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Borrmann, Axel; Busse, Matthias; de la Rocha, Manuel

Working Paper

Consequences of economic: Partnership agreements between East and Southern African countries and the EU for inter- and intra-regional integration

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Axel Borrmann, Matthias Busse, Manuel de la Rocha

HWWI Research

Axel Borrmann
Hamburg Institute of International Economics (HWWI)
Neuer Jungfernstieg 21 | 20354 Hamburg | Germany
Tel +49 (0)40 34 05 76 - 47 | Fax +49 (0)40 34 05 76 - 76
www.hwwi.org

Matthias Busse
Hamburg Institute of International Economics (HWWI)
Neuer Jungfernstieg 21 | 20354 Hamburg | Germany
Tel +49 (0)40 34 05 76 - 40 | Fax +49 (0)40 34 05 76 - 76
www.hwwi.org

Manuel de la Rocha
The World Bank | Kenya Country Office | Macroeconomics Unit
P.O. Box 30577 | Nairobi | Kenya

Consequences of Economic Partnership Agreements between East and Southern African countries and the EU for inter- and intra-regional integration

Axel Borrmann, Matthias Busse and Manuel de la Rocha*

Abstract

The European Union is currently negotiating Economic Partnership Agreements (EPAs) with six African, Caribbean and Pacific country groupings, aiming at establishing mutual free trade. This paper empirically assesses the impact of the EPAs on trade flows and government revenues for 22 East and Southern African countries and discusses implications for intra-regional integration. The results indicate that while moderate trade effects can be expected, relatively large budget effects are likely to occur in a number of these countries, exposing them to considerable structural and financial adjustment requirements. Also, EPAs would strengthen the need to consolidate overlapping intra-regional integration schemes.

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1. Introduction

The Cotonou Agreement, which was signed in June 2000, foresees negotiations on the establishment of Economic Partnership Agreements (EPAs) between African, Caribbean and Pacific (ACP) countries and the European Union (EU). Non-reciprocal EU-preferences granted to ACP countries under the preceding Lomé Conventions have turned out to be incompatible with World Trade Organisation (WTO) regulations, as they discriminate against developing countries outside the ACP group (Onguglo and Ito 2003). Moreover, they cannot be conceived as a free trade agreement due to lack of reciprocity. For current non-reciprocal trade preferences, the European Commission has obtained another WTO waiver until the end of 2007 (WTO 2001).

To ensure compatibility with multilateral rules, the Economic Partnership Agreements aim to establish reciprocal free trade agreements. In other words, not only will the EU provide tariff-free access to its markets for ACP exports, but ACP countries will also be expected to provide tariff-free access to their own markets for EU exports. The new agreements are supposed to enter into force by January 2008 (ACP/EC 2001). For ACP countries which are not ready to enter into an EPA, an alternative framework for trade has to be provided, which should be equivalent to their existing situation and in conformity with WTO rules.

Apart from the incompatibility with multilateral trade rules, there is a widespread perception that Europe's preferences offered to the ACP countries have not really benefited most of them. In fact, the share of EU imports from ACP countries as compared to total EU imports fell from 7.9 per cent in 1980 to 2.8 per cent in 2004 (EUROSTAT 2005). This can partly be explained by the erosion of EU preferences due to general tariff liberalisation under multilateral agreements. However, it also has become clear that most ACP countries lack the productive and technological capacities, marketing skills, transportation channels, and appropriate technical and sanitary regulations to harness the opportunities offered by Europe's tariff preferences. EPAs are supposed to address all these issues while at the same time enhancing the preferential access that ACP countries already enjoy in European markets.

The first phase of EPA negotiations started in February 2002 on an ACP-wide scale, addressing horizontal issues of interest to all parties, such as principles and objectives of EPAs, scope and coverage of the issues as well as the modalities for co-operation (European Commission 2006). Since October 2003, inter-regional negotiations between the European

Union and six regional ACP-groupings, that is, four in Africa and one each in the Pacific and the Caribbean, are under way, aiming at drafting detailed agreements. A joint roadmap has been set up for each ACP-grouping, comprising a schedule, an institutional framework, an agenda of the coverage and areas of priorities for the negotiation process (European Commission 2005a).

In the East and Southern African region, on which this paper focuses, two separate regional EPA-groupings have been formed: (1) the Eastern and Southern Africa (ESA) Group, comprising 16 member countries of the Common Market for Eastern and Southern Africa (COMESA);[1] and (2) the Southern African Development Community (SADC) Group,[2] consisting of four of the Southern African Customs Union (SACU) members (Botswana, Lesotho, Namibia and Swaziland, or SACU minus South Africa) and three neighbouring SADC countries (Angola, Mozambique and Tanzania).

Negotiations are hampered by the fact that these two EPA negotiating groups do not coincide with the current memberships of existing regional integration schemes. Instead, they represent an alternative delineation that cuts across and splits current regional trade arrangements, which in themselves have problems of overlapping memberships. Apart from the fact that six COMESA members belong as well to SADC, the three EAC members are split in their dual membership to COMESA and SADC. Therefore, EPAs negotiating groups will also have effects on the ongoing regional integration efforts, which further complicates the negotiations.

Like most of the ACP economies, East and Southern African countries have strong economic ties with Europe. In terms of trade, the EU's share of total exports from the region accounts for 44 per cent, whereas imports from the European Union amount to 23 per cent of total imports.[3] As for financial links, the European Union is a major source of official aid, delivering 41 per cent of total and 63 per cent of bilateral flows to ESA and SADC countries, and providing 95 per cent of total inward foreign direct investment flows.[4] Mutual free trade through EPAs would certainly strengthen these economic and financial links, since trade and

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[1] COMESA has currently 20 members in total.

[2] Even though it is called SADC Group, it does not represent all SADC member countries. There are six SADC member countries that will negotiate under ESA Group (Democratic Republic of Congo, Malawi, Mauritius, Seychelles, Zambia and Zimbabwe). For simplicity, we use the term "East and Southern Africa" for all 23 countries in the region that intend to negotiate regional EPAs.

[3] Percentages are based on averages for the period 1999 to 2003 (ITC 2005).

investment flows (and financial assistance) are likely to increase in well-designed free trade areas. Yet EPAs pose a major challenge to African ACP countries, as domestic firms would have to cope with an increase in (import) competition, and governments with a potential decline in customs revenues.

So far, there are very few studies available that try to quantify the impact of EPAs on ACP countries. Most studies focus more on policy options for ACP countries and/or discuss EPAs from a more general development perspective. For East Africa, Milner et al. (2005) estimate the (static) welfare impact of a regional EPA with the European Union for Kenya, Tanzania and Uganda, using a partial equilibrium model. Their results indicate that in the case of complete elimination of tariff barriers for EU imports, all three East African countries are likely to observe small changes in welfare levels. However, a negative effect arises due to decreasing tariff revenue from EU imports. On the positive side, consumers may benefit from declining prices caused by lower import prices and increased competition; however, this cannot compensate for the lost tariff revenue. The authors emphasise in their policy conclusions that their findings have to be interpreted with caution, as severe data restrictions limited the choice of the model used and may have affected the reliability of the estimated effects.

