

McKay, Andrew; Milner, Chris; Morrissey, Oliver

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The trade and welfare effects of a regional economic partnership agreement

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The Authors

Andrew McKay, Chris Milner and Oliver Morrissey are respectively Senior Lecturer, Professor and Reader in the School of Economics, University of Nottingham. All are Internal Fellows of CREDIT.

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Abstract

Current arrangements under the Lomé Convention have given African, Caribbean and Pacific (ACP) countries preferential access to EU markets, but the legality of this non-reciprocal arrangement has been challenged by the World Trade Organisation. The European Union has proposed replacing these arrangements with a series of regional economic partnership agreements (REPAs) between itself and blocks of ACP countries that are members of regional trading arrangements. ACP countries entering such arrangements could retain preferential access to the EU market, but on a reciprocal basis. This paper investigates the likely welfare consequences of such an arrangement for countries of the East African Co-operation, using partial equilibrium analysis focusing on the static effects. If EAC countries were required to liberalise substantially and quickly this may have an adverse welfare impact, even without taking into account the welfare costs of replacing any lost government revenue.

Outline

- 1 Introduction
- 2 The Concept and Implications of a REPA
- 3 Analytical Framework
- 4 Modelling Framework
- 5 Application to an EU-EAC REPA
- 6 Conclusions

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Data Appendix

I INTRODUCTION

Non-reciprocated, preferential access to the European Union (EU) for African, Caribbean and Pacific (ACP) countries under the Lomé provisions has been challenged by the World Trade Organisation (WTO). Preferences granted until now by the Lomé Convention to these developing countries can only be maintained on a basis of reciprocity. One policy option that has been considered by the EU is the establishment of a series of Regional Economic Partnership Arrangements (REPAs), under which the EU and regional groupings of ACP countries offer reciprocal trade preferences to each other. In order to continue to gain preferential access to the EU, each ACP regional trading group would have to give the EU preferential access to their own regional market.

A partnership agreement between EU and 71 ACP partners states was concluded in February 2000, covering various dimensions including economic relations and trade cooperation. On the latter, the general principle of a WTO-compatible REPA arrangement for the future was agreed. The EU is to apply to the WTO for an eight year waiver to provide a transition period for any new arrangement. Over this period the EU and ACP states will negotiate and try to agree a new WTO compliant trade agreement, which would then be implemented over a transitional period starting by 2008 at the latest. Such an arrangement could allow asymmetry, in other words more gradual liberalisation by ACP countries (the EU proposed a further 10-15 year transition period before the EU could export duty free to ACP countries in a REPA). The Trade and Development Co-operation Agreement (TDCA) recently agreed between the EU and South Africa also has many of the features of a precursor to an EU-SADC REPA.

The aim of this paper is to consider the trade and welfare implications of a REPA proposal both from first principles and empirically. For the former we extend the analytical framework used by Panagariya (1995) to investigate the effects on the members of a developing country regional preferential trade agreement (PTA) of moving from non-preferential to preferential treatment of extra-regional imports. For the empirical analysis we apply the analytical framework to estimate the trade and welfare effects on the East African Co-operation (Kenya, Tanzania and Uganda, who recently signed a new treaty for East Africa Co-operation (EAC) in November 1999). This illustrates a framework that may be applied to other similar arrangements.

The remainder of the paper is organised as follows. In section 2 we explore further the origins and institutional context of the REPA policy option. In sections 3 and 4 we set up a simple partial equilibrium framework and method with which to analyse the potential trade and welfare effects of introducing a REPA between a large (developed) and small (developing) country PTA. This is followed in section 5 by an application of the model, with estimates of the (hypothetical) impact of a REPA on the EAC countries. Finally section 6 sets out the implications of the analysis and the paper's summary conclusions.

II THE CONCEPT AND IMPLICATIONS OF A REPA

The European Union's long term aim is to establish free trade areas with each of the three ACP regions as a replacement for the Lomé agreements. This will be approached in several stages. A key stage will be the negotiation of REPAs with groups of ACP countries already engaged in a regional integration process. These REPAs were originally seen as coming into place from the year 2005 onwards. Meanwhile, as the current Lomé Convention comes to an end, an overall framework agreement setting out the terms of future partnership between the EU and ACP countries will be reached by the year 2000. This is expected to set out the long-term intention of moving towards the establishment of free trade areas. The Framework agreement would then form the basis for negotiation over the period 2000-2005 to set up the different regional partnership agreements.

