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A Grim REPA?

by

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Abstract

For a quarter of a century African, Caribbean and Pacific (ACP) countries have benefited from unreciprocated preferential access to the European Union (EU) market under a succession of Lomé Arrangements. Sunset provisions now apply to these concessions and after 2007 unreciprocated preferences will end. The EU is proposing that a network of Regional Economic Partnership Agreements (REPAs) replace Lomé. This is a new form of regional trading arrangement for both the EU and ACP countries. In this paper we develop an analytical framework for evaluating the impact effects of a REPA and apply this to estimate costs and benefits in the CARICOM region. Our results suggest that a REPA would be inferior on welfare grounds to either extended reciprocity with the EU and US, or broader multilateral liberalisation.

JEL classification: F15

Keywords: Regional Economic Partnership Arrangements, Regionalism and Developing Countries

Outline

Non-Technical Summary *(500 words)*

The European Union (EU) is in the process of negotiating Regional Economic Partnership Agreements (REPAs) with different geographical groupings of African, Caribbean and Pacific (ACP) countries. These agreements would replace the Lomé provisions, which gave preferential access to the EU market for the exports of the ACP countries. The Lomé arrangements do not require the ACP countries to give reciprocal concessions in their own markets to imports from the EU and are not therefore compatible with WTO rules. A REPA with the EU would therefore allow the preferential treatment of ACP exports to be maintained but would require 'reciprocity', that is reciprocal concessions being given to EU exports to ACP markets. Reciprocity would require that ACP liberalise their imports (or at least most of them) in a geographically discriminatory manner, such that tariffs are eliminated on imports from the EU while imports from other sources are subject either to the preferential regional tariff or the standard (most-favoured nation) tariff rate. As with all discriminatory import liberalisations, there are likely to be both gains and losses. The aim of this study was to identify and quantify these gains and losses for a potential CARICOM regional grouping REPA with the EU.

In the case of CARICOM, intra-regional trade has already been substantially liberalised with resulting welfare-raising trade creating and welfare-lowering trade diverting effects. Ironically, a CARICOM-EU REPA is likely to have import-source substitution effects that have differing welfare effects for the Member States of CARICOM. One substitution effect will cause imports in CARICOM to be sourced from the EU rather than non-EU (extra-regional) countries. The other will cause switching from regional suppliers to EU sources of supply. Both can be viewed as trade-diverting effects but not in this case necessarily welfare-lowering trade diversion. The switching between extra-regional suppliers is likely to be welfare-lowering, as it shifts supply from the most efficient sources in the world to only the most efficient sources in the EU. By contrast, any switch from current preferentially treated regional suppliers to EU suppliers is from the most efficient within the small CARICOM region to the most efficient in the more developed and much larger EU market. This is likely to be as efficient as welfare-raising trade diversion.

Whether the introduction of reciprocity is desirable in net welfare terms is therefore ambiguous, depending on the relative balance of efficient or inefficient source substitution effects. Using detailed information on trade flows and standard trade flows modelling techniques, we find that the introduction of reciprocity would have large extra-regional source substitution effects and would be net welfare lowering for all the CARICOM countries. It would also increase substantially the share of non-duty paying EU imports in CARICOM imports, which would have significant government revenue implications for the relatively high trade tax dependent economies in the region.

In order to contrast a REPA with alternative forms of import liberalisation, we provide comparable estimates of the net welfare effects of extending discriminatory liberalisation to the US and of broader multilateral liberalisation. As one might anticipate, multilateral liberalisation is net welfare-raising and is preferable to broader reciprocity (with both the EU and USA), which is in turn preferable to narrow reciprocity (with the EU only).

1. INTRODUCTION

The literature on preferential trading arrangements has grown dramatically over the last decade or so, stimulated by two systemic developments in the global trading environment: the 'new regionalism' and the realignment of a range of special and differential provisions attached to trade with developing countries. The former has seen exponential growth in the number of free trade areas and provoked an extensive debate on the complementarity of multilateralism and regionalism, (for a comprehensive survey of the issues see Bhagwati and Panagariya, 1996, and a recent analysis of the potential for RTAs to undermine multilateralism see Bond, Riezman and Syropoulos, 2003). In the case of special and differential treatment of developing countries, changes have been triggered by a combination of revisions to multilateral provisions under the Uruguay Round agreements and bilateral revisions following from individual countries being deemed to have 'graduated', (see Whalley, 1989 and 1999 for comprehensive reviews of the issues).

One of the most extensive and long lasting of preferential trading arrangements is the Lomé Agreements, whereby over 70 African, Caribbean and Pacific (ACP) countries have benefited from preferential access to the European Union (EU). A key feature of the Agreements is that this access has been offered on a non-reciprocal basis since the first Lomé Agreement was signed in 1975. But that is about to change following the successful challenge by the US to the WTO that the Lomé Convention conferred an unfair trading advantage to ACP countries over other WTO Members. Lomé IV (which was signed in 1990), formally ended in February 2000, but the WTO waiver on reciprocity was extended to 2005. After that date, it is a WTO expectation that any EU arrangements which replace Lomé will incorporate a reciprocity obligation.

Since 1996 the European Commission has been in negotiations with ACP countries over the post-Lomé environment. These discussions concluded with the Contonou Agreement in 1998. This came into force in June 2000 and was as all encompassing as its Lomé predecessors. However, although it extended the period for unreciprocated preferences, it obliged ACP countries to begin negotiations on so called Regional Economic Partnership Agreements (REPAs) no later than 2002, for implementation in 2008. Negotiations on REPAs are underway with a number of groups of developing countries clustered on a geographic basis. The key feature of REPAs is that preferential access to EU markets is mirrored by preferential access to ACP markets for EU exporters. This is a new departure for the EU and raises an obvious question: from an ACP standpoint would this freeing of bilateral imports leave them better off? From a policy perspective this is an important

issue, not only in the context of the ongoing debate on the complementarity of regionalism and multilateralism (for overviews with particular reference to developing countries, see Panagariya, 1999 and Winters, 2001), but also in the context of the net benefits of preferential trading agreements. It represents a marked shift in policy and poses an as yet unexplored economic issue.

In this paper we develop an analytical framework for assessing the economic effects of reciprocated liberalisation of the form envisaged by a REPA. We then apply this to a particular sub-set of ACP countries, those that are members of the Caribbean Economic Community, or CARICOM[1]. This is an interesting case to take, in part because of the number of countries involved, in part because geographical proximity to the US adds an interesting dimension. We use recent trade data to estimate the welfare effects of such a trade policy innovation and compare them with two benchmarks: extended reciprocity with the EU and US and multilateral liberalisation. Finally, we conclude with an overall assessment of the alternatives. The paper makes a contribution to the regionalism literature on two counts: first, in developing a framework for evaluating reciprocal preferences between customs unions; second, in generating one of the first estimates of the costs and benefits of a potential REPA.

