Regional Economic Integration in Africa: A Review of Problems and Prospects with a Case Study of COMESA

Alemayehu Geda[a],* and Haile Kebret[b]
[a]Addis Ababa University
[b]Ethiopian Economic Association

Major issues of regional economic integration in Africa could be grouped into two interrelated broad areas: issues of implementation and the limitation of insight form both the theoretical and empirical literature regarding the specific approaches that are appropriate for the continent. Implementation issues cover the economic, political and institutional constraints that surface at the implementation stage of economic integration treaties. The approach issue refers to the menu of options available to pursue economic integration. These options range from a step-wise bilateral cooperation to continent-wide integration. This paper critically reviews these issues and tests the determinants of trade flows using the experience of COMESA as a case study. The major conclusions that emerge from the study are, first, bilateral trade flows among the regional groupings could be explained by standard variables as demonstrated by the results of the conventional gravity model. The result shows that regional groupings had insignificant effect on the flow of bilateral trade. Second, the review of the issues indicates that the performance of regional blocs is mainly constrained by problems of variation in initial condition, compensation issues, real political commitment, overlapping membership, policy harmonisation, lack of diversification and poor private sector participation. These problems seem to have made building successful economic groupings in Africa a daunting task, despite its perceived importance in the increasingly globalised world.

JEL classification: *F15, O18, R12, R13, R58*

* Corresponding author: Alemayehu Geda, Associate Professor, Department of Economics, Addis Ababa University, Addis Ababa, Ethiopia. E-mail: ag@ethionet.et

1. Introduction

Regional integration initiatives in Africa have a long history, dating back to the establishment of the South African Customs Union (SACU) in 1910 and the East African Community (EAC) in 1919. Since then, a number of regional economic communities (RECs) have been formed across the continent, particularly since the 1970s. Currently, there are about ten or so regional economic groupings in Africa. Today, there is no country in Africa that is not a member of at least one regional economic group. As reflected in the number of regional agreements, both in the continent and worldwide, the issue continues to occupy a centre stage in the economic policy agenda of countries.

In addition to agreements at a regional level, attempts have also been underway to create economic integration (and ultimately meaningful economic union) among African countries at a continental level. This effort culminated in the signing of the African Economic Community Treaty (or the Abuja Treaty) in 1991, which came into force in 1994. Among the initial objectives of the treaty is to establish continent-wide economic integration by strengthening the existing (and encouraging the formation of new) RECs across the continent. Accordingly, as Teshome (1998) noted, six RECs within the continent were perceived as the main building blocks for such a continent-wide integration initiative.[1] The intent and declarations to form continent-wide unity continues unabated as demonstrated in the Sirte Declaration of September 1999 (which aimed at a speedy implementation of the Abuja Treaty) and that of Lome held in July 2000, which agreed to concretise that agreement. This underscores the need to look at problems and prospects of RECs in Africa. This may also inform how to go about global-level integration schemes such as the WTO.

Despite such efforts, there seems to be a consensus that the success of all the RECs in achieving their objectives has been less

---

[1] These were the Arab Maghreb Union (AMU), the Common Market for Eastern and Southern Africa (COMESA), the Economic Community of Central African States (ECCAS), the Economic Community of West African States (ECOWAS), the Southern African Development Community (SADC) and the Intergovernmental Authority on Development (IGAD). This number has later increased to seven when the Community of Sahel Saharan States (CEN-SAD) was included after its establishment in 1998.

than satisfactory (Johnson, 1995; Lyakurwa *et al.*, 1997; Oyejide *et al.*, 1997). Foroutan and Prichett (1993), however, note that the intra-Africa trade is not small compared with what should be expected. Various reasons are suggested as causes for the lack of progress in regional integration efforts in Africa. Chief among these reasons are unwillingness of governments to (i) surrender sovereignty of macroeconomic policy making to a regional authority; (ii) face potential consumption costs that may arise by importing from a high-cost member country; (iii) accept unequal distribution of gains and losses that may follow an integration agreement at least in the short run and (iv) discontinue existing economic ties with non-members (Johnson, 1995, p. 213). Lyakurwa *et al.* (1997, p. 176) further adds to the list 'lack of a strong and sustained political commitment and macroeconomic instability' among others that have hindered the progress of economic integration in Africa.

Despite the unsatisfactory performance to date, there seems to be a new momentum to invigorate the process of integration of African economies. This is reflected in the resurgence of political will expressed in the Abuja Treaty of 1991 and in the recent formation of the African Union.[2] Among others, first, formation and the strengthening of various regional blocks outside of Africa (in Europe, Asia and the Americas) seems to have forced African countries to reconsider the issue more seriously if they are to avoid further marginalisation. Second, the realisation by African countries (particularly the small ones) that their respective national markets are too small to provide the benefits of economies of scale and specialisation. Third, the liberalisation initiatives undertaken by almost all countries in Africa (mainly sponsored by the Bretton Woods institutions) have also created a conducive environment to pursue an outward-looking economic policy, which encompasses economic cooperation in general and trade liberalisation policy in particular; in particular, the Doha development agenda as well as

[2] Although there is a mechanism in the Abuja Treaty for the Organization of Africa Unity (OAU), now African Union (AU), to co-ordinate the process of creating the African Economic Community (AEC), this mechanism has not worked so far. This has resulted in each REC deciding its own course of action *vis-à-vis* regional integration agendas. Thus, Africa now faces a situation in which there are a multitude of free trade areas (FTAs) and customs unions in the making. This is not a healthy situation and may have the result of further dividing African countries rather than strengthening regional integration. Recently, AU has approached the Economic Commission for African (ECA) to look into this matter. (We thank one of the referees of the journal who brought this issue to our attention.)

the EPA negotiation,[3] if successfully negotiated by Africans and its development partners accept it could offer some degree of optimism. Whether these factors, among others, are sufficient to take the integration initiative to a higher level or not remains to be seen, but that they have created some optimism than ever before is apparent.

