applicable. Fortunately it seems that countries which are potential sources of clothing and textile imports are subject to the Most Favoured Nation tariff rate. Where commodity classifications allow, the choice of tariff item and the applicability of the Most Favoured Nation tariff may be verified by comparison with the ratio of duty paid to import value.

(b) Small Establishments Data

Small establishments are not required to provide as much information as are larger firms. For the Annual Census of Manufactures, only aggregate information regarding the total value of "Materials and Supplies" and "Shipment of Goods" is required. It is noteworthy that "Purchased Fuel and Electricity Used" by small establishments does not appear in the table given that heading. It is included in the value of "Materials and Supplies."

Since the data for "small establishments not reporting in detail" are tabulated separately from data of large firms, the former are not used in effective rate of protection calculations.

(c) Transportation Costs

The values of input costs as shown in Statistics Canada's Annual Census of Manufactures publications comprise the world price plus ad valorem tariff plus transportation costs. Since we cannot separate the value of inputs into their components, we have applied the ad valorem tariff to transportation costs. The bias in the effective rate of protection is negative. Since:

$$\frac{M_i + T_i}{1 + t_i} < \frac{M_i}{1 + t_i} + T_i$$

$$\text{and,} \quad \frac{t_i (M_i + T_i)}{1 + t_i} > \frac{M_i t_i}{1 + t_i}$$

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5. B.W. Wilkinson and K. Norrie, Effective Protection and the Return to Capital, Economic Council of Canada, 1975.

6. G. Basevi, "The United States Tariff Structure," The Review of Economics and Statistics, 1966.

where

M_i is value of ith input
T_i is transportation cost of ith input
t_i is ad valorem tariff on ith input

$- \left(\dfrac{M_i + T_i}{1 + t_i} \right)$ appears in the denominator of the effective rate of protection calculation.

$- \left(\dfrac{t_i}{1 + t_i} \right) (M_i + T_i)$ appears in the numerator of the effective rate of protection calculation.

Summary of Results

The chief empirical findings of this study are summarized in this section: the results are contained in the summary table, Table 2.

Examination of subsectors reveals significant intra-industry variations in effective protective rates. For purposes of comparison with these figures, the results of two previous Canadian studies by Melvin & Wilkinson (1963) and Wilkinson & Morrie (1970) are shown. These different results are not strictly comparable, inasmuch as disparate methods of calculation have been employed and the studies deal with different years. In fact, the different definition of value-added inputs implied by these methods of calculation greatly hinders the comparability of the results of different studies.

It should be noted that the results of this study are quite robust, being insensitive to various alterations. A limited study of year-to-year variations was undertaken. The changes in calculated effective protective rates are minimal. The results are summarized below:

On the basis of a sensitivity analysis for several subsectors of the clothing industry, it was concluded that the raw (unadjusted) census of manufactures data provide measures appropriate for effective rate-of-protection calculations. In some ways, the data available from Statistics Canada do not correspond exactly to desired concepts. Tests were made to examine the effects on calculated effective protective rates of adjustments for (i) inventory changes, (ii) sales tax and transportation charges not attributable to specific outputs, and (iii) amounts received for work done for or by others on items belonging to this or another SIC (respectively). By comparing the resultant rates to rates calculated without adjustments (see Table 3), it was found that ERPs were virtually insensitive to these alterations.

TABLE 1

	Free Trade (No Tariffs)	Tariffs on Outputs only	Tariff on inputs and outputs
Value of non-primary inputs per unit of output	.80	.80	.90
Valued added per unit of output	.20	.40	.30
Canadian price per unit of output	1.00	1.20	1.20
		ERP = 100%	ERP = 50%

TABLE 2

Effective Rates of Protection in the Textile, Knitting and Clothing Industries, by Individual SIC classification, as calculated by this study (1974), Wilkinson/Norrie (1970) and Melvin/Wilkinson (1963)

Industry (SIC)	1974 This Study		1970 Wilkinson/Norrie	1963 Melvin/Wilkinson*
Cotton Yarn & Cloth Mills (181)	39.5%		34.4%	38.0%
Wool Yarn & Cloth Mills (182)	48.1%		33.7%	cloth=40.4% yarn=27.3%
Fibre & Filament Yarn (1831)	39.2%			
Throwsters, Spun Yarn & Cloth (1832)	32.6%	35.5%	38.9%	58.2%
Knitted Fabric Mills (2391)	51.5%			
		43.9%	52.1%	64.9%
Other Knitting Mills (2392)	39.1%			
Hosiery Mills (231)	40.9%		47.2%	37.0%
Men's Clothing Factories (2431)	26.2%			
Women's Clothing Factories (2441)	26.4%	26.4%	34.9%	-
Children's Clothing (245)	27.0%			
Foundation Garment (248)	26.7%		-	34.8%

*Calculated using 11.3% for unspecified inputs.

SOURCE OF DATA: Wilkinson & Norrie, Effective Protection & the Return to Capital, Economic Council of Canada, 1975. Melvin & Wilkinson, Effective Protection in the Canadian Economy, Economic Council of Canada, 1968.

TABLE 3

EFFECTIVE RATES OF PROTECTION

VARIOUS DATA ADJUSTMENTS APPLIED

Industry Sector	SIC Number	Sales Tax[1] Input[2] Inventory[3]	Sales Tax Inventory	Sales Tax Inventory	Input Inventory	Sales Tax	Input	Inventory	No adj's	Contractors Excluded	Contractors Excluded plus Inventory Adjustments
Man Made Fibre Throwsters Spun Yarn and Cloth Mills	1832	.329	.329	.328	.326	.328	.326	.325	.325		
Men's Clothing Factories and Contractors	2431	.262	.262	.262	.262	.262	.262	.262	.262	.261	.261
Women's Clothing Factories and Contractors	2441	.264	.264	.264	.264	.264	.264	.264	.264	.260	.260
Children's Clothing Industry	245	.271	.271	.270	.270	.270	.271	.270	.271		

1. "Adjustment for value of sales taxes, excise duties and outward transportation charges which could not be deducted from individual commodity items"

2. Adjustment for "Amount paid out to others for work done on materials owned by establishments" and "Amount received for work done on materials and products owned by others"

3. Adjustment to shipment data for changes in inventories of finished goods.

CHAPTER 6

Tariff Rates Corresponding to Reduced Effective Protection of Primary Textile and Clothing Industries

The tariff on clothing is the cost to consumers of the protection provided the Canadian clothing industry against import competition. The Canadian textile industry has also been given tariff protection. Since its output is a major input of the clothing industry, the tariff on textiles raises the costs of clothing manufacturers. Thus, some protection of the clothing industry is necessary to compensate for the tariff protection provided its major supplier -- the textile industry. By determining the levels of nominal tariff corresponding to different rates of effective protection for the textile and clothing industries, the extent to which the tariff on clothing (i) compensates for positive effective protection of the textile industry and (ii) provides effective protection for the clothing industry, can be ascertained.

For this reason, the vertical relationship between the textile and clothing industries cannot be ignored in determining the levels of tariff corresponding to reduced effective protection. If the effective protection of the textile industry is lowered by reducing the tariff on its output, the tariff on inputs of the clothing industry is also lowered. Thus, if the level of effective protection of the clothing industry is to be maintained, the reduced tariff on textiles implies that the tariff on clothing may be reduced.

The type of tariff reduction considered in this study is a percentage tariff reduction on all items of a commodity category corresponding to a certain stage of processing. That is, the tariff on the outputs of the industry are all reduced by the same percent, such that the rate of effective protection provided the industry will be at a specific level. The calculating of a uniform tariff reduction across all items of output, instead of distributing percentage point reductions to each of a multiplicity of tariff items, simplifies the calculation and interpretation of the results.