Prior to the agreement of a REPA, a framework agreement should be concluded with the ACP countries. This will set out the long term objective of setting up free trade areas with the ACP regions (a political commitment rather than an operational plan, hence not subject to the requirements of GATT's Article XXIV as REPAs would be). It will also reiterate the aim of maintaining the current pattern of trade relations with ACP countries (non-reciprocal, preferential access) until the year 2005. Maintaining existing Lomé arrangements for this period would require a waiver from GATT obligations (for which the EU will apply and we assume can be obtained).

The schedule envisaged in 1998 was as follows:

2000 –2004 Negotiation of regional economic partnership agreements

- support for measures in trade-related areas
- Establish free trade areas, taking account of the level of development and capacity to adjust.
- Maintain revised Lomé IV arrangements with new arrangements for the poorest countries and a special South Africa arrangement (the TDCA).
- One waiver to be obtained at WTO for countries concerned.

2004 Commission Report to the Council on the negotiations

After 2005 Implementation of regional agreements

Source: European Commission, “Recommendation for a Council Decision authorising the Commission to negotiate a development partnership agreement with the ACP countries”, draft Commission Communication to the Council, 28 January 1998.

As indicated above, the initial steps in this process have been taken, notably the EU-ACP agreement of February 2000 and the TDCA. A basic uncertainty in this strategy is its compatibility with GATT/WTO rules. As regards the long-term aim, GATT’s Article XXIV does allow for the negotiation of customs unions or free trade areas that offer preferential treatment to member countries, subject to certain conditions. The most important of these is that the free trade area should ‘eliminate duties and other restrictive regulations of commerce ... on substantially all the trade between constituent territories in products originating in such territories.’ (GATT Article XXIV, Paragraph 8(b))

There appears to be no agreed definition of what ‘substantially all the trade’ means in practice. It does appear though that both qualitative and quantitative aspects are important. On the former, exclusion of whole sectors (e.g. agriculture) is likely to be prohibited. On the latter, full liberalisation of 80-90% of trade between the partners is likely to be required, but even this raises a number of complex questions (e.g. 80-90% of the trade volume or value before or after liberalisation?).

Any interim arrangements leading up to the full establishment of the free trade areas ‘shall include a plan and schedule for the formation of such a customs union or such a free trade

area within a reasonable length of time', (GATT Article XXIV, paragraph 5(c)) where 'a reasonable length of time' is likely to mean not more than ten years. This would mean that if a REPA is to begin in 2005, full liberalisation of 'substantially all the trade' would need to be achieved by 2015. Within this reasonable time period, though, there do not appear to be any symmetry requirements; the ACP partner countries can liberalise much more slowly than the EU, subject to them meeting the "reasonable length of time" criterion. Given the present non-reciprocity of trade relations between the EU and ACP countries, some asymmetry is likely to be desirable (and has been recognised by the EU).

For the case of the East African Co-operation (EAC) we assume that a REPA with the EU would require the full liberalisation of ninety per cent of current trade flows in both directions. Furthermore, within ten years of the REPA being established, no major sectors can be excluded in their entirety. This will require significant liberalisation by EAC countries in respect of imports from the EU, though such liberalisation could be concentrated towards the end of the interim period. In establishing our base scenario for the empirical illustration we assume that liberalised trade need only extend to eighty per cent of imports.

Our REPA scenario is a relatively simple one: imports from the EU are subject to the same tariff rates as imports of the same (HSDG2) products from the EAC. This is realistic for Tanzania and Uganda as their exports within EAC are not generally of products that compete with imports from the EU. Both countries would, in principle, benefit from the REPA by being able to avail of cheaper imports of intermediate and raw material inputs from the EU. The situation is different for Kenya. In general, allowing for differences in product quality, imports from the EU could compete with Kenyan exports to other EAC members (and indeed with Kenyan local production). The REPA could reduce intra-EAC Kenyan exports, as discussed in Section 5. As regards exports by the EAC countries to the EU, it is assumed that Tanzania and Uganda, as least developed countries, would continue to enjoy access to European markets on their current preferential terms. Kenya, however, would only enjoy access to European markets on GSP terms from 2005 onwards. The costs of non-participation in a REPA would then be borne disproportionately by Kenya.

