

THE CANADIAN PREFERENTIAL TARIFF REGIME AND POTENTIAL ECONOMIC IMPACTS OF ITS EROSION

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Introduction

This paper seeks to identify Canada's trade partners and products that may be potentially vulnerable to the problems of preference erosion following MFN liberalisation under the Doha Development Agenda. This is achieved through a two-track approach. First, a detailed statistical analysis of the structure of Canadian preferences is undertaken using data on actual trade flows under preferential arrangements for Canada in 1998, 2002 and 2003. The statistical analysis includes overviews of: the structure of preferential trade flows; associated tariff levels and preferential margins; utilisation, utility and coverage rates; the value of preferences by scheme and beneficiary as well as information on key tariff lines where the value of preferences is concentrated. The second complementary approach in this paper employs the GTAP model to examine the trade and welfare impacts of removing Canada's preferential duties.

An overview of Canadian tariff preferences

The extent and potential economic impacts of Canada's preferential schemes on beneficiary countries need to be considered in relation to market access conditions that Canada's other trading partners face in the Canadian market. In particular the trade impact of the General Preferential Tariff (GPT) and Least Developed Country Tariff (LDCT) schemes appear to have been limited by the relatively low protection levels afforded to other trading partners be it on the MFN basis or through reciprocal trade agreements (free trade areas).

Indeed, judging by the simple average tariffs, Canada's tariffs are relatively moderate. The simple average tariff on MFN tariff lines with imports from developing countries was estimated at around 6.0 percent in 2002 and 5.8 percent in 2003 (see Table 1). However, noticeable differences are reported in the levels of protection of agricultural and non-agricultural products (WTO, 2003). For example, the average MFN tariff calculated for *Agriculture*² in 2002 was 21.7 percent as compared to an average of 4.2 percent for *Non-agricultural* products (WTO, 2003). Within agricultural products, the highest tariffs are

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² According to the WTO definition.

placed against imports of *Dairy products* (237 percent), *Live animals and products thereof* (52.7 percent), *Beverages and spirits* (8.3 percent) and *Fruits and vegetables* (4.8 percent). Within non-agricultural products, the average MFN tariff on *Textiles and clothing* was 9.9 percent. Tariff escalation continues to inhibit exports of downstream products to Canada by countries exporting under MFN treatment (WTO, 2003). This is the case particularly for imports of food and beverages, textiles and clothing, wood products, chemicals and non-metallic mineral products.

Canada had five reciprocal preferential agreements at the time of writing: the Canada-Chile Free Trade Agreement, the Canada-Costa Rica Free Trade Agreement, the Canada-Israel Free Trade Agreement, the Canada-United States Free Trade Agreement, and the North-American Free Trade Agreement. These reciprocal agreements offer significant margins of preference over MFN duties and, albeit to a lesser extent, over GPT and LDCT treatments (see Table III.2 in WTO, 2003). For example, under NAFTA 98.8 and 93.8 percent of tariff lines of imports originating from the US and Mexico were duty free in 2002 (WTO, 2003). The average import duties for United States and for Mexico under NAFTA were 2.6 percent and 2.7 percent while those for the GPT and LDCT were respectively 5.4 percent and 4.1 percent. The significance of these NAFTA suppliers and their potential impact on the market access of other trading partners is strengthened by their sheer size—in 2004 imports from the US and Mexico together accounted together for around 63% of total Canadian imports.

Non-reciprocal preferential schemes

Table 2 presents basic information on Canada's non-reciprocal preferential tariff schemes for developing countries. Currently Canada provides non-reciprocal tariff preferences to developing countries under the Generalized Preferential Tariff (GPT), the Least Developed Country Tariff (LDCT) and under the CARIBCAN. However, certain Canadian imports from developing countries are classified under other preferential (reciprocal and non-reciprocal) schemes (see Table 3 for the composition of preferential trade flows).

The Generalized Preferential Tariff (GPT) scheme took effect in 1974 and was subsequently renewed and expanded in 1984, 1995 and 2004. The 1995 revision aimed to take into account the effects of erosion of preferential margins following the Uruguay Round negotiations, mainly through expansion of product coverage and lower GPT duty rates (UNCTAD, 2001). The evolution of Canada's tariff preferences in favour of developing countries over the past two decades reflects mainly a number of special measures introduced for LDCs (see Weston, 2003). In 1983 LDCs were granted a zero rate on GPT-covered products with some exceptions including clothing and footwear. As of 1999, the GPT (and LDC) product coverage was extended by some 220 product lines and the GPT tariffs were lowered to two thirds of the corresponding MFN rates. As pointed out by Weston (2003), in addition to improving market

access under GPT, this reduced the margins enjoyed by the LDC countries. In 2000 a further 570 tariff lines were added to the duty free list for LDCs bringing the share of duty-free lines for LDCs to 90%.

Weston (2003) indicates that at the beginning of 2000s, despite the apparently high tariff line coverage, the LDC programme of Canada was granting very little real market access: only 15 products were exported to Canada; only around 30 percent of non-oil, non-arms imports from LDCs were duty-free in 2000; of the Quad countries, Canada had the highest proportion of imports from LDCs facing tariffs above 5%. Indeed, the extension of product coverage in 2000 led to very limited changes because of the exclusion of textiles and clothing. These accounted for 38% of total LDC exports to Canada in 2000 (Kowalski and Lippoldt, 2005). As discussed below, however, an unambiguous increase in the utilization rates of LDCT scheme by some LDC beneficiaries points to beneficial effects of more flexible rules of origin (ROO) (see *Rules of origin* below).

From 1 January 2003 all remaining tariff and quota restrictions on imports from LDCs (except on supply-managed agricultural products³ and on Myanmar) were removed. The initiative included textiles and clothing and modification of ROOs. Before the extension to textiles and clothing, excluded products were 93% of total dutiable LDC imports (Lippoldt and Kowalski, 2005). By 2003, the share of excluded products had fallen to almost zero. As argued by Weston (2003) the new LDC initiative was controversial not only because of the potential impact on Canadian producers (mainly in the clothing industry) but also because of the reduction in this benefit when the MFA quotas disappeared after 2004..

Rules of origin

Rules of origin (ROO) can help to ensure that the products imported under the preferences are not merely transhipped from non-eligible countries via the eligible suppliers with little or no local value added. While under certain circumstances ROOs can play a role in ensuring the intended beneficiary countries actually gain they are also widely seen as the main reason for underutilisation of preferences (e.g. Inama (2003)).

In the 1980s Canada introduced more generous rules of origin for LDCs than for other developing countries with a minimum requirement of 40% of local value added compared to 60% required for other GPT countries. The 2000 reform of the system further relaxed ROO allowing up to half of the 40 percent minimum value added requirement to originate from other developing countries (Weston, 2003). The 2003 LDC initiative included a modification of ROO for textiles and clothing products. To be eligible under the new ROOs the cloth has to be cut and sewn or fabric woven from yarn produced in the eligible country. The new system allows cumulation of inputs from all beneficiary countries as long as a minimum of 25% of value added originates from the exporting LDC country.

³ Supply-side managed products referred to here are dairy, poultry and eggs products the supply of which is regulated in Canada through a system of quotas.

Other forms of compliance verification

To be eligible for LDCT or GPT, in addition to ROO requirements, goods must satisfy certification and direct shipment requirements. Direct shipment requires that goods are shipped directly from an eligible country or transhipped through an intermediate country under customs transit control and without additional processing (CCRA, 2003; UNCTAD, 2001). The required documentation consists of a thorough bill of landing (TBL) and related shipping documents if the TBL does not specify all points of transhipping (CCRA, 2003). The system distinguishes between certificates of origin for non-textile and apparel goods and for textile and apparel goods. The verification procedure involves an origin questionnaire or letter returned by the exporter to Canada Customs and Revenue Agency (CCRA).

The value of preferences

A number of approaches to measuring the benefits from preferential arrangements, or alternatively the losses from their erosion, have been employed. Among the most popular are simple calculations of the value of benefits on fixed trade values; estimations of trade creation/trade diversion impacts; and general equilibrium evaluations. In the first of these approaches, the benefit to the preference-receiving country is estimated as the difference between the MFN rate and the preferential rate multiplied by the value of imports at world prices. The effect of preference erosion is then calculated as the difference between the value of the preference before and after a multilateral liberalization. An example of this approach is Yamazaki's (1996) study of agricultural preferences. A limitation of this methodology is that changes in MFN tariffs are likely to induce changes in the volumes traded under both preferential and non-preferential schemes, reducing the benefit to preference-receiving countries after MFN liberalisation.

A number of studies improve upon this approach by modelling the demand and supply schedules in *partial equilibrium* models (see e.g. Subramanian, 2003, and Alexandarki and Lankes, 2004). This methodology differentiates products by country of origin and controls for trade creation/diversion effects in response to changes in trade protection measures. Under this approach, MFN liberalisation typically results in an increased demand for products imported under MFN treatment and decreased demand for imports entering under preferential rates. Advantages of this approach include its relative ease of interpretation and the ability to apply it at the very detailed level of product classification. Where a far-reaching reform is under consideration –such as currently is the case in the DDA, this can result in unrealistic estimates of the economic value of preferential trading arrangements.

Computable general equilibrium evaluations capture the effects of substitution between imports and domestic production, imports from preferential to non-preferential sources in the preference-giving country, changes in demand for intermediate inputs, reallocation of productive resources across industrial sectors, terms of trade and balance of payments effects. They can therefore better capture some of the costs

inherent in preferential trading arrangements such as, for example, preference-driven concentration of resources in relatively uncompetitive activities. With this approach, the economy-wide implications of reallocation of productive resources towards other activities are evaluated. This enables accounting for the ‘package’ nature of multilateral trade agreements where the potential negative effects associated with a particular sector or preferential scheme can be analysed in conjunction with other effects. One drawback of CGE modelling is a need to work at a relatively high-level of aggregation– a feature that may be problematic because attention frequently needs to focus on particular product and country categories.