There are three major textile subsectors -- wool, cotton, and man-made -- that supply inputs to the clothing industry. The effective rate of protection for cotton yarn and cloth mills is significantly understated because of non-tariff barriers. Also, the wool subsector is relatively small. On this basis, the analysis of this study, which derives its results from the examination of only the man-made fibre primary textile industry, which is the largest of the three subsectors (see Table 1), should be representative. It should be noted that there are two vertically related parts to the man-made textile industry. The output of the Man-made Fibre and Filament Yarn Mills (SIC 1831) makes up some of the inputs of Throwsters, Spun Yarn and Cloth Mills (SIC 1832). This vertical relationship was incorporated in the cal-

There are three major clothing sectors -- men's, women's, and children's (see Table 2). The tariffs on the inputs of these clothing industries are the same and, since the effective rates of protection are almost identical, it seems safe to conclude that input proportions are similar. Therefore, although the analysis is based only on examination of men's clothing (SIC 2431), the results should be representative of all the clothing industry.

The tariff rates and effective rates of protection for the three vertically related SIC classifications under study are displayed in Table 3.

The tariffs corresponding to reduced effective protection are calculated by modifying the calculations used to provide the effective rates of protection which are shown in Chapter 5. The data have been adjusted sequentially, proceeding through the stages of processing starting with SIC 1831 (man-made fibre) then to SIC 1832 (man-made yarn and fabric), through to SIC 2431 (men's clothing). The tariff on the chemical inputs of SIC 1831 (which has no preceding stage of processing in the textile or clothing industries) is (i) not changed, or (ii) reduced to zero. Then average output tariffs for SIC 1831 are calculated, corresponding to specified levels of the effective rate of protection for that category. The percentage reduction in the output tariff of SIC 1831 is applied to the tariffs on the textile inputs of SIC 1832 (the next stage of processing). Then average reduced output tariffs for SIC 1832 are calculated corresponding to specified levels of the effective rate of protection for SIC 1832. The percentage reduction in output tariff of SIC 1832 is applied to the tariffs on the textile inputs of SIC 2431 (the next stage of processing). Then average reduced output tariffs are calculated corresponding to specified levels of the effective rate of protection for SIC 2431.

The tariff rates corresponding to 0%, 10% and current rate of effective tariff protection for each stage of production have been calculated. All combinations of effective rates of protection for the three vertically related stages of production have been generated. In addition, the sensitivity of these results to changes in tariff rates for chemical and synthetic resin inputs (which are the major materials input for man-made fibre and filament yarn mills (SIC 1831) has been studied.

Summary Results

The results from investigation of the tariff rates corresponding to reduced rates of protection might be summarized as follows:

It appears that, of the 24.9% tariff on clothing,

(i)   2-3 percentage points are required to compensate for tariffs on non-textile inputs.

(ii)   .6-.8 percentage points are required to compensate for the tariff on synthetic resin and chemical inputs of SIC 1831 (Man-made Fibre and Filament Yarn).

(iii) 3-4 percentage points are required to compensate for the effective protection provided SIC 1831.

(iv)   5-6 percentage points are required to compensate for the effective protection provided SIC 1832 (Man-made Throwster, Spun Yarn and Cloth Mills).

(v)   13-14 percentage points are required to provide positive effective protection for the clothing industry.

These percentage point attributions are necessarily approximate because of the nonlinear and, therefore, non-additive manner in which tariffs enter into effective rate of protection calculations.

Detailed Results Utilized in this Study

In calculating the consumer benefit corresponding to alternative trade barriers in Chapter 1, it was necessary to indicate the reduction of the tariff on clothing implied by each option. The figures underlined in Tables 4 and 5 were utilized in the calculations shown in the Appendix to Chapter I. The data in Tables 4 and 5 provide a sample of the information generated by studying the tariffs corresponding to various effective rates of protection of vertically related industries.

TABLE 1

EMPLOYMENT IN MAJOR SUBSECTORS OF TEXTILE INDUSTRY - 1976

Cotton Yarn and Cloth Mills	8,515
Wool Yarn and Cloth Mills	4,770
Man-made (i) Fibre and Filament Yarn (ii) Throwsters, Spun Yarn and Cloth	19,236

TABLE 2

EFFECTIVE TARIFF PROTECTION AND EMPLOYMENT
IN MAJOR SUBSECTORS OF CLOTHING INDUSTRY

	Effective Rate of Protection 1974	Employment 1976
Men's Clothing	25.9%	40,604
Women's Clothing	26.1%	38,136
Children's Clothing	26.7%	6,918

TABLE 3

STRUCTURE OF TARIFF PROTECTION 1974

	SIC 1831	SIC 1832	SIC 2431
Effective Rate of Protection (%)	39.1	32.6	26.1
Average tariff on output (%)	25.4	21.8	24.9

SIC 1831 - Man-made Fibre and Filament Yarn Manufacturers.
SIC 1832 - Man-made Throwsters, Spun Yarn and Cloth Mills.
SIC 2431 - Men's Clothing Factories.

TABLE 4

MEN'S CLOTHING – SIC 2431
PERCENTAGE TARIFF REDUCTION

ERP Men's Clothing SIC 2431	ERP Textiles (SIC 1831, SIC 1832)		
	(0%, 0%)	(0%, 10%)	(0%, 32.6%)
0%	91.2	84.7	69.5
10%	70.7	64.3	49.0
26.1%	37.8	31.3	16.3

TABLE 5

(SIC 1831, SIC 1832)

PERCENTAGE TARIFF REDUCTION

ERP (SIC 1832)	ERP (SIC 1831)		
	0%	10%	39.1%
0%	(94.5, 92.2)	(74.8, 84.9)	(16.5, 61.9)
10%	(94.5, 75.7)	(74.8, 67.9)	(16.5, 45.0)
32.6%	(94.5, 38.1)	(74.8, 30.7)	(16.5, 7.3)

CHAPTER 7

Impact of Tokyo Round Tariff Concessions
on Canadian Primary Textile and Clothing Industries

The Tokyo Round of multilateral trade negotiations was concluded in Geneva on April 12, 1979. Tariff concessions made by Canada and its trading partners were noticeably smaller for textiles, clothing, and footwear than for many other products. There are sometimes several tariff item numbers corresponding to a product category. Each tariff item has its own associated tariff, which has been subjected to individual revision at the multilateral negotiations. In order to provide an over-all picture of the extent of tariff reductions, individual items have been weighed to produce average input and output tariff levels, (i) in 1974, (before the Tokyo Round) and (ii) after the negotiated reductions have been fully implemented. These average tariffs are shown in Table 1. It is noteworthy that the tariff reductions will be implemented in stages and the total reduction may not become effective until January 1, 1987. The effect of the tariff concessions on the effective rates of tariff protection for the industry is indicated in Table 2.

Calculations

The effective rates of protection resulting from the Tokyo Round negotiations have been calculated by substituting the new tariff rates in the tables used to calculate 1974 effective rates of protection in Chapter 5 of this paper.

An effective rate of protection is the additional value added permitted by the tariff structure as a proportion of free trade value-added. Assuming that changes in the Canadian tariff structure do not change world prices, free trade value added will not be affected by the Canadian tariff changes resulting from the Tokyo Round. It is also assumed that the general lowering of tariff and trade barriers resulting from the Tokyo Round will not affect world prices. Assuming that Canadian producers price to the tariff, the additional value-added permitted by the tariff structure is merely the value of tariff on outputs less the value of tariffs on inputs. The value of tariffs on outputs and inputs has been calculated, using the values in international trade employed for the 1974 effective rate of protection calculations, and the tariffs resulting from the Tokyo Round. The effective rate of protection calculations assume that the proportions in international value terms of different commodities as inputs and outputs will be the same as in 1974. Changes in physical proportions or relative world prices would alter the proportions in world value terms of different commodities as inputs or outputs.

Results

    With only one exception (SIC 1831), the tariff reductions resulting from the Tokyo Round will not significantly change the effective protection provided the Canadian textile, knitting, and clothing industries by the tariff structure. It is noteworthy, however, that the tariff reductions will reduce the effective protection less for the higher stages of processing (see Table 3). That is, the reduction in the protection of fibre and filament yarn production is substantial, that of cloth and yarn is much smaller, while clothing receives a slight increase in protection.