Karingi et al. (2005), on the other hand, analyse the impact of the EPAs on all African ACP countries, using both a simple general equilibrium as well as a partial equilibrium model. Due to a limited number of social accounting matrices for African economies, which are necessary for any general equilibrium analysis, they encounter severe data problems in their estimation. As a consequence, only 7 out of 46 African ACP economies are included in the analysis. However, this restriction does not apply to the partial equilibrium model, which they apply to 39 African ACP countries. Overall, they find that market integration will result in small positive welfare effects, but losses in tariff revenue can be considerable for individual African countries.

In another study, Keck and Piermartini (2005) estimate the impact of the EPAs in SADC countries. Using a general equilibrium model and focussing on six SADC countries, they find that the EPAs are welfare enhancing overall, leading to a substantive increase in real gross domestic product. Similar to Karingi and associates, Keck and Piermartini also mention that

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4 Likewise, averages for 1999-2003 (OECD 2005).

the data in the social accounting matrices for African countries has to be viewed with caution. Moreover, general equilibrium models require a large number of parameters (elasticities), which are usually not available for these countries. Researchers usually circumvent this problem by using figures that have been estimated for high-income countries, but no one can be sure whether this procedure is appropriate for low-income African economies. Any results based on these models, therefore, may be subject to considerable error margins.

In our study, we estimate the trade and budget effects of the proposed EPAs on East and Southern African countries, which belong to either ESA or SADC. For our analysis, we use an appropriate partial equilibrium model and address some of the shortcomings in previous studies. Importantly, we identify the products that are most affected by the proposed EPAs. Moreover, we highlight the need to consolidate regional trading arrangements in East and Southern Africa, not only for the EPA negotiations, but also to achieve successful south-south preferential trade arrangements.

The paper is organised as follows: The next section provides an overview of current trade protection levels as well as preferential trade agreements in the region. Subsequently, the data and the empirical model used for the analysis are introduced in Section 3, whereas the empirical results are presented in Section 4. It is important to note that the analysis focuses on the impact of the EPAs on East and Southern Africa only and not on the European Union, as the impact on the latter is likely to be rather small. Based on the results, Section 5 discusses various policy options for East and South African countries as well as the need to consolidate the existing regional integration structure.

2. Trade Policy and Regional Trade Agreements in East and Southern Africa

Since the mid 1990s, a number of East and Southern African countries have made remarkable progress in liberalising their external sector. Trade reforms took place unilaterally,[5] bilaterally and/or on a multilateral basis. Thus, countries in the region have reduced or eliminated non-tariff barriers, such as import and export quotas, bans, or state trading. For instance, by the end of the 1990s, most SADC countries had eliminated all non-tariff barriers that were in

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[5] Many of the trade liberalisation measures that took place during the 1990s were implemented as part of the conditionalities inserted in Structural Adjustment Programs imposed by the Bretton Woods institutions.

place at the beginning of the decade, with the exception of restrictions related to health, environmental and security reasons. Moreover, many SADC countries have substantially reduced maximum and average import tariffs. Average import-weighted tariff rates are now in the range of 8 to 11 per cent, with only Lesotho above that range (Table 1).[6] Among ESA countries, Madagascar, Rwanda, Tanzania, Uganda and Zambia have the lowest trade taxes (less than 10 per cent), whereas Burundi, Comoros, Djibouti and the Seychelles still apply import-weighted tariffs of above 20 per cent.

Table 1: Trade and Tariff Indicators

Group / country	Base year	Import-weighted tariff rates (%) total imports	Import-weighted tariff rates (%) EU imports	Imports from the EU % of total imports
ESA group				
Burundi*	2002	21.0	20.8	42.5
Comoros*	2001	38.9	38.9	43.5
Congo, Dem. Rep.*	2003	12.1	11.3	41.4
Djibouti*	2002	26.7	27.8	32.7
Ethiopia*	2002	13.5	13.1	30.4
Kenya	2001	13.3	12.1	33.1
Madagascar*	2001	3.2	4.0	31.9
Malawi*	2001	11.6	10.0	15.0
Mauritius	2002	13.0	17.0	27.2
Rwanda*	2003	6.6	8.8	26.0
Seychelles	2000	23.4	35.6	28.9
Sudan*	2002	19.6	16.6	37.6
Uganda*	2003	7.2	5.0	18.6
Zambia*	2003	9.4	6.4	19.4
Zimbabwe	2001	10.5	13.0	11.2
SADC group				
Angola*	2002	8.0	8.5	49.7
Botswana	2001	9.6	3.4	9.0
Lesotho*	2001	17.5	3.1	7.4
Mozambique*	2002	8.9	8.0	22.9
Namibia	2001	10.7	4.4	6.0
Swaziland	2001	10.5	11.5	1.0
Tanzania	2003	8.2	8.7	19.6

Sources: UNCTAD (2005) and, for Comoros, IMF (2005). Notes: Figures for Eritrea are not available. *Least-developed country.

Parallel to the general trend of unilateral trade liberalisation and simplification of their trade regimes, during the last decade we have witnessed a real renaissance of regional trade integration across East and Southern Africa. In 2000 COMESA established a free trade

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[6] Note that these figures refer to import-weighted tariff rates, which differ from simple averages. For that reason, SACU customs union members have different (import-weighted) tariff rates.

agreement for nine of its members, later joined by Rwanda and Burundi. Despite the relative success of the agreement, progress towards establishing a COMESA customs union has been minimal, and it is very uncertain whether this endeavour would ever succeed. SADC countries also signed the SADC Trade Protocol, which envisages the establishment of a free trade agreement among its member states by 2008, through the asymmetrical liberalisation of less than 90 per cent of its total intra-regional trade. However, the agreement is asymmetrical, most member countries are far behind schedule, a wide range of sensitive products are excluded from the agreement, and rules of origin are restrictive for several critical sectors (Flatters 2002).

In the East African context, after years of complex negotiations and various delays, Kenya, Tanzania and Uganda finally launched a customs union on 1 January 2005. The common external tariff of the new East African Community has been generally set at lower average tariffs, and the gradual liberalisation of their intra-regional trade regimes is supposed to proceed over the next five years.

In spite of all these developments, the share of intra-regional trade of the ESA region's total trade increased marginally in all trading blocks, and is substantially lower – some 10 per cent in 2002 (Yagci and Aldaz 2004) – compared to regional trading blocks in other parts of the world. Moreover, the bulk of the increased intra-regional trade are concentrated in only two countries: South Africa and Kenya. Both countries supply a large part of the intra-regional exports, while receiving only a small proportion of the imports.