Structure and utilization of preferences

The analysis presented below draws on the tariff preference database developed by the OECD Secretariat. The raw data covering tariff lines for which there were imports from developing countries in 1998, 2002 and 2003 were provided by Finance Canada. In addition to LDCT and GPT treatments, imports from developing countries have been registered under Commonwealth Caribbean Countries’ Tariff, British Preferential Tariff, the Chile tariff, the General Tariff, the Mexican Tariff, the Mexican-United States tariff, the United States Tariff, the Canada-Israel Agreement Tariff and the Costa Rica Tariff. The database makes a distinction between total and dutiable imports for each specific tariff line and treatment.⁴

An overview of 2002 and 2003 data underlying calculations in this part of the paper is presented in Table 1, including an indication of the number of tariff lines on which at least one positive import flow between Canada and a developing country occurred under the specific tariff treatment. The corresponding minimum, maximum and simple average tariffs are also provided. For comparison, an average MFN rate calculated for the corresponding tariff lines is also presented. The last column indicates the number of lines with only ad valorem duties.

The source data include descriptions of specific duties. Non-ad valorem tariffs on goods imported from developing countries are mostly mixed rates.⁵ The share of non ad valorem tariffs on MFN lines with imports from developing countries in 2003 was 2.6 percent. For GPT, this figure was even lower (1.4 percent corresponding to 0.26 percent of the value of GPT imports) and for LDCT it was nil. Additionally, for only 0.40 percent of the value of imports entering Canada under the GPT scheme in 2003 was the

⁴ Dutiable imports refer to the portion of imports that was used for calculating duty paid or payable. The data set contains some problematic entries where for example positive values of dutiable imports are recorded for duty free records. It is important to note that Canada’s simplified tariff regime that came into effect on January 1, 1998 was reported to have caused misunderstandings with respect to coding of documents, duty rates, classifications etc. This could explain these anomalies for 1998. However, they do also occur in other years.

⁵ Mixed rates take the form of a conditional expression determining either an ad valorem or a specific tariff (for example X ¢/kg but not less than Y % or X ¢/kg but not to exceed Y %). Other types of specific duties used in the Canadian Customs Tariff schedule include specific, compound (combining both specific and ad valorem components) and technical rates (duty dependent on the input content).

corresponding MFN duty rate specified in non-ad valorem terms. For LDCT the corresponding ratio was 0.14 percent. In view of the relatively low incidence of non ad valorem items only, the ad valorem components of mixed and compound rates are used in calculations referring to these lines.

Composition and significance of trade flows

The 2003 data indicate that around three-quarters of imports from developing countries entered Canada under MFN treatment, 15 percent via GPT and 0.7 percent via LDCT treatment (Table 3). Corresponding shares computed on the basis of dutiable imports are respectively 64 percent, 33 percent and 0 percent. In 2003, around 72% of imports from developing countries entering under MFN treatment were duty free while the corresponding shares for the GPT and LDCT were 41 percent and 100 percent (Table 4).

In order to shed more light on the importance of the Canadian market for developing countries' exports, Tables 5 and 6 present exports to Canada under all schemes (including MFN) (Table 5) and all preferential schemes (Table 6) as a share in beneficiaries' exports to all trading partners.⁶ Taking 2003 as a reference year, the shares of total exports were up to 30 percent for some developing countries. By contrast, exports under preferential schemes typically accounted for less than 1 percent of total beneficiary exports. In 2003, this ratio was higher than 1 percent for only nine developing countries (Bangladesh, Mexico, Cambodia, Haiti, People's Democratic Republic of Laos, Maldives, Barbados, Trinidad and Tobago, and Lesotho). It is worth noting that for six of these countries significant export increases took place in 2003, most likely, as a result of the new LDC initiative.

The remarkable reliance of some developing countries on non-preferential access to Canada's market suggests their obvious interest in further liberalisation of the MFN regime. However, for a few countries, mainly LDCs, trade under preferential schemes accounts for the bulk of their exports to Canada. This suggests that the latter group of countries would have no major interest (apart, of course, from preventing any negative effects of preference erosion) in lowering MFN tariffs. These contrasting situations point to potential divisions in developing countries' positions over the issue of lowering Canadian MFN tariffs.

Imports under the LDCT scheme exhibit a heavy concentration in five HS-2 digit *textile and clothing* chapters (61-65).⁷ These chapters accounted for 98 percent of imports entering under this scheme. Exports under the GPT scheme were more diversified. Still, the 6 top HS chapters accounted for more than a half of imports under this treatment. *Furniture products* (HS2 chapter 94) accounted for 13 percent of imports under the GPT scheme; *Electrical machinery and equipment* (HS chapter 85) 11 percent; *Toys, games and sports requisites* (HS2 chapter 95) 7.5 percent; *Plastics and articles thereof* (HS2 chapter 39) 7.4 percent; *Articles of leather* (HS chapter 42) 6.2 percent; *Nuclear reactors, boilers* (HS chapter 84) 5.3 percent). The

⁶ Data on total exports of a given developing country were collected from the WITS database.

⁷ See Kowalski (2008) for detailed data for all 2-digit HS chapters.

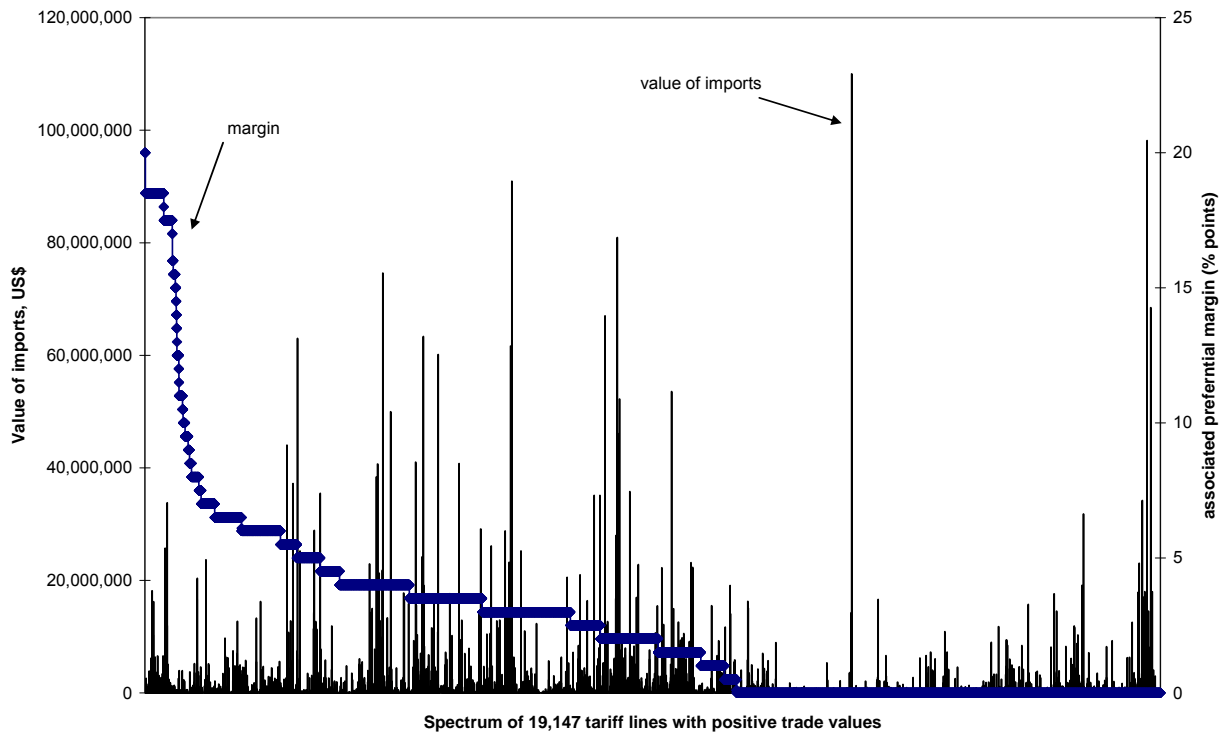
structure of imports from developing countries under MFN tariffs was also relatively concentrated, with more than 50 percent of imports under MFN treatment were in 4 HS2 chapters: *Electrical machinery and equipment* (HS chapter 85) 18.2 percent of imports under MFN treatment; *Nuclear reactors, boilers* (HS chapter 84) 16.5%; *Mineral fuels, oils and products thereof* (HS chapter 27) 14.3 percent and *Vehicles other than railway or tramway rolling stock* (HS chapter 87) 5.7 percent.

Preferential tariff rates

Substantial shares of imports from developing countries enter Canada via duty-free or low MFN tariff rates. In 2003, 72 percent of imports from developing countries entering Canada under MFN treatment were free of duty (Table 4) and the simple average MFN tariff rate on lines with imports from developing countries was 5.8 percent (down from 6 percent in 2002). On a simple average basis, LDCT offered a 12 percentage point advantage over MFN rates on LDCT eligible-lines. This was significantly higher than GPT (2 percentage points), CARIBCAN (3.5 percentage points) or various country-specific tariffs (see columns 5 and 6 of Table 3). Notably, the GPT rates were available on many more lines than the other Canadian preferential arrangements.