2. DISCRIMINATORY POLICY AND RECIPROCITY: A MODELLING FRAMEWORK

We model the CARICOM import side of a potential REPA, and in particular how the liberalisation of imports from a specific trading partner like the EU might affect trade, production and customs revenue in the importing region.[2] Our initial *anti-monde* is assumed to be a prevailing system of non-discriminatory common external tariffs (CETs). We set up a partial equilibrium framework as a basis for interpreting the data. In doing so we can illustrate how the precise effects will be sensitive to what is assumed about substitutability between locally produced goods and imports (or between imports from different sources) and cost conditions applying to potential suppliers to the importing country from within CARICOM. We begin with two alternatives. First, a perfect substitution world, with local exporters supplying

[1] CARICOM was formed in 1973. Its current Members are: Antigua and Barbuda; The Bahamas; Barbados; Belize; Dominica; Grenada; Guyana; Haiti; Jamaica; Montserrat; St Kitts and Nevis; St Lucia; St Vincent and the Grenadines; Suriname; Trinidad and Tobago.

[2] For analyses of regional integration in the Caribbean see Nicholls et al (2000 and 2002), and El Agraa and Nicholls (1999).

within CARICOM under increasing costs and CARICOM represented as a small economy relative to both the EU and the rest of the world (ROW). Second, an imperfect substitution world, with local or regional suppliers having increasing costs and both the EU and ROW facing constant costs.

Perfect substitution case

Figure 1 summarises the basic set up for analysing a shift from non-discriminatory to discriminatory external tariffs in a small home country member (H) of a regional trading agreement (RTA). D_H represents the home country's demand for imports, S_P the partner's supply of exports, and S_{EU} and S_{ROW} the respective export supply functions for the two outside country groupings. We take the more interesting case where $P_{EU} > P_{ROW}$, and where discriminatory trade policies by the RTA towards outside countries can have both trade creating and diverting effects. We start with an RTA and a non-discriminatory (*ad valorem*) tariff (t) on extra-regional imports (where $P^t_{ROW} = P_{ROW}(1+t)$ but P^t_{EU} is not shown in the case of the higher cost EU supplier). The home country imports OM_2, with OM_1 coming from the partner and M_1M_2 from ROW. For simplicity we rule out a domestic production capability. This allows us to define home country welfare (W) by reference to consumer surplus. Thus W_{FTA} for the home country is given by the triangle ABP^t_{ROW} plus the tariff revenue on extra-regional imports (area $a + b$).

Now assume the RTA introduces a discriminatory tariff. On entering into a REPA, the RTA maintains a tariff t on imports from ROW but allows duty free imports from the REPA partner. The relevant supply price is now P_{EU}, with total imports expanding from OM_2 to OM_3 and coming wholly from the EU. There are three components of this trade-effect: a consumption-induced trade creation effect (M_2M_3); an extra-regional 'trade diversion' effect (M_1M_2); and a regional displacement induced 'trade creation' effect (OM_1). The last two need further explanation.

In standard RTA analysis, trade diversion relates to diverting trade from more efficient extra-regional to less efficient intra-regional suppliers. The REPA, however, diverts between extra-regional suppliers; M_1M_2 is imported from the less efficient EU rather than ROW. The resource cost of this is given by area b, with total tariff revenue lost being $a + b$. Similarly, in

standard analysis trade creation usually describes the displacement of less efficient home production by globally efficient extra-regional production. The REPA however, involves the replacement of intra-regional imports by more (but not necessarily globally) efficient extra-regional imports from the EU.

The regional resource-saving on this 'trade-creation' (or source substitution effect) is shown by area *c* in Fig. 1. This and the loss of producer surplus for partner country exporters (*d*) allows consumer surplus to increase by *c* + *d*. Thus, the welfare implications are ambiguous, the consumption and trade-creation effects increasing welfare and the trade-diverting effect reducing it i.e. $\Delta W = (c+d+e) - b$. Clearly the more efficient the EU, the smaller the costs of trade-diversion and the greater the probability of a welfare-improving REPA. In the limit as $S_{EU} \rightarrow S_{ROW}$, the REPA tends toward the free trade outcome.

Figure 1: Effect of an EU-CARICOM REPA with Perfect Substitution

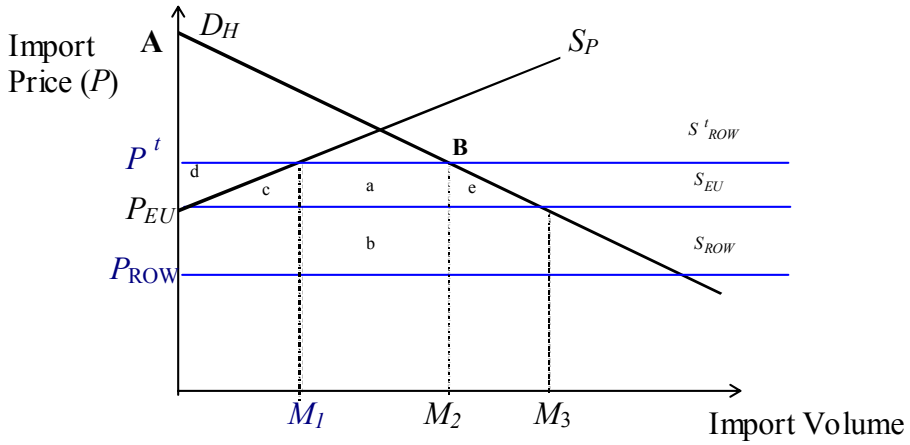


Figure 1 captures the three types of trade effects, but there are other possible complications. Firstly, we represent the post-REPA imports OM_1 as displacing intra-regional trade because we assumed no home production. There may also be displacement of home production by extra-regional (EU) imports. This would be locally (rather than regionally) welfare-raising on efficiency grounds, but the redistribution of any producer surplus is now from home rather than other regional producers to local consumers. Secondly, Fig. 1 is constructed as an extreme case. Thus, pre-REPA there are imports only from the regional partner or the ROW and none from the EU; while post-REPA, the EU becomes the sole source of imports. This would not result if the regional import supply curve (S_P) were constructed so as to cut S_{EU} from below. Similarly some imports from the EU (the ROW) may exist pre- (post) REPA if the EU supply were upward

sloping. In this case the price of imports to local consumers may or may not fall. In which case there is some ambiguity from first principles as to the pattern of trade and welfare effects. Note also that this framework creates difficulties for operationalisation, because the "price-effect" of introducing the REPA is ambiguous. With an upward sloping S_{EU} there may be no price-effect. By constrast, as the cost competitiveness of the EU increases and S_{EU} tends to S_{ROW} the price-effect of discriminatory tariff-removal tends to the full amount of the common external tariff. Where the EU is globally efficient it will dominate the regional market before and after the REPA. The REPA is equivalent to multilateral liberalisation: there will be no trade diversion between extra-regional import sources, only the regional/local displacement and consumption expansion effects of trade liberalisation.

Local consumers cannot be made worse off by the REPA and will benefit if imports from any source fall in price. Regional producers, however, lose if local prices fall, and there is a decline in regional production. This efficiency gain brings with it adjustment costs to local producers and workers and other potential political economy costs for governments in the host country or regional partner. If there is high fiscal dependence on trade taxes, Governments will also be concerned about trade diversion induced revenue losses; the extent of revenue decline being greater the amount of trade diversion following the REPA and the higher the tariff.