In COMESA, for instance, there are also developments that suggest optimism. In recent years, COMESA has been active in various multilateral (such as at WTO in pursuing the Doha development agenda) and bilateral (with the US and EU) forums with developed countries as well as with developed and emerging Asian countries such as China and India. Its active involvement in the US's Africa's Growth and Opportunity Act (AGOA), in the EU's Everything But Arms (EBA) offer as well as on different world multilateral discussions and negotiations, particularly the EPAs with the EU, and with that of the WTO is believed to enhance its visibility and progress. In such forums, COMESA has emphasised the need to go beyond market access to make such relations to have development content. This effort is getting momentum by the recent debt cancellation to its members, the global commitment for Millennium Development Goads and the prospect of growth turn around in the continent. In line with this Intra-COMESA, trade grew at 9–10% in 2005, on the heels of 10% growth in 2004, bringing total of such trade to US $5.4 billion or 7% of the total global trade of member states (COMESA, 2005).

This paper has two objectives: first, to highlight the most important issues that have affected the progress of regional integration in Africa in the past and assess their implication to the prospect of future progress. Second, to empirically identify the most important determinants of intra-regional trade in Africa by way of case study using one of the active and relatively large REC, COMESA. Accordingly, the paper is organised as follows. Section 2 briefly outlines the theoretical and the empirical issues related to regional integration relevant to the case in point. Section 3 presents the model and empirical results. After a brief recap of the main outstanding issues, conclusions are provided in the final section.

---

[3] The EPA negotiation is important because it might imply the need to change the configuration of the existing RECs. It might also have adverse implication for intra-African trade through competition form efficient European firms.

2. An Overview of Theoretical and Empirical Issues

The impetus for regional integration draws its rationale from the standard trade theory, which states that free trade is superior to all other trade policies. As an extension of this basic principle, therefore, free trade among two or more countries will improve the welfare of the member countries as long as the arrangement leads to a net trade creation in the Vinerian sense. That is, though as the theory of the second best indicates, regional agreements do not guarantee an improvement in the welfare of member countries; they could do so provided trade diversion is minimal and trade-creation tilts the balance.

Historically, the customs union theory (in the context of which economic integration issues are discussed) was concerned with welfare gains and losses that follow the formation of customs union. Such gains and losses may emerge from a number of sources such as (i) specialisation, (ii) economies of scale, (iii) changes in terms of trade, (iv) forced changes in efficiency owing to increased competition and (v) a change in the rate of economic growth (Lipsey, 1987, p. 357[4]). According to Lipsey, the theory of customs union has been almost completely confined to an investigation of the first issue, with some slight attention to the second and third issues; the fifth item not being dealt with at all, whereas the fourth issue is ruled out of traditional theory by the assumption that production is carried out by processes which are technically efficient (*Ibid*.). This initial theory of customs union now consists in three interrelated, yet distinct, sets of analytical approaches: the Viner–Lipsey–Mead approach (Mead, 1950; Viner, 1950; Lipsey 1987), the Kemp–Wan approach (Kemp, 1964; Kemp and Wan, 1987)[5] and the Cooper–Massell–Bhagwati approach (Cooper and Massell, 1965; Bhagwati, 1968) [see Vanek (1962; 1965); Bhagwati (1991) and Geda (1999; 2007) for details]. There seems to be a need to emphasise Lipsey's point five above in the context of developing countries. None of the existing theories emphasised this point, however.

The traditional theories of trade, which assume constant returns to scale and focus on static gains, provide a limited practical insight into regional integration policy issues, in particular, in developing

---

[4] Lipsey's article has originally appeared in *The Economic Journal* (1960), 70: 496–513.
[5] Reprinted in Bhagwati (1987). Originally it appeared in Kemp (1976).

countries such as in Africa. Even the theoretical insights of the more recent trade theories do not fare better. For instance, Krugman's (1991) 'economic geography' model, which attempts to explain the determinants of regional concentration of economic activity, is yet to be fully explored and its practical relevance to be tested (particularly in the African context). The basic idea of Krugman's hypothesis is that under the assumption of increasing returns to scale, economies of scale and trade cost considerations determine the location of economic activity. The implication of this hypothesis for regional integration is that regional blocks could enhance economies of scale by locating a production activity in one location rather than each activity in each country. Similarly, reducing trade costs will add to production efficiency (Lyakurwa *et al.*, 1997). But as Baldwin (1997, p. 46) correctly pointed out, 'one very important—but neglected—aspect of integration is the effect of a trade arrangement on the region's economic geography', that is, the impact of integration on concentration of economic activities. Some argue (Foroutan and Pritchett, 1993, for instance) that one of the reasons for the failure of regional integration in Sub-Saharan Africa is the fear of some countries, particularly the poor ones, that the few industries they have may migrate to relatively more advanced neighbours. Therefore, although the basic principles of trade theories provide us with some general insights, they fall short of serving as practical guides in the African context.