From our point of view, there are at least three reasons that could explain the low levels of regional trade in the face of proliferating agreements. First of all, there is a huge gap between formal agreements and actual implementation. In various countries, the record of implementation of treaties, protocols and agreements is far from satisfactory. African governments have repeatedly committed themselves to unrealistic and unfeasible agreements which have ultimately damaged the credibility of the integration process (e.g., COMESA customs union, or the more recent plan to establish an East African Federation by 2010). Much of the failure to implement the agreements has to do with concerns about losing much needed customs revenue. What is more worrying, most regional organisations in charge of enforcing the ambitious mandates entrusted to them in their treaties and protocols lack the resources to do so.

A second problem lies in the existence of multiple, overlapping and often conflicting regional integration arrangements within the same region, which continues to make implementation very difficult and imposes a heavy burden on limited administrative resources in the member countries (Figure 1). This problem has been aggravated by the configuration of the groupings set up to negotiate EPAs with the EU, which effectively have divided regional trade arrangements. Either essential rationalisation and harmonisation of agreements take place, or some regional trade arrangements may become irrelevant in the wider ESA and EPA context.

Finally, although important progress has been made in removing tariff barriers through the regional trade agreements, much less attention has been devoted to the numerous non-tariff and non-border measures that most countries impose on one another, preventing any substantial increase of intra-regional trade flows.

Figure 1: Overlapping Regional Trade Arrangements in East and Southern Africa
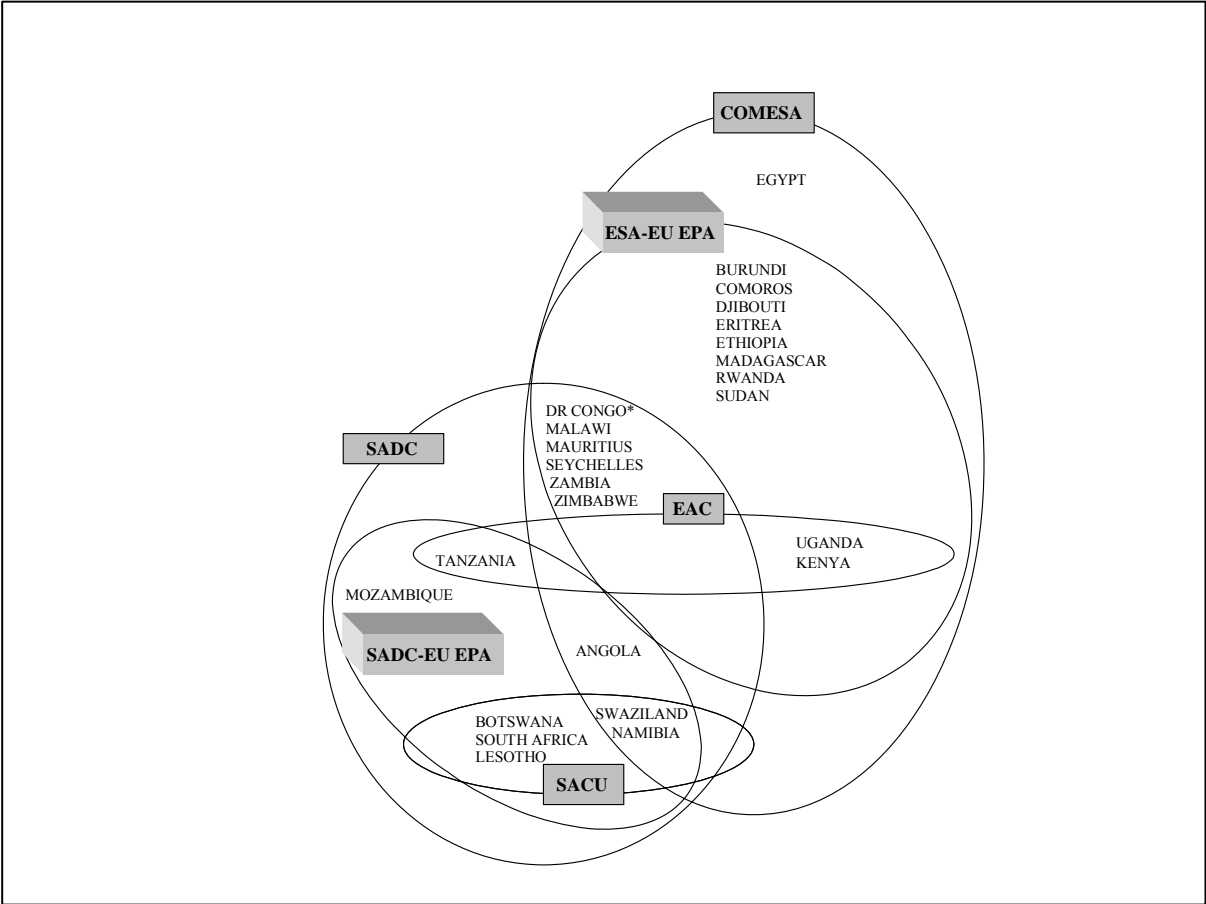
Source: de la Rocha (2003). Note: * Democratic Republic of Congo.

3. Modelling Trade and Budget Effects of EPAs

After highlighting trade protection levels and trade policy issues in the region, we next turn to the modelling framework used in the empirical analysis. As already mentioned in the first section, domestic production data for African countries, which is a prerequisite for a social accounting matrix, is of relatively poor quality or simply not available. For East and Southern Africa, we only have a social accounting matrix for 7 out of 23 countries.[7] Since our main objective is to analyse the effects of the EPAs on as many countries in the region as possible, a general equilibrium model is clearly not the best choice, even though it would be preferable from a theoretical point of view.

As a remedy, we use Verdoorn's (1960) partial equilibrium model to analyse the trade and fiscal effects of the proposed EPAs. Despite its age, it is an appropriate modelling framework, as it focuses on imports from different sources and leaves out domestic production data. It assumes that products are heterogeneous, namely, that they are imperfect substitutes in use. This assumption is reasonable for our analysis, because a vast majority of European exports to East and Southern Africa consists of manufactured goods (Table 2). Though there are differences at the country level, European firms export predominately manufactured commodities like transport and telecommunications equipment or electrical and non-electrical machinery, which are more likely to be differentiated by their country of origin than raw materials or agricultural goods.

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[7] Only Botswana, Malawi, Mozambique, Tanzania, Uganda, Zambia and Zimbabwe are included in the most recent 6.0 database of the Global Trade Analysis Project (GTAP).