Imperfect substitution case

For other than highly specific products at a high level of commodity disaggregation it is unrealistic to assume the absence of multiple sources of supply pre-REPA or that the REPA will consistently divert all imports to EU sources. If we want to retain the constant cost assumption for the EU it may be more appropriate to relax another assumption, that of undifferentiated products. Given differences in technologies and tastes, one might view imports in a particular category as differentiated by source of supply. In our framework goods produced in the region can be seen as differentiated from extra-regional imports, and EU imported varieties as differentiated from ROW varieties. Fig. 2 illustrates this. For convenience, we assume all regions are constant and equal cost suppliers. Pre-REPA import prices in market *H* are P_P, P_{ROW} $(1 + t)$ and P_{EU} $(1 + t)$. The corresponding import volumes are OM_1, OM_2 and OM_3. Following the REPA the new equilibrium for EU varieties shifts to the price-quantity combination of P_{EU} and $OM_3^{/}$. This increase in imports from the EU is analogous to the consumption-induced trade creation effect described earlier, with the analogous consumer welfare gain represented by the

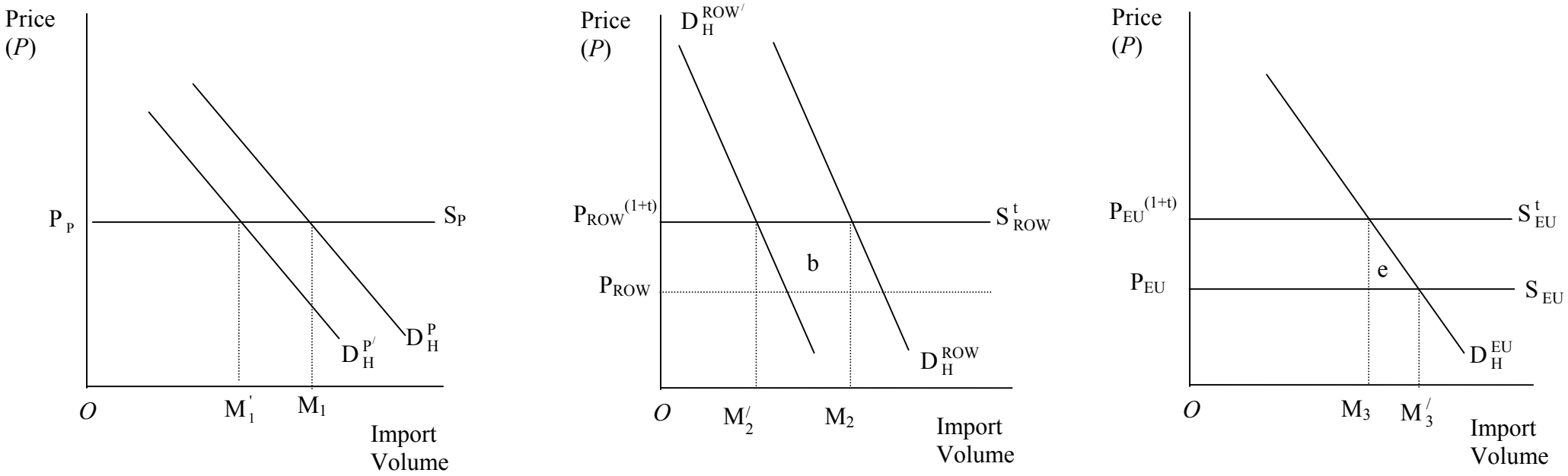
triangle *e*. In the other segments of the market, the fall in price to local consumers of EU imports implies an increase in relative prices of imports from other sources. D_H^P and D_H^{ROW} shift inwards to $D_H^{P'}$ and $D_H^{ROW'}$ respectively. The volume of imports from ROW contracts from OM_2 to OM_2' and this captures the trade diversion effect. As in the perfect substitution case this results in a fall in customs revenue, represented by *b* in Fig. 2.[3]

Intra-regional imports again shift towards EU sources, falling from OM_1 to OM_1', with $M_1'M_1$ being analogous to the displacement of regional production described in the perfect substitution case. This will directly involve declines in regional production, employment and producer rents. The welfare effects are however much less clear cut than in the perfect substitution case.

Neither D_H^P nor $D_H^{P'}$ represent the demand function for regional varieties when there is uniform taxation of imports from all sources.

[3] (Note that we are viewing EU and ROW producers as competitive, i.e. competing with each other to supply the CARICOM market. This means that there are no monopoly profits outside of the region, which would complicate the welfare analysis.)

Figure 2: Effect of an EU-CARICOM REPA with Imperfect Substitution [(1)]



* D_H^{EU} is constructed to represent only the direct consumption induced, trade creation effect of the fall in price of EU imports

(1) Note that imperfect substitution means that $P_P = P_{ROW} = P_{EU}$ no longer necessarily holds. The pattern of prices shown, however, is by construction, allowing simplification of the empirical analysis given data constraints.

3. EMPIRICAL FRAMEWORK [4]

We adopt a modelling strategy which allows for imports to any member of the RTA from other members, the ROW and the EU. In line with Figs. 1 and 2, we label these as type 1, 2 and 3 imports respectively. Thus ΔM_i will measure the change in the volume of imports from area *i* as a result of a policy experiment/simulation: ΔM_1(CARICOM), ΔM_2(ROW), and ΔM_3(EU). With a REPA ΔM_1 and ΔM_2 directly capture any substitution of import source from regions 1 and 2 to the EU. Strictly this should be included in ΔM_3, but for presentational convenience we restrict ΔM_3 to the direct consumption-induced trade creation effect from the EU (as in Fig. 2). We can estimate this consumption effect in value terms, setting all tariff prices to unity by reference to the existing import levels from the EU as[5]:

$$\Delta M_3 = \frac{-t}{1+t}.e_M^D.M_3 \qquad (1)$$

where e_M^D = elasticity of demand for imports

t = pre-REPA tariffs applied to imports from region 3 (EU)

M_3 = pre-REPA value of imports from region 3 (EU)

In the case of trade creation induced displacement of regional trade (ΔM_1) or trade diversion displacement of the source of extra-regional trade (ΔM_2), the extent of import source-substitution for an initial level of imports from region 3 can be approximated[6] via the elasticity of import substitution as:

$$\Delta M_i = \frac{-t}{1+t}.\sigma_{i3}.M_i \qquad (2)$$

$$[i = 1,2]$$

[4] Several recent studies have evaluated alternative aspects of regional integration in the Caribbean, most noteably Rutherford (2000), Lewis and Webster (2001) and Nicholls et al (2002).

[5] This simplification is necessitated by the absence of disaggregated volume and therefore price (unit value) data. It will induce some biases in the estimates, especially at the disaggregate level.