The above-cited trade theories raise the following outstanding issues. First, the standard trade theory is based on comparative advantage, which in turn is premised on differences in each country's endowments. The real practical question then is 'does this hypothesis provide a useful guide for African economies which (with some exception) could be characterised as producing, exporting and importing goods that could be categorised as substitutes, and not complements, at least in the short run?' (see below for supporting evidence). Second, in terms of Krugman's hypothesis of 'economic geography, 'is the potential migration process of industries unidirectional, or all countries will equally (in the sense of gain) share from such a process?' Third, if such relocation is politically unacceptable by all countries in a region, 'is it possible to design a compensation scheme whereby countries will be compensated for location effects?' More fundamentally, can theories designed to address issue of efficiency be relevant to both

understand and bring about structural change, which are central in development process? These and similar questions are at the heart of regional integration process in Africa, as will be discussed in detail later.

Limited guidance from the above and similar standard trade theories and the observed lack of progress in the integration process in Africa have led some authors (Fine and Yeo, 1997, for instance) to suggest that the focus of regional integration in Africa should reorient itself if it is to enhance economic growth. In what they referred to as the new paradigm of regional integration, they argue, 'regional integration in SSA could contribute to economic growth in a very different way than envisaged previously, namely by helping to underpin stable and sound national macro-economic policies and rapid accumulation of human and physical capital'. One may also add that regional integration schemes have also the 'lock-in' effect by creating ties between less developed countries with relatively developed one as well as by forcing them to remain in a similar and agreed upon (hopefully, good) policy framework. In addition to reorienting the emphasis of regional integration from trade to macroeconomic coordination, others also argue in favour of focusing on cooperation in infrastructural and natural resource development (Robinson, 1996). Robinson (1996, p. 69) argues that 'the requirements for making reasonably complete forms of regional integration work are demanding: the distribution of gains has to be carefully enumerated, compensation mechanisms established— to make the distribution equitable—and a degree of national sovereignty need to be surrendered in order to achieve the necessary harmonisation at the regional level. By contrast, regional cooperation in infrastructure and natural resources is far less demanding. Typically, there are clear gains for all the countries involved in regional integration in infrastructure, irrespective of their size and level of economic development'. The recent gravity model-based analysis of Longo and Sekkat (2001) also noted infrastructure deficiency (in addition to currency non-convertibility and political instability) among the major obstacles to intra-Africa trade. What is not clear from such proposals is whether such regional cooperation should be viewed as complementary to (first stage), or a substitute for regional economic integration initiatives. If it is pursued as an end by itself, does it meet all the objectives of regional integration?

Whatever the limitations in our understanding of regional integration issues at a theoretical level, our grasp of the empirical evidence regarding the issue is even scantier. The popular model used to evaluate regional integration issues is the gravity model. This model, as Frankel *et al.* (1994) put it, 'has a fairly long history and fits the data remarkably well, though its theoretical foundations are limited' [see Feenstra (2004), however]. One has to add to that, since by formulation it cannot capture dynamic gains, the results obtained are far from conclusive. Its limitation for use in Africa is accentuated by the fact that political and institutional variables are as important, if not more, as conventional variables that are used in gravity models. This is partly our justification for using gravity model in combination with case study (of COMESA) to capture such institutional and political factors in this study.

The noted limitations notwithstanding, some studies have been carried out to assess the performance of regional blocks in Africa using a gravity model. Among such studies are those of Foroutan and Pritchett (1993), Elbadawi (1997), Lyakurwa *et al.* (1997) and Longo and Sekkat (2001) that focused on Sub-Saharan Africa and Ogunkola (1994) on Western Africa. Though the results of these studies slightly vary, the general findings and conclusion seem to be similar. They all conclude that the experience of regional integration in Africa has been a failure in achieving its objectives of increasing intra-regional trade in particular and fostering policy coordination in general. A recent study by the Economic Commission for Africa (ECA, 2004), having developed a unique index to measure progress in integration in Africa, concluded that regional integration in Africa has 'proceeded weakly and unsteadily across sectors, countries and regional communities'. As will be discussed later, these econometric results are also corroborated by simple descriptive intra-regional trade statistics. Except some improvements in few regions, the growth of Africa's intra-regional trade has been either small, stagnant or declining in recent years compared with the record in 1970. Similarly, intra-regional, inter-regional and the intra-African trade in general are very low. As pointed out by Lyakurwa *et al.* (1997), Foroutan and Pritchett (1993), World Bank (1989), OECD (1993) and Yeats (1999), analysis of regional integration schemes in Sub-Sahara Africa, there have been no noticeable changes in the composition of trade that

would suggest that integration has led to any significant structural change in the economies concerned.

3. An Empirical Analysis with a Case Study of COMESA

3.1. The Case Study of COMESA

The various studies reviewed above suggest that regional integrations in Africa are in general a failure. The weakness in the studies reviewed above relates to lack of adequate explanation for the failure of regional integration scheme in Africa. This is partly related to the limited scope of the gravity model which is widely employed in these studies. Using both gravity model-based empirical analysis and qualitative analysis using institutional, political and policy failure issues as important factors, taking COMESA as a case study, this paper attempts to redress this problem.