Table 2: EU-East and Southern African Trade Structure, Percent of Total, 2002

Group / country	EU exports to ESA/SADC countries			EU imports from ESA/SADC countries		
	Agriculture	Raw materials	Manufactures	Agriculture	Raw materials	Manufactures
ESA group	**10.6**	**2.2**	**87.2**	**30.2**	**14.8**	**55.0**
Burundi*	10.4	6.5	83.1	87.1	5.9	7.0
Comoros*	22.0	2.9	75.1	33.2	0.2	66.6
Congo, Dem. Rep.*	28.8	4.8	66.5	0.6	11.3	88.0
Djibouti*	37.6	3.6	58.8	8.6	17.1	74.3
Eritrea*	15.4	2.4	82.2	24.8	12.0	63.3
Ethiopia*	6.1	1.7	92.2	37.9	11.7	50.4
Kenya	4.0	9.4	86.7	60.6	30.2	9.3
Madagascar*	14.5	4.6	80.9	58.1	5.6	36.3
Malawi*	4.9	1.0	94.1	97.0	1.0	2.1
Mauritius	10.6	1.3	88.1	32.5	0.4	67.1
Rwanda*	7.4	4.8	87.8	76.2	9.8	14.0
Seychelles	37.8	3.5	58.8	87.7	4.9	7.4
Sudan*	7.7	3.3	88.9	18.3	70.5	11.2
Uganda*	6.0	4.6	89.4	79.9	13.7	6.4
Zambia*	1.5	1.6	97.0	35.5	21.5	43.0
Zimbabwe	2.4	2.0	95.6	56.1	21.7	22.2
SADC group	**13.6**	**3.6**	**82.8**	**49.6**	**14.8**	**35.5**
Angola*	22.6	4.4	73.0	1.8	73.4	24.8
Botswana	0.1	0.0	99.9	2.3	0.1	97.6
Lesotho*	20.3	0.0	79.7	45.5	0.0	54.5
Mozambique*	3.2	1.1	95.7	14.1	3.3	82.6
Namibia	11.0	1.9	87.1	46.2	2.9	50.9
Tanzania	6.3	5.8	87.9	71.1	9.3	19.6
ESA + SADC**	**12.8**	**3.2**	**84.0**	**44.3**	**14.8**	**40.8**

Sources: ITC (2005) and own calculations. Notes: Figures for Swaziland are not available. *Least-developed country. **unweighted average.

Moreover, using a partial equilibrium model offers the advantage of the analysis being performed at a more disaggregated level, thereby allowing us to identify the products that are most affected by an EPA. Apart from assuming heterogeneous goods, Verdoorn's model is based on the normal assumptions of partial equilibrium analysis, for instance, no changes in income or exchange rates and, in its simplified version, infinite supply elasticities. The latter assumption is acceptable, as the EU is a large economy and its exports to East and Southern Africa accounted for only 0.3 per cent of total EU exports in 2002 (ITC 2005). Other major exporters to East and Southern African countries are the United States and Asian countries like Japan, which are all large exporters as well. Any change in exports to East and Southern Africa as a share of total production is likely to be very small, therefore infinite supply elasticities is a reasonable assumption.

Verdoorn's model distinguishes between imports from preference beneficiaries (Q_1) and from non-beneficiaries (Q_2), which add up to total imports (Q). The model is based on two key equations: First, the demand function of the preference donor can be written as:

$$Q_1 + Q_2 = Q = \beta \, P_1^{\varepsilon \, \alpha_1} \, P_2^{\varepsilon \, \alpha_2} \tag{1}$$

where P_1 and P_2 denote the prices of beneficiaries' and non-beneficiaries' imports, α_1 and α_2 are share coefficients ($\alpha_1 = Q_1/(Q_1+Q_2)$ and $\alpha_1+\alpha_2 = 1$), β is a parameter and ε represents the elasticity of import demand.

Second, the elasticity of substitution (σ) of preferred and non-preferred imports is defined as:

$$\frac{Q_1}{Q_2} = \gamma \left(\frac{P_1}{P_2} \right)^{\sigma} \tag{2}$$

If we differentiate and rearrange both equations and use the Jones' notation, that is, $\hat{P}_1 = \dfrac{dP_1}{P_1}$, we can express changes in preferred and non-preferred imports as follows:

$$\hat{Q}_1 = \left(\alpha_2 \, \sigma + \alpha_1 \, \varepsilon \right) \hat{P}_1 - \left(\alpha_2 \left(\sigma - \varepsilon \right) \right) \hat{P}_2 \tag{3}$$

$$\hat{Q}_2 = \left(\alpha_1 \left(\varepsilon - \sigma \right) \right) \hat{P}_1 + \left(\alpha_2 \, \varepsilon + \alpha_1 \, \sigma \right) \hat{P}_2 \tag{4}$$

If the tariff (t) is eliminated only on preferred imports ($\hat{P}_2 = 0$) and supply elasticities are infinite, then the price of the beneficiaries' imports P_1 changes by

$$\hat{P}_1 = \frac{dt}{1+t} \tag{5}$$

Using (5), ($\hat{P}_2 = 0$) and ($\alpha_1+\alpha_2 = 1$), (3) can be written as

$$\hat{Q}_1 = \left(\varepsilon + \alpha_2 \left(\sigma - \varepsilon \right) \right) \left(\frac{dt}{1+t} \right) \tag{5}$$

The total change in preferred imports can be split into two effects: First, a trade creation (TC) effect, which is usually defined as the increase in Q_1 due to (a) an increase in overall

consumption and (b) the displacement of domestic production, as prices for preferred imports decline. From the preferred country's point of view, this effect can be written as follows:

$$dQ_1 = TC = Q_1 \varepsilon \left(\frac{dt}{1+t} \right) \qquad (7)$$

Second, trade diversion (TD) is defined as the substitution of preferred for non-preferred imports. This further effect can be obtained from (4), using (5) and $(\hat{P}_2 = 0)$:

$$dQ_2 = TD = Q_1 \alpha_2 (\sigma - \varepsilon) \left(\frac{dt}{1+t} \right) \qquad (8)$$

In addition to the trade effects, East and Southern African countries will observe a decline in customs revenue (CR) due to the preferential tariff elimination. The reduction is equal to the sum of imports from preferred countries and the change in non-preferred imports, both multiplied by the import tariff:

$$d\, CR = \left(Q_1 + TD \right) t \qquad (9)$$

The estimation of trade creation and diversion and of changes in customs revenue has been conducted at the two-digit level of the Harmonised System. At that level of aggregation, the schedule consists of 97 groups of goods. For trade diversion effects, this approach allows a more accurate estimation, since we take competition from importing countries at a disaggregated level into account. In a similar fashion, it enables us to identify those goods that would be particularly affected by the proposed EPAs.