Tariff Reduction and the Political Process

    The tariff structure provides for tariffs on products at all stages of processing. Tariffs on more highly processed products tend to be higher because, in order to provide positive effective protection, the tariff at the outset must more than compensate for the tariffs on the outputs of previous stages of processing. The nominal tariff on the last stage of processing is the cost to consumers of tariff protection. Thus, the tariff reduction on clothing resulting from the Tokyo Round will be of only small benefit to Canadian consumers.

    On the basis of the impact of Tokyo Round concessions on the clothing industry, it is apparent that the strategy of Canadian and other negotiatiors has been to reduce tariffs on the output of the last stage of processing, but to provide compensating reductions on input tariffs to leave effective protection unchanged. However, a zero tariff is a lower bound for the tariff level. Therefore, moving backwards to other stages of processing, at some stage the point is reached where a tariff reduction on inputs to compensate for the reduced tariff on outputs is not possible. At this stage of processing, a fall in the effective rate of tariff protection will result from the negotiated tariff reductions.

    Examining Table 3, it is apparent that the effective rate of protection of the clothing industry will be maintained, that of the cloth and yarn industry will be only slightly reduced, and that of fibre and filament yarn, significantly reduced.

    This strategy of maintaining effective protection on the latter stages of processing is politically attractive. A governing politician will be hesitant to negotiate tariff reductions which may induce a movement of employment out of some industries into others. The labour and capital currently employed in industries which would decline as a result of tariff reductions would not want to incur the adjustment costs, and the politician would earn the disfavour of these interest groups. As indicated in Table 5, employment at the later stages of processing is much larger than at earlier stages. Maintaining the effective protection of the

later stages preserves the size of the market to which Canadian producers at the previous stage of processing have preferential access. Thus, by maintaining effective protection at later stages of processing, the adjustment in employment of resources is minimized.

Continued pursuit of this strategy means that future negotiators must consider tariff changes which reduce this effective protection. Over time, the effective protection of processing stages close to the consumer will be reduced. The advantage of the strategy for current politicians is that it delays the tariff reductions which will require the largest industrial adjustment. That problem, however, will be one for future politicians to deal with.

Conclusion

With respect to clothing, the results of the Tokyo Round have been disappointing. Canadian consumers will benefit from only small tariff reductions, which maintain the effective protection of the finished goods. The allocation of domestic resources will therefore not be significantly changed and Canadians will not benefit to any increased extent from the potential gains of specialization available under free international trade. In particular, Canadian consumers will be unable to exploit the comparative advantage of low-cost countries in the production of basic products.

TABLE 1

AVERAGE TARIFF

	1974		After Implementation of Tokyo Round	
	Input	Output	Input	Output
Cotton Yarn and Cloth Mills (SIC 181)	.117	.223	.098	.203
Wool Yarn and Cloth Mills (SIC 182)	.075	.256	.057	.221
Man-Made Fibre and Filament Yarn Manufacturers (SIC 1831)	.112	.254	.090	.142
Man-Made Spun Yarn and Cloth Mills (SIC 1832)	.154	.218	.121	.192
Hosiery Mills (SIC 231)	.149	.272	.120	.256
Knitted Fabric Manufacturers (SIC 2391)	.146	.275	.124	.250
Other Knitting Mills (SIC 2392)	.164	.275	.132	.250
Men's Clothing (2431 plus 2432)	.235	.249	.208	.245
Women's Clothing (2441 plus 2442)	.237	.251	.210	.247
Children's Clothing (SIC 245)	.239	.254	.210	.248
Foundation Garments (SIC 248)	.228	.25	.203	.25

TABLE 2

EFFECTIVE RATE OF PROTECTION

	1974	After Implementation of Tokyo Round
Cotton Yarn and Cloth Mills (SIC 181)	39.5%	37.2%
Wool Yarn and Cloth Mills (SIC 182)	48.1%	42.3%
Man-Made Fibre and Filament Yarn Manufacturers (SIC 1831)	39.2%	19.3%
Man-Made Spun Yarn and Cloth Mills (SIC 1832)	33.0%	31.6%
Hosiery Mills (SIC 231)	40.9%	40.7%
Knitted Fabric Manufacturers (SIC 2391)	51.5%	48.4%
Other Knitting Mills SIC 2392)	39.1%	36.9%
Men's Clothing Factories (2431) including Men's Clothing Contractors (2432)	26.2%	28.2%
Women's Clothing Factories (2441) including Women's Clothing Contractors (2442)	26.4%	28.3%
Children's Clothing (SIC 245)	27.1%	28.9%
Foundation Garments (SIC 248)	26.7%	28.6%

TABLE 3

CHANGE IN EFFECTIVE RATES OF PROTECTION
RESULTING FROM TOKYO ROUND
FOR VERTICALLY RELATED STAGES OF PROCESSINGS

Stage 1   SIC 1831   - 19.9%   Man-Made
                                      Fibre and
                                      Filament
                                      Yarn

Stage 2   Cloth and Yarn

           SIC 181   - 2.3%   Cotton
           SIC 182   - 5.8%   Wool
           SIC 1832   - 1.4%   Man-Made
           SIC 2391   - 3.1%   Knitted

           Average Stage 2   - 2.6%

Stage 3   Clothing

           SIC 231   -   .2%   Hosiery
           SIC 2392   - 2.2%   Knitted
           SIC 2431-2   + 2.0%   Men's
           SIC 2441-2   + 1.9%   Women's
           SIC 245   + 1.8%   Children's
           SIC 248   + 1.9%   Foundation

           Average Stage 3'   + 1.3%

TABLE 4

CHANGE IN AVERAGE AD VALOREM OUTPUT TARIFFS
RESULTING FROM TOKYO ROUND
FOR VERTICALLY RELATED STAGES OF PRODUCTION

Stage 1   SIC 1831   − .112   Man-Made
                                      Fibre and
                                      Filament
                                      Yarn

Stage 2   Cloth and Yarn

           SIC 181   − .020   Cotton
           SIC 182   − .035   Wool
           SIC 1832   − .026   Man-Made
           SIC 2391   − .025   Knitted

           Average Stage 2   − .026

Stage 3   Clothing

           SIC 231   − .016   Hosiery
           SIC 2392   − .025   Knitted
           SIC 2431-2   − .004   Men's
           SIC 2441-2   − .004   Women's
           SIC 245   − .006   Children's
           SIC 248   0   Foundation
                                     Garments

           Average Stage 3   − .007

TABLE 5

EMPLOYMENT BY STAGE OF PROCESSING

Stage 1	Fibre and Filament Yarn	5,805
Stage 2	Cloth and Yarn	31,159
Stage 3	Clothing	115,136

Consumer Research and Evaluation Branch of Consumer
and Corporate Affairs Canada - Research Effort
Respecting Trade Barriers to Footwear Imports

This study is the synthesis of many of the results of
research undertaken by the Consumer Research and Evaluation
Branch (CREB) of Consumer and Corporate Affairs Canada of trade
related issues respecting textiles, clothing and footwear. A
listing of CREB trade related research on textiles and clothing
is provided in the accompanying table.

Although the actual research cited was performed by Craig
Campbell, John Crysdale and Elise Rosen, the research effort was
directed and closely supervised by Dr. Lilla Connidis until her
departure from this department in January, 1980.

Study Al is the basis of the first chapter of this paper.
The analysis of study B1, provides Chapter 2. The foundation of
Chapter 3 is study B5. The analysis of study C2 forms the basis
of the fourth chapter. Studies C1, C4 and B2 provide Chapters 5,
6 and 7 respectively.

Table 1

Unpublished Research of Trade Issues Respecting Textiles and Clothing 1978-1980 by Consumer Research and Evaluation Branch, Consumer and Corporate Affairs Canada

A1   An Evaluation of (Primary) Textile and Clothing Industry Sector Strategies, C. Campbell, 1980.

B1   Tariffs on Clothing and Footwear - The Cost to Canadian Consumers, C. Campbell, 1980.