The Common Market for Eastern and Southern Africa (COMESA) was established in November 1993 in Kampala, Uganda. Currently, it has 19 member states that stretch from Egypt in the North to Swaziland in the South.[6] Before the formation of COMESA in 1993, the regional community was known by its previous name, Preferential Trade Area for Eastern and Southern Africa, which was established in September 1981 and had a different treaty to its successor, the COMESA. COMESA has a combined population and GDP of close to 400 million people and US $170 billion, respectively. The total surface area is over 9 million km, of which 60% is endowed with rivers and lakes with a potential for irrigation, fisheries, hydroelectric, etc. Less than 10% of the arable land in the region is under cultivation and only 5% of available water is used for cultivation. The region has used only 4% of its hydroelectric potential. The region is also a source of wealth of minerals and hopes to offer many opportunities to its members and their development partners.

COMESA achieved an FTA on 31 October 2000 when nine of the member states, namely Djibouti, Egypt, Kenya, Madagascar, Malawi, Mauritius, Sudan, Zambia and Zimbabwe, eliminated their tariffs on COMESA originating products. This is in accordance

---

[6] According to the COMESA (2007), the current members of COMESA are Burundi, Comoros, Congo DR, Djibouti, Egypt, Eritrea, Ethiopia, Kenya, Libya, Madagascar, Malawi, Mauritius, Rwanda, Seychelles, Sudan, Swaziland, Uganda, Zambia and Zimbabwe.

with the tariff reduction schedule which was adopted in 1992 for the gradual removal of tariffs on intra-COMESA trade in an effort to move towards customs union—thus making it one of the first African RECs to do that. Currently, all members, except Angola, DR Congo, Ethiopia and Swaziland, have achieved a tariff reduction rate of 80–90% on goods originated from member countries. The achievement and problems of COMESA are highlighted below so as to help us understand the challenge of regional integration in Africa.

It is noted from the discussion in this section that the African RECs are characterised by very low level of intra-REC trade. This is shown for COMESA in Tables A1, A2, and A3 for the years 2004, 1992 and 1985, respectively, and Table A4 for the annual figures from 1980 to 2004. During these periods, intra-COMESA trade remained in the vicinity of 6% (of total trade of COMESA members), the 2006 figure being 7%. In addition to its low level, it is dominated by few members. In general, Kenya, Mauritius, Zambia and Zimbabwe are exceptionally active participants in intra-COMESA trade. The role of Mauritius and Zambia in intra-COMESA trade seems to have increased since 1992.

Tables A4 and A5 show trends of intra-COMESA exports and imports as well as COMESA's exports to and imports from the rest of the world. Intra-COMESA trade has increased from 5.7% (exports 6.8% and imports 4.9%) in 1980 to about 6% now (2004). Intra-COMESA trade seems to be quite stable during the period under analysis. In all periods, Kenya and Zimbabwe seem to dominate intra-COMESA trade. One important point that comes out clearly in the tables is that COMESA countries are extremely dependent on 'Third Countries' for their exports and imports. The share of Third Countries remained fairly stable above 90% throughout the period under analysis (see Appendix). This shows the extremely low level of intra-REC trade in Africa. Closer examination of COMESA data shows that member countries are generally exporters of primary commodities (coffee and coffee substitutes, pearls, precious and semiprecious stones and tobacco and related products constituting 22.8, 21.3 and 10% of total exports in 1997–98, respectively) and importers of manufacture goods [see Table A6 and Ronge (2000) and Karingi *et al.* (2002) for details].

Notwithstanding some positive development in the African RECs such as COMESA, the weak intra-regional trade flows and

the lack of progress over time—despite the multitude of treaties to that effect—do warrant further exploration. Should the weak performance of regional integration in Africa be attributed solely to lack of implementation? Or should it be attributed to some attendant characteristics of African economies, which led Foroutan and Pritchett (1993) to conclude that even in the absence of trade restrictions, the scope for trade among African countries is 'intrinsically' modest? If so, does this suggest the need for a new approach to regional integration? More importantly, what are the major factors behind such poor performance? Although addressing all these questions is beyond the scope of this paper, an attempt is made here to explain the trade flows of COMESA member countries, as a case study, and using a standard specification. This exercise is however different from the existing literature because we sought explanation for the problems identified using the standard gravity model in tandem with political economy and institutional and structural issues that surely are stumbling blocks for regional integration in the continent. Accordingly, we commenced the analysis first by fitting a gravity model to see if conventional determinants that are normally stated in the standard literature could be identified in the case of COMESA. This is then combined with political and institutional-based explanations which, we argue, have a wider scope both to explain bilateral trade flows in Africa and to help evaluate the impact of regional economic integration schemes in Africa.

3.2. *The Estimated Model and Empirical Results*

The review of the existing studies on Africa and a closer look at COMESA noted above underscore the negligible success in regional integration in the continent. One of the most important empirical indicators of success in regional integration is fast growth in intra-regional trade. Such fast growth is dependent on some structural and economic fundamentals that may enhance or hinder intra-regional trade. In the empirics of regional integration, this issue is handled by estimating what is called the 'gravity model'. We have specified and estimated such a model below. This model differs from most models reviewed above, owing to the inclusion of infrastructural variables which others working on Africa, except Longo and Sekkat (2001), have failed to incorporate.

We also held the view that the use of gravity model in this study is different because we employed it cognizant of its limited and narrow scope. We attempted to redress the latter weakness, common to all previous studies, by combining the gravity model with the analysis of institutional and political factors that are crucial to understand regional integration issues in Africa—thus widening the limited scope of the gravity model. The case study of one of the largest and vibrant RECs, COMESA, is used in this endeavour.