As far as individual tariff lines were concerned, preferential margins were up to 20 percentage points for LDCT treatment, 18.5 percentage points for GPT and 12.5 for CARIBCAN. Nevertheless, the bulk of preferential trade associated with these schemes occurred on lines with medium and small preferential margins (see Figure 1). The simple averages of preferential margins calculated at the HS chapter level for all and each of the LDCT, GPT and CARIBCAN schemes presented in Table 8 indicate a marked dispersion across products. For the three schemes assessed together, in 2003 highest average margins (up to 13 percentage points) were observed in textile & clothing products (HS chapters 61-64) which was largely an implication of margins enjoyed by LDCT beneficiaries (up to 18 percentage points). GPT margins in these chapters were also consistently higher than the average. However, these four chapters accounted for only 6 percent of imports entering under the GPT, LDCT and CARIBCAN schemes.

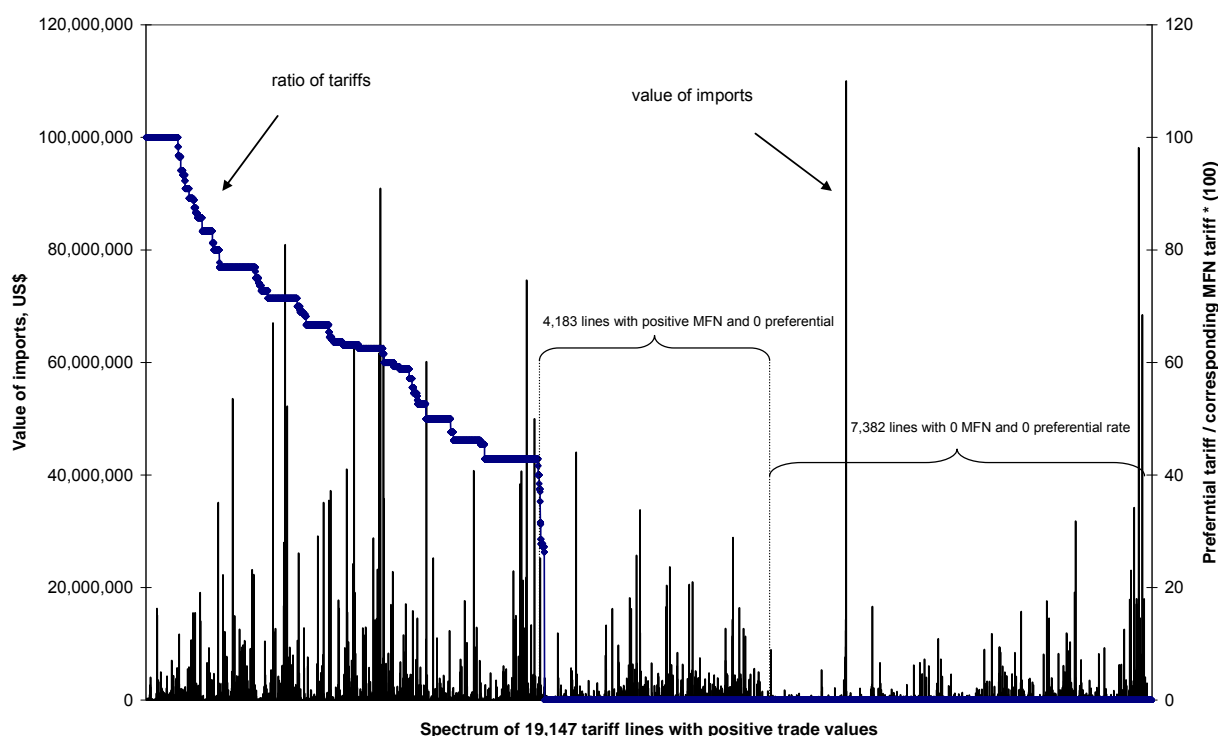
Figure 1. Count of tariff lines with positive trade flows under LDCT, GPT and CARIBCAN treatments and associated preferential margins



One possible solution to preference erosion is a simultaneous lowering of MFN and preferential rates that preserves preferential margins. To assess the feasibility of this option, Figure 2 divides presentation the 19,147 lines with positive trade values into a subset for which this option is feasible and one for which it is not (rates where preferential rates are already zero). In addition a distinction is made between 7,382 lines where both preferential and MFN rates are zero and 4,138 lines where only preferential rates are zero. This distinction is important because the latter set of lines would be affected by declining margins under MFN liberalisation while the former would not. Overall, simultaneous reductions of MFN and preferential rates would in principle be feasible on up to 7,582 lines⁸ covering 66 percent of total imports entering under GPT, LDCT or CARIBCAN schemes. 7,382 lines covering 24 percent of preferential trade would not be affected by MFN cuts since on these lines both the MFN and preferential rates are already zero. Declines in preferential margins would be inevitable on 4,183 lines covering 20 percent of preferential trade, including all preferential trade with LDCs.

⁸ The exact number of lines for which this is feasible depends on the ambition of the associated cut to MFN rates.

Figure 2. Count of tariff lines with positive trade flows under LDCT, GPT and CARIBCAN treatments and associated ratio of preferential to MFN tariff



Coverage, utilisation and utility of preferences

The literature considers three indicators of preferential programmes: coverage, utilisation and utility.⁹ In this assessment, *Product coverage* is calculated as the ratio between imports that are covered by a preferential trade arrangement and total imports from beneficiary countries. With some exceptions, coverage ratios tend to be high (often close to 100%) and consistent across time for CARIBCAN beneficiaries. Across GPT beneficiaries there is no clear tendency across countries or in time. In fact 54% of GPT beneficiaries recorded a decrease in coverage ratios between 1998 and 2002. This observation is not easily reconciled with the 1999 extension of the GPT and LDC product coverage by some 220 product lines and lowering of the GPT tariff to two thirds of the corresponding MFN rates. This contrasts with LDC coverage ratios where with the exception of Afghanistan all beneficiaries move to 100 percent coverage ratio in 2003. Undoubtedly, this is a result of the almost complete removal of all remaining tariff and quota restrictions on imports from LDCs in 2003. The expansion of exports under the LDC scheme, mostly in textile and clothing products which are not covered by the GPT, has also certainly affected the coverage ratios calculated for the GPT scheme.

⁹ Detailed data by country and preference program on these three variables is reported in Kowalski (2008). Inama (2003) discusses these indicators in greater depth.

Utilisation rates computed as ratios between imports actually entering under a preferential scheme and imports covered by the scheme -- depend crucially on the stringency and complexity of rules of origin and ancillary requirements (Inama, 2003). Utilization rates for the GPT indicate a very uneven take up. An increase in utilisation rate from 1998 to 2002 was observed in only 45% of beneficiaries, an increase from 2002 to 2003 in 31 percent of countries and an increase between 1998 and 2003 in 37 percent. The structure of LDC utilisation rates is very dichotomous. For 35 LDC countries utilisation rates have remained consistently at zero in the three considered years. In most remaining LDC beneficiaries a positive tendency of increasing utilisation rates was observed. In particular, the change of regime in 2003 seems to have had a significant impact on utilisation rates of Bangladesh (89% utilisation rate in 2003), Cambodia (89%), People's Democratic Republic of Laos (89%), Madagascar (16%), Malawi (16%), Maldives (47%), Nepal (51%). As is explained in the next section these substantial increases can be almost entirely attributed to increased trade flows in textiles and wearing apparel.

A key question is why some LDC beneficiaries continue to use both GPT and LDC schemes although the LDC scheme seems more generous? This arises often if both the GPT and LDC tariff rates are the same. Another potential explanation is that access under the GPT scheme may be chosen if the LDC compliance procedures constitute more of a hurdle than those under the GPT. The 2003 LDC initiative included a modification of ROO for textiles and clothing products to require that cloth be cut and sewn or fabric woven from yarn produced in the country. These new ROOs are one potential explanation of utilisation of both GPT and LDCT for shipments of the same products.

This *utility rate* is the ratio of imports actually receiving preference to all imports (covered or not). It gives an indication of the importance of preferences in relation to all trade. Similar to utilisation rates, utility rates of LDCT exhibit a certain dichotomy with 35 LDCs recording consistent zero utilisation rates and other LDCs recording marked increases in 2003. The GPT utility rates are also very dispersed with a significant number of countries displaying marked reliance on preferences in their trade with Canada and others for which preferences seem unimportant.

Value of preferences

An initial estimate of the value of Canada's preferences is obtained by calculating the difference between the MFN rate and the corresponding preferential rate and weighting by the value of imports. Total values of preferences calculated in this way for all preferential schemes and years are presented in Table 9. Remarkably, the value of preferences granted to Mexico under Mexican and Mexican-United States tariffs exceeded the combined value of GPT and LDC preferences in 2003. Up until 2002 the value of GPT preferences was close to 300 times the value of LDC preferences. In 2003 the value of LDC preferences increased by a factor of 100 and accounted for one third of the value of the GPT scheme. The value of

CARIBCAN preferences was more than double that of LDC preferences in 1998 and 2002 and only one twentieth of its value in 2003.

As far as the individual beneficiaries are concerned, the largest beneficiaries include several more advanced countries such as Mexico, South Korea, China, India, Brazil, Israel, Malaysia, Hong Kong-China as well as some LDCs such as Bangladesh or Cambodia. Expressed as a percentage of the total beneficiary's exports the value of preferences rarely exceeded 1%.¹⁰ Some of the LDCs with relatively high ratios of value of preferences to total exports in 2003 included Bangladesh (0.52%); Cambodia (0.43%) Haiti (0.28%), Lao PDR (0.23%), the Maldives (0.22%) and Lesotho (0.20%).

The striking increase in the value of preferences for many LDC countries in 2003 reflects an increase in the utilization of preferences by LDCs and preferential margins on textile and clothing products that were up to this date excluded from the duty-free treatment. The percentage increases in the value of preferences in 2003 relative to the average for 1998 and 2002 are very substantial: 4000% for Bangladesh, 5500% for Cambodia, 8890% for Laos, 4658% for Maldives, 5061% for Madagascar and 1.5 million % for Lesotho. In Lesotho's case, this increase can be entirely attributed to changes on 11 HS 8-digit tariff lines within textiles and apparel, for which duties fell from 18 or 19 percent to zero.