Among ESA countries, only Eritrea had to be excluded from the empirical investigation, as tariff and (reliable) trade data were not available. Consequently, the analysis has been undertaken for a total of 22 out of 23 East and Southern African countries that belong to either the ESA or the SADC EPA negotiating grouping with the EU. The base year is 2003, the most recent year for which trade and tariff data were available.[8]

Rather than estimating import demand and substitution elasticities, we had to assume appropriate figures for them, due to a lack of reliable data. More specifically, we used figures

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[8] See the Appendix for data sources for all variables.

that have been estimated for a range of other developing countries and differentiated between agricultural goods, raw materials and manufactures, as the elasticities for these product groups are likely to differ (Table 3).[9] For instance, raw materials like oil products or gas are much more homogeneous than specialised machinery. Given income levels and the import structure in East and Southern Africa, the elasticities of substitution will be higher than the import demand elasticity, since competition among exports of manufactured commodities from the European Union, the United States, and Japan to East and Southern Africa is likely to be much stiffer than competition between European and African producers.

Table 3: Assumed Values for Elasticities, Two-digit Level of Harmonised System

Product (Harmonised System chapters)	Import demand elasticity	Elasticity of substitution
Agricultural products (01-24)	-0.7	-1.4
Raw materials (25-27)	-0.9	-3.0
Manufactured goods (28-97)	-1.1	-2.0

Importantly, we corrected import-weighted tariffs, as import duties are not always (entirely) collected. Because of exemptions, such as special trade preferences in export-processing zones or for foreign direct investment, and/or deficiencies in the duty collection due to red tape, smuggling or corruption, tariff rates and effectively applied tariff rates may differ. Based on the IMF Staff Reports and IMF country resources (IMF 2005), we computed collection ratios, that is, the share of duty collected of the c.i.f. value of imports. Collection ratios vary significantly in East and Southern Africa, ranging from 2.1 per cent in Madagascar to 20.0 per cent in Comoros (Table 4). Subsequently, we have calculated collection efficiency ratios, that is, the percentage of the import-weighted tariff that has been collected. Using this measure, Botswana, Lesotho, Namibia and Swaziland are particularly good performers, collecting almost 90 per cent of their statutory rates.[10] Comoros, Djibouti, Kenya, and Malawi, conversely, have a rather poor record in collection efficiency, with ratios below 60 per cent.

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[9] See Sawyer and Sprinkle (1999) for a survey of trade elasticities. More recent estimates can be found in Kee et al. (2004), Hertel et al. (2003) and Gallaway et al. (2003). For Comoros, we have used ε = -0.7 and σ = -2.0 for total imports, since no disaggregated data could be obtained.

[10] We have computed a single collection efficiency ratio for Botswana, Lesotho, Namibia and Swaziland, since all of them are members of the SACU customs union, sharing customs duties according to an agreement with South Africa and a specific formula. See Kirk and Stern (2005) for details.

Crucial to the subsequent empirical results, only the actual collected import duties will be incorporated in the analysis, since these duties, and not official tariff rates, are subject to the preferential tariff elimination.[11]

Table 4: Efficiency of Import Duty Collections

Group / country	Collection ratio (%)[1]	Collection efficiency ratio (%)[2]
ESA group		
Burundi*	16.2	77.1
Comoros*	20.0	51.5
Congo, Dem. Rep.*	9.4	77.4
Djibouti*	11.2	42.2
Ethiopia*	8.9	65.8
Kenya	6.9	52.3
Madagascar*	2.1	64.9
Malawi*	6.5	56.3
Mauritius	9.0	69.4
Rwanda*	5.2	78.8
Seychelles	15.5	66.4
Sudan*	17.3	88.2
Uganda*	4.8	86.7
Zambia*	7.6	80.6
Zimbabwe	7.9	75.4
SADC group		
Angola*	6.1	76.4
Botswana	8.6	89.4
Lesotho*	15.6	89.4
Mozambique*	6.2	69.8
Namibia	9.6	89.4
Swaziland	9.4	89.4
Tanzania	6.8	82.1

Sources: IMF (2005), UNCTAD (2005) and own calculations. Notes: [1]Percentage of duty collected of the c.i.f. value of imports. [2]Collection ratio divided by import-weighted tariff rate. *Least-developed country.

4. Empirical Results

Under the likely terms of any EPA in East and Southern Africa, tariffs on EU imports are to be phased out gradually in the period from 2008 to 2020. Important for the following results, we focused on the final stage of tariff elimination rather than trying to estimate the impact of

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[11] Studies that have investigated the impact of trade liberalisation in Africa in the past, using import-weighted tariff rates, are likely to have arrived at biased estimates if collection ratios and tariff rates differ significantly. For example, none of the studies surveyed in the introduction has corrected for the discrepancies between the two rates.

each stated cut. In addition, we assumed that a 100 per cent coverage ratio, that is, tariffs on all products, will be eliminated. This figure is, of course, an upper-bound estimate of the trade effects, since it is highly likely that East and Southern African countries would exclude certain products from the EPAs. In general, ACP countries have argued that no more than 80 to 85 per cent of imports should be liberalised (Hinkle and Newfarmer 2005). This approach is feasible if the EU liberalises up to 100 per cent of its imports from Africa and the combined average arrives at some 90 per cent.[12] Depending on the final outcome of the negotiations, the actual trade and budget effects will be smaller in comparison to the 100 per cent tariff elimination assumed in our analysis. Nevertheless, our results provide an idea about the potentially maximum magnitude of the effects.

As can be seen from Table 5, the total trade effect, that is, the increase in EU exports to East and Southern African countries, is estimated to increase by US $643 million or 10.1 per cent with respect to current import values. In comparison to SADC countries, relative trade effects are somewhat larger in ESA countries, for the most part because protection levels vis-à-vis EU imports are lower in Southern Africa, that is, SACU members. At the country level, the effects range from 3.6 per cent in Lesotho to 20.7 per cent in Comoros. For a number of other countries, such as Burundi, Seychelles and Sudan, the estimated trade effects are in the range between 16 and 19 per cent.

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[12] Liberalisation of 90 per cent of trade flows is generally considered to comply with WTO regulations under Art. 24 which provides that Regional Trade Agreements should liberalise "substantially all trade between the parties".