[6] The assumption of constant costs is also convenient for the empirics. It is a more reasonable assumption for region 2 (ROW) than region 1 (CARICOM). With increasing costs, the lowering of the EU tariff will reduce both the quantity and price of imports from CARICOM sources. The present methodology therefore may tend to understate in value terms the scale of substitution from CARICOM to EU suppliers.

where σ_{i3} = elasticity of import substitution between imports from region *i* and 3 (EU)

M_i = initial pre-REPA relative import levels

Displacement of intra- by extra-regional imports involves no loss of customs revenue. Trade diversion, i.e. extra-regional trade source substitution, does however induce a fiscal effect. Continuing to set import prices to unity, we can estimate this as:

$$\Delta R = t.\Delta M_2 - tM_3^0 \tag{3}$$

where ΔM_2 = change in value of imports from source 2 (ROW) due to REPA

M_3^0 = initial or pre-REPA level of imports from region 3 (EU)

As we have seen, welfare effects differ between perfect and imperfect substitution cases. For empirical purposes, we utilise the latter and therefore exclude any quantitative welfare assessment of intra-regional trade displacement. Clearly there will be a tendency to redistribute from producers to consumers within the region but we may be understating potential gains from trade creation in the event of perfect substitution. There may also be a tendency for the imperfect substitution case to overstate costs of trade diversion by recording all customs revenue losses as welfare losses. With perfect substitution some revenue loss will be offset by consumer gains from lower prices. Subject to these caveats we estimate the net welfare (*W*) effects of (extra-regional) trade creation and diversion represented by *e* + *b* in Fig. 2 as: -

$$\Delta W = \tfrac{1}{2}\, t\, (\Delta M_3) + \Delta R \tag{4}$$

where ΔM_3 is given by eq. (1)

ΔR is given by eq. (3)

Equations 1 to 4 are applied to SITC 2 digit trade data for Barbados, Belize, Grenada, Jamaica, St Lucia, Trinidad and St Vincent for 1998 and Dominica, St Kitts and Nevis for 1997.[7] Import demand and substitution elasticities were not available from earlier studies with comprehensive coverage at the level of disaggregation of the present analysis. The required parameters were

[7] Note that no data are available for Antigua and Barbuda, Monserrat and Suriname and would have been available for Guyana only for 1994.

therefore proxied by estimates widely used in other empirical trade studies. Import demand elasticities (e_M^D) were based on Stern et al. (1974) and the import source substitution elasticities (σ_{i3}) from the Global Trade Analysis Project (GTAP) behavioural parameters file (Hertel et al, 1997). In both cases we assume that the elasticities for a particular product group are the same across CARICOM countries. Import demand elasticities for the 2 digit level HS Code were matched up with trade data. The import substitution elasticities also were not in general as disaggregated as the trade data, with a given GTAP commodity value being allocated to a number of trade categories. Appendix 1 sets out the relevant values used for each SITC 2 digit category.[8] Given the level of aggregation, we estimated current average tariffs at the 2 digit level of the trade classification for each CARICOM member. These were available only for Trinidad, Jamaica and Barbados. In all these cases some matching of data for differences in classification with the trade data was required. The average tariffs which resulted from this are also set out in Appendix 1.

4. TRADE, WELFARE AND FISCAL EFFECTS OF REPA RECIPROCITY

Trade Effects

For each of the 9 CARICOM countries the change in the value of imports (ΔM_i) in each 2 digit category is estimated as:

i) intra-regional to extra-regional (EU) import substitution (ΔM_1 = change in imports from CARICOM sources)

ii) extra-regional import substitution from ROW to EU (ΔM_2 = change in imports from ROW)

iii) extra-regional (EU) import consumption or trade creation (ΔM_3 = direct change in imports from EU)

iv) the total increase in imports from the EU $(\Delta M = |\Delta M_1| + |\Delta M_2| + \Delta M_3)$

[8] Note that this study uses what GTAP describes as the domestic to imported goods elasticity as the regional to extra-regional import substitution elasticity (i.e. σ_{13} in eq. 2), with the extra-regional source elasticities (i.e. σ_{23} in eq. 2) set at twice the value of regional to extra-regional elasticity. Differences in preferences or technologies between the region and outside of the region, combined with a tendency to prefer or protect local products, are usually used to defend this differential.

We first aggregate these values across all import categories, and report them in Table 1. The direct consumption or trade creation effect of a lower tariff on EU imports is shown in column (a). Percentage increases range from 12.2% in Trinidad to 15.8% for Jamaica.[9] Estimated source substitution effects are reported in columns (b) and (c). They are much larger in absolute terms in the case of extra-regional substitution, partly because more trade is involved and because higher substitution elasticites were imposed. The percentage decline in imports from the ROW ranges from 39.9% for Trinidad to 56.9% for Jamaica. With trade substitution from this source valued at over EC$8000 mill for these 9 countries there are clearly considerable opportunities for increased exports by the EU associated with full reciprocity. This improved market access increases further when we sum across columns a), b) and c) to estimate the total increase in imports from the EU, which ranges from 167.1% in St Vincent to over 500% for Jamaica.

Note that the regional to extra-regional substitution information in column b) relates to the regional market rather than the regional producers involved i.e. the imports of Barbados from the region are estimated to fall by EC$92.36 mill. The adjustment impact of this will be felt elsewhere in CARICOM by those countries that previously supplied Barbados. Across the region as a whole the fall in intra-regional imports is significant, between 21% and 28.9%. The remainder of Table 1 draws attention to the source-switching effects, which imply much smaller net effects on total extra-regional imports and on total imports from all sources; the former (column e) increasing from between 2.9% (Trinidad) to 12.8% (Grenada) and the latter (column f) rising from 1.5% to 3.1%.

To gain some insight into sectoral adjustments associated with displacement of intra-regional by EU imports, Table 2 reports the breakdown of intra-regional trade effects for each importing country. For Barbados for instance 28.4% of the EC$92.36 million total decline is in SITC division 3. Since the manufacturing import categories are SITC divisions 5-8, it is evident that the largest declines are outside manufacturing; in particular in division 0, 1 and 3. There are however substantial declines for some countries in specific manufacturing areas. Indeed, a limited number of import categories account for a considerable proportion of the overall decline in regional imports; for instance 33 (petroleum), 11 (beverages), 55 (essential oils etc).

[9] The range in absolute terms is of course much greater, given the variations in import capacity and existing trade with the EU.

