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DESIGNING ECONOMIC PARTNERSHIP AGREEMENTS TO PROMOTE INTRA-REGIONAL TRADE IN ACP COUNTRIES

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Abstract

The final details of Economic Partnership Agreements (EPAs) between the EU and (six) ACP regions are being negotiated over the next few years. This paper suggests how EPAs can facilitate intra-regional trade, given that promoting regional integration within ACP was an objective. The introduction of reciprocity under an EPA will tend to threaten intra-regional trade in ACP groupings for a number of reasons. There is a direct displacement threat to existing regional suppliers from the removal of external tariff protection vis-à-vis European exporters. There is also an indirect threat associated with the displacement of domestic production by European exporters in domestic markets, which may thereby reduce regional production capacity and future prospects for intra-regional exporting. These threats to regional trade development can be offset in a number of ways. Most obviously, as negotiations allow for the exclusion of sensitive products and for phased introduction of the tariff reductions, ACP regions may benefit by treating products traded within the region as sensitive for EPAs, hence postponing any reductions on tariffs on imports from the EU. Less directly, if the EU supports measures that enhance the productivity and competitiveness of domestic producers, export capacity (both intra- and extra-regional) can be improved.

Key Words: ACP, EPAs, Imports, Welfare Effects, Regional Trade

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Introduction¹

Framework agreements for Economic Partnership Agreements (EPAs) between the EU and (six) ACP regions have been signed (or in some cases initialed) with most ACP countries (typically in regional groups, but a few are with individual countries) by the end of 2009. These are quite variable in commitments, especially regarding the schedule of liberalization and which products are classified as sensitive (and hence excluded from liberalization). The final details of the EPAs will be negotiated over the next few years. Although promoting regional integration was an objective of EPAs, relatively limited attention has been given to how the structure of final agreements could support and facilitate regional integration. This paper will consider how EPAs can facilitate intra-regional trade by classifying intra-regionally traded goods as sensitive, illustrating the analysis with examples from the Caribbean and East Africa.

Most *ex ante* studies of the impact of EU-ACP EPA agreements have concentrated on the welfare and revenue effects, in particular those arising from the requirement of the ACP countries to eliminate (within a maximum of about 23 years) tariffs on substantially all imports from the EU (conventionally interpreted as 80%). This focus is in part because these were important negotiation issues, but partly also because effects could be estimated with limited information on tariffs and patterns of regional trade. The introduction of reciprocity under an EPA will tend to threaten intra-regional trade in ACP groupings for a number of reasons. There is a direct displacement threat to existing regional suppliers from the elimination of the external tariff protection vis-à-vis European exporters. There is also an indirect threat associated with the displacement of domestic production by European exporters in domestic markets, which may thereby reduce regional production capacity and future prospects for intra-regional exporting.

These threats to regional trade development can be offset in a number of ways. Most obviously, as negotiations allow for the exclusion of sensitive products and for phased introduction of the tariff reductions, ACP regions may benefit by treating products traded within the region as sensitive for EPAs, hence avoiding or postponing any reductions on tariffs on imports from the EU. Less directly, to the extent that the EU provides ‘aid for regional trade’ and support for measures that enhance the productivity and competitiveness of domestic producers, export capacity (both intra- and extra-regional) can be

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improved. If EPAs promote increased ACP exports to the EU there is potential for exporting countries to benefit from spillovers.

The results reported and discussed here are based on a number of *ex ante* studies of the trade effects of EPAs on various ACP groupings or countries that adopt a common partial equilibrium method. McKay, Miner and Morrissey (2005) analyzed the welfare impacts on the Tanzania and Uganda; Greenaway and Milner (2006) covered CARICOM and Milner, Morrissey and Zgovu (2008) considered aspects of impact and adjustment costs for East Africa and Mauritius. Morrissey and Zgovu (2007, 2009) focus on agriculture and total imports respectively for a large sample of ACP countries to compare the welfare effects of a full liberalization with a scenario that excluded (as sensitive) products traded intra-regionally. These studies measured the regional trade displacement effects of the liberalization of tariffs on imports from the EU. They have not, however, explored in much detail the associated adjustment effects on the regional exporting countries, nor have they explicitly considered whether and how tariff reforms and other measures can be designed to reduce adverse regional trade development effects. The paper outlines how such analysis could be undertaken.

The structure of the paper is as follows. Section 2 outlines the context and empirical method applied. Section 3 presents the core results for the welfare effect of import liberalization on a sample of ACP countries, first assuming full liberalization and then excluding regionally traded products (i.e. treating them as sensitive products, SPs). The welfare effects are small relative to GDP, as would be expected, and are positive overall and on average. However, between a third (full liberalization) and over half (excluding SPs) of countries experience a small negative welfare effect. The revenue losses and trade effects (increase in imports) are more significant and as the costs of increased import competition are concentrated in particular sectors, small welfare effects do not imply small adjustment costs. Section 4 shows that the adjustment effects are likely to be considerable for Mauritius, suggesting that other ACP countries have legitimate concerns. Classifying SPs in a way that shelters intra-regional trade for the adverse impact of EPAs can alleviate adjustment costs (and benefit regional exporters), especially if intra-regional trade is significant. Section 4 also shows that regional trade is important with illustrations from the Caribbean and East Africa. Section 5 concludes with an outline of potential future analysis.