B2(a) Canadian Textile, Knitting, Clothing and Footwear Industry and the Tokyo Round Tariff Concessions, C. Campbell and J. Crysdale, 1979.

B2(b) Canadian Textile, Knitting, Clothing and Footwear Industry - Calculation of Effective Rates of Protection Resulting from Tokyo Rounds, C. Campbell and J. Crysdale, 1979.

B3   Advance of Value for Duty, Low-Cost Clothing and Footwear Imports, and the Customs Act, C. Campbell, 1980.

B4   The Impact of Department of Regional Economic Expansion Regional Development Incentives on Canadian Textile, Knitting, Clothing and Footwear Industries, C. Campbell and J. Crysdale, 1979.

B5   Impact of Quantitative Restraints on Clothing Imports, C. Campbell, 1980.

C1   Canadian Footwear, Textile and Clothing Industries - The Cost of Tariff Protection and the Structure of Import Competition, C. Campbell, J. Crysdale and E. Rosen, 1978.

C2   An Evaluation of the Net Benefits of Reduced Barriers to Import Competition - Canadian Footwear, Textiles, Knitting and Clothing Industy, C. Campbell, 1980.

C3   Location of the Canadian TKCF (Textile, Knitting, Clothing and Footwear) Industry, C. Campbell and J. Crysdale, 1979.

C4(a) Nominal Tariffs Corresponding to Reduced Effective Protection - Canadian Textile and Clothing Industry, C. Campbell, 1979.

APPENDIX

CHAPTER 1

i) Estimates of Adjustment Costs for Various Policy Options

In this paper the portion of the (primary) textile industry which is of interest is that which produces inputs for apparel production.

Policy Option Combination II

It has been estimated that voluntary export restraints (VER) reduced "low-cost" imports by 40.9%[1]. Low-cost imports accounted for 64.3% of total imports in 1975[2] which accounted for 18.8%[3] of the apparent Canadian market. Therefore, in the absence of quantitative restraints low-cost imports would have accounted for a further 5% of the Canadian market. Assuming one for one displacement of domestic production by imports, this penetration would have reduced domestic production by 6.1%. This is the figure used for the proportion of domestic industry displaced by removal of VERs.

Policy Option Combination III

Same as policy option combination II but in addition 100% of domestic production man-made fibre and filament yarn is assumed displaced by removal of tariffs on such products.

Policy Option IV

Same as policy option III but in addition 100% of domestic production of spun yarn and fabrics is assumed displaced by removal of tariffs on such products.

Policy Option V

Same as policy option IV but in addition 100% of domestic production of clothing is assumed displaced by removal of tariffs on such products.

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1. Cross Sectional Analysis of Clothing Imports, Microeconomic Analysis Branch, Department of Industry, Trade and Commerce, March, 1980, 40.9% is average of estimates.

2. Table 7, Chapter 3.

3. Table 6, Chapter 2.

It is noteworthy that the assumption of 100% collapse in the absence of tariff protection imports an upward bias to the estimates of adjustment cost for policy option combinations III, IV and V.

ii) Estimates of Consumer Benefit

Table I displays estimates of the consumer benefit resulting from the various policy option combinations. Further explanation is provided for each individually. This Table is the source of the consumer benefit data displayed in Table 3 of Chapter 1.

Policy Option Combination II

The cost to consumers of the quantitative restraints on clothing imports has been estimated at $103,776,000 per annum[4]. The additional tariff revenue resulting has been estimated as 41,335.[5]

Policy Option Combination III

It has been estimated that approximately 16.3% of the tariff on clothing merely compensates for protection provided domestic man-made fibre and filament yarn manufacturers.[6] eliminated the effective rate of protection provided domestic clothing manufacturers could be maintained by reducing the tariffs on clothing by 16.3%. Thus, the cost to the consumer tariff protection would fall by 16.3%. The cost to consumers of tariff protection on clothing has been estimated at $595,053,000 per annum[7]. Therefore, the removal of the tariff on fibre Therefore, if the tariff on man-made fibre and filament yarn was and filament yarn which permits the lowering of the tariff on clothing would benefit Canadian consumers by $96,994,000 per annum.

Policy Option Combination IV

It has been estimated that 22.2% of the tariff on clothing is required merely to compensate for the effective

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4. Table 7, Chapter 3.

5. Table 9, Chapter 3.

6. Table 4, Chapter 6.

7. Table 6, Chapter 2.

tariff protection provided domestic spun yarn and fabric producers[8]. The removal of this tariff protection permitting compensating reduction in clothing tariffs would benefit Canadian consumers a further $132,102,000 per annum.

Policy Option Combination V

If tariffs on clothing were eliminated Canadian consumers would benefit by the whole of the estimated cost of tariff protection $595,053,000 per annum.

iii) Estimates of Changes in Tariff Revenue

Table II displays the changes in tariff revenue resulting from the various policy option combinations. Further explanation is provided below for each option. Duty paid on imports of clothing is indicated in Table III. Duty paid on imports of primary textiles is indicated in Table IV.

Policy Option Combination II

If the VERs are removed there will be several factors influencing the amount of revenue collected on textiles and clothing. Tariff revenue on clothing will tend to fall because of the lost revenue due to (i) application of tariff to value inclusive of quota charge and (ii) advance of value for duty. Tariff revenue on clothing will tend to rise due to increased penetration of domestic market by imports. Tariff revenue on (primary) textiles will fall because of lost revenue due to application of tariff to quota charge.

The loss in tariff revenue due to application of clothing tariff to quota charge and value advanced for duty is between 16,306,000 and 32,263,000.[9] The removal of quantitative restraints is predicted to increase the import share of the Canadian market from 18.8% to 23.8%. A proportionate increase in tariff revenue due to increased penetration of Canadian market would be $27,297,000 per annum (See Table III). Without information on the value of quota charges on primary textiles the loss of tariff revenue which resulted from application of tariff to value inclusive of quota charge cannot be estimated and,

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8. Page 81, Chapter 6.

9. Table 9, Chapter 3.

therefore, will not be included in estimates of changes in tariff revenue for policy option II.

Policy Option Combination III

This policy option involves removal of tariffs on man-made fibre and filament yarn. Since there will be compensating reductions in tariffs on (i) spun yarn and fabrics and (ii) clothing to maintain effective tariff protection of these industries, the level of imports of (i) spun yarn and fabric imports and (ii) clothing imports will not change. The elimination of tariff on fibre and filament yarn permits a reduction of the tariffs on clothing by 16.3% (as indicated above) and reduction of the tariff on spun yarn and fabric by 38.1%.[10] The loss of tariff revenue on fibre and filament yarn is $21,540,000 (See Table IV). The loss of tariff revenue on spun yarn and fabric is 38.1% of $92,966,000 (See Table IV) which is $35,420,000 per annum. The loss of tariff revenue on clothing is 16.3% of $102,622,000 (See Table III) which equals $16,727,000 per annum. When the tariff on clothing is reduced in addition to removing VERs the additional tariff revenue resulting from increased penetration of the Canadian market falls to $22,848,000 per annum. The loss of tariff revenue on non-man-made fibre must also be included. This loss is $119,000 per annum (See Table IV).

Policy Option Combination IV

This policy option combination includes removal of tariff on spun yarn and fabric. Since there will be a compensating reduction in the tariff on clothing to maintain the effective rate of protection of clothing industry, the level of clothing imports will not change.

The removal of tariffs on spun yarn and fabric in addition to tariff on fibre and filament yarn permits a clothing tariff reduction of 37.8%.[11] The loss of tariff revenue on clothing is, therefore, 38,791,000 (.378 times 102,622,000) per annum. The increase in tariff revenue due to increased import penetration due to removal of VERs is $16,979,000 (.622 times 27,257,000) per annum. The loss of tariff revenue on man-made fibre and filament yarn is $21,540,000 per annum. The loss of tariff revenue on spun yarn and fabric is $92,966,000 per annum.

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10. Table 5, Chapter 6.