Table 1 Import Effects[1] of Reciprocity EU Only
(By Country)

	(a) Trade creation on existing EU imports		(b) Change in imports from Region		(c) Non-EU ROW		(d) Total Increase in Imports from EU		(e) Increase in Extra-regional Imports		(f) Increase in imports from all sources	
	m EC$	%	m EC$	%	m EC$	%	m EC$	%	m EC$	%	m EC$	%
Barbados	71.70	15.5	-92.36	-21.0	-841.14	-45.5	1005.19	217.8	164.05	7.1	71.69	2.6
Belize	11.61	15.7	-7.39	-25.8	-328.88	-48.2	347.88	471.7	19.00	2.5	11.61	1.5
Dominica	8.60	15.4	-23.96	-25.6	-111.83	-52.2	144.39	259.3	32.56	12.1	8.60	2.4
Grenada	12.01	15.5	-37.69	-25.1	-169.66	-54.3	219.37	283.6	49.71	12.8	12.02	2.2
Jamaica	121.42	15.8	-242.52	-28.9	-3542.26	-56.9	3906.21	508.1	363.95	5.2	121.43	1.6
Kitts&Nevis	6.94	15.0	-17.70	-23.6	-149.28	-54.2	173.92	376.6	24.64	7.7	6.94	1.8
St. Lucia	21.33	15.3	-49.51	-26.0	-305.09	-54.9	375.94	269.2	70.85	10.2	21.34	2.4
Trinidad	160.85	12.2	-69.08	-24.4	-2619.31	-39.9	2849.24	215.8	229.93	2.9	160.85	2.0
St. Vincent	16.30	14.7	-33.11	-26.0	-135.84	-48.4	185.25	167.1	49.41	12.6	16.30	3.1

[1] based on 1998 trade values (million East Caribbean dollars), except for 1997 in the case of Dominica and St Kitts and Nevis

Table 2 Commodity Shares of REPA Induced Decline in Intra-Regional Imports

	SITC Division								
Importing Country	0	1	2	3	4	5	6	7	8
Barbados	16.8	16.1	1.2	28.4	0.1	6.8	7.8	2.4	20.5
Belize	33	11.3	0	2.4	0.8	20.1	18.7	3.3	10.4
Dominica	26.4	22.2	0.3	14.9	4.2	7.8	10.1	2.3	11.8
Grenada	22	8	0.5	11.7	1	8.4	31.7	2.7	14
Jamaica	29.7	18.5	0.1	20.3	3.1	16.1	6.2	0.9	5
Kitts&Nevis	15.9	13.6	0.2	22.9	0.4	10.6	17.8	2.7	15.8
St. Lucia	33.5	12.5	0.1	12.6	0.6	10.5	12.9	1.8	15.5
Trinidad	36.1	6.6	1.1	29.3	1.4	10.1	6.7	1.9	7
St. Vincent	27.1	9.7	0.5	13	1.1	10.2	19	3.6	15.8

The substitution of extra-regional imports towards the EU does not have immediate implications in general for regional trade and production, though it does for tax revenue. It is of interest however, to know in what sectors the EU would benefit from increased export opportunities. In Table 3 we report the commodity breakdown of extra-regional trade diversion. Outside Division 0, the bulk of the scope for substitution from others to EU supplies lies in manufactured products, in particular divisions 7 and 8.

Table 3 Shares of Extra-Regional Trade Diversion From EU Reciprocity

	SITC Division								
Importing Country	0	1	2	3	4	5	6	7	8
Barbados	13.2	1.4	2.2	1.1	0.7	5.9	9.7	38.6	27.3
Belize	20	1.5	0.2	8.7	0.9	5.6	14.1	26.4	22.6
Dominica	18.6	2.2	2.2	0.8	6.1	7.7	11.4	31.6	19.3
Grenada	20.7	1.2	1.9	0.5	0.1	4.2	13.1	39.2	19.2
Jamaica	21.8	1.4	1.2	3.9	1.2	5.3	10.4	25.8	29
Kitts&Nevis	21.8	2.7	1.7	1.1	1	4.5	12.2	34	21
St. Lucia	26.1	3.1	2.2	2.8	0.1	4.6	11.6	27.7	21.8
Trinidad	15.1	1.8	1.4	13.9	1.9	4.7	15.6	36.3	9.3
St. Vincent	29.9	0.8	3.3	0.7	0.3	4.8	14.8	25.5	19.9

A similar picture emerges in Table 4 from an analysis of the total increase in imports from the EU. For all of the countries at least 60% of the increase in imports is in Divisions 0, 7 and 8.[10]

[10] Highest growth rates are recorded in a number of key 2 digit categories, namely 84 (clothing), 78 (road vehicles) and 77 (electrical machinery) are consistently important in the manufacturing sector and 1 (meat etc) and 5 (vegetables and fruit) in the agricultural sector.

Table 4 Percentage Breakdown of Increase in Imports from EU

	SITC Division								
Importing Country	0	1	2	3	4	5	6	7	8
Barbados	12.9	3.1	2	3.5	0.6	6.1	10	36	25.8
Belize	20.5	2	0.1	8.3	0.9	5.9	14.1	26.2	21.9
Dominica	20.5	5.6	1.8	3.1	5.5	7.8	11.2	26.8	17.8
Grenada	21.3	2.5	1.6	2.4	0.3	4.9	16.3	32.8	17.9
Jamaica	22	2.5	1.1	4.8	1.3	6.1	10.3	24.8	27.1
Kitts&Nevis	21.2	4	1.5	3.3	0.9	5.2	13	30.6	20.4
St. Lucia	27	4.7	1.8	4	0.2	5.4	12.3	24.1	20.6
Trinidad	15.3	1.9	1.3	13.5	1.8	5.1	15.5	36.4	9.1
St. Vincent	28.4	2.5	2.5	2.8	0.5	5.8	16	23	18.5

Fiscal Effects

Granting full reciprocity to the EU implies forsaking customs duty on existing imports from the EU *and* revenue on imports diverted from extra-regional (dutiable) sources[11]. Taking the actual values of existing imports from the EU and estimated values of diverted extra-regional imports and applying the fall in the tariff rate (from the existing levels to zero), we can estimate potential fiscal losses. The estimated revenue declines in Table 5 range from EC$21.85 mill (Dominica) to EC$635.12 mill (Jamaica). In relative terms the falls in revenue across countries are more similar; from 61.8% to 78.1%.

Table 5 Summary of Revenue and Welfare Effects of Reciprocity to EU Only

	Change in Customs Revenue		Change in Net Welfare
	mEC$	%	mEC$
Barbados	-182.43	-78.1	-131.71
Belize	-52.33	-68.0	-43.5
Dominica	-21.85	-75.1	-14.96
Grenada	-31.19	-74.4	-21.83
Jamaica	-635.12	-76.7	-550.31
Kitts&Nevis	-25.89	-73.0	-20.39
St. Lucia	-60.40	-76.8	-42.64
Trinidad	-390.09	-61.8	-292.9
St. Vincent	-27.34	-72.0	-16.36

[11] Nicholls et al (2002) provides an econometric analysis of fiscal effects.

Net Welfare and Distributional Effects

As argued earlier, the source substitution effects leave net trade unaltered. It is the consumption-expansion (trade creation) effects of lower tariffs on existing EU imports that bring about gains to consumers. The extent of this was reported in Table 1. As discussed above, the major sources of potential consumer gain are in the manufacturing divisions (in particular Division 7) or in agricultural/food products (Division 1). The impact on producers is not directly identifiable from the present analysis. Strictly, estimated changes in intra-regional imports identify the regional, not national, producer losses, and are not part of the estimated national welfare effects in the importing countries. They do however give us a guide to the sectors likely to be subject to producer losses, if we assume production structures are similar across the region.