As the requirement is to liberalise “substantially all trade” this allows for particularly sensitive products in EAC countries to be excluded from the requirement of full import liberalisation. We identified these sensitive sectors predominantly by reference to the existing tariff schedule, with particular reference to Uganda as the country that has made most progress with trade liberalisation. Products subject to the maximum COMESA tariff rate of 12%, or subject to special Excise at the maximum rate, were regarded as particularly sensitive – mostly in the textiles and clothing group (especially cotton and man-made fibres), tobacco, soaps and beverages.

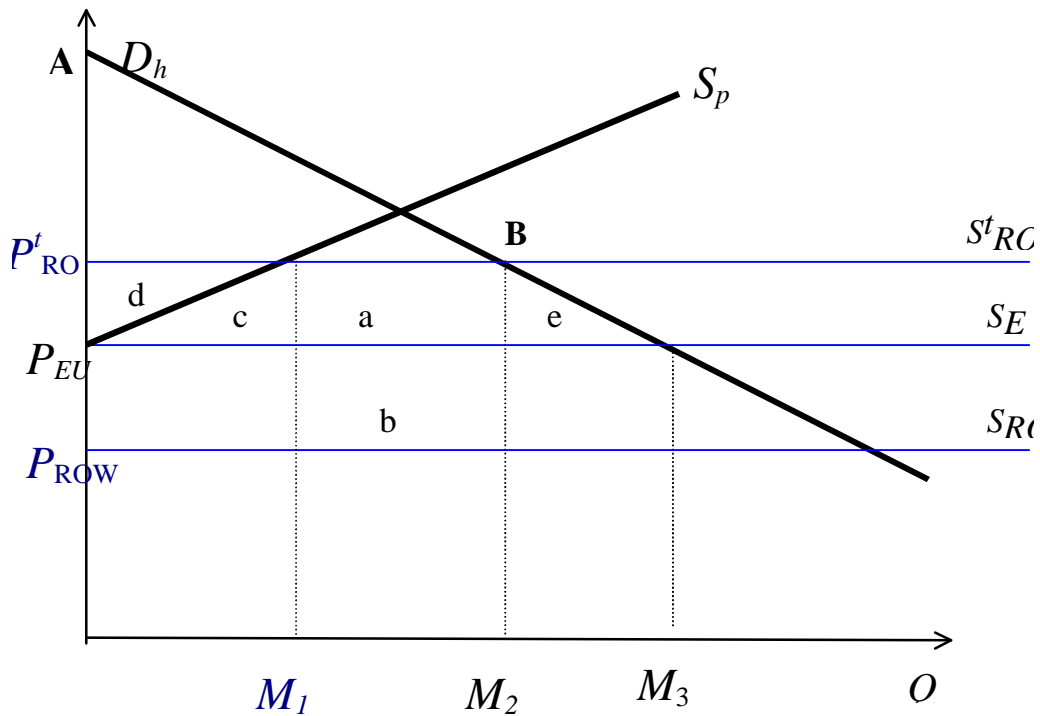
III ANALYTICAL FRAMEWORK

We extend Panagariya (1995) by examining the welfare effects of preferential trading arrangements for the case of a small home country member (H) of an initial PTA. The partner country's (P) supply curve is upward sloping and the supply for two (initial) outside suppliers (here the EU and the rest of the world - ROW) is assumed to be infinitely elastic. The analysis is partial equilibrium in nature, markets are assumed to be perfectly competitive, and there is perfect substitutability between imported and domestically produced import substitutes¹.

Assume that H and P have already formed a PTA, and as small developing countries can be viewed jointly as being small relative to the EU and ROW who supply at constant cost (P_{EU} and P_{ROW} respectively). In the case of figure 1 we assume for expositional convenience that $P_{EU} > P_{ROW}$, therefore subsequent discriminatory trade policies by the FTA towards the outside countries can have both trade creating and diverting effects.

1 Perfect competition and homogeneity assumptions are most appropriate in the case of agriculture and primary products. Although the assumptions are less appropriate in the case of manufacturers, in a developing country context fairly standardised and undifferentiated products are likely to be involved. The assumption of imperfect substitutability would in any case be more easily accommodated within a general equilibrium framework.

Figure 1: Effect of a EU-EAC REPA



D_H represents the home country's demand for imports, S_p the partner's supply of exports, and S_{EU} and S_{ROW} are the respective export supply functions for the two outside country groupings. We start with a PTA and a non-discriminatory (*ad valorem*) tariff (t) on extra-regional imports (where $P'_{ROWt} = P_{ROW}(1+t)$ but P'_{EU} is not shown in the case of the higher cost EU supplier). The home country imports OM_2 in total, with OM_1 coming from the partner country and M_1M_2 from the rest of the world (ROW). By ruling out domestic production capability we can define welfare (W) by reference to consumer surplus with respect to the import demand function, D_H . Thus W_{FTA} for the home

country is given by the triangle ABP'_{ROW} plus the tariff revenue on extra-regional imports (area $a + b$).