11. Table 4, Chapter 6.

Policy Option Combination V

       This policy option includes removal of tariffs on clothing. The lost tariff revenue on clothing is $102,622,000 per annum (See Table III). Additional tariff revenue due to removal of VERs is zero.

TABLE I

Consumer Benefit from Policy Option Combinations
($000's)

Policy Option Combination	(1) Due to Removal of Quantitative Restraints	(2) Due to Reduced Tariffs on Clothing	(1) + (2)
II	103,776	0	103,776
III	103,776	96,994	200,770
IV	103,776	229,096	332,872
V	103,776	595,053	698,829

TABLE II

Changes in Tariff Revenue Relative to Status Quo

	Policy Option Combination			
	II	III	IV	V
Removal of VERs				
Loss of tariff revenue due to elimination of tariff on (i) advanced value for duty and quota charge	−16,306,000 to −32,263,000	−16,306,000 to −32,263,000	−16,306,000 to −32,263,000	−16,306,000 to −32,263,000
Additional tariff revenue due to increased import penetration	+27,297,000	+22,848,000	+16,979,000	0
Tariff Reductions				
Loss of tariff revenue due to removal of tariff on man-made fibre and filament yarn	0	−21,540,000	−21,540,000	−21,540,000
Loss of tariff due to reduction of tariff on spun yarn and fabric	0	−35,420,000	−92,966,000	−92,966,000
Loss of tariff due to reduction of tariff on clothing	0	−16,727,000	−38,791,000	−102,622,000
Loss of Tariff on non-man-made fibre due to removal of tariff	0	−119,000	−119,000	−119,000
Net Impact of Policy Option Combination on Tariff Revenue	−4,966,000 to +10,991,000	−67,264,000 to −83,221,000	−152,743 to −168,700	−233,553 to −249,510

TABLE III

Imports of Clothing

1975

Clothing Category	Duty Paid ($000's)
Men's Clothing	32,034
Women's Clothing	15,893
Children's Clothing	794
Foundation Garment	792
Hosiery	2,950
Knitted Clothing	50,159
Total of Above	102,622

$$\frac{5}{18.8} \times 102,622 \quad = \quad 27,297$$

SOURCE OF DATA: Imports - Merchandise Trade, Statistics Canada, Publication 65-203.

TABLE IV

Duty Paid on (Primary) Textiles 1975

SOURCE OF DATA: Imports - Merchandise Trade, Statistics Canada
publication, 65-203.

Duty Paid Man-Made Fibre and Filament Yarn

Commodity Numbers	Duty Paid $000's
246-17, 246-19, 246-27, 246-29, 246-37, 246-39, 246-45, 246-89, 246-99, 366-16, 366-19, 366-39, 366-45, 366-48, 366-99	21,540

Duty Paid Non-Man-Made Fibre

Commodity Numbers	Duty Paid $000's
242-09, 242-19, 242-29, 242-49, 242-59, 242-68, 242-95, 242-99, 243-40, 244-10, 244-30, 244-40, 244-99	119

Duty Paid Spun Yarn

Commodity Numbers	Duty Paid $000's
362-59, 363-30, 363-50, 363-90, 364-45, 364-46, 364-47, 364-68, 364-99, 364-05, 365-20, 365-05, 366-09, 367-19, 367-70, 367-89	6,279

TABLE IV (Cont'd)

Duty Paid Fabric

1975

Commodity Numbers	Duty Paid $000's
371-49, 372-03, 372-06, 372-08, 372-13,	
372-16, 372-18, 372-29, 372-59, 373-02,	
373-13, 373-15, 373-18, 373-33, 373-55,	
373-38, 373-43, 373-45, 373-48, 373-54,	
373-58, 373-62, 373-66, 373-81, 373-82,	
373-86, 373-89, 373-93, 373-95, 373-98,	
374-49, 375-09, 375-19, 375-39, 375-45,	
375-51, 375-99, 377-03, 377-06, 377-08,	
377-39, 377-49, 377-59, 377-65, 377-67,	
377-69, 377-73, 377-79, 377-89, 377-99,	
385-06, 385-11, 385-39, 385-44, 385-49,	
385-59, 385-99, 386-09	86,687

APPENDIX

CHAPTER 2

(i)   Duty Collected Clothing Imports 1975

<u>SOURCE OF DATA:</u>   <u>Imports - Merchandise Trade</u>, Statistics Canada
              publication, 65-203.

<u>Commodity Numbers</u>   <u>Duty Collected</u>
                                                              ($000's)

781-19, 781-49, 781-93, 781-95, 781-99,
783-04, 783-09, 783-12, 783-14, 783-16,
783-17, 783-20, 783-21, 783-22, 783-23,
783-24, 783-25, 783-28, 783-31, 783-36,
783-37, 783-41, 783-44, 783-45, 783-47,
783-49, 783-51, 783-54, 783-56, 783-57,
783-58, 783-69, 783-72, 783-73, 783-75,
783-77, 783-79, 783-90, 783-95, 783-97,
783-99, 784-04, 784-14, 784-40, 784-41,
784-42, 784-43, 784-44, 784-45, 784-46,
784-47, 784-48, 784-49, 784-51, 784-52,
784-64, 784-66, 784-68, 784-73, 784-74,
784-80, 784-81, 784-82, 784-85, 784-89,
784-93, 784-97, 784-99, 785-22, 785-24,
785-25, 785-35, 785-37, 785-39, 785-49,
786-18, 786-35, 786-39, 786-49, 786-70,
786-74, 786-76, 786-79, 788-99, 789-02,
789-04, 789-12, 789-21   108,206

(ii)   <u>Imports in Excluded Clothing Commodity Categories 1975</u>

<u>SOURCE OF DATA:</u>   <u>Imports - Merchandise Trade</u>, Statistics Canada
              publication, 65-203.

<u>Commodity Numbers</u>   <u>Duty Collected</u>
                                                              ($000's)

786-80, 786-83, 786-85, 788-09, 788-76,
788-77, 789-52, 789-59, 789-75, 789-85,
789-99, 786-89   93,434

(iii)   <u>Domestic Industry Clothing Shipments 1975</u>

<u>SOURCE OF DATA</u>:   <u>Products Shipped by Canadian Manufacturers 1975</u>,
<u>Statistics Canada publication, 31-211</u>

Domestic Shipments - Men's Clothing 1975

Commodity Numbers	Value ($000's)
7811119, 7812, 781311, 7813122, 7813131, 78132, 7814, 7815, 7816, 78171, 781721, 781811, 7818211, 78183, 78189, 78191	691,320

Domestic Shipments - Women's Clothing 1975

Commodity Numbers	Value ($000's)
782	621,859

Domestic Shipments - Children's Clothing 1975

Commodity Numbers	Value ($000's)
7831, 7832, 7833, 7835	133,224

Domestic Shipments - Knitted Clothing 1975

Commodity Numbers	Value ($000's)
784, 785, 786 less excluded commodity numbers for hosiery (7848, 7857, 7865)	623,808

Domestic Shipments - Hosiery 1975

Commodity Numbers	Value ($000's)
7848, 7857, 7865	94,734

Domestic Shipments - Miscellaneous Clothing 1975

Commodity Numbers	Value ($000's)
7882, 7884, 7885, 7891, 7892, 7896, 7897, 7898, 7899	69,212

Domestic Shipments - Foundation Garments 1975

Commodity Numbers	Value ($000's)
7887	58,871

(iv) Domestic Industry Clothing Exports 1975

SOURCE OF DATA: Exports - Merchandise Trade, Statistics Canada
                 publication, 65-202.