Context and Modeling Framework

Economic Partnership Agreements (EPAs) require ACP countries to eliminate tariffs on most imports from the EU, the impact of which will depend primarily on the structure of a country's imports (EPAs include many other provisions and effects, but the focus here is on ACP imports). The impact of

eliminating tariffs on most imports from the EU will depend on how important the EU is as a source of imports, in general and for particular products, and the extent to which these compete with domestic producers or, in an ACP region context, regional ACP producers. Net welfare gains are associated with products where there are few or no competing domestic (or regional) producers – consumption gains from increased cheaper imports and potential welfare gains in sourcing imports from more efficient EU producers. There are potential adjustment costs and welfare losses where cheaper imports from the EU undermine domestic production or intra-regional trade or displace more efficient producers in the rest of the world.

The welfare impact of import liberalisation depends on the production and trade structure of the country in question, and as such is an empirical question. Of greater practical concern is the potential loss of revenue from tariffs on imports from the EU. On the basis of existing signed EPAs, ACP countries have up to 25 years to phase in tariff elimination, although some will have eliminated tariffs on most imports by as early as 2010 (Meyn, 2009). More importantly, ACP countries can exclude a range of designated ‘sensitive products’ accounting for up to 20% of imports from the EU from tariff liberalisation (identifying these is a sticking point in negotiations). Thus, countries do have time to plan both their adjustment to the economic effects of increased imports and the revenue effect of eliminating tariffs. To design such plans they need information on the likely effects of tariff elimination on trade, revenue and welfare. Section 3 provides such information for a sample of 34 ACP countries.

Partial Equilibrium Modeling Framework

With a focus on economic welfare, especially from the perspective of consumers, two effects are of particular importance in any analysis of the welfare effect of a regional integration agreement (RIA), which in our case is between an ACP region and the EU considered from the perspective of ACP imports. We assume that the EU benefits, although we make no attempt to estimate this, and focus on the effects on ACP countries. Beneficial trade creation arises where inefficient production by domestic firms in the ACP country is displaced by tariff-free imports from more efficient producers in the EU. This increases welfare in total through a more efficient allocation of production within the RIA; while there are losses for some domestic producers these are more than offset by consumer gains from lower prices. Trade diversion imposes a welfare loss where trade from more efficient extra-regional suppliers (ACP imports from the Rest of the World, ROW) is diverted to less efficient EU suppliers. For the RIA as a whole, welfare increases if trade creation is greater than trade diversion. A third effect is important for EPAs as the EU may displace trade within ACP regions, in principle benefitting the importing country to the cost of the intra-regional exporter. The partial equilibrium analytical framework applied incorporates these

three effects. As used by McKay *et al* (2005) and Morrissey and Zgovu (2007, 2009), it extends an established theoretical framework for analyzing the economic (welfare) effect of regional integration (Balassa, 1974; Lyakurwa *et al.*, 1997; Schiff and Winters, 2003) as applied by Panagariya (1998) to consider when small countries (in this case ACP) integrate with large countries (the EU in this case).

Although partial equilibrium methods are limited and restrictive, they offer a number of advantages over alternative computable general equilibrium (CGE) approaches which make them attractive for analysis covering a range of countries (as presented here). First, the data requirements are relatively simple: all that is needed are data on imports for a representative year disaggregated by source (ACP, EU and ROW) and product, whereas CGE analysis requires a model of the structure of the economy (e.g. Matthews and Boysen, 2008). This makes it relatively easy to estimate order of magnitude effects of alternative liberalization scenarios. Second, the estimates are quite easy to interpret as proportional effects relative to initial trade volumes and revenues; consequently, the results are quite useful for policy-makers and negotiators. Third, the analysis can be conducted at a high level of product disaggregation for any country, which is especially useful in assessing the impact of alternative criteria to identify sensitive products (CGE analysis typically requires sector aggregation). The results reported here are at an aggregate country level as the aim is to cover many ACP countries. When considering adjustment implications, as in Section 4, effects at a sector or product level are required (hence country-level studies are more appropriate).

There are limitations to the partial equilibrium method, although no approach is without weakness. A number of restrictive assumptions are required, such as on supply and import demand elasticities, although arguably the assumptions are no more restrictive than for alternative methods (and qualitative results are robust to sensitivity checks). More importantly, the analysis is limited to static trade effects; it does not allow for effects on or responses by domestic producers, or for any effects through factor markets and sector adjustment (but can be extended to consider adjustment implications). Furthermore, the analysis does not account for changes in partner countries (e.g. if they also reduce tariffs) or the global market (e.g. world prices), or for possible changes in demand for exports, for example if trade preferences change (as may apply for some countries under an EPA); addressing these issues would require a global model. The partial equilibrium approach does estimate likely first order effects on imports and in principle these could form a basis for more detailed CGE country studies where feasible. The estimates are indicative of the potential impact of EPAs on imports in ACP countries.

Results for three effects *from the perspective of consumers* are estimated and reported in the next section. Consumption effects (CE) arise from increased imports at reduced prices. If the EU is initially the

dominant supplier, the EPA results in pure consumption effects only; there are few if any domestic producer losses so this is clearly beneficial (the consumer gain equates to a welfare gain). Trade creation (TC) arises in this context when imports from the EU displace imports from other ACP countries; assuming the EU is the more efficient producer, this increases welfare in the importing country (although producers in the exporting ACP country lose).² Trade diversion (TD) refers to a situation where the elimination of tariffs allows EU suppliers to displace more efficient producers in the ROW; this is likely to arise if pre-EPA the ROW is the dominant supplier. Such TD is not beneficial as the efficiency loss equates to a welfare cost.