Value of preferences by product

Which products carry the highest value of preferences under the GPT and LDCT schemes? An answer to this question may help decide whether exclusion of certain lines from MFN liberalisation could alleviate the bulk of negative effects of preference erosion. Additionally, and perhaps more importantly, identification of such lines will be a necessary step in the assessment of costs and benefits of such potential exclusion or in designing any prospective compensation schemes. Tables 10 and 11 report data on the most important 8-digit tariff lines for LDC and GPT preferences.

As far as the LDCT scheme is concerned, there were altogether 390 8-digit tariff lines for which positive trade values were recorded in 2003 and 13 lines—all in Chapters 61 through 63 (*Articles of apparel, clothing accessories and other textiles articles*)—on which tariff revenue losses exceeded \$1 million (in Table 10). These tariff lines accounted for 64 percent of the total value of LDCT preferences in 2003. At the same time the associated values of preferences for each of these individual lines did not in any case exceed US\$ 8.6 million and accrued consistently to a small group of beneficiaries such as Bangladesh, Cambodia, Laos, Lesotho, Madagascar, Malawi, Maldives, Nepal, Niger and Haiti.

As far as the GPT scheme is concerned, there were 2000 8-digit tariff lines with positive imports in 2003. There were 32 such lines for which preferences involved more than \$1 million in foregone tariff revenue. These tariff lines accounted for 38 percent of the total value of GPT preferences in 2003. The

¹⁰ The Turks and Caicos Islands are an exception - an overseas territory of the UK.

noticeable difference is that for each of the identified tariff lines the number of beneficiaries was typically larger than in the LDC case. However, the highest value of preferences calculated at the tariff line level was lower than in the LDC case (around US\$ 5 million) and typically the value of GPT preferences accounted for smaller shares of beneficiaries' exports. A striking feature of the value of GPT preferences that transpires from Table 11 is that for the majority of the identified tariff lines most of the value of preferences was associated with imports from China (see the shares in the fourth column of Table 11). Overall, China accounted for 64 percent of the value of Canadian GPT preferences in 2003.

High tariff line concentration in the LDCT and GPT schemes suggests that exclusion of relatively few lines from MFN liberalisation could alleviate the bulk of negative effects of preference erosion in the Canadian market. However, the benefits of such an option would have to be weighed against the costs of unrealized liberalisation. For example, the value of LDCT preferences on HS-8 digit line 62046200 (US\$ 8.6 million – see Table 10) should be compared with benefits (to Canada and its trading partners) that could be obtained by reducing protection on the US\$ 257 million worth of Canadian non-LDC imports on this line.

Economic value of preferences in 2001 - a general equilibrium assessment

This section reports on the results of a model-based assessment of value of Canadian preferences. The analysis employs the standard GTAP model¹¹ with the version 6 database. The model-based approach allows a fuller economic assessment of the value of preferences taking into account the interaction of impacts across preference receiving and other sectors and impacts across supplying countries. Changes in market access conditions for one product category are linked to developments in other sectors through goods and factors markets. Representation of such inter-sectoral linkages permits accounting for the reality that while some producers in selected preference-receiving sectors may be affected negatively, the resources that are freed from that sector can be employed in other sectors that may gain better access to world markets or be simply more productive.

One disadvantage of this approach is a relatively high level of product and country aggregation that may mask some individual effects. The scenario considered here involves an equalisation of product-level bilateral ad valorem measures of protection (see next Section for an explanation) with the pre-shock average calculated across all trading partners (a proxy for the MFN rate). This scenario mimics a situation in which, starting from the 2001 base with preferences, all preferential access to Canada is removed.

¹¹ The most comprehensive description of the model is in Hertel (1997). Information more recent developments can be accessed at www.gtap.org

Preferential access to Canadian market in the GTAP framework

The basic GTAP dataset used covered 57 broad economic sectors and 87 countries. For our purposes, it was aggregated to 44 countries/regions and 22 sectors using trade-weighted tariffs. A key advantage this data set is that it fully integrates the information on bilateral *ad valorem* tariffs (both MFN and preferential), *ad valorem* equivalents of specific tariffs (MFN and preferential), and tariff rate quotas from CEPII/ITC Market Access Maps (MAcMaps) database.¹² The resulting *ad-valorem* equivalent measures of applied protection are consistent across all bilateral trade flows.

Simulation results

As indicated above, the shock considered here is an equalisation of product-level bilateral *ad valorem* measures of protection with the pre-shock average calculated across all trading partners (a proxy for the MFN rate). Welfare results associated with the considered scenario (reported in Kowalski 2005) indicate that the removal of Canadian preferences has a very minor impact on developing country partners' welfare. For ten developing country regions (including Thailand, Mexico, Chile, South Africa, Malawi, Tanzania, Uganda, and three composite developing regions (Rest of North America, Rest of Middle East and North Africa and Rest of Sub Saharan Africa) the reported welfare changes are negative. However, the associated proportional welfare changes with respect to base do not exceed one-tenth of a percent in any of the cases.

At the same time it worth bearing in mind that estimates presented here for 2001 are based on a static resource allocation exercise taking resources, technology and institutions as given. If the trade reform encouraged inflows of technology (as it is expected to do)—say, through increased imports or exports, FDI, licensing etc. - or if it introduced fundamental institutional reform, it could have more pronounced effects on welfare. The magnitude of obtained welfare change estimates would undoubtedly change if some these components of reality were incorporated into the model structure. Given the nature of this exercise, the results can be interpreted with more confidence in relative terms than in absolute terms.

Table 12 includes a comparison of impacts with a scenario involving a 50% lowering of tariff protection in all regions. Not only does such a scenario provide a benchmark for comparison of magnitudes with effects of preferences removal, but it may also serve as a comparison with gains that can be obtained from a worldwide halving of applied tariff rates that would be predicted by this particular CGE model and data. Of course, such a scenario embodies elements of both preference erosion in other Quad markets and effects of liberalisation by third countries including own effects of liberalisation by developing countries.

¹² The dataset is documented in detail in Bouët, A., Fontagné, L., Mimouni, M., and F. Von Kirchbach (2002).

A more detailed discussion of such a scenario in the context of preference erosion issue is provided in Lippoldt and Kowalski (2005).

Notwithstanding some sign differences, it is clear that the effects of multilateral liberalisation are up to two orders of a magnitude higher than those associated with removal of Canadian preferences. Focusing on countries that are affected negatively by the removal of Canadian preferences, we see that Mexico—which is estimated to lose 0.01 percent of welfare from the removal of Canadian preferences—is estimated to gain 0.10 percent from the worldwide lowering of tariffs. Malawi which is likewise estimated to lose 0.01 percent from preference erosion stands to gain 1.42 percent from the worldwide lowering of tariffs. Thailand which is unaffected by the removal of Canadian preferences experiences a 1 percent welfare gain from multilateral liberalisation. It is worth noting that a number of developing countries predominantly in Sub-Saharan Africa which are not affected by the removal of Canadian preferences are affected negatively with negative impacts of multilateral liberalisation scenario reaching up to 0.30 percent of their base welfare. As discussed in Lippoldt and Kowalski (2005) these negative effects are explained largely by the effects of tariff liberalisation in the EU which are in turn determined by a combination of the high EU shares in the total exports of several beneficiary countries and the substantial size of EU preferential margins in certain sectors.

As already emphasized, the latter experiment includes tariff cutting by countries other than Canada, and so the resulting numbers cannot be used directly to ascertain the effects of MFN tariff reductions on the value of Canadian preferences. They rather give a sense of the magnitude of preference erosion. To further facilitate the interpretation of results, Table 12 includes welfare estimates of a scenario involving a 50 percent lowering of tariff protection only by Canada. We can conclude that results from this experiment are very similar to those associated with the removal of Canadian preferences, both qualitatively and quantitatively.

There is a number of reasons why our results need to be treated with considerable caution. Firstly, the data constraints imply high levels of country and product aggregation which may mask some impacts on smaller developing countries and producers of specific products. Secondly, as discussed in the first part of the paper, the 2003 introduction of the new LDC initiative had significant implications for preferential trade with Canada of selected textile and clothing-producing LDCs. Nevertheless, even this remarkable change has not had a major impact on total shares of Canada in these countries' exports. For this reason, the small welfare impacts of Canadian schemes estimated with the 2001 data may be not too far from the results that would obtain with 2003 data.

Bearing in mind all the qualifications associated with the use of the particular model and data, a conclusion that could be drawn from this simplified model assessment is that the value of Canadian preferences is very small for most developing countries analysed here. Notwithstanding the significant

variation in the utilisation and value of preferences across beneficiaries, this is consistent with the generally small shares of preferential trade with Canada in these countries' total trade and already low level of Canadian tariffs. Therefore, erosion of preferential schemes does not appear as a major hurdle to further reduction of Canadian MFN rates.

Conclusions

The extent and potential economic impacts of Canada's preferential schemes on beneficiary countries need to be considered in relation to market access conditions that Canada's other trading partners face in the Canadian market. In particular, the trade impact of GPT and the LDC schemes appear to have been limited by the relatively low protection levels afforded to other trading partners be it on the MFN basis or through reciprocal trade agreements. The extensive reliance of several developing countries on non-preferential access to Canada's market suggests their strong interest in further liberalisation of the MFN regime. Cases of over reliance on preferential trade with Canada are limited to a few LDCs where trade under preferential schemes accounts for the bulk of total exports to Canada and is concentrated in textile and clothing products. A conclusion that could be drawn from the simplified model assessment implemented in the paper is that the welfare impact of Canadian preferences is very small for most developing countries analysed here. Notwithstanding the significant variation in the utilisation and value of preferences across beneficiaries, this is consistent with the generally small shares of preferential trade with Canada in these countries' total trade. Therefore, erosion of preferential schemes does not appear to be a major hurdle to further reduction of Canadian MFN rates.