Now assume that the PTA introduces a discriminatory tariff policy towards extra-regional countries, and as a result of a REPA with the EU continues to impose tariff t on imports from ROW but allows imports from the EU in duty free. The relevant supply price is now P_{EU} , with the total quantity of imports expanding from OM_2 to OM_3 and imports coming now wholly from the EU. There are strictly three components of this trade-effect of the REPA; a consumption expansion effect M_2M_3 , a 'trade diversion' effect M_1M_2 , and a 'trade creation' effect OM_1 . The last two of these effects need more careful explanation, however.

In the case of standard PTA analysis trade diversion usually relates to diverting trade from more efficient extra-regional suppliers 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 the ROW. The resource cost of this is represented by the area b , with total tariff revenue lost by the home country being area $(a + b)$. Similarly, in terms of standard PTA analysis, trade creation usually describes the displacement of less efficient home production by globally efficient extra-regional production. In this case, however, the REPA involves the replacement of intra-regional imports by more (but here not globally) efficient extra-regional imports from the EU.

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

IV MODELLING FRAMEWORK

The analytical framework in the previous section could be conceived of as the aggregate picture for an homogenous single sector economy, where all three trade effects associated with a move from a PTA to a REPA simultaneously occurred. In practice there is both product and tariff rate heterogeneity to accommodate in any application of the framework. As a result, in specific sectors there may only be one of the trade effects illustrated in the previous sector. Indeed, given data constraints in particular about production and export supply conditions and elasticities within the EAC region, we adopt a framework which distinguishes between those sectors where the ROW is the dominant supplier and those where the EU is the dominant supplier prior to REPA formation. As data constraints limit our quantitative application to Tanzania and Uganda, we concentrate on three particular cases.

Consumption effects only

In those sectors where the EU is globally efficient and therefore the dominant supplier to a particular EAC market prior to the formation of the REPA, we assume that only consumption effects would follow from the REPA. In terms of Figure 1 this is equivalent to assuming that S_{ROW} lies above S_{EU} and that there is no competitive regional supply capability.

Thus, for those sectors where the EU is the dominant supplier we can estimate the consumption effect alone (ΔM^C) relative to the existing EU import levels as follows:

$$\Delta M^C = \left[\frac{t}{1+t} \right] \cdot e_M^D \cdot M_O^{EU} \cdot UV_O^{EU} \quad (1)$$

where t = current tariff against imports from EU

e_M^D = price elasticity of demand for imports

M_O^{EU} = current volume of imports from EU

UV_O^{EU} = current average unit value of imports from EU

The revenue (ΔR^C) and welfare (ΔW^C) effects associated with this are correspondingly:

$$\Delta R^C = -t.UV_0^{EU} M_O^{EU} \quad (2)$$

$$\Delta W^C = 0.5t.\Delta M^C \quad (3)$$

'Trade diversion' with consumption effects

For those trade sectors in EAC imports where the ROW is the dominant supplier, we are constrained by data limitations to make further assumptions about the competitiveness of EU supply to the EAC market. If $P_{EU} < P_{ROW}^t$ then, given a constant cost technology over the relevant range, the REPA will divert all imports for the ROW to the EU. Thus, the upper limit of the value of trade diversion (ΔM^{TD}) is:

$$\Delta M^{TD} = M_O^{ROW} .UV^{ROW} \quad (4)$$

where M_O^{ROW} = current quantity of imports from ROW

UV_O^{ROW} = current average unit value of imports from ROW

The tariff revenue effect (ΔR^{TD}) due to this trade diversion is given by:

$$\Delta R^{TD} = -t.UV_0^{ROW} M_O^{ROW} \quad (5)$$

For these sectors there will also be consumption effects. The same general approach is used here as above. However, since we do not have information about where the price of EU imports may lie between P_{ROW} and P_{ROW}^t , we assume that on average P_{EU} lies halfway between the two. Thus:

$$\Delta M^{TD} = 0.5 \left[\frac{t}{1+t} \right] e_M^D \cdot M_O^{ROW} \cdot UV^{EU} \quad (6)$$