It should be noted that we only include extra-regional trade effects in our assessment; consumer gains associated with trade creation on existing EU imports less the fiscal losses associated with extra-regional import source substitution (which involves a redistribution from the importing country). The summary net welfare effects are reported in Table 5. These are consistently negative, ranging from EC$14.96 mill (Dominica) to EC$550.31 mill (Jamaica). These are relatively small net effects which mask much larger redistributions; in this case away from regional producers and government revenues.

5. ESTIMATES OF RELATIVE COSTS AND BENEFITS FOR ALTERNATIVE TRADE POLICY BENCHMARKS

Potential alternatives to a CARICOM-EU REPA are extended reciprocity (conceded to both the EU and US) and full multilateral non-discriminatory liberalisation. To complete an assessment of the REPA we compare its results with both of these. In all the alternative experiments we take pure cases; restricted reciprocity involving complete removal of tariffs against EU imports; extended reciprocity involving removal of all tariffs against EU and US imports; and non-discrimination represented by the elimination of tariffs on all extra-regional imports. Given that the EU, US and rest of the world (ROW) can be viewed as large trading partners, our framework represents tariff liberalisation with any one or all of these as having similar intra-regional trade and production effects. In other words regional trade and production in member states falls by broadly the same amount in all three policy experiments. In practice and at a very fine level of

product disaggregation, liberalisation with specific trading partners will have different implications depending upon technology, product design, distribution systems, marketing strategies and so on. Our analysis cannot capture such micro effects, but the assumption that the EU and US are both competitive with local production in the Caribbean is reasonable.

The key differences between the experiments relates therefore to extra-regional trade effects. Trade creation resulting from consumption effects will be maximised by multilateral liberalisation, which also minimises trade diversion. Indeed there is no trade diversion and therefore no transfer from the region to 'pay' for extra-regional inefficiency in production. Consumer and net welfare gains are maximised, but there is a complete redistribution of government revenue to consumers. Extended reciprocity is an intermediate outcome. On the one hand, there is greater scope for consumption-induced trade creation than restricted reciprocity, but less than for multilateral liberalisation. On the other hand there is less scope with extended reciprocity for trade diversion than with restricted reciprocity. Thus we anticipate greater extra-regional trade expansion, greater fiscal loss and greater consumer and net welfare gains with extended than restricted reciprocity.

Trade Effects

Estimated intra- and extra-regional trade effects are summarised in Table 6. Although there are uniform changes in intra-regional imports across experiments, the shift in the source of supply will be different for each; shifting to the EU, EU and US and ROW for the respective experiments. On top these shifts to extra-regional sources, extra-regional imports expand in each experiment because of expansion of imports from the liberalised source. These grow as the size of the liberalised import base increases. In part b of Table 6 there is therefore a consistent ranking of the increase in extra-regional imports; with EU-only reciprocity inducing the smallest increase in aggregate and multilateral liberalisation the greatest. In Barbados for example the increase ranges from 7.1% for restricted reciprocity to 20.1% for complete liberalisation.

The combined impact of declining intra-regional imports and increasing extra-regional imports is represented in part c. There are increases in total imports from all sources associated with all three policy experiments; the largest, as expected, generated by multilateral liberalisation. For extended reciprocity total imports increase by between 7.5% (Trinidad) and 11.6% (Jamaica), and by between 10.8% (St Vincent) and 16.5% (Jamaica). Thus, although there is a consistent

Table 6 Comparison of Import Effects of Alternative Trade Policy Experiments
(By Country)

	a) Change in imports from region			b)Change in extra-regional imports			c) Change in total imports		
	1) EU only reciprocity	2) EU & US reciprocity	3) multilateral liberalisation	1) EU only reciprocity	2) EU & US reciprocity	3) multilateral liberalisation	1) EU only reciprocity	2) EU & US reciprocity	3) multilateral liberalisation
Part (i)	By value (m EC $)								
Barbados	-92.36	-92.36	-92.36	164.06	307.50	463.80	71.70	215.14	371.44
Belize	-7.39	-7.39	-7.39	19.00	89.22	128.08	11.61	81.83	120.69
Dominica	-23.96	-23.96	-23.96	32.56	53.95	67.89	8.60	29.99	43.93
Grenada	-37.69	-37.69	-37.69	49.70	86.22	105.28	12.01	48.53	67.59
Jamaica	-242.52	-242.52	-242.52	363.95	1148.91	1534.51	121.42	906.39	1291.99
Kitts&Nevis	-17.70	-17.70	-17.70	24.64	54.83	73.80	6.94	37.13	56.10
St. Lucia	-49.51	-49.51	-49.51	70.85	123.59	164.26	21.33	74.08	114.75
Trinidad	-69.08	-69.08	-69.08	229.93	678.12	1137.20	160.85	609.04	1068.12
St. Vincent	-33.11	-33.11	-33.11	49.42	76.33	89.31	16.30	43.22	56.20
Part (ii)	Percentage Change								
Barbados	-15.50	-15.50	-15.50	7.10	13.30	20.07	2.60	7.82	13.50
Belize	-15.70	-15.70	-15.70	2.50	11.80	16.94	1.50	10.43	15.38
Dominica	-15.40	-15.40	-15.40	12.10	20.00	25.17	2.40	8.25	12.09
Grenada	-15.50	-15.50	-15.50	12.80	22.11	27.00	2.20	8.99	12.52
Jamaica	-15.80	-15.80	-15.80	5.20	16.42	21.93	1.60	11.57	16.49
Kitts&Nevis	-15.00	-15.00	-15.00	7.70	17.04	22.94	1.80	9.36	14.14
St. Lucia	-15.30	-15.30	-15.30	10.20	17.78	23.63	2.40	8.37	12.96
Trinidad	-12.20	-12.20	-12.20	2.90	8.59	14.41	2.00	7.45	13.07
St. Vincent	-14.70	-14.70	-14.70	12.60	19.50	22.81	3.10	8.33	10.83

ordering of the magnitude of the effects across experiments, there is a differential ordering (value and percentage) of trade effects across countries.

Fiscal Effects

Given the dependence on trade taxes in most Caribbean countries, fiscal consequences of adjustment are a sensitive issue.[12] The fiscal implications of restricted reciprocity were discussed above. Table 7 reports these again for each country, along with those for the other two experiments. The absolute values reported in Table 7 capture the *maximum* potential falls of the respective customs authorities. They also assume no tariff redundancy and no attempt to replace import tariffs with (say) consumption taxes.[13]

Table 7 Changes in Customs Revenue by Country of Alternative Trade Policy Experiments

	EU reciprocity		EU & US reciprocity		multilateral liberalisation	
	mEC$	%	mEC$	%	mEC$	%
Barbados	-182.4	-78.1	-216.14	-92.6	-233.4	-100.0
Belize	-52.33	-68.0	-65.87	-85.6	-76.9	-100.0
Dominica	-21.85	-75.1	-27.07	-93.0	-29.1	-100.0
Grenada	-31.19	-74.4	-39.15	-93.4	-41.9	-100.0
Jamaica	-635.12	-76.7	-759.78	-91.8	-828.1	-100.0
Kitts&Nevis	-25.89	-73.0	-32.26	-90.9	-35.5	-100.0
St. Lucia	-60.40	-76.8	-71.57	-91.1	-78.6	-100.0
Trinidad	-390.09	-61.8	-515.39	-81.7	-631.0	-100.0
St. Vincent	-27.34	-72.0	-35.81	-94.3	-38.0	-100.0

[12] For a recent analysis of fiscal dependence on trade taxes in developing countries and the impact of liberalisation see Kattry and Rao (2002).
[13] The literature on optimal tax design is an extensive one, see Whalley (1979), Buffie (2001).