Table 5: Trade Effects

Group / country	Trade creation		Trade diversion		Total trade effect	
	mill. US-$	%[1]	mill. US-$	%[2]	mill. US-$	%[1]
ESA group	**314.6**	**7.7**	**-151.4**	**-1.4**	**466.0**	**11.3**
Burundi*	5.3	13.5	-1.5	-2.9	6.8	17.5
Comoros*	3.6	10.1	-3.8	-8.1	7.4	20.7
Congo, Dem. Rep.*	18.7	7.5	-7.0	-2.0	25.7	10.3
Djibouti*	12.7	8.8	-4.7	-1.6	17.5	12.0
Ethiopia*	37.2	7.7	-16.9	-1.5	54.1	11.2
Kenya	57.8	5.7	-28.4	-1.4	86.2	8.5
Madagascar*	4.1	2.6	-1.8	-0.5	5.9	3.7
Malawi*	4.3	5.2	-3.9	-0.8	8.2	9.8
Mauritius	54.7	9.3	-25.8	-1.6	80.5	13.6
Rwanda*	4.4	6.5	-2.2	-1.2	6.6	9.8
Seychelles	10.0	13.4	-2.1	-1.2	12.2	16.3
Sudan*	61.5	12.8	-29.2	-3.7	90.7	18.9
Uganda*	8.8	3.4	-5.6	-0.5	14.3	5.6
Zambia*	14.3	5.9	-8.0	-0.8	22.2	9.2
Zimbabwe	17.2	9.1	-10.5	-0.7	27.7	14.6
SADC group	**121.0**	**5.3**	**-56.3**	**-0.8**	**177.4**	**7.8**
Angola*	67.9	5.2	-27.0	-2.0	95.0	7.3
Botswana	4.9	3.1	-3.0	-0.2	7.9	5.1
Lesotho*	0.2	2.4	-0.1	-0.1	0.3	3.6
Mozambique*	15.5	5.4	-7.1	-0.7	22.6	7.9
Namibia	3.5	3.8	-2.7	-0.2	6.2	6.7
Swaziland	0.7	8.5	-0.4	-0.1	1.1	13.7
Tanzania	28.3	6.6	-16.0	-0.9	44.3	10.3
ESA + SADC	**435.6**	**6.8**	**-207.7**	**-1.1**	**643.4**	**10.1**

Source: Own calculations. Notes: [1]of preferred imports. [2]of non-preferred imports. See Table 1 for base years. *Least-developed country.

The percentage increases for trade creation range from 2.4 per cent for Lesotho to 13.5 per cent for Burundi, whereas the (import-weighted) average for all East and Southern African countries amounts to 6.8 per cent. Non-beneficiary exporters would experience a decline in their shipments to East and Southern Africa by an average of 1.1 per cent, with country estimates in the range from 0.1 per cent for Lesotho to 8.1 per cent for Comoros. Apart from Comoros, trade creation exceeds trade diversion in absolute values in all countries. The larger trade creation figures seem to be at odds at first glance, since the assumed substitution elasticities are higher than the import demand elasticities. Using a disaggregated approach, however, ensures that competition among exporters to African countries, affected by tariff elimination, is taken into account at an appropriate level, which reduces potential trade diversion effects. Also, the trade diversion formula in Verdoorn's model incorporates the share of non-preferential imports and corrects the substitution with the import demand elasticity, both of which reduce the magnitude of the trade diversion effects.

The differences in the trade effects among the two EPA groupings in East and Southern Africa arise mainly because of diverging trade barriers vis-à-vis EU imports, differences in competition intensities at the product level, import structures and tariff collection efficiency ratios. The far above-average estimates for Comoros can be explained by its high (import-weighted) tariffs with respect to EU imports (38.9 per cent). In contrast, the rather small trade effects in Lesotho and Madagascar are due to low tariff barriers for EU imports and – in the case of Madagascar – a relatively poor performance in collecting statutory tariff rates.

To check for the robustness of these results, we could, for instance, double both the assumed values for the elasticity of substitution and the import demand elasticity for all three product categories, namely, agricultural products, raw materials and manufactured goods. As a consequence, trade creation and diversion would double as well.[13] Hence, we have to keep in mind that the assumptions regarding both elasticities are crucial for the expected trade effects. Even though the assumed values for both elasticities are well within the range of estimates for other developing countries, they are still assumptions and may contain a possible bias for the trade effects.

In a further analysis, we have looked at commodities at the two-digit level of the Harmonised System that show far above-average trade effects. For this purpose, we have sorted all products by percentage changes in EU imports (total trade effect) in all individual countries. Subsequently, we have counted the total number of top ten listings for each product group across African countries (Table 6). To give an example, the product category 61, articles of apparel and clothing accessories, knitted or crocheted, is among the top ten most affected commodities in 16 out of 21 ESA and SADC countries.[14] Though affected product groups are spread over various commodities, there are a number of categories for apparel and clothing products as well as related products, such as footwear or headgear, that are affected in a considerable number of countries, indicating that this sector might be particularly affected by the proposed Economic Partnership Agreements. Furthermore, some of these groups of products, which as we said, will experience the highest increases in import volumes after the tariff liberalisation, are also locally produced in ESA and SADC countries, which may lead to

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[13] See equations (7) and (8).

[14] Comoros had to be excluded from the computation of the most affected products, as disaggregated tariff and trade were not available. Thus, the sample drops to 21 countries.

a (partial) displacement of domestically produced goods. This applies in particular to apparel and clothing products.

Table 6: Ten Most Affected Product Groups

Harmonised system chapter	Product description	Number of top ten listings[1]
61	Articles of apparel & clothing access, knitted or crocheted	16
66	Umbrellas, walking-sticks, seat-sticks, whips, etc.	14
42	Articles of leather, saddlery/harness, travel goo	13
62	Article of apparel & clothing access, not knitted or crocheted	12
67	Prepared feathers & down, artificial flowers	11
64	Footwear, gaiters and the like, parts thereof	10
36	Explosives, pyrotechnic products, matches, etc.	7
46	Manufactures of straw, other plaiting material	7
57	Carpets and other textile floor coverings	7
65	Headgear and parts thereof	7

Source: Own calculations. Note: [1]Out of 21 countries.

As trade creation is larger than trade diversion (apart from Comoros), East and Southern African countries may benefit from participating in an EPA. Based on Viner's (1950) seminal contribution, trade creation is associated with a welfare gain, as it means a shift from a less to a more efficient supplier, whereas trade diversion can be associated with a welfare loss, since it implies a change in imports from a more efficient to a less efficient importer. In spite of this, we cannot reach any final conclusions about the welfare impact of the EPAs from the relative magnitudes of trade effects alone. Even in a partial equilibrium framework, the negative impact from subsequent terms-of-trade effects or losses in tariff revenue resulting from trade liberalisation might outweigh the increase in consumer surplus.

Hence, we have to consider carefully any changes in government revenue, as the tariff elimination will reduce customs revenue. As shown in Table 7, the decline in import duties in absolute figures ranges from US $0.3 million in Lesotho to US $88.1 million in Angola.[15] As a share of total import duties, the percentage figures vary considerably from some 1 per cent in Swaziland to 55 per cent Angola. With respect to the decline in import duties as a share of

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[15] Similar to the trade effects, our estimated budget effects are lower in comparison to those reported in previous studies that also use partial equilibrium models. The discrepancy can partly be explained by the fact that other studies have not corrected for inefficiencies in import duty collections.

total government revenue, as it is expected the impact is higher in those countries, with higher tariff rates and higher dependence on trade taxes for their public revenue. Thus, Comoros and Djibouti in particular would face a severe impact on their public financial positions and their ability to provide public goods. Percentage declines in both countries amount to 24.5 and 14 per cent, respectively. As can be seen from Tables 1 and 7, the reasons for the far above-average (relative) decline in both countries' import duties are the relatively high tariff barriers for EU imports (38.9 and 27.8 per cent) and the higher dependence on customs revenue to finance public expenditure (46.5 and 37.5 per cent). Similar to the trade effects, the (average) impact on government finances is larger in ESA in comparison to SADC countries.