Given the assumption about P_{EU} , we can approximate the overall welfare (W^{TD}) impact of the trade diversion with consumption effects as follows:

$$\Delta W^{TD} = 0.25t \Delta M^{C'} - 0.5t UV_0^{ROW} M_O^{ROW} \quad (7)$$

Trade creation with consumption effects

For those sectors where other EAC countries are not relatively minor suppliers (i.e. provide greater than 25% of imports) we estimate the effects of trade creation (i.e. source substitution) with consumption effects in analogous fashion to the trade diversion case. We assume now that the EU is a more efficient supplier than the rest of the world (if it is not, we would have a variant of the trade diversion case). If the duty free supply price from the EAC lies over the relevant range between P_{ROW}^i and P_{EU} , then all of the current imports from the EAC to the home country will be replaced by more efficient production from the EU. Thus the maximum value of the trade created (ΔM^{TC}) for the EU by this deflection from EAC sources can be estimated by:

$$\Delta M^{TC} = M_O^{EAC} \cdot UV^{EAC} \quad (8)$$

where M_O^{EAC} = current quantity of imports from EAC

UV^{EAC} = current average unit value of imports from EAC

In order to estimate consumption effects in these sectors, we assume that the price from the EAC is virtually as high as the tariff-inclusive price from the EU. In this case the pre-REPA tariff rate against EU imports provides an (upper) estimate of the extent to which the import price can fall as a result of the REPA. Thus:

$$\Delta M^{TC} = 0.5 \left[\frac{t}{1+t} \right] e_M^D \cdot M_O^{EAC} \cdot UV^{EU} \quad (9)$$

In turn the combined welfare (ΔW^{TC}) effects of trade creation with consumption effects can be identified by:

$$\Delta W^{TC} = 0.5t.\Delta M^{TC} + \left(UV^{EAC} M_O^{EAC} t \right) \quad (10)$$

The sector estimates can be aggregated to produce overall estimates of the value of trade effects due to consumption, trade diversion and trade creation. The corresponding revenue and welfare effects can be aggregated across sectors, and a net aggregate welfare effect estimated for a move to a REPA for each EAC country.

V. APPLICATION TO AN EU-EAC REPA

We use the methodology set out in Section 4 to estimate trade and welfare effects of an EU-EAC proposed REPA on members of the EAC. Given data availability, detailed analysis is only possible for Tanzania and Uganda. The import data is obtained from locally published trade statistics. Originally provided at the eight digit level of the Harmonised System (HS) and recording bilateral flows, we have aggregated across categories and economies to obtain EAC-EU and EAC-ROW trade at the two digit level of the HS. The data for Tanzania and Uganda are in units of domestic currency. (See the Appendix for a more detailed description of data sources).

Domestic tariff data are obtained from two sources. Figures relating to Tanzania are calculated directly from customs records as the ratio of duty collected to total imports. In most cases this was done at the two-digit level of the HS. However, in certain cases, prior commodity aggregation at source prohibited this level of detail. Instead we simply applied the average observed tariff rate applicable to the grouping containing the commodity in question. For Uganda and Kenya we used data from the simple average scheduled tariff (see Appendix). Figures for demand elasticities are taken from Stern *et al* (1977)

Trade effects

It is evident from the trade data for Tanzania and Uganda that Kenya is the dominant EAC supplier. For example, of all the cases where intra-regional imports by Tanzania account for over 25% of the market, in none of these cases does the commodity flow originate in Uganda - all are supplied by Kenya. A similar pattern emerges with regard to

Ugandan imports from the EAC. Indeed Kenya is the source of over 80% of aggregate imports of Tanzania and Uganda in several commodities.

Table 1 summarises the estimation approach and results. In those sectors where the EU is already the dominant supplier, we allow only for the possibility of trade creation via consumption expansion.² The REPA is estimated to increase imports from the EU in these sectors over current levels by about 16% in the case of Tanzania and 23% in the case of Uganda. This would benefit local consumers considerably, but the direct loss of tariff revenue on current imports from the EU reduces the net welfare benefit of this.