Impact of EPAs on ACP imports

The focus here is on effects through imports for the importing country and the welfare effects considered are those for consumers only; the losses associated with revenue impacts are treated separately, and producer losses are considered under adjustment costs. In estimating effects we begin with the trade data and allocate imports by product into one of three cases. If initially the EU is the dominant supplier (accounting for at least 40% of imports), we assume that all effects are consumption gains (CE only). If the ACP is initially a significant supplier (accounting for at least 5% of imports for the product) and the EU is a source of imports (i.e. a competitor), we allow for the TC of the EU displacing ACP imports. As displacement implies the EU is a more efficient supplier, these effects (TC&CE) are positive in terms of importer (consumer) welfare. If initially the ROW is the dominant supplier (accounting for at least 40% of imports) but the EU is present (with a lower share) in the market, we assume that at zero tariffs the EU can displace all imports from the ROW to estimate the maximum TD potential (this is therefore unlikely to be the actual impact, but is a useful baseline). As the EU is actually less efficient than the ROW, the effect (TD&CE) is negative in welfare terms. Results are based on a sample of 34 ACP countries using the most recently available data matching imports and import tariff rates; for most countries the estimates use data from 2005 or 2006 (see Appendix Table A1 for a list; full details are in Morrissey and Zgovo, 2007, 2009).

² This differs slightly from the standard TC case as the displaced producers are not in the importing country (whose welfare is being measured) but in another ACP country (so the producer loss is not included in the welfare estimates for the importing country). As the EU would only displace ACP suppliers if the tariff-free EU price is lower than the ACP supplier price, it is assumed that in this case the EU is more efficient. This is not valid if there are other factors distorting EU export prices (such as agriculture subsidies).

Table 1

'Full EPA' Trade Effects (as % GDP)

Country	CE	TC&CE	TD&CE	Welfare
All Countries (34)	0.010	0.001	-0.008	0.004
Belize	0.003	0.000	-0.008	-0.004
Dominica	0.003	0.008	-0.015	-0.004
Grenada	0.004	0.016	-0.017	0.003
Jamaica	0.000	0.002	-0.011	-0.008
Trinidad & Tobago	0.001	0.000	-0.006	-0.005
Kenya	0.007	0.002	-0.005	0.004
Tanzania	0.005	0.003	-0.009	-0.001
Uganda	0.001	0.002	-0.004	-0.001
Average (34)	0.008	0.005	-0.008	0.004
Gainers (22)	0.012	0.006	-0.008	0.010
Losers (12)	0.002	0.002	-0.009	-0.005
LDCs (13)	0.004	0.004	-0.004	0.004
Non-LDCs (21)	0.011	0.005	-0.011	0.005

Notes: Figures report consumption effects (CE) only, trade creation (TC) from ACP with CE and trade diversion (TD) from ROW with CE. 'All countries' is combined total and 'average' is sample mean (unweighted), all numbers rounded.

Source: Derived from tables in Morrissey and Zgovu (2009).

Table 1 summarizes the welfare estimates distinguishing consumption effects (CE), TC&CE and TD&CE expressed as a percentage of GDP for the relevant year (recall that welfare impacts exclude revenue effects). The latter is always negative and both of the former are positive (or zero in some cases), so the sign of the overall welfare effect depends on the relative magnitudes. For the sample combined (all 34 countries) the welfare effect is positive but very small, at 0.004% of GDP (due almost entirely to CE); the ACP overall gains. The unweighted mean for the sample (average) is also a positive welfare effect of 0.004% of GDP (on average, CE and TD&CE effects ‘cancel out’ so the net gain is attributable to TC&CE, i.e. regional imports displaced by more efficient EU producers); the average ACP country gains. The aggregate effects are very small relative to GDP, but this is typically the case for welfare effects.

The welfare effects will depend on the structure of imports by source and what is happening at an individual product level, in terms of both the ability of the EU to displace suppliers from ACP or ROW and the responsiveness of imports to a reduction in tariffs (as this determines CE). Overall, 22 countries (two-thirds) experience a net gain and 12 (one third) experience a net loss. The countries that gain have a lower initial share of imports from ROW (41% on average, compared to 76% on average for losers, Table A1) but a higher initial share of imports from the EU (30% on average compared to an average of 12% for losers).³ This implies that the CE benefit (0.012% of GDP on average) will exceed the TD&CE loss (0.008% on average). The gainers also have higher imports from ACP countries (on average, 29% compared to 12% for losers, Table A1) and so TC&CE gains are relatively high (0.006% on average). In this case recall that these TC gains imply export losses for the initial regional exporters (although not incorporated here, this is addressed further below).⁴

The reverse line of argument applies for the losing countries; they import relatively more from ROW so TD losses are high (0.009% on average) relative to the gains associated with their lower imports from the EU (0.002%) and ACP (0.002%). The overall welfare effect is negative for 12 countries, 60% of which are non-LDCs; four of the five Caribbean countries listed lose, as do two of the three East African countries (both LDCs). The losers are more likely to be non-LDCs that initially have a relatively high share of imports from the ROW. The implication is that the EU has a relatively strong capacity to displace some of these ROW imports (large TD effects) and/or import shares or responsiveness (elasticity) are relatively low in those products where the EU is dominant.

³ Table A1 reports shares of each source in total imports; note that the welfare analysis is based on product level imports, aggregated up to report overall results.

⁴ As the import data relate to different years (Table A1) it is not possible to associate these imports with the originating ACP exporter consistently.

There is no difference on average between the 13 LDCs and 21 non-LDCs in the share of the EU in total imports (24% in both cases), although LDCs tend to have a higher share of imports from ACP (32% compared to 18% for non-LDCs, perhaps because they import from but export little to neighbouring non-LDCs) and hence a lower share of imports from ROW. Although losers are more likely to be non-LDCs, the average non-LDC and LDC gains (Table 1). In both cases, positive CE and negative TD cancel out on average so the net welfare effect is the TC gain.