The gravity model has widely been used in estimating the trade effects of regional integration, though it has often been criticised for lacking a strong theoretical basis. Most early papers using gravity models were *ad hoc* rather than being based on strong theoretical foundations. As noted by Cernat (2001), despite its use in many early studies of international trade, the model was considered suspect in that it could not easily be shown to be consistent with the dominant Heckscher–Ohlin model explaining net trade flows in terms of differential factor endowments (Cernat, 2001). However, Anderson (1979), Bergstrand (1985), Deardorff (1998) and Feenstra (2004) have each developed some theoretical foundations to formally derive the model. Appendix 1 presents a brief formal description and formulation of the gravity model and a guide to the literature.

In a typical gravity model, bilateral trade flows are determined by the size of the two economies and the distance between them. However, it is always possible to expand the model to include other relevant determinants of trade. To start the analysis from an identification of the empirical regularity, the following standard gravity model is specified and estimated:

$$T_{ij} = \beta_0 + \beta_1(Y_iY_j) + \beta_2[(YC_iYC_j)] + \beta_3\text{Dist}_{ij} + \beta_4(\text{Area}_i\text{Area}_j)$$
$$+ \beta_5|YC_i - YC_j| + \left[\beta_i\sum + \beta_j\sum Z_j\right],$$

where T denotes bilateral trade between countries i and j; Y is GNP; YC is GNP per capita and Z_i and Z_j are other relevant variables grouped under 'infrastructure' (such as road length per 1,000 people, number of telephones per 100 people), policy (such as FDI, parallel market premium, financial deepening), politics

(occurrence of war, coup, revolution), 'culture and geography' (language, sharing border, being a landlocked or not).

This model is estimated using bilateral export data of COMESA member countries (for each reporter and partner country). The censored nature of such regional bilateral trade implies that OLS estimates are biased. Thus, the model is estimated using a Tobit formulation [see Longo and Sekkat (2001), Elbadawi (1997) and Foroutan and Prichett (1993)]. Let the latent variable of this Tobit model is given by

$$\text{Log } y_i = \beta'X + \mu_i.$$

Then

$$\text{Prob}(y_i = 0) = \text{Prob}(\mu_i < -\beta'X) = (1 - F_i),$$

$$\text{Prob}(y_i > 0) = f(y_i|y_i\mu > 0 = F_i\left[\frac{f(y_i - \beta'X, \sigma_u^2)}{F_i}\right],$$

$$= \frac{1}{\sqrt{2\pi\sigma_u^2}} e^{\left(-\frac{1}{2}\right)\left(\sigma_u^2(y_i - \beta'X)^2\right)}.$$

The log-likelihood function of this can be given by

$$\text{Log } L = \sum_{y=0} \log(1 - F_i) + \sum_{y>0} \log(\frac{1}{\sqrt{2\pi\sigma_u^2}}) - \sum_{y>0} \frac{1}{2\sigma_u^2}(y_i - \beta'X)^2.$$

The parameters of the model are computed by finding the estimates that maximise the likelihood function above. In general, as can be read from Tables 1 and 2, the two (basic and extended) versions of the model essentially offer similar results. The model, as usual, performed well except the language dummy for English and the road density of the partner country, which have the unexpected negative coefficients. Although Elbadawi (1997) had also reported negative coefficients for the language dummy for Arabic (and in some versions of his model for Swahili), in general, the existing empirical work for Africa reported a positive coefficient for English and French (Foroutan and Pritchet, 1993; Elbadawi, 1997). We estimated the model by excluding the language dummies (not reported) but found no significant difference with the result reported in Table 2. The standard gravity model variables, in

Table 1: *Basic Gravity Model for Intra-COMESA Trade (Exports: 1980–2004)*

Variables	Tobit equation		Marginal coefficients	
	Coefficient	*t*-Statistics	Coefficient	*Z*-Statistics
Standard gravity model variables				
Log(Distance$_{ij}$)	0.014	0.53[a]	0.014	0.53[b]
Log(Area$_{ij}$)	−0.052	−7.1	−0.052	−7.1
Log(GDP$_i$GDP$_j$)	1.147	73.7	1.147	73.7
Log(GDPPC$_i$GDPPC$_j$)	0.018	2.39	0.018	2.39
Log|GDPPC$_i$− GDPPC$_j$|:Linder	0.0001	14.8	0.0001	14.8
Constant	−0.727	−2.6		
Pseudo R^2	0.47			
Number of observation	4,219			
Log-likelihood		−2,503.8		

Source: The trade data are from IMF (2005), 'Direction of Trade Statistics', and the rest form Longo and Sekkat (2001).
[a]Except for 'distance', all variables are statistically significant at 1% level.
[b]Not statistically significant at the customary 1, 5 and 10% level of significance.

particular, area, GDP and GDP per capita, are found to be important both in the basic and extended versions of the model (Tables 1 and 2). The results shown in Tables 1 and 2 indicate that generally almost all the standard gravity model variables have plausible coefficients.

Another result in our empirical analysis relates to the effect of macro policy indicators. Owing to the lack of complete data on macro policy indicators for all countries, inclusion of two macro policy indicators (parallel market exchange rate premium[7] and money supply, M2, to GDP ratio) significantly reduced the sample size to only 328 observations, though the result (not reported)

---

[7] This parallel market premium refers to the excess of the parallel market rate (which is also sometimes referred to as 'black market rate') over the official exchange rate. World Bank's African database shows a parallel exchange rate for the majority of the COMESA countries up to 1999. It has no data after this period. This shows the change in the exchange rate regime in these countries. It is this fact that limited our sample size in the estimation process.