Exports - Men's Clothing 1975

Commodity Numbers	Value ($000's)
78199, 78315, 78317, 78320, 78322, 78335, 78343, 78361	34,672

Exports - Women's Clothing 1975

Commodity Numbers	Value ($000's)
78319, 78321, 78325, 78337, 78349, 78359, 78365, 78399	19,973

Exports - Children's Clothing 1975

Commodity Numbers	Value ($000's)
78397	1,012

Exports - Knitted Clothing 1975

Commodity Numbers	Value ($000's)
78149, 78465, 78479, 78495, 78497, 78499	3,841

Exports - Hosiery 1975

Commodity Numbers	Value ($000's)
78535, 78537, 78559	589

Exports - Foundation Garments 1975

Commodity Numbers	Value ($000's)
78920, 78922	514

Exports - Miscellaneous Clothing 1975

Commodity Numbers	Value ($000's)
78649, 78699, 78899, 78912	3,702

(v)   Domestic Industry Primary Textile Shipments 1975

SOURCE OF DATA: Products Shipped by Canadian Manufacturers 1975, Statistics Canada publication, 31-211

Domestic Shipments - Cotton

Commodity Numbers	Value ($000's)
3641, 3711	185,268

Domestic Shipments - Wool

Commodity Numbers	Value ($000's)
3643, 3644, 3701	93,490

Domestic Shipments - Man-made Fibre and Filament Yarns

Commodity Numbers	Value ($000's)
3651, 3652, 246	254,694

Domestic Shipments - Knitted Fabrics

Commodity Numbers	Value ($000's)
377, 378, 379, 375	224,800

Domestic Shipments - Man-made Spun Yarn and Fabric

Commodity Numbers	Value ($000's)
364711, 36472, 3648, 37122, 37123, 3731, 3732, 3743, 366	298,186

(vi)   Domestic Industry Primary Textile Exports 1975

Exports - Cotton Yarn and Cloth 1975

Commodity Numbers	Value ($000's)
37302, 37399	13,825

Exports - Wool Yarn and Cloth 1975

Commodity Numbers	Value ($000's)
37299, 36399	1,516

Exports - Fibre and Filament Yarn 1975

Commodity Numbers	Value ($000's)
24679, 24689, 24699	10,582

Exports - Man-made Spun Yarn and Fabric 1975

Commodity Numbers	Value ($000's)
37519, 37545, 37599, 37790, 37799, 36699, 36639, 36619	39,949

Exports - Knitted Fabrics 1975

Commodity Numbers	Value ($000's)
38599	4,664

APPENDIX

CHAPTER 3

Derivation of Prohibitive Effective Rate of Protection

As a first step towards calculation of the minimum ad valorem tariff rate which would be prohibitive of importation of clothing from low cost producers, the effective rate of protection corresponding to this prohibitive tariff is calculated.

Assume that "low cost" and Canadian producers are equally technologically efficient and utilize the same physical input combinations. Assume that the capability of low cost producers to penetrate the Canadian market derives completely from lower wages.

W = wages and salaries in "low cost" country per unit
D = differential in wages and salaries paid in Canada relative to "low cost" producer per unit

Therefore, $\dfrac{W}{W + D}$ = wages (and salaries) of "low cost" producer relative to Canadian producer

The source of the following data is Men's Wear Magazine, August 27, 1976 which has been adjusted to reflect the depreciation of the Canadian dollar 1976 - 1978.

Country	$\dfrac{W}{W + D}$
Taiwan	.126
South Korea	.099

Since South Korea, Taiwan and Hong Kong are the major sources of "low cost" imports this data will be assumed to be indicative of the level of wages paid by low cost producers.

Therefore, $W + D$ = wages (and salaries) paid in Canada per unit.

VA = value added in low cost country per unit.

Therefore, $VA + D$ = value added in Canada per unit.

Therefore, $\dfrac{W + D}{VA + D}$ = wages and salaries in Canada as a proportion of Canadian value added.

Wages and salaries in Canada as a proportion of Canadian value added can be determined from the Census of Manufactures.

ERP* = Excess value of Canadian production as a proportion of Canadian value added.

$$ERP^* = 1 - \frac{W}{W + D} \quad \text{times} \quad \frac{W + D}{VA + D}$$

$$= \frac{D}{W + D} \quad \text{times} \quad \frac{W + D}{VA + D}$$

$$= \frac{D}{VA + D}$$

ERP = Excess value of Canadian production as a proportion of world (low cost) value added.

$$ERP = \frac{ERP^*}{1 - ERP^*}$$

$$= \frac{D}{VA + D} \quad \frac{VA}{VA + D}$$

$$= \frac{D}{VA}$$

Derivation of Prohibitive Ad Valorem Tariff

The ad valorem tariff corresponding to the calculated prohibitive effective rate of protection can be determined assuming the tariffs on imports, input proportions and level of world prices existing in 1974.

VA = value added at world prices 1974.

EVMI = excess value (due to tariffs on material inputs of Canadian material inputs 1974.

EVS = excess value (due to tariffs and quotas on clothing) of Canadian shipments of clothing.

$$ERP = \frac{EVS - EVMI}{VA}$$

Therefore,

EVS = (VA times ERP) plus EVMI

The data for the right hand side of this equation was obtained as follows; the effective rate of protection from

calculation of previous section. Whereas VA and EVMI data were available in Canadian Footwear, Textile and Clothing Industries – The Cost of Tariff Protection and the Structure of Import Competition, E. Rosen, J. Crysdale and C. Campbell, unpublished CCA research, 1979.

EVS 1974 = excess value (due to tariffs on clothing) of Canadian shipments 1974.

VS = value of shipments at world prices 1974.

$$\text{Average Ad Valorem Tariff} = \frac{\text{EVS 1974}}{\text{VS}}$$

$$\text{Ad Valorem Tariff Equivalent of Quota} = \frac{\text{EVS} - \text{EVS 1974}}{\text{VS}}$$

EVS 1974 and VS were obtained from Canadian Footwear, Textile and Clothing Industries – The Cost of Tariff Protection and the Structure of Import Competition, E. Rosen, J. Crysdale and C. Campbell, unpublished CCA research, 1979.

Transportation Costs

"Low cost" producers are located in the far east and therefore face higher transportation costs which diminish the cost advantage resulting from lower labour costs. Utilizing data on these transportation costs, this consideration was incorporated into estimates of the tariff equivalent of the quota. The wage equivalent of the transportation cost was calculated by estimating the proportions of the value in Canada (including duty paid) of "low cost" imports attributable to labour cost and differential transportation costs of "low cost" producers.

$$\text{Wages as a proportion of duty paid value in Canada} = \frac{W}{W + D} \text{ times } \frac{W + D}{\text{VS} + \text{EVS 1974}}$$

$\dfrac{W}{W + D}$ is wages in low cost country relative to Canada – source cited above.

$\dfrac{W + D}{\text{VS} + \text{EVS 1974}}$ is wages and salaries as a proportion of Canadian shipment value which reflects ad valorem tariff.

This figure can be calculated using Census of Manufactures data. Differential transportation costs of "low cost" producers has been assumed to be 5% of duty paid value. This figure was based primarily on the figure of 7.2% as the appropriate figure for low price childrens garments* and figures of 3.2% to 4.6% for leather jackets**. As might be expected transportation costs rise less than in proportion to value.

This transportation cost relative to wage costs was calculated and transportation costs were incorporated into the analysis by incorporating its labour cost equivalent.

Calculation Tables

Table I displays as an example, the calculation of the tariff equivalent of quota on low cost clothing imports utilizing the wage rate in South Korea.

Sensitivity of Tariff Equivalent of Quantitative Restraint to "Low Cost" Wage Rate

The estimated ad valorem tariff equivalents vary by approximately three percentage points depending upon which country's wage rates Taiwan or South Korea are taken as indicative of low cost country wages. Please refer to Table II.

Sensitivity of Tariff Equivalent of Quantitative Restraint to Transportation Costs

It is noteworthy that the estimated tariff equivalent is very sensitive to the assumption regarding the size of differential transportation costs. Estimates of the tariff equivalents have been calculated assuming transportation costs represent 0%, 5% and 10% by value. For comparison of corresponding estimates see Tables III and IV.