Treatment of Sensitive Products

As the requirement is to liberalise ‘substantially all trade’ this allows ACP countries to exempt sensitive products (SPs) from liberalisation; tariffs can be maintained on some 20% of products (i.e. SPs can be defined so that 20% of imports are excluded). There are no clear criteria for which products should be classed as SPs. In designating SPs individual ACP countries have typically used criteria based on either revenue or protecting domestic producers, which both often mean products where initial tariffs are relatively high. While, as discussed below, revenue concerns are important it is not necessarily the case that tariffs should be the preferred tax.

As ACP countries negotiating as regional groups should in principle agree a common list of SPs an appropriate criterion is to define as SPs any products imported from the EU where other ACP are suppliers. Explicitly, products are classified as SPs (hence excluded) if the share of regional (ACP) imports is at least 5%. This criterion addresses concerns regarding EU exports depressing regional exports from other ACP countries through the trade creation displacement effect. Clearly, this criterion eliminates the ‘TC&CE’ benefits and reduces net welfare effects as such trade creation is welfare-improving for the importing country. On the other hand, it is an SP criterion that retains benefits to pre-EPA intra-regional exporters, and as such may reinforce the regional ACP incentive for EPAs (as inferred from Table 1, the ACP countries that are more likely to lose from an EPA are often non-LDCs more likely to export regionally).

As long as the EU is already a competitor in these markets the effect of exclusion (SP status) will be to reduce CE gains, eliminate TC gains and possibly reduce TD losses. The net impact will depend on the combination of trade effects but will reduce gains (from the consumer or importing-country perspective) on average and overall. For many ACP countries regional imports are a large share of the total (Table A1), but in these cases the EU may not be a competitor for some of the products so there is no need to exclude them as SPs.

Table 2 'EPA with Regional SPs' Welfare Effects (as % GDP)

Country	CE	TD&CE	Welfare
All Countries (34)	0.009	-0.007	0.002
Belize	0.003	-0.007	-0.003
Dominica	0.002	-0.008	-0.006
Grenada	0.003	-0.010	-0.007
Jamaica	0.000	-0.008	-0.008
Trinidad & Tobago	0.001	-0.006	-0.005
Kenya	0.006	-0.003	0.002
Tanzania	0.002	-0.006	-0.004
Uganda	0.000	-0.002	-0.002
Average (34)	0.006	-0.006	0.001
Gainers (22/13)	0.009	-0.005	0.004
Losers (12/19)	0.002	-0.007	-0.005
LDCs (13)	0.002	-0.003	-0.001
Non-LDCs (21)	0.009	-0.007	0.003

Notes: As for Table 1, except products excluded are Sensitive Products (SPs) classified as share of regional (ACP) imports equals or exceeds 5%. In all cases **TC&CE is zero** hence omitted. This reduces the number of gainers to 13 and increases the number of losers to 19 (for two countries the net welfare effect is zero).

The estimates of the composition of welfare effects when the ACP supplier criterion is applied to exclude SPs are shown in Table 2. It remains true that the ACP overall gains although the ‘all countries’ ACP gain falls to 0.002% of GDP and the average gain falls to 0.001% of GDP; overall and on average gains fall by at least a half. As expected, the TC gain is eliminated, and the TD&CE loss and CE gain decline marginally (and by the same amount on average). This clearly reflects the SP criterion in excluding products imported from the ACP. It follows that the estimated gain for most countries declines, while the estimated welfare loss tends to increase; consequently, a majority of countries (19/34) are losers in this scenario. There is no change in the net welfare loss for losers on average (the fall in TD losses implies that some of the SPs are imported also from ROW), but the average welfare increase for gainers declines considerably (from 0.01% to 0.004%). It is LDCs that disproportionately bear the brunt of this, as they are more likely to import from other ACP countries (the regional ACP exporters are more likely to be non-LDCs, and gain on their exports; these gains are not included here). For example, the losses of Tanzania (significantly) and Uganda have increased, but Kenya is still a net gainer (even if the gain halves).

The welfare effects in most cases are quite small and there are welfare gains for the regional ACP exporters that are not included in these estimates. The political benefit from supporting intra-regional ACP exporters is likely to outweigh the very small welfare costs on importers, especially as the excluded products (SPs) are likely to include commodities produced in many ACP countries. It is important to emphasize that whilst excluding ACP products from tariff reductions reduces potential gains in importing countries, from the (regional) ACP perspective this may be more than offset by producer gains in exporting countries.

Table 3

Effects of EPA on Imports from EU

Country	Including SPs		Excluding SPs	
	dMeu/Meu	dMeu/M	dMeu/Meu	dMeu/M
All Countries (34)	0.080	0.031	0.069	0.027
Belize	0.162	0.009	0.160	0.008
Dominica	0.041	0.005	0.029	0.004

Grenada	0.041	0.006	0.030	0.004
Jamaica	0.010	0.001	0.008	0.001
Trinidad & Tobago	0.026	0.003	0.020	0.002
Kenya	0.104	0.026	0.081	0.020
Tanzania	0.087	0.015	0.032	0.006
Uganda	0.013	0.002	0.004	0.001
Average (34)	0.077	0.022	0.057	0.016
Gainers (22)	0.090	0.030	0.064	0.023
Losers (12)	0.052	0.006	0.044	0.005
LDCs (13)	0.052	0.013	0.028	0.008
Non-LDCs (21)	0.092	0.027	0.075	0.022

Notes: See Table 1. Figures give proportional change in imports from the EU (dMeu) relative to initial level of imports from the EU (Meu) and initial total imports (M).