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Table 1. Overview of preferential tariffs in Canada (2002 and 2003)

Based on HS 8-digit with imports in 2002-2003 (excluding chapter 99)

| | Number of lines (1) | | Average Tariff (2) | | Corresponding Average MFN Tariff (3) | | Minimum Tariff | | Maximum Tariff | | Count of ad Valorem tariffs | |
|-----------------------------|---------------------|-------|--------------------|------|--------------------------------------|-------|----------------|------|----------------|--------|-----------------------------|-------|
| | 2002 | 2003 | 2002 | 2003 | 2002 | 2003 | 2002 | 2003 | 2002 | 2003 | 2002 | 2003 |
| MFN | 6,931 | 7,057 | 6.0% | 5.8% | | | 0% | 0% | 298.5% | 295.5% | 6,735 | 6,875 |
| GPT | 4,122 | 4,250 | 2.1% | 2.2% | 4.4% | 4.3% | 0% | 0% | 16.5% | 16.5% | 4,040 | 4,192 |
| LDCT | 170 | 489 | 0.0% | 0.0% | 6.9% | 12.4% | 0% | 0% | 0.0% | 0.0% | 169 | 489 |
| Canada-Israel Tariff | 761 | 776 | 0.0% | 0.0% | 6.7% | 6.8% | 0% | 0% | 5.0% | 5.0% | 757 | 760 |
| Chile Tariff | 174 | 199 | 0.6% | 0.0% | 5.7% | 7.9% | 0% | 0% | 19.0% | 0.0% | 170 | 197 |
| Commonwealth-Caribbean | 206 | 182 | 0.0% | 0.0% | 3.8% | 3.5% | 0% | 0% | 0.0% | 0.0% | 206 | 182 |
| Costa Rica Tariff | 2 | 51 | 0.0% | 1.4% | 6.3% | 5.5% | 0% | 0% | 0.0% | 15.0% | 2 | 47 |
| Mexican Tariff | 3,166 | 3,097 | 0.2% | 0.0% | 5.5% | 5.5% | 0% | 0% | 3.0% | 0.0% | 3,149 | 3,091 |
| Mexican--US Tariff | 657 | 650 | 0.0% | 0.0% | 4.0% | 3.6% | 0% | 0% | 2.5% | 0.0% | 656 | 649 |
| No tariff data available | | | | | | | | | | | | |
| British Preferential Tariff | 133 | 126 | N/A | N/A | 18.9% | 18.4% | N/A | N/A | N/A | N/A | 0 | 0 |
| General Tariff | 30 | 39 | N/A | N/A | 5.2% | 4.1% | N/A | N/A | N/A | N/A | 0 | 0 |
| Informal & Aggregated | 12 | 8 | N/A | N/A | 6.7% | 2.4% | N/A | N/A | N/A | N/A | 0 | 0 |
| United States Tariff | 1,044 | 1,090 | N/A | N/A | 6.2% | 5.5% | N/A | N/A | N/A | N/A | 0 | 0 |

(1) Number of HS 8-digit level different lines that entered Canada under the treatment indicated.

(2) Simple average of lines where there have been imports. Calculations based on ad valorem tariffs and mixed tariffs (Cf below table of mixed tariff conversion into ad valorem)

(3) Simple average of MFN tariffs in these lines. Calculations based on ad valorem tariffs and mixed tariffs.

(4) 2002 and 2003 Imports from respectively 181 and 180 countries (the same minus East Timor) eligible for Canadian GSP preferences.

Table 2. Generalized and selected regional preference schemes of Canada

| Country / preference scheme | Dates | Eligible economies | Scope of tariff and non-tariff preferences | Exemptions / Restrictions |
|---|---|--------------------------------|---|--|
| GPT (General Preferential Tariff) | Brought into effect 01/07/1974 renewed 2004, effective until 2014 | All developing countries +LDCs | <i>Type of preference:</i> Reductions from the MFN rate or duty-free access <i>Coverage:</i> Selected agricultural and industrial products | <i>Excluded items:</i> Some agricultural products, refined sugar, most textiles, apparel and footwear. <i>Rules of origin:</i> <ul style="list-style-type: none"> • 60% local content • Cumulation from any other GPT beneficiary country or Canada • Direct shipment required <i>Safeguard measures</i> |
| LDCT (Least Developed Country Tariff) granted by Canada | 1998 | LDCs | <i>Type of preference:</i> Duty free or preferential rates access (variable from product to product) <i>Coverage:</i> 82% of tariff lines in duty-free access for 48 LDCs. Average of non duty-free lines: 29% Average of <i>ad valorem</i> tariff: 5% | <i>Excluded Items:</i> Food products (ISIC 311)c , Animal feeds and other food products (ISIC 312c), textiles and clothing (CITI 322),... <i>Excluded Country:</i> Myanmar <i>Rule of Origin:</i> <ul style="list-style-type: none"> • 40% local content (only content from least developed countries or Canada was considered originating for purposes of the 40% rule) • Cumulation only with other LDCs and Canada (since 2000, cumulation with any other GSP country) • Specific rules for textiles and clothing • Direct shipment required |
| LDCT (Least Developed Country Tariff) | In present form since 01/01/2003 | LDCs | <i>Type of preference:</i> Duty- and quota-free access for 48 LDCs <i>Coverage:</i> Almost all products (see excluded items) since extension on 01/01/2003 | <i>Excluded items:</i> Supply-managed agricultural products like dairy products, poultry and eggs <i>Excluded country:</i> Myanmar <i>Rules of origin:</i> <ul style="list-style-type: none"> • 40% local content • Cumulation from any other LDCT or GPT beneficiary country or Canada • Specific rules of origin for textiles and apparel • Direct shipment required <i>Safeguard measures</i> |
| CARIBCAN | Introduced 1986 Renewed in 1996 until 2007 | Caribbean countries | <i>Type of preference:</i> Duty-free access for qualifying goods for most Commonwealth Caribbean States <i>Coverage:</i> Similar to GPT; slightly broader for agricultural goods | <i>Excluded items:</i> Some agricultural products, textiles, apparel and footwear <i>Rules of origin:</i> <ul style="list-style-type: none"> • 60% local content • Cumulation from any other beneficiary country or Canada • Direct shipment required |
| Commonwealth Developing Countries Remission Order | Effective 01/01/1998 | Commonwealth countries | <i>Type of preference:</i> Duty-free access or preferential duty rate <i>Coverage:</i> 171 tariff lines, mostly textile products Provides preferences equivalent to the former British Preferential Tariff (BPT), which was revoked on 01/01/1998 | <i>Rules of origin:</i> <ul style="list-style-type: none"> • 50% local content • Cumulation is allowed among Commonwealth countries • Direct shipment required |

Table 3. Preferential trade flows by scheme

| % share | 1998 | 2002 | 2003 |
|---------------------------------------|---------------|---------------|---------------|
| MFN | 76.5% | 72.8% | 74.1% |
| GPT | 15.0% | 15.5% | 15.0% |
| LDCT | 0.0% | 0.0% | 0.7% |
| British Preferential Tariff | 0.2% | 0.9% | 0.6% |
| Chile Tariff | 0.2% | 0.2% | 0.2% |
| Commonwealth Caribbean Tariff | 0.1% | 0.3% | 0.2% |
| General Tariff | 0.0% | 0.0% | 0.1% |
| Informal Entries & Aggregated records | 0.0% | 0.0% | 0.0% |
| Mexican Tariff | 7.2% | 8.7% | 7.5% |
| Mexican-United States Tariff | 0.7% | 1.3% | 1.3% |
| United States Tariff | 0.1% | 0.1% | 0.1% |
| Canada-Israel Agreement Tariff | 0.0% | 0.3% | 0.3% |
| Costa Rica Tariff | 0.0% | 0.0% | 0.0% |
| Grand Total | 100.0% | 100.0% | 100.0% |

| % share | 1998 |
|---------------------------------------|---------------|
| MFN | 62.9% |
| GPT | 25.2% |
| LDCT | 0.0% |
| British Preferential Tariff | 0.7% |
| Chile Tariff | 0.2% |
| Commonwealth Caribbean Tariff | 0.0% |
| General Tariff | 0.0% |
| Informal Entries & Aggregated records | 0.0% |
| Mexican Tariff | 10.9% |
| Mexican-United States Tariff | 0.1% |
| United States Tariff | 0.0% |
| Canada-Israel Agreement Tariff | 0.0% |
| Costa Rica Tariff | 0.0% |
| Grand Total | 100.0% |

Table 4. Share of duty-free trade by scheme

| Scheme | | 1998 | 2002 | 2003 |
|------------|--------------------------------------|------|------|------|
| | Total | 62% | 68% | 70% |
| by scheme: | | | | |
| | <i>MFN</i> | 65% | 70% | 72% |
| | <i>GPT</i> | 47% | 42% | 41% |
| | <i>LDCT</i> | 100% | 100% | 100% |
| | <i>Commonwealth Caribbean Tariff</i> | 100% | 100% | 100% |

Source: Finance Canada data, author's calculations

Table 5. Total exports to the Canadian market as percentage of beneficiary's exports

Note: (sorted by 2003 values)

Source: Finance Canada data, author's calculations

Table 6. Preferential exports to the Canadian market as percentage of beneficiary's exports (all schemes)