Empirical Transportation Costs

a) $\dfrac{\text{Transportation Costs}}{\substack{\text{Price plus exchange plus} \\ \text{duty}}}$ $= \dfrac{.16}{2.21}$

Page 27, Canada's Made-up Apparel Quotas : An Analysis of Their Impact on the Consumer and The Distributive Trades, The Canadian Textile Importers Association, Montréal, March 1978.

b) $\dfrac{\text{Freight}}{\text{Wholesale Price + Duty}}$ $= \dfrac{1.75}{54.25}$ to $\dfrac{1.75}{38.25}$ $= 3.2\%$ to 4.6%

Page 7, Report on Inquiry Respecting Leather Outerwear, Textile and Clothing Board, May 16, 1976, Ottawa.

Value of Imports 1975

Import data by commodity category have been constructed
for the year 1975. The definition of the commodity categories
by import commodity item is shown in the calculation tables.
The commodity category definitions are the same as utilized in
construction of shipment and export data by commodity category in
Chapter 2. The comparable shipment, export and import data have
been combined to provide data on the apparent Canadian market by
commodity category.

Import data for 1975 is constructed by commodity category
for total imports but is also displayed for three groupings of
countries which are sources of clothing imports.

Import data has been constructed for highly developed
nations whose wage rates are too high to be competitive on a
labour cost basis with Canadian production in the Canadian
clothing market given the tariff structure. On the basis of
clothing worker wage data from Men's Wear Magazine, August 27,
1976 and per capita income estimates from the United Nations
Yearbook the following list of "highly developed countries" has
been created. For the purpose of this study, the "highly
developed" nations are: Austria, Belgium/Luxembourg, Denmark,
France, W. Germany, Iceland, Netherlands, Norway, Sweden,
Switzerland, South Africa, Australia, New Zealand and United
States of America. The proportion of total imports by commodity
category from "highly developed" countries is shown in Table V.

In addition import data has been constructed for the
aggregate of the United Kingdom, Ireland, Finland, Italy and
Japan. On the basis of relative wage and per capita income data
from the sources cited above, imports from those nations are
competitive on a labour cost basis with domestic production in
the Canadian clothing market given the tariff structure. These
nations were included among the "high cost" countries in the
Industry, Trade and Commerce study. The proportion of total
imports by commodity category from "highly developed" countries
is shown in Table VI.

Import data for 1975 is constructed for the aggregate of
the far east sources of clothing imports. These countries form
the major source of free enterprise "low cost" imports. The far
east clothing exporting developing countries are Sri Lanka, Hong

Kong, India, Malaysia, Pakistan, Singapore, Peoples Republic of China, Indonesia, South Korea, Philipines, Taiwan, and Thailand. The proportion of total imports by commodity category from far east devloping countries is shown in Table VII.

TABLE I

Industry (SIC)	Ratio Low Cost Producer Wages to Domestic Wages	Wages and Salaries as a Proportion of Shipment Value (1975)	Rate Wages to Shipment Value Low Cost Producers (1)X(2)	Labour Cost Equivalent of Transportation Charges .05÷(3)	(1)+(4)	(5)X(1)
Men's Clothing (2431)	.099	.302	.030	1.667	2.667	.264
Women's Clothing (2441)	.099	.262	.026	1.923	2.923	.289
Children's Clothing (245)	.099	.272	.027	1.852	2.852	.282
Foundation Garments (248)	.099	.433	.043	1.163	2.163	.214
Hosiery Mills (231)	.099	.329	.033	1.515	2.515	.249
Other Knitting Mills (2392)	.099	.354	.035	1.429	2.429	.241

TABLE I (CONT'D)

Industry (SIC)	Ratio Low Cost Producer Wages plus Transportation Costs to Domestic Industry Wages	1-(1)	Wages and Salaries as a Proportion of Value Added	ERP* = (2)X(3)	ERP = $\frac{4}{1-(4)}$
Men's Clothing (2431)	.264	.736	.639	.470	.887
Women's Clothing (2441)	.289	.711	.576	.410	.695
Children's Clothing (245)	.282	.718	.642	.461	.855
Foundation Garments (248)	.214	.786	.586	.461	.855
Hosiery Mills (231)	.245	.751	.640	.481	.927
Other Knitting Mills (2392)	.241	.759	.667	.506	1.024

TABLE I (CONT'D)

Industry (SIC)	Effective Rate of Protection	Value Added at World Prices 1974	(1)X(2)	Excess Value of Material Imputs 1974	(3)+(4)	Excess Value of Shipments 1974	(5)-(6) = k
		$000's		$000's		$000's	
Men's Clothing (2431)	.887	317,728	281,825	71,750	353,575	154,999	2.281
Women's Clothing (2441)	.695	298,765	207,642	69,240	276,882	148,046	1.870
Children's Clothing (245)	.855	65,951	56,388	16,735	73,123	34,546	2.117
Foundation Garments (248)	.855	27,955	23,902	4,867	28,769	12,333	2.333
Hosiery Mills (231)	.927	35,235	32,663	5,827	38,510	20,251	1.902
Other Knitting Mills (2392)	1.024	98,346	100,706	16,279	116,985	54,342	2.153

TABLE I (CONT'D)

Industry (SIC)	Excess Value of Shipments 1974	Value of Shipments at World Prices 1974	Average Tariff on Shipments (1)÷(2)	K	(4)-(1)	Tariff Equivalent of Quota (5)X(3)	Tariff + Tariff Equivalent of Quota (3)+(6)	(6)÷(7)
	$000's	$000's						
Men's Clothing (2431)	154,999	623,278	.249	2.281	1.281	.319	.568	.562
Women's Clothing (2441)	148,046	550,591	.251	1.870	.870	.218	.469	.465
Children's Clothing (245)	35,546	135,822	.254	2.117	1.117	.284	.538	.528
Foundation Garments (248)	12,333	49,330	.250	2.333	1.333	.333	.583	.571
Hosiery Mills (231)	20,251	74,361	.272	1.902	.902	.245	.517	.474
Other Knitting Mills (2392)	54,342	197,511	.275	2.153	1.153	.317	.592	.536

TABLE II

ESTIMATED TARIFF EQUIVALENT OF
QUANTITATIVE RESTRAINT ON IMPORTS

Clothing Category	From Taiwan	From South Korea
Men's Clothing	.287	.319
Women's Clothing	.194	.218
Children's Clothing	.253	.284
Foundation Garments	.303	.333
Hosiery Mills	.214	.245
Other Knitting Mills	.286	.317

TABLE III

AD VALOREM TARIFF EQUIVALENT OF QUANTITATIVE
RESTRAINT ON IMPORTS FROM SOUTH KOREA

Clothing Category	Transportation Costs as a Proportion of Duty Paid Value		
	0%	5%	10%
Men's Clothing	.560	.319	.160
Women's Clothing	.413	.218	.084
Children's Clothing	.533	.284	.123
Foundation Garments	.483	.333	.215
Hosiery Mills	.452	.245	.103
Other Knitting Mills	.557	.317	.156

TABLE IV

AD VALOREM EQUIVALENT OF QUANTITATIVE
RESTRAINT ON IMPORTS FROM TAIWAN

Clothing Category	Transportation Costs as a Proportion of Duty Paid Value		
	0%	5%	10%
Men's Clothing	.513	.287	.137
Women's Clothing	.379	.199	.067
Children's Clothing	.489	.253	.101
Foundation Garments	.443	.303	.193
Hosiery Mills	.406	.214	.081
Other Knitting Mills	.503	.286	.134

TABLE V

Imports from Highly Developed Countries

Clothing Category	(1) Value plus Duty Imports from Developed Countries ($000's)	(2) Value plus Duty Imports from All Countries ($000's)	(1)÷(2)
Men's Clothing	47,695	169,871	.281
Women's Clothing	22,726	84,546	.269
Children's Clothing	1,384	4,137	.335
Knitted Clothing	38,439	247,744	.155
Hosiery	6,259	15,142	.413
Foundation Garments	1,945	3,818	.509
Miscellaneous Clothing	6,631	23,716	.280
All Clothing	125,079	548,974	.228