Trade and Revenue Effects

For the ACP sample overall and on average, imports from the EU increase by 8% of their pre-EPA level, equivalent to 2-3% of total imports (Table 3). For ‘full liberalization (including SPs), countries with an estimated welfare loss experience relatively low percentage increases in EU imports (5%) compared to the ACP average. The implication is that these increases in imports are displacing imports from the ROW (to the extent that this does not occur in practice, we overestimate the adverse welfare impact). Gainers on average experience an above average increase in imports from the EU (9%, equivalent to 3% of total imports). It is also evident that imports from the EU increase more for non-LDCs than for LDCs in percentage terms (hence non-LDCs on average gain in welfare terms). This highlights the fact that it is not the change in total imports that matters, but the structure of trade within affected products (specifically, the balance between CE and TD).

When SPs are excluded, the increase in imports from the EU is reduced considerably, proportionally more for gainers than losers and for LDCs compared to non-LDCs, reflecting their trade structures. Under full liberalization the welfare effects are likely to be positive but the revenue impacts are always negative; overall the potential (maximum) revenue loss is equivalent to 31% of tariff revenue from imports, or just below one per cent of GDP, although on average the loss is lower (19%, Table 4). Unsurprisingly, the potential loss is greater for gainers (26%), as the gains arise for imports, than losers (8%). Similarly, it is also greater for non-LDCs than for LDCs (in principle, tax substitution may be easier for the former). Table 4 confirms that the revenue impact is reduced by excluding SPs, to 28% (overall) or 15% (average), in both cases to about 0.8% of GDP. With SPs excluded the proportional reduction in the revenue impact is greater for LDCs; although (relative to non-LDCs) they suffer more (in welfare terms) from excluding ACP imports, they suffer less in revenue terms.

Table 4

Revenue Effects of EPA (Imports)

Country	Including SPs		Excluding SPs	
	dTR/TR	dTR/GDP	dTR/TR	dTR/GDP
All Countries	-31%	-0.90%	-28%	-0.81%
Belize	-11%	-0.44%	-11%	-0.42%
Dominica	-6%	-0.42%	-3%	-0.19%
Grenada	-7%	-0.46%	-4%	-0.28%
Jamaica	-3%	-0.09%	-1%	-0.04%
Trinidad & Tobago	-5%	-0.08%	-4%	-0.06%
Kenya	-22%	-0.62%	-16%	-0.43%
Tanzania	-12%	-0.41%	-4%	-0.15%
Uganda	-5%	-0.07%	-2%	-0.02%

Average (34)	-19%	-0.98%	-15%	-0.79%
Gainers (22)	-26%	-1.39%	-19%	-1.14%
Losers (12)	-8%	-0.22%	-6%	-0.16%
LDCs (13)	-15%	-0.31%	-9%	-0.17%
Non-LDCs (21)	-22%	-1.40%	-18%	-1.18%

Notes: Figures give change in tariff revenue (dTR) as a percentage of initial tariff revenue on imports (TR) and GDP.

From a revenue perspective the most important products are often ones where either tax substitution is feasible or the welfare gains from tariff elimination outweigh the revenue loss. The former are typically highly taxed but not domestically produced imports of ‘luxuries’ (such as branded alcohol drinks or high price cars) or petroleum; in these cases Excise Duties can relatively easily be substituted for tariffs (in a welfare and revenue neutral manner). The latter applies to tariffs on food and intermediate input imports; in both cases the gains to consumers (households or firms) outweigh revenue losses in welfare terms. This is not to deny the difficulty of adjusting to revenue losses but rather emphasizes the desirability of tax structure reform to secure alternative revenue sources. The more important is the EU as a source of such imports the greater the potential revenue loss; in such cases countries have to decide if the purpose of tariffs is to raise revenue or protect domestic producers. When there is little or no domestic import-competing production, i.e. domestic demand is mostly met by imports, tariffs could relatively easily be replaced with sales taxes (at least to mitigate short-term revenue losses).

There will be some cases where the main purpose of tariffs is to protect domestic producers. A simple response is that tariffs are not usually the best way to support domestic producers, so EPA-induced liberalisation may encourage better domestic policies. A more sophisticated argument is to ask why liberalisation with respect to the EU *only* should represent a particular challenge to domestic producers. If the effect is diversion from ROW to EU (or displacement of ACP by EU if ACP faced tariffs) there is a revenue loss but little change from the perspective of domestic producers. Countries have to argue that there is something specific to the EU as compared to alternative sources of imports that is detrimental to domestic producers. One can envisage such arguments, especially to the extent that the EU has not eliminated agriculture subsidies although it committed to do so under the (WTO) Agreement on Agriculture, but they are only likely to be convincing on a product and country specific basis. This could

be explored with the method employed here on a country-specific basis, but a more general SP criterion is required for analysis across the variety of ACP countries.

Adjustment Effects of EPAs

The focus so far has been on effects from the perspective of consumers in the importing country. As mentioned, this overstates the net welfare effect as it ignores any short-to medium term adjustment costs for domestic producers facing increased competition from imports. These adjustment costs will depend on initial characteristics and policy conditions, but can be considered under a number of headings:

(i) *Fiscal adjustment*

In order to replace any tariff revenue losses associated with the EPA, ACP countries will need to reform the structure of taxation towards non-tariff revenue sources. As discussed above, in practice this may not be as difficult as often portrayed, especially given the long period to implement the schedule of tariff elimination and the scope for using Excise Duties on high-tariff luxury imports.

(ii) *Trade facilitation and export diversification*

Increased competition from the EU in the home and regional market will encourage a re-allocation of resources (capital, labour, skills and land) away from import-competing towards (new) export activities (where the country has a regional or global comparative advantage). If this is to be effective and deliver benefits, actual and potential exporters will need support with developing export products and gaining knowledge about export market opportunities.