(sorted by 2003 values)

| Country Name | 1998 | 2002 | 2003 |
|---------------------|------|------|------|
| Bangladesh | 0.3% | 1.0% | 2.9% |
| Mexico | 1.7% | 2.3% | 2.4% |
| Cambodia | 0.0% | 0.0% | 2.4% |
| Haiti | 0.1% | 0.6% | 1.6% |
| Laos P. Dem. Rep. | 0.0% | 0.0% | 1.3% |
| Maldives | 0.1% | 0.1% | 1.2% |
| Barbados | 1.9% | 1.3% | 1.2% |
| Trinidad and Tobago | 0.3% | 2.6% | 1.1% |
| Lesotho | 0.0% | 0.0% | 1.1% |
| Guyana | 0.3% | 0.5% | 0.9% |
| Cuba | 2.3% | 1.4% | 0.9% |
| Jamaica | 0.7% | 0.9% | 0.8% |
| Nepal | 0.2% | 1.0% | 0.8% |
| China People`s Rep. | 0.7% | 0.8% | 0.8% |
| Pakistan | 0.3% | 0.9% | 0.7% |
| Sri Lanka | 0.5% | 0.8% | 0.7% |
| India | 0.4% | 0.8% | 0.6% |
| Thailand | 0.4% | 0.5% | 0.4% |
| Peru | 0.6% | 0.9% | 0.4% |
| Grenada | 0.0% | 0.0% | 0.4% |
| Brazil | 0.3% | 0.4% | 0.4% |
| Israel | 0.0% | 0.4% | 0.4% |
| Lebanon | 0.4% | 0.4% | 0.4% |
| Chile | 0.4% | 0.5% | 0.4% |
| Guatemala | 0.8% | 0.5% | 0.4% |
| Bahamas | 0.8% | 0.4% | 0.3% |
| Fiji | 0.2% | 0.5% | 0.3% |
| Uruguay | 0.2% | 0.4% | 0.3% |
| Vietnam | 0.2% | 0.3% | 0.3% |
| Botswana | 0.0% | 0.0% | 0.2% |
| Colombia | 0.1% | 0.1% | 0.2% |
| Korea, South | 0.3% | 0.3% | 0.2% |
| Madagascar | 0.0% | 0.0% | 0.2% |
| Costa Rica | 0.1% | 0.3% | 0.2% |
| Indonesia | 0.2% | 0.2% | 0.2% |
| Sierra Leone | 0.5% | 0.2% | 0.2% |
| Turkey | 0.2% | 0.2% | 0.2% |
| Poland | 0.1% | 0.1% | 0.1% |
| Belize | 1.5% | 0.6% | 0.1% |
| Dominica | 0.1% | 0.1% | 0.1% |
| Egypt | 0.1% | 0.1% | 0.1% |
| Macau | 0.1% | 0.2% | 0.1% |
| Hong Kong | 0.2% | 0.2% | 0.1% |
| Malaysia | 0.2% | 0.2% | 0.1% |
| Zimbabwe | 0.1% | 0.2% | 0.1% |
| Algeria | 0.0% | 0.0% | 0.1% |

| Country Name | 1998 | 2002 | 2003 |
|--------------|------|------|------|
| El Salvador | 0.1% | 0.0% | 0.1% |
| Swaziland | 0.0% | 0.0% | 0.1% |
| Philippines | 0.2% | 0.1% | 0.1% |
| Bulgaria | 0.2% | 0.2% | 0.1% |

Source: Finance Canada data, author's calculations

Table 7. Average tariff rates by scheme

| Simple average | | | | |
|---|------|------|------|--|
| Description | 1998 | 2002 | 2003 | |
| LDCT | 0.0% | 0.0% | 0.0% | |
| GPT | 2.4% | 2.1% | 2.2% | |
| British Preferential Tariff | 0.0% | 0.0% | 0.0% | |
| Canada-Israel Agreement Tariff | | 0.0% | 0.0% | |
| Chile Tariff | 2.3% | 0.6% | 0.0% | |
| Commonwealth Caribbean Countries Tariff | 0.0% | 0.0% | 0.0% | |
| Costa Rica Tariff | | 0.0% | 1.4% | |
| General Tariff | 0.0% | 0.0% | 0.0% | |
| Informal Entries & Aggregated records | 0.0% | 0.0% | 0.0% | |
| Mexican Tariff | 1.8% | 0.2% | 0.0% | |
| Mexican-United States Tariff | 1.0% | 0.0% | 0.0% | |
| United States Tariff | 0.0% | 0.0% | 0.0% | |
| MFN | 6.6% | 6.0% | 5.8% | |

| Trade weighted average | | | | |
|---|------|------|------|--|
| Description | 1998 | 2002 | 2003 | |
| LDCT | 0.0% | 0.0% | 0.0% | |
| GPT | 3.2% | 3.1% | 3.1% | |
| British Preferential Tariff | 0.0% | 0.0% | 0.0% | |
| Canada-Israel Agreement Tariff | | 0.0% | 0.0% | |
| Chile Tariff | 1.2% | 0.0% | 0.0% | |
| Commonwealth Caribbean Countries Tariff | 0.0% | 0.0% | 0.0% | |
| Costa Rica Tariff | | 0.0% | 0.2% | |
| General Tariff | 0.0% | 0.0% | 0.0% | |
| Informal Entries & Aggregated records | 0.0% | 0.0% | 0.0% | |
| Mexican Tariff | 1.6% | 0.1% | 0.0% | |
| Mexican-United States Tariff | 0.3% | 0.0% | 0.0% | |
| United States Tariff | 0.0% | 0.0% | 0.0% | |
| MFN | 4.4% | 3.5% | 3.1% | |

Note: Excludes chapter 99. Trade-weighted average based on total imports.

Source: Finance Canada data, author's calculations

Table 8. Average tariff margins by HS chapter and treatment (2003)*

| HS chapter | All three | CARIBCAN | GPT | LDCT | HS chapter | All three | CARIBCAN | GPT | LDCT |
|--|-----------|----------|------|-------|--|-----------|----------|------|-------|
| 01 Live animals | 0.0% | | 0.0% | | 52 Cotton. | 3.2% | | 1.0% | 12.0% |
| 02 Meat and edible meat offal | 0.4% | | 0.4% | | 53 Other vegetable textile fibres; pap | 1.2% | | 1.2% | 1.5% |
| 03 Fish & crustacean, mollusc & other | 0.2% | 1.7% | 0.0% | 3.0% | 54 Man-made filaments. | 1.4% | | 1.4% | |
| 04 Dairy prod; birds' eggs; natural ho | 1.8% | 0.0% | 1.8% | | 55 Man-made staple fibres. | 1.2% | | 0.6% | 15.0% |
| 05 Products of animal origin, nes or | 0.0% | | 0.0% | | 56 Wadding, felt & nonwoven; yarns; tw | 1.3% | | 1.1% | 7.5% |
| 06 Live tree & other plant; bulb, root | 2.1% | 4.5% | 2.0% | 0.0% | 57 Carpets and other textile floor co | 6.1% | | 5.9% | 10.9% |
| 07 Edible vegetables and certain roots | 0.7% | 0.0% | 0.7% | 5.2% | 58 Special woven fab; tufted tex fab; | 3.0% | | 2.4% | 10.4% |
| 08 Edible fruit and nuts; peel of citr | 0.1% | 0.3% | 0.1% | 0.0% | 59 Impregnated, coated, cover/laminate | 3.5% | | 3.4% | 14.5% |
| 09 Coffee, tea, matn and spices. | 1.0% | 0.8% | 1.1% | 0.7% | 60 Knitted or crocheted fabrics. | 4.3% | | 2.4% | 15.0% |
| 10 Cereals | 0.0% | 0.0% | 0.0% | 0.0% | 61 Art of apparel & clothing access, | 12.2% | | 2.1% | 18.4% |
| 11 Prod.mill.indust; malt; starches; | 1.6% | 1.5% | 1.6% | 2.0% | 62 Art of apparel & clothing access, n | 13.0% | | 3.9% | 17.5% |
| 12 Oil seed, oleagi fruits; miscell gr | 0.2% | 0.0% | 0.2% | 0.0% | 63 Other made up textile articles; set | 9.2% | | 5.8% | 16.8% |
| 13 Lac; gums, resins & other vegetable | 0.0% | | 0.0% | 0.0% | 64 Footwear, gaiters and the like; par | 8.4% | | 6.7% | 17.6% |
| 14 Vegetable plaiting materials; veget | 0.0% | 0.0% | 0.0% | | 65 Headgear and parts thereof. | 2.7% | | 1.8% | 8.7% |
| 15 Animal/veg fats & oils & their clea | 5.0% | 7.1% | 4.8% | | 66 Umbrellas, walking-sticks, seat-sti | 1.6% | | 1.6% | |
| 16 Prep of meat, fish or crustaceans, | 1.1% | 3.7% | 1.1% | | 67 Prepr feathers & down; arti flower; | 7.0% | | 7.0% | 5.0% |
| 17 Sugars and sugar confectionery. | 3.6% | 7.9% | 3.4% | | 68 Art of stone, plaster, cement, asbe | 3.5% | | 3.5% | 5.0% |
| 18 Cocoa and cocoa preparations. | 2.3% | 6.0% | 2.3% | | 69 Ceramic products. | 5.0% | | 4.9% | 6.8% |
| 19 Prep.of cereal, flour, starch/milk; | 1.4% | 3.6% | 1.3% | 5.0% | 70 Glass and glassware. | 0.7% | | 0.6% | 3.6% |
| 20 Prep of vegetable, fruit, nuts or o | 1.6% | 4.8% | 1.2% | 4.0% | 71 Natural/cultured pearls, prec stone | 2.6% | | 2.3% | 7.5% |
| 21 Miscellaneous edible preparations. | 3.5% | 7.2% | 3.0% | 10.5% | 72 Iron and steel. | 0.5% | 0.0% | 0.5% | 0.0% |
| 22 Beverages, spirits and vinegar. | 4.7% | 8.0% | 4.4% | | 73 Articles of iron or steel. | 2.0% | 6.7% | 1.9% | 4.8% |
| 23 Residues & waste from the food indu | 1.2% | 0.0% | 1.2% | | 74 Copper and articles thereof. | 2.5% | | 2.5% | 3.0% |
| 24 Tobacco and manufactured tobacco su | 6.2% | | 6.0% | 12.5% | 75 Nickel and articles thereof. | 2.3% | | 2.3% | |
| 25 Salt; sulphur; earth & ston; plaste | 0.6% | | 0.6% | 2.5% | 76 Aluminium and articles thereof. | 2.2% | 6.5% | 2.1% | 6.5% |
| 26 Ores, slag and ash. | 0.0% | | 0.0% | 0.0% | 78 Lead and articles thereof. | 2.8% | | 2.8% | |
| 27 Mineral fuels, oils & product of th | 3.8% | | 3.8% | | 79 Zinc and articles thereof. | 0.6% | | 0.6% | |
| 28 Inorgn chem; compds of prec mtl, r | 1.2% | | 1.2% | 3.5% | 80 Tin and articles thereof. | 2.6% | | 2.6% | |
| 29 Organic chemicals. | 2.4% | 5.5% | 2.4% | | 81 Other base metals; cermets; article | 1.5% | | 1.5% | |
| 30 Pharmaceutical products. | 0.2% | 0.0% | 0.2% | | 82 Tool, implement, cutlery, spoon & f | 2.7% | 7.0% | 2.6% | 8.9% |