The extended reciprocity experiment produces intermediate declines in customs revenue, given the initial importance of these import sources for all the countries and the considerable scope for switching of imports from the dutiable ROW to non-dutiable EU and US. With falls of customs duties of between 81.7% (Trinidad) and 94.3% (St Vincent), restricted reciprocity is very similar in its impact effects on customs revenue as complete liberalisation. Note of course that with income and dynamic effects the relative effects may be different. Full multilateral liberalisation must eliminate customs revenue, but restricted and extended reciprocity may have dynamic income effects that influence the dutiable import base in either direction.

Net Welfare Effects

We report net welfare effects for each country in Table 8 (part a). A priori one would expect that multilateral liberalisation must be net welfare-raising, that reciprocity may be welfare-raising or lowering, that one would rank multilateral liberalisation above reciprocity, and extended above restricted reciprocity, on welfare grounds. These rankings are confirmed for all countries.[14] It turns out that both types of reciprocity are net welfare-lowering, with the costs of extra-regional trade diversion (source-switching) exceeding the benefits of trade creation. Multilateral liberalisation is not unsurprisingly net welfare-improving. As is usually the case, however, these effects are small relative to the value of gross trade and national product, though it should be recalled they exclude any welfare-raising, domestic allocation effects. EU reciprocity generates welfare losses which range from 1.9% (Trinidad) to 4.5% of GNP (Jamaica). Welfare losses from extended reciprocity are somewhat less and the range is lower. By contrast, full multilateral liberalisation delivers welfare gains which range from 0.63 to 0.8% (Trinidad and Jamaica respectively).

6. CONCLUSIONS

Unreciprocated preferential access has been a feature of the trade policy landscape throughout the post World War II era. It is however becoming less pervasive and more targetted. In the context of EU trade relations with ACP trading partners, the European Commission has been pressing for a shift from one-way preferences to reciprocal preferences as a core element of a

[14] This echoes the results that Kose and Riezman (2000) report using CGE modelling to compare RTAs, Customs Unions and multilateral free trade.

REPA. The economic effects of reciprocated preferences between RTAs are not straightforward. Some of the standard concepts from customs union theory can be used but allowing for intra-regional effects complicates the analysis.We have refined a number of customs unions concepts to develop a framework for understanding the economic effects of reciprocated preferences and to evaluate the welfare effects in the context of CARICOM. In addition we have used the framework to evaluate the welfare effects of alternatives to reciprocated preferences, namely extended reciprocity and full multilateral liberalisation.

Our framework is essentially partial equilibrium and focuses on impact effects. Notwithstanding this, our policy experiments throw up a number of interesting results. First, the net welfare effects of all of the policy changes we simulate are small relative to GDP. This is not surprising, indeed it echoes a common finding in the literature. Second, there is a clear ordering to the policy changes, with multilateral liberalisation dominating, followed by extended reciprocity and then restricted reciprocity with the EU. Given the differences in trade coverage between the three, this is the ordering one would expect. Third, restricted reciprocity (i.e. a REPA) is unambiguously welfare reducing, suggesting that CARICOM countries would be worse off if they entered into such an agreement with the EU. Finally, although the net welfare effects are relatively small, they do mask substantial redistributions from producers and governments to consumers, suggesting that adjustment pressures would be non-negligible. Although the magnitudes would be different if other competitive and dynamic effects of trade could be explicitly allowed for, it is not likely that the ranking of the trade strategies considered here would change. It is difficult to imagine that the pro-competitiveness and dynamic benefits of a REPA would be greater than those of more extended forms of trade liberalisation. It may be interesting to apply the framework set out here to evaluate potential trade effects of REPAs between the EU and other groups of ACP countries, to evaluate probable welfare effects elsewhere.

Table 8 Summary of Welfare Effects of Alternative Trade Policy Experiments
(By Country)

Change in net welfare

	(in mEC$)			(as % of GDP)		
	1) EU reciprocity	2) EU & US reciprocity	3) multileral liberalisation	1) EU reciprocity only	2) EU & US reciprocity	3) Full multileral liberalisation
Barbados	-131.71	-65.39	29.71	-2.2	-1.1	0.5
Belize	-43.50	-10.91	7.26	-2.7	-0.8	0.5
Dominica	-14.96	-4.56	2.77	-2.7	-0.8	0.5
Grenada	-21.83	-6.44	4.04	-2.7	-1.0	0.5
Jamaica	-550.31	-110.51	98.92	-4.5	-1.0	0.8
Kitts&Nevis	-20.39	-5.48	3.41	-2.5	-0.7	0.4
St. Lucia	-42.64	-14.27	7.44	-2.7	-0.8	0.4
Trinidad	-292.90	-160.65	53.17	-1.9	-1.1	0.3
St. Vincent	-16.36	-3.64	3.20	-2.0	-0.4	0.4

(i) basis of estimation set out in Table 4

Appendix 1: Import demand substitution elasticity values, and tariff rate estimates