TABLE VI

Imports from United Kingdom, Ireland, Finland, Italy and Japan

Clothing Category	(1) Value plus Duty Imports from U.K., Ireland, Finland, Italy and Japan ($000's)	(2) Value plus Duty Imports from All Countries ($000's)	(1) as a proportion of (2)
Men's Clothing	11,994	169,871	.071
Women's Clothing	8,560	84,546	.101
Children's Clothing	223	4,137	.054
Knitted Clothing	38,566	247,744	.156
Hosiery	2,799	15,142	.185
Foundation Garments	732	3,818	.192
Miscellaneous Clothing	8,137	23,716	.343
All Clothing	71,011	548,974	.129

TABLE VII

Imports from Far East Developing Countries

Clothing Category	(1) Value plus Duty Imports from Far East Developing Countries ($000's)	(2) Value plus Duty Imports from All Countries ($000's)	(1) as a proportion of (2)
Men's Clothing	79,134	169,871	.466
Women's Clothing	37,417	84,546	.443
Children's Clothing	2,434	4,137	.588
Knitted Clothing	159,897	247,744	.645
Hosiery	3,865	15,142	.255
Foundation Garments	1,075	3,818	.282
Miscellaneous Clothing	8,036	23,716	.339
All Clothing	291,858	548,974	.532

TABLE VIII

Total Imports 1975 Non-Developed Countries
1975 Current Dollars ($000's)

Clothing Category	(1) Total Imports 1975 (Excluding duty)	(2) Total Imports 1975 Developed Countries (Excluding duty)	Total Imports 1975 Non-Developed Countries (Excluding duty)
Men's Clothing	137,837	48,366	89,471
Women's Clothing	68,653	25,324	43,329
Children's Clothing	3,343	1,296	2,047
Foundation Garments	3,026	2,118	908
Hosiery	12,192	7,420	4,772
Knitted Clothing	188,711	60,827	127,884

APPENDIX

CHAPTER 4

(i) Derivation of Maximum Export Country Wage as a
     Proportion of Canadian Wage as displayed in Table 1 of
this Chapter.
Assume that Canadian labour costs are greater than competing
import labour costs (W) for the same output by D

1) then Canadian labour costs as a proportion of Canadian value
    added can be expressed as

$$\frac{W + D}{W + K + D}$$

      where K is cost non-labour value added input
      (i.e. capital)

2) then

$$\frac{ERP}{1 + ERP} = \frac{\frac{D}{W + K}}{1 + \frac{D}{W + K}} = \frac{D}{W + K + D}$$

      where ERP is the effective rate of protection provided
      by tariff structure

3) then

$$\frac{\frac{ERP}{1 + ERP}}{\frac{W + D}{W + K + D}} = \frac{\frac{D}{W + K + D}}{\frac{W + D}{W + K + D}} = \frac{D}{W + D}$$

4) $$1 - \frac{D}{W + D} = \frac{W}{W + D}$$

      and thus we have been able to solve for the maximum ratio of
      labour costs in exporting country as a proportion of Canadian
      wages permitted by the tariff structure. If the labour costs
      in a certain country as a proportion of Canadian labour costs
      exceeds this maximum the production of this country would not
      be price competitive in the Canadian market.

5) Where units of labour are equally productive in Canada and
    the exporting country, this ratio indicates the maximum
    relative wage for the exporting country to be price
    competitive. The difference between this ratio and unity
    provides the margin for higher wages and/or lower
    productivity in the Canadian industry relative to the
    exporting country.

6) The calculation of the maximum labour costs as proportion of
    Canadian labour costs for an exporting country to be price
    competitive in the Canadian market in presented in Table I.

Table I

	SIC	(1) Wages and Salaries as a Proportion Value Added	(2) 1974 Effective Rate of Protection (ERP)	(3) ERP / 1 + ERP	(4) 1 − (3)/(1)
Hosiery Mills	231	.640	.409	.290	.547
Other Knitting Mills	2392	.667 *	.391	.281	.579
Men's Clothing	243	.639	.262	.208	.675
Women's Clothing	244	.576	.264	.209	.737
Children's Clothing	245	.642	.270	.213	.668
Foundation Garments	248	.586	.267	.211	.740
Clothing	Aggregate	.630	.284	.221	.649

SOURCES OF DATA: Wages and Salaries and Value Added data from Census of Manufactures 1976, Statistics Canada.

Effective Rates of Protection from Chapter 5.

      (ii)   <u>Derivation of Minimum Proportionate Cost Advantage of</u>
              <u>Foreign Producers</u> as as displayed in Table 2 of this
              Chapter.

Assume that Canadian costs per unit of production are higher than in competing countries by D

1)   the cost disadvantage of Canadian producers expressed as a proportion of costs per unit of production in competing countries can be expressed as

$$\frac{D}{VA + M}$$

             where VA is the value added costs per unit of foreign
                     producers
                M   is the materials and supplies cost per unit
                   of foreign producers

2)   assume the higher costs of Canadian producers is attributable to higher value added costs per unit

$$\frac{D}{VA + M} \quad = \quad \frac{ERP \ VA}{VA + M}$$

$$= \quad ERP \quad (1/(1 + M/VA))$$

       where ERP is the effective rate of tariff protection provided by the tariff structure

3) but

$$(1 + ERP)VA = VA + D$$

       then by algebraic manipulation we obtain

$$VA = \frac{VA + D}{1 + ERP}$$

4)   substituting the result 3) into 2) we obtain

$$\frac{D}{VA + M} \quad = \quad \frac{ERP}{1 + M(1+ERP)/(VA + D)}$$

5)   data is available on the qualities on the right hand side of 4).

       In order to be competitive in the Canadian market given the tariff structure, the costs of production in the foreign country must be proportionately lower by at least

D - (VA + M). This figure is the margin of higher costs permitted Canadian primary textile producers by the tariff structure.

6) The calculation of the minimum proportionate cost advantage of foreign producers is displayed in Table II.

TABLE II

Minimum Cost Advantage of Foreign Producers to be Price
Competitive in Candian Market for Primary Textiles

Industry (SIC)	(1) Effective Rate of Protection	(2) Materials and Supplies Costs as a Proportion of Value Added	(3) = (1+(1)) X (2)	(4) = $\frac{1}{1 + (3)}$	(5) = (1) X (4)
Cotton Yarn and Cloth (181)	.395	1.34	1.87	.35	13.8%
Wool Yarn and Cloth (182)	.481	1.10	1.63	.38	18.3%
Man-made Fibre and Filament Yarn (1831)	.391	1.07	1.49	.40	15.6%
Man-made Spun Yarn and Cloth (1832)	.326	1.60	2.12	.32	10.4%
Knitted Fabric Mills (2391)	.515	1.93	2.92	.26	13.4%

SOURCE OF DATA: Effective Rates of Protection from Chapter 5.
Materials and Supplies Costs as a Proportionate of Value Added from Census of
Manufacturers 1976, Statistics Canada.

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(iv) Calculation of Excess Value Added as a Proportion of Wage Bill

SIC	(1) Effective Rate of Protection	(2) Value Added 1976	(3) Excess Value Added	(4) Wages and Salaries 1976	(5)= (3)/(4) EVA / W + S
		($000's)	($000's)	($000's)	
181	.395	149,006	42,198	86,034	.491
182	.481	80,138	26,029	48,238	.540
1831	.391	133,086	37,411	76,028	.492
1832	.326	176,550	43,414	117,677	.369
2391	.515	73,703	25,052	42.216	.593
Textile Aggregate	.403	612,483	175,905	370,193	.475
231	.409	59,589	17,299	38,156	.453
2392	.391	168,853	47,465	112,577	.422
243	.262	579,744	120,297	381,953	.315
244	.264	502,796	105,034	309,982	.339
245	.270	78,642	16,719	50,477	.331
248	.267	56,324	11,867	32,999	.360
Clothing Aggregate	.284	1,312,422	290,308	827,113	.351

SOURCE OF DATA: Census of Manufactures data for Value Added and Wages and Salaries drawn off CANSIM. Textile Aggregate constructed by aggregating (SICs 181, 182, 1831, 1832 and 2391). Clothing Aggregate accords with Statistics Canada definition of same.

Effective rates of protection from Chapter 5.

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