Table 1
Summary of Potential Trade, Revenue and Welfare Effects

(in millions of local currency)

	<u>TANZANIA</u>		<u>UGANDA</u>	
<u>a) Sectors with Consumption effects only</u>				
Value of Imports from EU	+ 54,756	(15.9%)	+ 28,434	(22.9%)
Tariff Revenue Effect	- 36,943		- 19,310	
Welfare Effect	+ 4,086		+ 2,282	
 <u>b) Sectors with Trade Diversion and Consumption effects</u>				
Value of Imports from EU	+324,142		+335,128	
(diverted from ROW)	+298,164	(100%)	+289,796	(100%)
(consumption effects)	+25,978	(8.7%)	+45,332	(15.6%)
Tariff Revenue Effect	- 28,470		- 52,015	
Welfare Effect	- 13,439		- 23,974	
 <u>c) Sectors with Trade Creation and Consumption effects</u>				
Value of Imports from EU	+ 5,659		+152,344	
(substitution from EAC)	+ 5,281	(100%)	+138,388	(100%)
(consumption effects)	+ 378	(7.2%)	+ 13,956	(10.1%)
Tariff Revenue Effect	- 374		+ 10,081	

² There may also be trade diversion effects in these sectors that are missed by the present method. Given that maximum possible levels of trade diversion are identified in other sectors, this will be an offsetting source of measurement error.

Welfare Effect	+ 116	+ 13,039
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Notes: Values are in Tanzanian Shillings (TShs) and Ugandan Shillings (Ushs) respectively; percentages in parenthesis relate to the percentage of value of current imports in the particular sectors.

In those sectors where the rest of the world is currently the dominant supplier our methodology again allows for the identification of consumption effects.³ From Table 1, this is in fact a larger source of such trade expansion for Uganda (with an estimated 45.3 billion US\$ value of additional imports from the EU). However, this welfare-raising trade expansion is swamped by the potential for trade diversion in these sectors - with over 300 billion of imports in local currency units involved in both Tanzania and Uganda. Clearly, this is the maximum potential for trade diversion in these sectors. This potential will not be reached if the EU does not have an export capability, or if EU suppliers experience increasing costs or a cost disadvantage relative to the ROW that exceeds the non-preferential external tariff of the EAC country. Note, however, that the scope for trade diversion might also increase prior to the establishment of a REPA if the external tariff is lowered in the process of creating an EAC customs union, and some intra-EAC trade is deflected to the ROW. Thus although the estimated value of trade diversion in Table 1 is likely to be upwardly biased, the results certainly identify the potential for a net trade-diverting REPA, which is welfare and tariff-revenue lowering.

Finally, in Table 1, we identify the scope for trade creation involving source substitution from less efficient EAC to more efficient EU suppliers as a result of a REPA. For those sectors where there is significant intra-EAC trade only we identify the maximum potential for trade deflection; again a potential that will not be reached if EU suppliers experience increasing costs or are not competitive with EAC suppliers. Of course, if the net effect of the creation of EAC custom union - full liberalisation of intra-regional trade and changes in the external tariff - is to increase intra-regional trade, then the scope for trade

³ Fourteen two digit categories which account for 25% or less of the EU exports to Africa and which were substantially imported from the ROW.

deflection may be increased. The potential for trade deflection is particularly significant for Uganda, given its current heavy dependence on Kenya for imports in some sectors. Its consumers would gain substantially if under a REPA there was scope to shift to lower cost EU suppliers. Indeed, despite a significant potential loss of tariff revenue (more than 10 billion US\$ in this case), the net positive welfare effect from this source is potentially much greater than from consumption effects of tariff reduction against EU imports.

Sector effects

In order to identify potential adjustment implications of a REPA, we set out the broad sectors where major potential trade effects are indicated by the detailed sector results. This is summarised in Table 2. For Tanzania and Uganda we identify the individual two digit sectors where trade effects over 1 billion in local currency units are estimated by the trade flows analysis. As Table 2 clearly demonstrates the trade effects are concentrated in the manufacturing sectors (textiles, clothing and footwear, chemicals, metal products, machinery, transport equipment and other manufacturers). Thus the first two columns identify respectively those sectors in Tanzania and Uganda where local producers can anticipate greater import competition from EU suppliers. The final two columns identify those EAC import markets in which Kenyan producers might anticipate greater competition from EU suppliers; this increased competition being particularly important in the Ugandan market. Finally the middle two columns identify the sectors where there are the greatest market opportunities for EU suppliers to displace non-EU/non-EAC suppliers.