Table 7: Decline in Import Duties and Budget Deficits

Group / country	Decline in import duties				Import duties % of total government revenue[1]	Budget deficit (-) or surplus (+) % of GDP
	mill. US$	% of total import duties	% of total government revenue[1]	% of GDP		
ESA group	**-26.8**	**-29.5**	**-3.8**	**-0.7**		
Burundi*	-6.6	-44.6	-4.8	-0.9	10.9	-1.7
Comoros*	-8.6	-52.4	-24.5	-3.9	46.8	-6.0
Congo, Dem. Rep.*	-22.7	-40.3	-5.2	-0.4	12.8	-2.3
Djibouti*	-18.6	-37.3	-14.0	-3.1	37.5	-10.4
Ethiopia*	-44.6	-31.7	-3.7	-0.7	11.7	-10.2
Kenya	-69.5	-33.0	-2.0	-0.6	6.1	3.9
Madagascar*	-4.2	-41.1	-0.9	-0.1	2.2	-8.2
Malawi*	-5.2	-14.2	-1.6	-0.3	11.3	-14.6
Mauritius	-76.5	-39.3	-9.3	-1.7	23.6	-6.2
Rwanda*	-4.9	-36.4	-2.2	-0.3	5.9	-9.5
Seychelles	-18.6	-46.2	-8.7	-3.1	18.8	-11.1
Sudan*	-76.4	-34.6	-4.3	-0.6	12.4	-0.9
Uganda*	-9.7	-14.7	-1.3	-0.2	8.7	-8.9
Zambia*	-15.6	-16.5	-1.8	-0.4	11.1	-13.9
Zimbabwe	-20.6	-15.3	-1.0	-0.2	6.4	-11.6
SADC group	**-21.2**	**-24.6**	**-2.0**	**-0.4**		
Angola*	-88.1	-55.2	-2.0	-0.8	3.6	-9.0
Botswana	-5.2	-3.4	-0.2	-0.1	6.4	6.1
Lesotho*	-0.3	-1.4	-0.1	-0.03	5.7	-2.5
Mozambique*	-16.7	-21.6	-3.3	-0.5	15.4	-21.4
Namibia	-4.3	-2.8	-0.4	-0.1	15.6	-4.0
Swaziland	-0.8	-1.1	-0.3	-0.1	24.1	-3.8
Tanzania	-32.7	-22.0	-5.5	-0.3	24.9	-1.6
ESA + SADC	**-48.0**	**-27.6**	**-3.1**	**-0.6**		

Sources: UNCTAD (2005), World Bank (2005), IMF (2005) and own calculations. Notes: [1]Government revenues excluding grants. See Table 1 for base years. *Least-developed country.

Apart from Comoros and Djibouti, there are also relatively large revenue effects in Mauritius and Seychelles, with a decline of around 9 per cent of total government revenue or 1.7 and 3.1 per cent of Gross Domestic Product, respectively. In most other East and Southern African countries, total government revenue in is likely to decline by 1 to 5 per cent. In view of the – in some cases – considerable budget deficits in African ACP countries (Table 7) and the severe difficulties in raising revenues to finance public spending, these are relatively large figures, which are likely to have a strong impact on government finances.

For that reason, unavoidable government revenue losses need to be mitigated. In principle, this could be done by a more or less comprehensive tax or fiscal reform. It is widely recognised that trade taxes should be replaced with domestic indirect taxes. In theory, it is straightforward to replace import tariffs with domestic taxes. An import tariff, for example, is equivalent to an ad valorem (domestic) consumption tax and an ad valorem (domestic) production subsidy. Yet in reality most ESA countries already started in the 1990s implementing tax reforms, including the introduction of a value added tax system. However, experience has shown that they are often encountering severe difficulties in replacing import tariffs with other taxes or in collecting taxes domestically at all. Due to tax evasion, complicated tax systems and often low enforcement efforts, collecting taxes is relatively inefficient in many developing countries. According to calculations by Baunsgaard and Keen (2005), the recovery rate for lost trade tax revenue for middle-income countries has been in the order of 45 to 60 cents for each dollar. Yet revenue recovery has been extremely weak in low-income countries, since they have recovered less than about 30 cents of each lost dollar. Unfortunately, 15 out of 23 East and Southern African nations are least-developed countries. What is more worrying, they are the countries that are most dependent on trade tax revenues. All of the above points out at the need to strengthen tax enforcement mechanisms, but also at the difficulty of doing so.

Another issue arises from the assumption of competitive markets, which has been made in our calculations. For the projected trade and budget effects, we made the crucial assumption that European firms will reduce their export prices in line with the tariff elimination. In case of low competition intensities at the product level, however, the dismantling of trade barriers would place large European firms into a position with some market power. If European firms take advantage of that situation, maintain their prices at current levels ("pricing to market")

and increase their profits instead, ESA and SADC countries will simply lose customs revenue and thus, economic welfare will certainly decline.

5. Policy Options and Prerequisites for the EPAs

Given the likely significant trade and budget effects in a number of ESA and SADC countries, Economic Partnership Agreements would expose these countries to considerable structural adjustment costs, which arise from a reallocation of resources and the need to restructure indirect tax systems. Therefore, East and Southern African countries have ample reasons to reconsider their trade policy strategies and thoroughly assess alternative policy options at hand. Principally, they can opt for the proposed Economic Partnership Agreements or instead make use of the unilateral, non-reciprocal trade preferences, which the European Commission is already granting. In addition, they can continue to manage gradual liberalisation of their regional trade in the framework of existing regional integration schemes. Finally, they can liberalise unilaterally or in the course of current or future multilateral trade negotiations.[16]

It appears that the least-developed countries have little incentive at the moment to participate in an Economic Partnership Agreement from a trade and revenue perspective, because they would hardly gain additional access to European markets in return for opening up their own market. Since March 2001, the Everything but Arms (EBA) initiative provides almost free access to imports from least-developed countries (European Union 2001). Conditions will gradually become even more generous in the future, when residual tariffs and quotas on bananas, rice and sugar are phased out latest by July 2009. Moreover, the EBA regulations are supposed to be maintained for an unlimited period of time and should not be subject to periodic renewals. Even rules of origins, which currently constraint least-developed countries from using EBA preferences (Brenton 2003, Brenton and Manchin 2003), have been liberalised in the course of the EU's recent GSP reform as of 1 April 2005, including allowance for inter-regional cumulation among regional groupings and the elimination of the value added rule criterion (European Commission 2004c, 2005b).