Table 2: *An Extended Gravity Model for Intra-COMESA Trade (Exports: 1980–2004)*

Variables	Tobit equation		Marginal coefficients	
	Coefficient	*t*-Statistics	Coefficient	Z-Statistics
Standard gravity model variables				
Log(Distance$_{ij}$)	0.05	1.55	0.05	1.55
Log(Area$_{ij}$)	−0.011	−1.46	−0.011	−1.46
Border$_{ij}$	0.056	2.7*	0.056	2.7*
Log(GDP$_i$GDP$_j$)	0.801	39.9*	0.801	39.9*
Log(GDPPC$_i$GDPPC$_j$)	−0.007	−1.12	−0.007	−1.12
Log|GDPPC$_i$−GDPPC$_j$|:Linder	0.00	2.28*	0.00	2.28*
Language				
Arabic$_{ij}$	−0.006	−0.21	−0.006	−0.21
English$_{ij}$	−0.133	−4.93*	−0.133	−4.93*
French	0.109	4.36*	0.109	4.36*
Swahili$_{ij}$	0.033	2.34*	0.033	2.34*
Infrastructure				
Log(Phone$_i$ reporter)	0.305	14.0*	0.305	14.0*
Log(Phone$_j$ partner)	1.10	28.29*	1.10	28.29*
Log(Road$_i$ reporter)	0.136	5.68*	0.136	5.68*
Log(Road$_j$ partner)	−0.106	−4.40*	−0.106	−4.40*
Political				
Revolution or Coup$_i$	−0.022	−1.26	−0.022	−1.26
War$_i$	−0.030	−1.42	−0.030	−1.42
Constant	4.865	13.24*		
Pseudo R^2	0.86			
Number of observation	1,949			
Log-likelihood	−256.91			

Trade data are based on IMF (2005), 'Direction of Trade Statistics'. All the data, except Border and those under Language and the values with asterisk, are statistically significant at 1% level.

indicated that good macroeconomic policies are positively related with intra-COMESA trade. Infrastructural development is also found to be an important determinant of bilateral trade in Africa (Table 2). This finding, which is consistent with that of Longo and

Sekkat (2001), shows the potential that might be exploited if the problem of implementing harmonised policies as well as investing on regional infrastructure that besieged the growth of many RECs in Africa is addressed. The importance of harmonising macro-economic and trade policies for enhancing economic integration cannot be overstated (O'Connel, 1997; Geda 2001). Owing to the focus of Africa's regional economic integration efforts on trade lib-eralisation policies (tariffs and non-tariff barriers), most analysts had focused on the impact of regional integration on trade flows. Such a focus has had a number of problems. Harmonisation pro-blems in COMESA, for instance, include (i) lack of harmonisation of tariffs, customs procedures and tax policies as well as incentive package for investment; (ii) problems related to donor support to different, competing RECs. Some donors support SADC, whereas others support COMESA. This usually depends on short-term inter-est of the donor. Such donor influence creates not only harmonisa-tion problems but also unhealthy competition among RECs; (iii) lack of common position on structural adjustment programmes (SAPs) among COMESA members (partly because of the capacity and desire of the sponsoring institutions to deal with individual members) had also created harmonisation problems. There is a general problem of significant disparity in country laws about the operation of companies and relevant public offices too. The latter ranges from different interpretation of the rules of origin to lack of harmonisation of opening hours at border posts.[8]

   In contrast, the importance of macroeconomic policy coordi-nation on economic integration has received, except in few RECs, relatively little attention and hence the success is negligible. But, as O'Connell (1997, p. 90) noted, 'among the most often cited constraints to greater intra-Africa trade is the inhospitable macro-economic environment associated with overvalued exchange rates and non-convertible currencies'. Elbadawi (1997) shows a support-ing evidence for this, although our estimation result in this study, as we have noted above, enormously reduced our sample size, owing to the use of the parallel market premium, but offered supporting evidence to that of Elbadawi (1997). Clearly, in the context of regional integration, the issue of currency inconvertibility is still a

---

[8] The information here is based on interviews conducted in Tanzania and Zambia and reported in Geda (1998).

major obstacle, whereas the issue of overvalued currency is less of a concern these days due to the widespread exchange rate liberalisation polices carried out in many African countries. One should also add a related obstacle—currency instability—as witnessed in the Southern African regions at the end of the 1990s (Malawi, South Africa, Zambia and Zimbabwe, for instance). Similar problem is observed in West Africa. Aryeetey (2000) for instance noted that 'with emphasis on tariff reductions, [regional integration schemes] are unlikely to increase trade significantly if exchange rates are not properly aligned and the underlying macroeconomic framework is unstable' [see also Ndung'u (2000) for a similar argument in East Africa and Geda (2001) for the whole of Africa]. Thus, in addition to harmonising trade policies, the gradual coordination of macroeconomic policies, covering fiscal and monetary policies and the operations of all financial institutions, is a necessary condition for a smooth implementation of economic integration schemes.