(iii) *Production and employment adjustment*

The increased imports from the EU will induce falls in production and employment in some domestic import-competing sectors. As the reallocation of displaced resources from current (pre-EPA) activities to export sectors will not be immediate and smooth, then the ACP countries will need assistance with the adjustment experienced by workers (compensation for unemployment, support for relocation and retraining) and by firms (e.g. marketing and production line restructuring). For intra-regional ACP trade, the proposal of classifying such products as SPs reduces the adjustment costs facing ACP regional exporters (typically non-LDCs), at least in the medium term.

(iv) *Skills development and productivity enhancement*

The costs of adjustment (contraction of import-substitution activities and expansion of export sectors) will be reduced over time, and scope for dynamic benefits from export development will be increased, by increasing productivity levels. This requires support; through the enhancement of workers' skills, the improvement of firm's organization and management structures and through the development of supporting economic policies and infrastructures.

This focus on the process of domestic structural changes associated with the introduction of reciprocal import liberalization does not seek to deal with all aspects of the costs of an EPA. For example, if import liberalization induces a rapid growth of imports in excess of growth of exports to the EU, then the EPA may induce balance of payments or foreign exchange problems. The issues of macroeconomic policy management in a post-EPA environment are not considered. However, as the partial equilibrium approach to estimating impacts is conducted at a disaggregated product level it is possible to identify the products and sectors most affected by increased import competition. If this can be linked to domestic production and employment data it is possible to estimate the adjustment effects.

Illustrative Adjustment Effects (Mauritius)

Milner *et al* (2007) consider implications for adjustment in Mauritius, assuming that goods produced locally can be seen as differentiated from regional and extra-regional imports, and EU imported varieties as differentiated from extra-regional, rest of the world (ROW), varieties. Given differences in technologies and tastes, one might view imports in a particular category as differentiated by source of supply. The approach is to identify the trade effects of an EPA and relate these to production and employment implications at a sector level.

It is worth noting that Mauritius is estimated to gain in welfare terms from an EPA (Morrissey and Zgou, 2009): imports from the EU account for 35% of total imports, and under full liberalization the gain is equivalent to 0.014% of GDP (mostly attributable to a CE gain); as imports from ACP account for only 10% of the total, the gain remains high under the regional SP criterion at 0.01% of GDP (again mostly a CE gain). However, this corresponds to a large trade effect as imports from the EU increase by 11% and 9% (and total imports by 4% and 3%) under the two scenarios respectively: some domestic sectors may face significant increases in import competition. The potential revenue losses are also considerable, equivalent to 34% and 23% of total revenue (and 2% and 1.5% of GDP) under the two scenarios respectively. Thus, the potential adjustment costs are high. This is a general point for countries experiencing a welfare increase attributable to CE gains: the greater the increase in imports the greater the consumer gain, but also the greater the potential revenue losses and adjustment costs.

As Export Processing Zone (EPZ) firms produce predominantly for export markets and their terms of access to the EU are preserved (if not improved) they are unlikely to suffer (and may even benefit if imported inputs become cheaper). It is the non-EPZ firms that compete with (EU) imports in the domestic market that will bear the brunt of adjustment costs. Table 5 summarizes results for production and employment of non-EPZ firms (aggregated to the broad sector level) that face increased competition from EU goods post-EPA in the local and perhaps regional market. These are potential serious adjustments for Mauritius to accommodate, with potential knock-on effects for production, employment, social conditions and for the government budget. To illustrate just the potential direct employment losses of a full EPA, the estimates are based on average employment-gross output ratios to derive the employment impacts corresponding to the production effects reported.

Table 5

Estimated Percentage Changes in (non-EPZ) Production and Employment due to Full EPA (by sector and overall)

	Value of Production	Change Numbers Employed:		
	for Domestic Market	Male	Female	Total
Agriculture	-7.2%	-6.2%	-7.0%	-6.3%
Fishing	0%	0%	0%	0%
Mining & quarrying	0%	0%	0%	0%
Manufacturing	-24.6%	-5.2%	-17.1%	-15.5%
Total	-24.0%	-12.0%	-13.9%	-12.2%

Source: Milner *et al* (2007, Table 8).

The results indicate that production for the domestic market in the primary and manufacturing sectors could fall by about 24% if the EPA was implemented in full (imports from and exports to other ACP countries are not significant for Mauritius, with the exception of trade with South Africa, so the ACP SP criterion would not have a major impact). The bulk of this production loss would be experienced in the manufacturing sector, with particularly significant loss in food manufacturing, tobacco products and other non-metallic mineral products.

Based on the average employment-output ratios, the full EPA reduces both male and total employment in domestic production by about 12%, and female employment by about 14%; male (female) employment falls by 5% (17%) in manufacturing and 6% (7%) in agriculture. This is equivalent to almost 6,800 jobs lost overall directly, and of course to more than this if indirect employment effects are allowed for. Given that it is employment in the non-EPZ manufacturing sector that is affected most, the larger absolute numbers of job losses are predicted to fall more on male than female workers (females are more likely to be employed in the EPZ sector); particularly large job losses occur in food products and in non-mineral products.

A key issue for adjustment is how to facilitate absorption of these workers in potential expanding sectors like tourism and financial services.⁵ In general, financial services require higher skills than would generally be found in released workers; at best, allowing for re-training, the sector could only absorb half of the released workers. Tourism is a vital sector of the economy, with a better potential fit with the skills of released workers. Whilst it is possible that financial services and tourism can absorb the released workers, both would be competing for the more skilled workers and the age structure of Mauritius means that there are many new, typically educated, entrants to the labour market each year. Investment in upgrading generic and job specific skills will therefore be required even to maintain employment levels. The basic conclusion is that accommodating potential employment losses will be difficult, and this may be the most difficult adjustment issue in all ACP countries.