| HS chapter | All three | CARIBCAN | GPT | LDCT | HS chapter | All three | CARIBCAN | GPT | LDCT |
|--|-----------|----------|------|------|--|-----------|----------|------|------|
| 31 Fertilisers. | 0.0% | | 0.0% | | 83 Miscellaneous articles of base meta | 2.1% | | 2.1% | 6.4% |
| 32 Tanning/dyeing extract; tannins & | 3.0% | | 3.0% | 0.0% | 84 Nuclear reactors, boilers, mchy & m | 1.5% | | 1.5% | |
| 33 Essential oils & resinoids; perf, | 3.8% | 3.8% | 3.8% | 6.4% | 85 Electrical mchy equip parts thereof | 2.0% | 4.1% | 1.9% | 3.8% |
| 34 Soap, organic surface-active agents | 3.8% | 6.5% | 3.7% | 6.5% | 86 Railw/tramw locom, rolling-stock & | 3.2% | | 3.2% | |
| 35 Albuminoidal subs; modified starche | 3.2% | | 3.2% | | 87 Vehicles o/t railw/tramw roll-stock | 0.6% | | 0.6% | |
| 36 Explosives; pyrotechnic prod; match | 4.9% | | 4.8% | 6.5% | 88 Aircraft, spacecraft, and parts the | 0.6% | | 0.6% | |
| 37 Photographic or cinematographic goo | 5.2% | | 5.2% | | 89 Ships, boats and floating structure | 4.0% | | 4.0% | |
| 38 Miscellaneous chemical products. | 2.5% | | 2.5% | | 90 Optical, photo, cine, meas, checkin | 1.6% | | 1.6% | 1.5% |
| 39 Plastics and articles thereof. | 3.3% | 7.0% | 3.2% | 7.1% | 91 Clocks and watches and parts thereo | 2.6% | | 2.6% | 0.0% |
| 40 Rubber and articles thereof. | 2.2% | | 2.2% | | 92 Musical instruments; parts and acce | 2.0% | | 2.0% | 2.0% |
| 41 Raw hides and skins (other than fu | 2.4% | | 2.4% | 2.5% | 93 Arms and ammunition; parts and acc | 4.5% | | 4.5% | |
| 42 Articles of leather; saddlery/harne | 3.5% | | 3.1% | 8.0% | 94 Furniture; bedding, mattress, matt | 2.4% | 8.3% | 2.2% | 8.9% |
| 43 Furskins and artificial fur; manuf | 3.0% | | 3.0% | | 95 Toys, games & sports requisites; pa | 1.2% | | 1.2% | 0.0% |
| 44 Wood and articles of wood; wood ch | 3.0% | 3.0% | 2.9% | 6.3% | 96 Miscellaneous manufactured articles | 2.9% | 4.5% | 2.8% | 7.0% |
| 45 Cork and articles of cork. | 0.0% | | 0.0% | | 97 Works of art, collectors' pieces an | 1.5% | | 1.5% | 0.0% |
| 46 Manufactures of straw, esparto/othe | 3.5% | | 3.2% | 6.5% | | | | | |
| 47 Pulp of wood/of other fibrous cellu | 0.0% | | 0.0% | | | | | | |
| 48 Paper & paperboard; art of paper pu | 0.0% | | 0.0% | 0.0% | | | | | |
| 49 Printed books, newspapers, pictures | 0.2% | 0.8% | 0.2% | 0.0% | | | | | |
| 50 Silk. | 0.0% | | 0.0% | 0.0% | | | | | |
| 51 Wool, fine/coarse animal hair, hors | 3.3% | | 3.3% | | | | | | |

Source: Finance Canada data, author's calculations

Table 9. Value of preferences by scheme (US\$)

| | Year | | |
|---|------------|-------------|-------------|
| | 1998 | 2002 | 2003 |
| Canada-Israel Agreement Tariff | | 6,599,067 | 8,881,239 |
| Chile Tariff | 796,849 | 1,981,289 | 2,627,091 |
| Commonwealth Caribbean Countries Tariff | 977,169 | 1,297,913 | 3,022,676 |
| Costa Rica Tariff | | 4,089 | 87,795 |
| GPT | 99,343,661 | 151,473,214 | 173,895,632 |
| LDCT | 306,747 | 518,712 | 53,032,727 |
| Mexican Tariff | 79,503,301 | 189,103,895 | 212,471,049 |
| Mexican-United States Tariff | 8,556,558 | 26,436,984 | 34,088,074 |

Source: Finance Canada, author's calculations

Table 10. LDCT tariff lines accounting for at least 1 US\$ million in terms of preference value (2003)

| Tariff item | Country Name | Value of preferences* | As share in beneficiary's exports | Tariff item | Country Name | Value of preferences* | As share in beneficiary's exports |
|---------------|-------------------|-----------------------|-----------------------------------|---------------|-------------------|-----------------------|-----------------------------------|
| 62046200 | Bangladesh | 5,915,094 | 0.08% | 61142000 | Bangladesh | 1,182,601 | 0.02% |
| | Cambodia | 2,096,481 | 0.09% | | Cambodia | 572,457 | 0.03% |
| | Laos P. Dem. Rep. | 3,340 | 0.00% | | Laos P. Dem. Rep. | 23,468 | 0.01% |
| | Lesotho | 115,365 | 0.03% | | Lesotho | 69,416 | 0.02% |
| | Madagascar | 114,307 | 0.01% | | Madagascar | 18,415 | 0.00% |
| | Malawi | 54,474 | 0.01% | | Nepal | 11,769 | 0.00% |
| | Maldives | 302,259 | 0.15% | Total/average | | 1,878,127 | 0.01% |
| | Nepal | 43,689 | 0.01% | 62034300 | Bangladesh | 1,215,973 | 0.02% |
| | Niger | 29 | 0.00% | | Cambodia | 48,997 | 0.00% |
| Total/average | 8,645,037 | 0.04% | Nepal | | 26,386 | 0.00% | |
| 62034200 | Bangladesh | 4,503,235 | 0.06% | Total/average | | 1,291,356 | 0.01% |
| | Cambodia | 992,762 | 0.04% | 63062200 | Bangladesh | 1,214,958 | 0.02% |
| | Laos P. Dem. Rep. | 366,953 | 0.12% | Total/average | | 1,214,958 | 0.02% |
| | Lesotho | 179,374 | 0.04% | 61082100 | Bangladesh | 1,150,011 | 0.01% |
| | Madagascar | 28,446 | 0.00% | | Cambodia | 16,703 | 0.00% |
| | Maldives | 46,127 | 0.02% | | Madagascar | 1,343 | 0.00% |
| | Nepal | 38,815 | 0.01% | Total/average | | 1,168,057 | 0.01% |
| Total/average | 6,155,711 | 0.04% | 62019300 | Bangladesh | 948,762 | 0.01% | |
| 61091000 | Bangladesh | 3,362,902 | | 0.04% | Cambodia | 170,286 | 0.01% |
| | Cambodia | 138,571 | 0.01% | Total/average | | 1,119,048 | 0.01% |
| | Haiti | 552,036 | 0.15% | 61051000 | Bangladesh | 721,544 | 0.01% |
| | Laos P. Dem. Rep. | 61,916 | 0.02% | | Cambodia | 161,694 | 0.01% |
| | Lesotho | 43,314 | 0.01% | | Laos P. Dem. Rep. | 89,300 | 0.03% |
| | Madagascar | 21,308 | 0.00% | | Lesotho | 22,749 | 0.01% |
| | Maldives | 17,362 | 0.01% | | Maldives | 29,514 | 0.01% |
| | Nepal | 33,455 | 0.01% | | Nepal | 23,834 | 0.00% |
| | Niger | 21 | 0.00% | Total/average | | 1,048,635 | 0.01% |
| Total/average | 4,230,885 | 0.03% | 62052000 | Bangladesh | 891,061 | 0.01% | |
| 61103000 | Bangladesh | 3,001,476 | | 0.04% | Cambodia | 147,671 | 0.01% |
| | Cambodia | 187,092 | | 0.01% | Madagascar | 4,378 | 0.00% |
| | Laos P. Dem. Rep. | 12,951 | | 0.00% | Nepal | 3,592 | 0.00% |
| | Lesotho | 1,639 | | 0.00% | Niger | 38 | 0.00% |
| | Madagascar | 7,132 | | 0.00% | Total/average | | 1,046,740 |
| | Nepal | 502 | 0.00% | 62045200 | Bangladesh | 555,095 | 0.01% |
| Total/average | 3,210,792 | 0.01% | Cambodia | | 347,958 | 0.02% | |
| 61102000 | Bangladesh | 1,903,795 | 0.02% | | Laos P. Dem. Rep. | 154 | 0.00% |
| | Cambodia | 803,314 | 0.04% | | Madagascar | 2,844 | 0.00% |
| | Haiti | 42,083 | 0.01% | | Maldives | 17,147 | 0.01% |
| | Laos P. Dem. Rep. | 29,274 | 0.01% | | Nepal | 6,452 | 0.00% |
| | Lesotho | 228,425 | 0.05% | | Niger | 42 | 0.00% |
| | Madagascar | 95,390 | 0.01% | Total/average | | 929,691 | 0.00% |
| | Nepal | 55,629 | 0.01% | | | | |
| Total/average | 3,157,908 | 0.02% | | | | | |