The estimated results reported in Tables 1 and 2 show that the proxies used to measure political instability have the expected signs although they are not statistically significant. This suggests at the importance of political issues related to loss of sovereignty and lack of political commitment which is pervasive in many of African RECs. Regional integration experience in Africa indicates that countries are hesitant to create supra-national bodies and transfer power to them as a sanctioning authority. The secretariats that are formed (such as that of ECOWAS and SADC, for instance) do not have the legal backing to force countries to fulfil their obligations—such as macroeconomic policy coordination or harmonisation, reducing tariff rates and other trade barriers in accordance to their commitments. When such barriers are largely eliminated owing to liberalisation, this reluctance to lose sovereignty and lack of political commitment are taking a form of escalating non-tariff barriers,[9] which are becoming major problems in COMESA,

[9] In COMESA, non-tariff barriers are taking the form of (i) administrative problems which appear contradictory to the commitment at the meetings of signatories, (ii) time-consuming process of getting information at customs, (iii) lack of information at border posts about agreements among member countries and procedures that need to be adopted, (iv) inadequate communication facilities such as telephones and fax at border posts which hinder communication with capital cities where relevant information about RECs agreements can easily be found, (v) pre-shipment inspection requirements in

for instance. The continent-wide initiative such as the African Economic Community could potentially serve to address such problems, but has yet to set up the structure to do so. On political commitment, despite the rhetoric, practical commitment is lacking. It is observed in many RECs, including COMESA, that countries are committed to other multilateral (one being SAP policy packages) and bilateral commitments than to regional agreements. This is partly explained by aid dependence, and hence conditionality attached to SAPs, as opposed to membership in RECs, of Africa.

Tables 1 and 2 also show that distance and area (except for area in Table 1) are found to be not statistically significant. The indicator of the size of the economy (GDP) is found to have strong and statistically significant positive effect, whereas per capita income is found to have no statistically significant effect. Although the magnitude is not large, sharing a border is found to have a positive and statistically significant effect on trade between member counties. Similarly, the per capita gap is found to be positive with a very small coefficient indicating the possibility of comparative advantage as determinant of trade in the regions. The reading from these two estimated models and also the data in the Appendix show that intra-COMESA trade is not that significant; neither is the magnitude of the coefficients of the explanatory variables (except GDP) used in the models and reported in Tables 1 and 2. This may be related, *inter alia*, to a lack of complementarities and the problems of simultaneous membership of countries in more than one REC. With regard to the issue of complementarities, early regional economic groups were formed when most of the respective members were implementing import substitution growth strategy. Although such a strategy could be conducive to regional integration, say, in expanding market size, its focus on encouraging domestic production may hamper division of labour and specialisation (which is implied by regional integration) among countries. This is particularly true when the initial trade structure among REC members is similar. This is shown in Table A6. Table A6 shows that COMESA's exports to its dominant

some countries, (vi) bureaucratic and administrative problems in the administration of rules of origin, (vii) unfair business practices by some companies and, finally, (viii) technical and standardisation requirements (such as phytosanitary and sanitary regulations) especially on perishable (agricultural) products which are prohibitive (see Geda 1998 for details).

trading partners (EU) are primary commodities, coffee being an important one. The only important manufactured product exported being textiles. Similarly, it shows that COMESA's imports from EU (see the last four columns of Table A6) are predominantly manufactured goods that fall in the SITC classification 5–7. Thus, from this table, it is safe to conclude that members of COMESA export nearly similar primary products and import manufactured goods from their main trading partner, the EU. For COMESA, which has one of the highest levels of trade diversification index in Africa, although this index is influenced by few member countries (Ben Hammouda *et al.*, 2006), this shows the non-complementary nature of the intra-REC trade.[10] This is thus related to lack of diversification in African trade.

Using trade diversification indices and cross-country regression, a detailed study about diversification by the ECA (Ben Hammouda *et al.*, 2006) has shown that there was a trend towards diversification in the 1970s and early 1980s. This diversification gains were however not sustainable (were reversed), as most African countries could not withstand the pressures of the economic crisis and the attendant adjustment policies in the 1980s and 1990s. Second, they found that diversification in Africa is highly influenced by investment, per capita income, level of openness, the macroeconomic policy stance and stability, governance and conflict. Trade liberalisation is also found to lead to more specialisation (not diversification). Conservative fiscal policy emerged clearly to be a counter diversification force too. They also found a significant link between diversification and economic growth for African economies. The results have shown that deepening diversification leads to improvements in total factor productivity. Thus, policies aimed at diversification are found to be important for regional integration in Africa (Ben Hammouda *et al.*, 2006). To the extent that these factors are absence, African RECs will continue to suffer from problem of complementarity with negative repercussion on intra-African trade.

Such poor intra-REC trade could also be related to problems of simultaneous membership of countries in more than one regional group, which is a widespread phenomenon in Africa (except in North Africa). For instance, in the Eastern and Southern African

[10] However, as shown by Weeks and Subasat (1998), this aggregate primary commodity category hides the huge potential trade in agricultural commodities, particularly in grains, that does exist in Africa.

region, some countries are members of both SACU (Southern African Customs Union) and SADC, and COMESA and SADC at the same time. Similarly, in West Africa, many countries that are members of ECOWAS are also members of UEMOA (Economic and Monetary Union of the West African States). The usefulness of the overlapping membership issue or more generally the existence of subset groups within a larger group, sometimes referred to as variable geometry approach, has not enjoyed the consensus that other issues have received. For instance, Lyakurwa *et al.* (1997, p. 196) contends, 'in the African context, such an approach of variable geometry could, for example, mean making genuine progress at ECOWAS level while maintaining the achievements and benefits of UEMOA'.