Importance of Intra-Regional Trade

The principal reason that Mauritius stands to experience a welfare gain but high adjustment costs from an EPA is because the EU accounts for a relatively large share of imports. As ACP imports are a relatively small share of the total, excluding these as SPs does not have a major effect (although, to the extent that some of these are produced domestically it may reduce adjustment costs). However, for countries with significant intra-regional trade the ‘ACP SP’ criterion can have a marked effect. Although excluding the SPs will tend to reduce welfare benefits it also reduces the increase in imports from the EU, hence reduces revenue losses (in practice only slightly as regional imports are typically at preferential rates)⁶ and adjustment costs. Regional exporters gain, and so do importers to the extent that they produce similar products domestically (and, even where there are regional imports, domestic producers should be more competitive with regional imports).

⁵ These were the two sectors identified for expansion by the Government of Mauritius in the early 2000s. Writing now in 2010, the growth prospects for these sectors are modest at best.

⁶ In cases where the ACP region itself establishes a free trade Customs Union (e.g. the EAC) there will be an associated loss of revenue. Typically this will be small relative to the EPA effect and is distinct from the EPA effect.

Regional imports are significant for many Caribbean countries; for those listed in the tables above, with the exception of Belize, imports from ACP are 15-33% of total imports and a greater share than imports from the EU (Table A1). Although excluding SPs makes the welfare effects slightly more negative (Tables 1 and 2), it has a more noticeable effect in reducing the trade effect (Table 3) and revenue losses (Table 4). Greenaway and Milner (2006) looked at the impact of EPAs on CARICOM, noting that a full liberalization scenario implies roughly a 25% reduction in regional (Caribbean) imports for the nine Caribbean countries covered (including those listed in the tables above). The basic point is that intra-regional trade is important, in both agriculture (food) and basic manufactures. These are products where the EU could in principle compete (if granted zero tariffs), although perhaps not to a large extent given the proximity of the US. Excluding regionally traded goods from EPA liberalization could support intra-Caribbean trade, even if it does not stimulate increased trade, and reduce the adjustment costs associated with an EPA.

A similar argument can be made for the East African Community (EAC): ACP imports account for 13-24% of total imports, a greater share than the EU (Table A1). For Tanzania and Uganda, excluding SPs worsens the welfare effect but significantly reduces the revenue losses and trade effect. Jones and Morrissey (2008) note that while intra-regional trade is small relative to the total trade of the member countries, it can be quite significant in particular sectors for Kenya, Tanzania and Uganda. In general, Kenya supplies light manufactures and some processed foods to Tanzania and Uganda, whereas the latter mostly supply foods to the others. Intra-regional trade is quite significant for the non-LDC: in 2004 Kenya accounted for 21 per cent of Ugandan imports and five per cent of Tanzania's imports, although neither Tanzania nor Uganda were important sources of Kenyan imports. Kenya accounts for by far the greater share of intra-regional trade and, unlike the other countries, supplies manufactures or semi-processed goods. The EAC provides over a fifth of Uganda's imports, over five per cent of Tanzania's but less than two per cent of Kenya's (mostly some foods).

This understates the importance of intra-regional trade for each country. For Kenya in 2004, Uganda accounted for ten per cent of exports and Tanzania for almost seven per cent. For Tanzania, six per cent of exports went to Kenya and about one per cent to Uganda. For Uganda, twelve per cent of exports went to Kenya and two per cent to Tanzania. This does not imply that there are no potential gains for Tanzania and Uganda, as opportunities for them to supply food to the regional market could be beneficial. Intra-regional trade in food provides an outlet for local (seasonal) surpluses, especially in regions closer to neighbouring countries than their own urban markets (given the low level of regional market integration); it would encourage production, the development of trade and distribution networks, and help smooth regional and seasonal price variation. The EAC is an important destination for exports of the member

countries, accounting for some 17 per cent of Kenyan exports, over seven per cent for Tanzania and about 14 per cent for Uganda. The main implication is that the ‘ACP SP’ criterion could be quite important for preserving regional market shares in intra-EAC trade. It is also likely to reduce adjustment costs (especially for Kenya, which experiences by far the largest CE gain hence faces greater potential adjustment).

Although there are potential advantages with the SP criterion proposed here, the effects will differ across ACP countries that trade with each other. In general, the regional exporter (typically a non-LDC) derives the greatest gains, while the calculus for regional importers (typically LDCs) depends on which imports domestic producers compete with. Boysen and Matthews (2008) note that Ugandan producers tend not to compete with EU imports but do compete with some imports from Kenya. From the perspective of protecting domestic producers (minimizing adjustment costs) a selective ‘Ugandan SP’ criterion may appear better than an ‘EAC SP’ criterion because it could target exclusion on products of particular interest to Uganda. However, as the EAC has established a Customs Union with a common external tariff and in principle free internal trade, a common SP list seems logical (although it has not yet been agreed). In these circumstances countries like Uganda will need to consider which sectors will face adjustment costs (from whatever source) and how they can most effectively be assisted. Existing economic studies offer little guidance in this regard as typically they estimate the impact of EPA scenarios without full regional integration, or of regional integration without EPAs. In practice, the two are often happening together.

Implications for EPAs

On face value, the analysis suggests that ACP countries should not be excessively concerned about the impact of EPAs on imports: even assuming ‘immediate’ complete elimination of all tariffs on imports from the EU, and when excluding up to 20% of imports as sensitive products, ACP countries on average are likely to experience welfare gains. When not excluding SPs, most LDCs (nine out of 13) and non-LDCs (14 out of 21) gain. As is typical with estimates of welfare impacts, the overall effect relative to GDP tends to be very small, whether positive or negative. This is the most important conclusion. Excluding SPs, and the chosen criterion of classifying imports from ACP countries (that compete with EU imports) as SPs, reduces the overall and average gains (by a half or more) and alters the distribution; those with relatively more ACP imports are worse off, but this should be set against the gain to regional exporters. The net welfare benefits or costs on the import side of introducing reciprocity also need to be considered against the benefits of continued preferential access for exports to the EU to evaluate the

overall implications of an EPA in the case of non-LDCs (as LDCs can in principle receive tariff-free market access anyway). Although these benefits are positive they may not be dramatic.