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[16] While this would reduce or eliminate trade diversion effects and "pricing to market" behaviour" by European exporters, tariff revenue would further decline (Hinkle and Schiff 2004).

Although the EBA offer appears as a sustainable political commitment, the European Union could still make use of the general safeguard clause, graduate most competitive products from certain beneficiaries or exclude a country totally, when it is removed from the official list of least-developed countries provided by the United Nations. Thus, least-developed countries do not hold a legal right to utilise EBA-preferences once and for all. Under an Economic Partnership Agreement, in contrast, least-developed countries would be contractual partners entitled to export on the terms which are agreed upon in a binding internal treaty, although standard safeguards would also be part of the agreements.

Moreover, an EPA appears to be an attractive option if integration into the world economy is part of the development strategy anyway. An EPA with the European Union could be a new impetus for liberalising domestic and external affairs. Related reforms could find more domestic support and would thus be more sustainable ("lock-in effect"). Also, an EPA could explicitly include commitments by the European Commission for technical and financial support to master related problems and cover sizeable adjustment costs. Likewise, multilateral agencies could provide additional financial and technical support.

Since 12 out of 16 of the ESA countries and three out of seven of SADC countries are least-developed countries, the two EPA projects in the region depend on their participation. In order to involve them in an EPA, the European Commission not only needs to offer an EBA-like product coverage and equivalent preferential margins, but has to even go a step further. For instance, the European Commission could provide less restrictive and simplified rules of origin, concessions for trade in services and immigration rules, reduction of non-tariff barriers, financial support to cover part of the adjustment costs and technical assistance to manage the process of structural change (Hinkle and Schiff 2004).

ACP countries that do not belong to the group of least-developed countries would ceteris paribus be better off opting for an EPA as far as market access is concerned, since it is likely that the latter will offer better conditions than the more restrictive GSP option, to which they would have to revert, should they decide not to negotiate. Secured access to Europe's markets is a strong argument in favour of an EPA also for these countries, providing producers with a much more stable, long-term framework for export-oriented investment decisions. This advantage must, however, be balanced with the challenges and costs of structural adjustment. Thus, Economic Partnership Agreements will not come without risks for ACP countries.

A fundamental prerequisite for the EPA option is the clearance of overlapping regional integration schemes in East and Southern Africa. Not only do both African groupings consist of least-developed and non-least-developed countries, but commitment to trade reform, both in terms of external and intra-regional liberalisation, differs substantially among SADC and ESA members as well. Accommodating these diverse interests may require a lot of flexibility in program design, taking into account the various stages of regional integration processes that are currently underway parallel to EPA negotiations. In fact, as several authors have suggested, the proposed Economic Partnership Agreements can provide an important impetus to the rationalisation and advancement of those processes (de la Rocha 2003). Yet if they are to complement and reinforce integration in the region, then important and difficult decisions to correct some of the current deficiencies will have to be taken.

An important unresolved geographical-organisational issue concerns the recently established customs union of the East African Community, two members of which (Kenya and Uganda) are participating in the ESA group while the third (Tanzania) has elected to join the SADC group. The establishment of a customs union implies the harmonisation of the trade policy among all members, including application of common tariffs and joint negotiations of trade agreements. The current overlapping membership of the East African Community countries, in SADC of Tanzania and in COMESA of Kenya and Uganda, is clearly not conducive to a common trade policy and creates numerous problems for the implementation of the common external tariff and liberalisation of regional intra-trade. This situation can only worsen if EPAs are negotiated separately by members of the East African Community, given the weight of the European Union as the principal source of imports. Therefore, the three members of the East African Community countries may consider forming their own separate EPA group.

The situation for SACU countries is particularly complex: Botswana, Lesotho, Namibia and Swaziland are all ACP members and, therefore, part of the SADC group negotiating an Economic Partnership Agreement. However, South Africa, which is the biggest SACU member and which has a central role in determining SACU's trade policies, is neither an ACP country nor is it included in EPA negotiations. Instead, South Africa has already signed a separate free trade agreement with the European Union, many aspects of which apply de facto

to the other SACU countries.[17] Thus, even though South Africa is not covered by the trade provisions of the Cotonou Agreement, its free trade agreement with the European Union will affect the EPAs between the European Union and the other members of SACU. To address this problem, the European Union needs to consider including South Africa in the EPA negotiations in some way, in order to ensure some form of harmonisation of the EPA agreement and the free trade agreement between the European Union and South Africa.

As for SADC, its member countries are divided in two groups for the EPA negotiations. 6 of its 13 members are negotiating with the ESA group led by COMESA. The rest are grouped under the so-called SADC group, which is de facto a SACU + 3. The current situation will likely imply the end of SADC as a meaningful trading arrangement, and the consolidation of SACU as the real trade hub in Southern Africa. The former contradicts one of the stated objectives of the EPA negotiations of strengthening and deepening regional integration.

Above all, the EBA initiative has complicated the EPA process by creating different trading environments and negotiating incentives for the least-developed and non-least-developed countries in sub-Saharan Africa. This situation is anomalous and again it does not really help strengthen the regional integration process, which is supposed to be one of the objectives of the Cotonou Agreement. For this reason, the European Commission should consider offering EBA-like preferences to all ACP countries in the EPA negotiations.

There are many issues that have to be addressed and successfully dealt with in the current EPA negotiations, in order to ensure that they really achieve the development objectives envisaged in the Cotonou Agreement. Like their counterparts in other ACP sub-regions, the East and Southern African countries should carefully ponder the advantages and disadvantages of signing Economic Partnership Agreements with the European Union. This paper has attempted to assess some of the risks for East and Southern African countries, in terms of impact on trade flows and government revenue from a full tariff liberalisation of EU imports. The results suggest that the impact will not be negligible for most countries, and potentially very important for a number of them. In addition, the need to consolidate regional trading arrangements in East and Southern Africa arises whether EPAs would be concluded or not.

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[17] To complicate things further, SACU is currently in the process of negotiating a free trade agreement with the United States, its second largest trading partner.

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Appendix: Data Sources

Variable	Source
Trade (Q_1, Q_2)	Imports: TRAINS (UNCTAD 2005)
	Imports and exports: COMTRADE (ITC 2005)
Tariff (t)	UNCTAD (2005), IMF (2005) for Comoros
Customs revenue (CR)	IMF (2005)
Government revenue	IMF (2005)
Gross domestic product	World Bank (2005)
Import demand elasticity (ε)	See Table 3
Substitution elasticity (σ)	See Table 3

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