Table 2
Sectors Subject to Potential Major Trade Effects

Sector	Consumption effects		Trade Diversion		Trade Creation	
	Tanzania	Uganda	Tanzania	Uganda	Tanzania	Uganda
Food products			✓	✓		✓
Animal products				✓		
Forestry products		✓				✓
Fish products						
Mining & quarrying					✓	✓
Coffee, cotton & sugar		✓	✓	✓		
Manufactured food			✓	✓	✓	✓
Beverages & tobacco	✓		✓			
Textiles, clothing & footwear		✓	✓	✓		✓
Chemicals	✓	✓	✓	✓		✓
Metal products & machinery	✓	✓	✓	✓		✓
Other manufacturing	✓	✓	✓	✓	✓	✓
Transport equipment	✓	✓	✓			

Notes: A tick indicates the presence of one or more sub-sectors (two digit code level) with changes in trade values > 1 billion in local currency terms.

Tariff revenue and welfare effects

Increased imports from the EU are predicted for both Tanzania and Uganda as a result of trade creation diversion and consumption effects and tariff revenue falls as a result of the

increase in duty-free access for EU imports. Although consumer and national welfare increases as a result of trade creation and consumption effects, the potentially large costs of trade diverted from efficient non-EU sources means that net welfare in both countries may fall as a result of the static trade effects of an EU-EAC REPA. This pattern of country effects is summarised in Table 3. In the top section of the table (part a) we summarise the base estimates of the potential effects using the methodology described above and consistent with the results identified in Table 1. In the lower section (part b) we produce revised range estimates where the scope for trade diversion from the ROW to the EU may be restricted by limited EU supply capability or competitiveness. We exclude those sectors from the estimation procedure where EU exports to Africa are relatively small. This reduces the trade and welfare effects, but not markedly so.

Table 3

Aggregate Economy-wide Summary of Trade, Revenue and Welfare Effects

(in millions of local currency)

<u>All Sectors</u>	TANZANIA	UGANDA
<i>a) Base Estimates</i>		
Value of Imports from EU	+384,557	+515,906
(% 1995 imports from EU)	(77.6%)	(188.6%)
Tariff Revenue Effects	- 65,787	- 81,406
(% 1995 total tariff revenue)	(-73.2%)	(- 69.1%)
Overall Net Welfare Effect	- 9,237	- 8,653
(% 1995 GDP)	(-0.5%)	(-0.3%)
<i>b) Revised Estimates (allowing for limited EU supply capability)</i>		
Value of Imports from EU	+370,125	+498,546
(% 1995 imports from EU)	(74.7%)	(182.3%)
Tariff Revenue Effects	- 64,216	- 78,592
(% 1995 total tariff revenue)	(-71.5%)	(-66.7%)
Overall Net Welfare Effect	- 8,503	- 7,349
(% 1995 GDP)	(-0.5%)	(-0.3%)

In line with other evidence from empirical trade policy analysis the net welfare effects are small relative to GDP. One would anticipate similar welfare effects relative to GDP in Kenya, although in the case of Kenya there are export losses to the other EAC members without any consumption gains as Kenya does not import large amounts from other EAC countries.

The net effects, of course, tend to obscure larger potential distributional effects within countries. Consumers tend to gain significantly as a result of trade creation and consumption effects but at the expense of local producers and in particular government tax revenue. As Table 3 shows, the base estimates of potential tariff revenue losses associated with the shift from the current external tariff structure to a REPA are non-negligible, i.e. up to 65 and 81 billion TSh and US\$ respectively. But this is a potential, not necessarily actual, revenue loss; we are identifying what could have been collected, given scheduled tariff rates on imports from the EU rather than actual collection values.⁴

Assessing the Effects on Kenya

Comparable trade data were not available to apply the empirical method for Kenya. We can however use the results for Tanzania and Uganda as a basis for qualitative comparison with Kenya. For instance, the pattern of Kenya's imports from the EU and ROW is very similar to that of the other EAC countries. One would anticipate similar magnitudes for the expansion of Kenya's imports from the EU following a REPA arising from consumption and trade diversion (from the ROW) effects, with corresponding net welfare losses given the potential dominance of trade diversion over positive consumption effects. By contrast with Tanzania and Uganda there is minimal scope for 'trade creation' displacement of EAC imports by EU imports because there is limited existing penetration of the Kenyan market by Tanzanian and Uganda suppliers, especially for products where displacement by EU suppliers is likely. There is not therefore scope for consumer welfare gains in Kenya from this source.

⁴ There may be scope for efficiency gains in revenue through neutral shifts from trade to non-trade taxation.