However, small welfare gains (or losses) do not imply that adjustment costs are small. As the gains are associated with increased imports from the EU, larger welfare gains tend to be associated with larger revenue losses and adjustment costs. While potential tariff revenue losses are non-negligible, given that countries have at least ten years in which to implement the tariff reductions, there is scope for tax substitution. For some products with the greatest revenue impact (imports from the EU facing relatively high initial tariffs) it is relatively easy to replace tariffs with Excise Duties. In other cases, such as foods or imported inputs, the consumer gains of tariff reductions are likely to outweigh any producer losses in welfare terms – finding an alternative to tariffs may itself be a desirable tax reform. Concern over revenue effects is justified but not a good criterion for selecting SPs or rejecting tariff reductions.

The simulations reported excluded products where ACP imports compete with the EU as this protects regional trade and SPs have to be agreed at the regional ACP level. In general, excluding SPs on this criterion reduced the welfare gain (or increased the welfare loss) compared to estimates where no products are excluded. This was to be expected as if ACP products are excluded as SPs the potential trade creation gains are reduced. As the partial equilibrium method only considers the welfare effect on imports, and hence on countries as importers, it does not allow for the potential loss of ACP regional exporters displaced by competition from the EU in regional markets. As non-LDCs are more likely to be regional exporters, especially in manufacturing, the estimates may understate their losses. On the other hand, it is the non-LDCs who stand to gain most from increased trade preferences in access to the EU under an EPA, and the ACP import criterion for SPs preserves their regional market. As such, this criterion may be politically attractive within ACP negotiating regions (LDCs that export regionally, often some agriculture products, also gain).

An inherent limitation of the partial equilibrium approach is that it does not allow for effects on domestic producers – the welfare effects are based on consumers (of imports). Nevertheless, the partial approach does help to identify products where the trade and welfare effects are likely to be large. Country analysis could then relate this to production data for the relevant sectors; some of the issues were illustrated for Mauritius. Notably, intra-regional trade is significant for many if not most ACP countries; this is shown for the Caribbean and East Africa. Analyzing this in more detail, and the related issue of analyzing adjustment effects (which, as illustrated, may be most important for employment), requires sector level data, on the trade effects of EPAs and for domestic production. The partial equilibrium analysis reported here provides the sector level impacts of EPAs which can then be related to domestic production and

employment. As shown for Mauritius, even if the welfare effects appear small (and the large revenue impacts can be addressed with tax substitution), there may be significant production and employment losses (concentrated in particular sectors). We leave it to future work to collect domestic production data to elaborate the adjustment effects for other countries along the lines suggested, but estimates for Mauritius suggest that these may be much larger than implied by the relatively small welfare effects.

Classifying regionally traded goods as SPs to exclude from liberalization may have a small effect on reducing welfare gains or increasing welfare losses, but these are likely to be more than offset by the benefits. Revenue losses and trade effects are reduced (imports from the EU increase by less), which reduces adjustment costs. Regional exporters gain most from the preservation of their regional market share. However, in all countries domestic producers are likely to produce some regionally traded goods and are better able to compete with regional compared to extra-regional imports, so adjustment costs are likely to be lower in most ACP countries. Excluding regionally traded goods can also serve to encourage increased intra-regional trade.

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APPENDIX

TABLE A1 Imports by Source

Country	Year	ACP	EU	ROW
Antigua and Barbuda	2005	16%	11%	72%
Bahamas, The	2001	1%	2%	96%
Belize	2006	3%	5%	92%
Benin	2005	27%	38%	34%
Burkina Faso	2004	35%	30%	35%
Cameroon	2006	36%	34%	30%
Central African Republic	2005	29%	21%	50%
Cote d'Ivoire	2006	32%	39%	28%
Dominica	2006	33%	13%	55%
Dominican Republic	2001	1%	13%	86%
Gabon	2006	8%	67%	25%
Ghana	2006	20%	36%	44%
Grenada	2005	24%	15%	62%
Guyana	2006	36%	10%	54%
Jamaica	2006	15%	10%	76%
Kenya	2004	13%	25%	62%
Madagascar	2006	11%	23%	65%
Malawi	2006	62%	15%	23%
Mali	2004	45%	31%	24%

Mauritius	2006	10%	35%	55%
Mozambique	2006	47%	14%	39%
Niger	2005	33%	24%	43%
Nigeria	2003	5%	33%	62%
Papua New Guinea	2003	1%	2%	97%
Senegal	2006	13%	52%	36%
Seychelles	2006	11%	33%	56%
South Africa	2006	3%	53%	44%
Sudan	2005	2%	23%	75%
Tanzania	2006	18%	17%	65%
Togo	2005	17%	42%	41%
Trinidad and Tobago	2006	18%	11%	72%
Uganda	2006	24%	19%	57%
Zambia	2006	61%	12%	28%
Zimbabwe	2005	76%	7%	17%
Average (All 34)		23%	24%	53%
LDCs (13)		32%	24%	45%
Non-LDCs (21)		18%	24%	58%
Gainers (22)		29%	30%	41%
Losers (12)		12%	12%	76%

Notes: The countries highlighted in **bold** are classified as LDCs; Year refers to the year for which data were used.