Source: Finance Canada data, author's calculations

Table 11. GPT tariff lines accounting for at least 1 US\$ million in terms of preference value (2003)

| Tariff item | Value of preferences* | Number of GPT countries with positive value of preferences | China's share in value of preferences | Average share in beneficiary's exports |
|-------------|-----------------------|--|---------------------------------------|--|
| 94036010 | 5,099,196 | 42 | 45% | 0.000% |
| 42031000 | 4,390,024 | 18 | 75% | 0.000% |
| 69089010 | 3,938,421 | 22 | 2% | 0.000% |
| 39269090 | 3,488,955 | 39 | 87% | 0.000% |
| 94032000 | 3,104,124 | 34 | 93% | 0.000% |
| 85281293 | 3,027,344 | 6 | 23% | 0.000% |
| 94016110 | 2,919,286 | 32 | 56% | 0.000% |
| 16041490 | 2,590,567 | 12 | 0% | 0.001% |
| 69120090 | 2,575,756 | 39 | 78% | 0.000% |
| 42032990 | 2,330,979 | 16 | 91% | 0.000% |
| 87120000 | 2,320,666 | 9 | 69% | 0.000% |
| 69111090 | 2,225,484 | 30 | 74% | 0.000% |
| 94017910 | 2,005,264 | 18 | 97% | 0.000% |
| 94035000 | 1,965,864 | 37 | 45% | 0.000% |
| 39241000 | 1,905,831 | 28 | 82% | 0.000% |
| 39249000 | 1,859,100 | 30 | 89% | 0.000% |
| 94051000 | 1,683,021 | 24 | 98% | 0.000% |
| 42029290 | 1,628,602 | 28 | 92% | 0.000% |
| 57011090 | 1,626,246 | 15 | 4% | 0.001% |
| 85091000 | 1,614,516 | 5 | 78% | 0.000% |
| 73269090 | 1,591,589 | 32 | 91% | 0.000% |
| 39231090 | 1,417,987 | 26 | 93% | 0.000% |
| 85281291 | 1,394,615 | 4 | 5% | 0.000% |
| 42022290 | 1,235,144 | 24 | 98% | 0.000% |
| 94054090 | 1,200,112 | 20 | 91% | 0.000% |
| 44111990 | 1,157,916 | 6 | 29% | 0.000% |
| 44219090 | 1,152,348 | 40 | 85% | 0.000% |
| 95069990 | 1,122,918 | 17 | 92% | 0.000% |
| 63014000 | 1,118,307 | 14 | 63% | 0.000% |
| 65059020 | 1,095,529 | 31 | 85% | 0.000% |
| 73239300 | 1,084,235 | 25 | 75% | 0.000% |
| 17049090 | 1,038,221 | 44 | 25% | 0.000% |

Source: Finance Canada data, author's calculations

Table 12. Comparison of welfare results of the removal of Canadian preferences and multilateral 50% reduction of tariffs

| | Per capita utility | | | Equivalent variation US\$ million | | |
|-----------------------|---------------------------------|-----------------------------------|------------------------------|-----------------------------------|-----------------------------------|------------------------------|
| | Removal of Canadian preferences | 50% liberalisation by all regions | 50% liberalisation by Canada | removal of Canadian preferences | 50% liberalisation by all regions | 50% liberalisation by Canada |
| Rest of Oceania | 0.02 | 0.81 | 0.05 | 9.76 | 463.9 | 28.24 |
| Australia | 0.00 | 0.11 | 0.00 | 8.73 | 336.24 | 7.62 |
| China | 0.01 | 0.36 | 0.01 | 122.47 | 3729.3 | 90.51 |
| North/East Asia | 0.02 | 0.92 | 0.01 | 150.49 | 7406.6 | 80.81 |
| Japan | 0.01 | 0.32 | 0.00 | 292.27 | 11485.46 | 120.83 |
| Indonesia | 0.01 | 0.31 | 0.00 | 6.13 | 413.19 | 2.11 |
| Malaysia | 0.00 | 1.64 | 0.00 | 1.09 | 1273.12 | -2.88 |
| Philippines | 0.00 | 0.1 | 0.00 | 2.61 | 62.85 | 1.31 |
| Singapore | 0.01 | 0.68 | 0.00 | 7.41 | 507.53 | 1.59 |
| Thailand | 0.00 | 1.07 | 0.00 | -2.54 | 1063.63 | -0.54 |
| Vietnam | 0.02 | 2.64 | 0.02 | 6.78 | 770.67 | 4.92 |
| Rest of the World | 0.00 | 0.14 | 0.00 | 26.89 | 1066.37 | 13.32 |
| Bangladesh | 0.02 | 0.26 | 0.01 | 7.72 | 110.78 | 6.28 |
| India | 0.01 | 0.44 | 0.00 | 27.28 | 1915.73 | 19.45 |
| Sri Lanka | 0.02 | 1.26 | 0.02 | 2.44 | 178.76 | 2.27 |
| Canada | 0.05 | 0.02 | 0.08 | 339.81 | 133.89 | 484.31 |
| United States | -0.01 | -0.01 | 0.00 | -1173.43 | -667.55 | -158.69 |
| Mexico | -0.01 | 0.1 | -0.01 | -25.91 | 551.23 | -31.83 |
| Rest of North America | -0.06 | -6.09 | -0.03 | -1.7 | -165.63 | -0.73 |
| Colombia | 0.00 | -0.2 | 0.00 | 0.06 | -152.65 | -1.26 |
| Peru | 0.04 | 0.06 | 0.01 | 18.85 | 29.62 | 4.73 |
| Venezuela | 0.00 | 0.1 | 0.00 | 1.43 | 105.57 | -1.92 |
| Argentina | 0.00 | 0.13 | 0.00 | 7.14 | 319.59 | 1.74 |
| Brazil | 0.01 | 0.26 | 0.00 | 21.29 | 1135.55 | 6.13 |
| Chile | 0.00 | 0.07 | 0.00 | -1.87 | 41.14 | -1.52 |
| Uruguay | 0.04 | 0.26 | 0.04 | 6.05 | 45.8 | 6.24 |
| EU | 0.01 | 0.12 | 0.00 | 477.47 | 8992.83 | 171.17 |
| Rest of Europe | 0.00 | 0.16 | 0.00 | 0.95 | 638.82 | 2.75 |

| | Per capita utility | | | Equivalent variation US\$ million | | |
|--------------------------------------|---------------------------------|-----------------------------------|------------------------------|-----------------------------------|-----------------------------------|------------------------------|
| | Removal of Canadian preferences | 50% liberalisation by all regions | 50% liberalisation by Canada | removal of Canadian preferences | 50% liberalisation by all regions | 50% liberalisation by Canada |
| Turkey | 0.01 | 0.46 | 0.00 | 6.44 | 610.12 | 3.7 |
| Rest of Middle East and North Africa | 0.00 | 0.31 | 0.00 | -7.24 | 2314.03 | -20.95 |
| Morocco | 0.00 | 0.64 | 0.00 | 0.69 | 196.68 | 0.75 |
| Tunisia | 0.00 | 1.5 | 0.00 | 0.6 | 261.27 | 0.46 |
| Botswana | 0.01 | 0.58 | 0.00 | 0.38 | 27.11 | 0.17 |
| South Africa | 0.00 | 0.32 | 0.00 | -0.73 | 311.25 | -1.71 |
| Rest of SACU | 0.02 | 1.8 | 0.01 | 0.71 | 80.44 | 0.49 |
| Malawi | -0.01 | 1.43 | -0.01 | -0.08 | 22.26 | -0.08 |
| Mozambique | 0.01 | -0.22 | 0.00 | 0.15 | -7.13 | 0.07 |
| Tanzania | 0.00 | -0.29 | 0.00 | -0.19 | -25.38 | -0.13 |
| Zambia | 0.01 | 0.09 | 0.00 | 0.17 | 2.78 | 0.08 |
| Zimbabwe | 0.00 | 0.65 | 0.00 | 0.1 | 51.67 | 0.04 |
| Rest of SADC | 0.00 | 1.21 | 0.00 | 0.04 | 204.9 | -0.74 |
| Madagascar | 0.00 | -0.14 | 0.00 | 0.01 | -5.87 | -0.03 |
| Uganda | 0.00 | -0.29 | 0.00 | -0.11 | -15.38 | -0.07 |
| Rest of Sub-Saharan | -0.01 | -0.16 | -0.01 | -5.72 | -199.3 | -6.68 |

Source: GTAP model simulations and GTAP 6 database; author's calculation