In addition to the import side effect, there is in the case of Kenya a need to consider export effects. The earlier analysis of import effects in Uganda and Tanzania has established the scope for considerable displacement of Kenyan by EU imports, with corresponding scope for producer losses in Kenya. To the extent, however, that the REPA protects Kenya's preferential access to the EU market, these producer losses would need to be weighted against the export and producer losses avoided by the retention of this preferential access to the EU. It is worth remarking that in almost any PTA amongst ACP countries there will be a 'Kenya type' economy that will lose import share in the region to EU competition, but may (more than) offset this with increased exports to the EU (e.g. South Africa in SADC).

VI. IMPLICATIONS AND SUMMARY CONCLUSIONS

This paper has considered the static effects on EAC countries of forming a REPA with the European Union, considering welfare impacts on EAC member countries. Whether the net welfare effects are positive or negative varies from sector to sector, depending on the relative production costs of imports from the EU compared to the rest of the world and local production. Even given this knowledge they can only be quantified approximately. But the results suggest that, on present patterns, the net effect on Tanzania and Uganda is likely to be adverse. And these are the countries with least to gain from the REPA; as least developed countries they would be able to retain favourable access to the EU in any case. At the very least this argues strongly that EAC countries should be allowed to liberalise *vis-à-vis* the EU only gradually over the ten-year permitted period. This appears to have been recognised by the EU in its discussions with ACP countries.

In reality, other factors also need to be considered. Many of the benefits of a REPA may in fact come into play in a dynamic framework; formation of a REPA with the European Union may have beneficial impacts by making trade liberalisation measures undertaken by EAC countries irreversible and therefore credible. This in turn may bring significant benefits in terms of increased domestic and foreign investment in EAC countries. Secondly, the rest of the world is unlikely to stay still; other significant exporters to the EAC, notably North America, are likely to want to set up similar partnership arrangements, and this could significantly change the welfare implications of a partnership agreement with the EU. We have aimed to provide a tractable method, if adequate trade

data are available, to estimate the welfare effects on ACP countries of forming a REPA with the EU. More complicated arrangements could be accommodated (data permitting). The core conclusion is that one cannot assume that the welfare effects on ACP countries will be positive; it is more likely that the static effects will be negative. This should be taken into account in negotiating a REPA.

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Appendix: DATA SOURCES

Trade Data

For Tanzania and Uganda we had locally provided data with details on imports and exports for 1995 as reported by the local Customs Authorities. Detailed information on bilateral flows was available at the eight-digit HS level; for each EAC country we aggregate across both commodities, to the two-digit HS level, and source to derive the data used in our analysis of the impact of EAC and a REPA on trade flows. These sources are supplemented by *Foreign Trade Statistics 1989* (Bureau of Statistics, Dar-es-Salaam), with country and commodity breakdown for Tanzania by SITC Section, and *Background to the Budget 1994-1995* (Ministry of Finance and Economic Planning, Kampala), with similar information for Uganda.

During our fieldwork visit to Kampala we obtained comprehensive data on import values, from which we have (for 1995) distinguished imports, at the two-digit HS level, from the EAC (Kenya and Uganda) and from the rest of the world (ROW). This is the data we use for import values. Similar data was obtained from the fieldwork visit to Dar-es-Salaam, and was collated and used in the same way.

Some information relating to Kenya is obtained from the aforementioned sources for Tanzania and Uganda using the trade inversion technique (e.g. our estimation of the trade impact of a REPA on Kenya's exports to EAC is obtained in this way). Additional data for Kenyan imports and exports are obtained from the COMTRADE series collated and published by the UN (for 1993 this is available from the International Trade Centre, <http://www.intracen.org/itc/infobase/data/>).

Tariff Data.

A wide range of sources has been used to obtain data on tariff rates for each EAC country. The *Uganda Trade Policy Review* (WTO, 1995) provides details on the simple average scheduled tariff for products at various levels of the ISIC Code. This source distinguishes MFN tariffs (which we apply to ROW) and PTA tariffs (which we apply to EAC). We have converted these figures to the corresponding HS codes. These tariff estimates were updated using the 1997 Uganda Tariff Schedule. For Kenya, we used the *Kenya Trade Policy Review* (WTO, 1994). Tanzanian tariff rates were calculated from locally obtained data on imports, by commodity and source, and tariff revenue collected (i.e. the data are implicit tariffs).

Trade Elasticities.

We use reported price elasticities of demand for products at the two-digit HS level in estimating the impact of EAC and REPA on trade flows. These elasticities are taken directly from Stern *et al* (1977). The available data imposes the assumption that the demand elasticity for a given product is the same for every country.

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