Table 1 Source Substitution and Import Demand Elasticities

	Source Substitution Elasticities		Import Demand	Estimated Average Extra-Regional Tariff (%)			
SITC Code	Intra-Region	Extra-region	Elasticities	Trinidad	Jamaica	Barbados	Other
00	2.8	5.6	0.4	21.9	22.9	9.5	18.1
01	2.8	5.6	1.15	19.9	23.1	5.3	16.1
02	2.8	5.6	1.1	19.6	20.4	4.5	14.8
03	2.8	5.6	1.13	29.2	25.5	2.3	19.0
04	2.2	4.4	0.4	13.3	13.2	3.4	10.0
05	2.2	4.4	0.6	29.0	30.9	28.4	29.4
06	2.2	4.4	1.15	21.5	26.5	2.9	17.0
07	2.2	4.4	1.05	15.5	16.0	13.9	15.1
08	2.2	4.4	1.1	2.2	3.3	4.2	3.2
09	2.5	5	1.125	17.0	20.8	15.0	17.6
11	3.1	6.2	1.15	16.5	26.3	27.6	23.5
12	3.1	6.2	1.15	21.0	20.0	11.5	17.5
21	2.8	5.6	0.7	9.1	4.2	12.3	8.5
22	2.2	4.4	0.4	2.5	3.7	1.1	2.4
23	1.9	3.8	1.6	5.9	8.0	12.1	8.7
24	2.8	5.6	1.3	5.9	7.9	5.5	6.4
25	2.8	5.6	1.25	0.0	0.0	0.0	0.0
26	2.2	4.4	1.3	0.3	0.0	2.8	1.0
27	2.8	5.6	0.8	0.4	0.6	0.0	0.3
28	2.8	5.6	0.4	1.1	2.2	0.0	1.1
29	2.2	4.4	0.4	4.4	6.5	6.7	5.9
32	2.8	5.6	1.65	11.0	8.4	1.2	6.9
33	1.9	3.8	1.65	11.0	8.4	8.1	9.2
34	2.8	5.6	1.65	11.0	8.4	4.2	7.9
35	2.8	5.6	1.65	11.0	8.4	1.2	6.9
41	2.2	4.4	1.1	23.8	21.7	8.4	18.0
42	2.2	4.4	1.1	23.8	21.7	8.8	18.1
43	2.2	4.4	1.125	23.8	21.7	8.6	18.0
51	1.9	3.8	1.65	0.1	0.5	0.2	0.3
52	1.9	3.8	1.65	0.2	1.6	0.7	0.8
53	1.9	3.8	1.4	8.0	10.7	2.6	7.1
54	2.8	5.6	1.65	7.5	7.8	4.9	6.7
55	2.8	5.6	1.65	13.3	20.5	12.7	15.5
56	1.9	3.8	1.65	0.4	0.6	0.0	0.3
57	1.9	3.8	1.6	7.7	11.3	4.8	7.9
58	1.9	3.8	1.6	7.7	11.3	5.3	8.1
59	1.9	3.8	1.65	2.7	4.0	2.4	3.0
61	4.4	8.8	1.625	10.5	15.1	14.9	13.5
62	1.9	3.8	1.6	5.9	8.0	12.1	8.7
63	2.8	5.6	1.3	5.9	7.9	6.3	6.7
64	1.8	3.6	1.4	6.6	8.8	2.7	6.0
65	3.3	6.6	1.4	7.9	9.6	5.0	7.5

66	2.8	5.6	2.25	10.5	10.8	7.5	9.6
67	2.8	5.6	2	7.2	5.2	6.7	6.4
68	2.8	5.6	2	2.0	2.1	1.4	1.8
69	2.8	5.6	2.375	7.2	7.2	4.6	6.3
71	2.8	5.6	2	2.8	2.6	2.7	2.7
72	2.8	5.6	3.25	2.8	2.6	2.7	2.7
73	2.8	5.6	2.25	2.8	2.6	2.7	2.7
74	2.8	5.6	3.25	2.8	2.6	2.8	2.7
75	2.8	5.6	3.25	10.0	10.3	5.3	8.5
76	2.8	5.6	3.25	10.4	10.9	4.7	8.7
77	2.8	5.6	3.25	10.0	10.3	5.4	8.6
78	5.2	10.4	2.25	10.8	8.3	26.1	15.1
79	5.2	10.4	2.75	3.0	2.5	6.0	3.8
81	2.8	5.6	2.25	5.0	7.9	7.1	6.6
82	2.8	5.6	1.4	17.3	21.0	9.5	15.9
83	3.6	7.2	2	18.0	21.8	10.9	16.9
84	4.4	8.8	2.5	19.9	24.7	8.5	17.7
85	4.4	8.8	2.5	16.3	20.0	18.9	18.4
87	2.8	5.6	2	6.4	6.0	3.3	5.2
88	2.8	5.6	2.5	13.3	12.3	15.8	13.8
89	2.8	5.6	1.25	14.3	17.5	19.6	17.1

REFERENCES

Bhagwati, J. and Panagariya, A. (1996) 'Preferential Trading Areas and Multilateralism: Strangers, Friends or Foes', in J. Bhagwati and A. Panagariya (eds) *The Economics of Preferential Trade Agreements*, (AEI Press, Washington).

Bond, E., Riezman, R. and Syropoulos, C. (2003) 'A Strategic and Welfare Theoretic Analysis of Free Trade Areas', *Journal of International Economics* (forthcoming).

Buffie, E. (2001) *Trade Policy in Developing Countries*, (Cambridge, Cambridge University Press).

El Agraa, A. and Nicholls, S. (1997) 'The Caribbean Community and Common Market', in El Agraa (ed) *Economic Integration Worldwide*, (London, Macmillan).

Hertel, T.W. (ed) (1997) *Global Trade Analysis: Modelling and Application,* (Cambridge, Cambridge University Press).

Khattry, B. and Mohan Rao, J. (2002) 'Fiscal Faux Pas?: An Analysis of the Revenue Implications of Trade Liberalization'. *World Development*, Vol. 30, pp. 1431-1444.

Kose, A. and Riezman, R. (2000), 'Understanding the Welfare Implications of Preferential Trade Agreements', *Review of International Economics*, Vol. 8, pp.619-633.

Lewis, D. and Webster, A. (2001) 'Export Specialisation in the Caribbean and its Implications for Trade Negotiations'. *The World Economy*, Vol. 24, pp. 809-828.

Lahiri, S. (ed) (2001) *Regionalism and Globalisation*, (London, Routledge).

Nicholls, S., Birchwood, A., Colthurst, P. and Boodoo, E. (2000) 'The State and Prospects for Deepening and Widening of Caribbean Integration', *The World Economy*, Vol. 23, pp. 1161-1194.

Nicholls, S., Nicholls, J. and Colthurst, P. (2002) 'Evaluating the Fiscal Impact of a Regional Partnership Agreement between the EU and CARICOM', forthcoming *Journal of Development Studies*, (mimeo, University of West Indies, Trinidad).

Panagariya, A. (1999) 'The Regionalism Debate: An Overview', *The World Economy*, Vol. 22, pp. 477-512.

Panagariya, A. and Srinivasan, T.N. (1998) 'The New Regionalism: A Benign or Malign Growth', in J. Bhagwati and M. Hirsch (eds) *Essays in Honor of Arthur Dunkel* (Ann Arbor, University of Michigan Press).

Rutherford, T. and Martinez, J. (2000) 'Welfare Effects of Regional Trade Integration of Central American and Caribbean Nations with NAFTA and MERCOSUR', *The World Economy*, Vol. 23, pp. 799-826.

Viner, J. (1950) *The Customs Union Issue* (New York, Carnegie Endowment).

Whalley, J. (1987) 'Uniform Domestic Taxes, Trade Distortions and Economic Integration', *Journal of Public Economics*, Vol. 11, pp. 213-21.

Whalley, J. (1990) 'Non-discriminatory Discrimination: Special and Differential Treatment Under the GATT', *Economic Journal*, Vol. 100, pp. 1318-28.

Whalley, J. (1999) 'Special and Differential Treatment in The Millennium Round', *The World Economy*, Vol. 22, pp. 1065-94.

Winters, L.A. (1996) 'Regionalism versus Multilateralism', *Policy Research Working Paper 1687*) Washington, World Bank.

Winters, L.A. (2001) 'Regionalism for Developing Countries: Assessing the Costs and Benefits' in ed Lahiri (2001).