But others argue that multiple memberships are a hindrance to regional integration since, among other things, it introduces duplication of effort. For instance, Aryeetey and Oduro (1996) quote McCarthy as arguing that, 'It is difficult to envisage how SADC and COMESA, given their convergence to both sectoral cooperation and trade integration, can live and prosper with the overlapping membership of the Southern African countries'. An OAU Study to understand problems of country participation in SADEC and COMESA shows that countries do face problems by participating in many RECs. These problems include human and financial costs associated with multiple membership, lack of harmonisation of policies especially in the areas of rules of origin and customs procedures, a large information gap at policy making and implementation levels and changing political position of member countries of different RECs (Geda, 1998).[11] Addressing such problems demands the need to know whether subregional groups are serving as building or stumbling blocks to a continent-wide integration. If so, Suliman (2000) asks, 'Do we need to reconfigure the integration building blocks, because of overlap and loss of efficiency? Should the RECs be given supra-national authority to enforce common decisions?' All these questions seem to be worth exploring

---

[11] Our empirical work using the gravity model reported here is not conclusive. For a dummy variable that takes the value of 1 when one of the two trading partners is a member of SADEC and zero otherwise is found to have negative (not significant) and positive (significant) values when the model is run with and without the indicators for macro policy (not reported). This finding for SADEC is also similar to that of Elbadawi (1997).

beyond theoretical conjectures to evaluate the prospects of realising the objectives of continent-wide economic integration. The latter is in turn helpful to understand the issue of how Africa's integration in the global economy through gateways such as the WTO can be managed since the WTO recognises such regional organisations for less developing countries as long as they are global welfare-enhancing in line with GATT's article xxiv (5).

Given the findings above that underscore the limited success in regional integration, it is important to raise the central question: why economic integration schemes in Africa failed to strongly affect trade flows despite the multitude of arrangements? Another important question is whether the prospects for establishing successful regional and/or continental economic integration scheme are better now than what has been so far? The answer to these questions depends on the extent to which African leaders (and other stakeholders) are ready to overcome past constraints and adopt approaches that are incentive-compatible with stated objectives. This requires, however, answering the question: 'what are other outstanding issues in the way forward with regional integration in Africa? Apart from the political and institutional issues emphasised above, there are also about three other outstanding issues that greatly hampered regional integration effort in Africa [see also Aryeetey and Oduro (1996), Ayeetey (2000), N'dung'u (2000) and ECA (2004) for a list of such problems]. This list includes the following.

The first point relates to the issue of revenue loss. Reducing trade barriers in economies where tariff revenue is one of the most significant sources of government revenue complicates the inter-temporal tradeoff between the apparent short-term loss of revenue and the expected long-term benefits emanating from regional integration. In Kenya, for instance, government revenue from its imports from EU constitutes 10% of its total revenue (Ronge, 2000). Given that Kenya is a more liberalised country (and widely trades in the region), the revenue loss for other less liberalised member countries could be large. At present, the potential revenue loss from expanded intra-COMESA trade for members is low owing to the low level of intra-regional trade flows. For instance, Ethiopia's revenue loss due to opening its market to COMESA is <1% of total revenue since its trade with COMESA is negligible (although shifting its direction of trade from EU to COMESA could mean a

lot of loss in tax revenue). For instance, Stevens and Kennan (2005) computed the proportion of theoretical revenue that would be lost if 80% of the goods imported from the EU by ACP countries (by applying the set tariff to the value of imports) are liberalised. The result shows that three-quarters of the ACP countries could lose 40% or more of their tariff revenue, and for over one-third, it could be 60% or more. However, this may not be the same across the continent as noted by another recent study of Zouhon-Bi and Nielsen (2007) that used a partial equilibrium modelling approach to address this issue. These authors noted that full liberalisation of ECOWAS with EU will lead to an increase in imports from the EU that would be accompanied by a 2.4–5.6% decrease in total government revenues. They noted that tariff revenue losses should represent 1% of GDP in Nigeria, 1.7% in Ghana, 2% in Senegal and 3.6% in Cape Verde. Table 3 provides a static estimation of the magnitude of revenue loss if COMESA member countries abolish tariff among themselves. The table needs to be taken cautiously, as it does not consider both the possibility of shifting the pattern of trade to COMESA suppliers and an institutionalisation of a common external tariff which would be lower than the rate currently in use by COMESA member countries on a third country. It is also static and hence fails to pick the potential positive effects on tax collection. As can be seen from Table 3, the average revenue loss for countries in COMESA is extremely small (about 3% of government revenue excluding grants).

The second outstanding issue relates to compensation issues and variation in initial condition. This relates to the issue of appropriate mechanism that ensures gainers would compensate losers in the short run and losses are minimised in the long run. Karingi *et al.*'s (2002) empirical analysis on COMESA has shown that with higher form of integration, welfare effect losses that may relate to allocative efficiency, terms of trade and investment-saving balance do tend to be concentrated in the short run (whereas gains usually come in the long run). Such an immediate and direct losses may create hesitation among member countries unless they foresee an immediate benefit from the integration process. The interview conducted in the regions shows that more than revenue loss, most COMESA member countries are concerned about fierce competition from relatively industrialised members such as Kenya, Mauritius and, potentially, South Africa. COMESA, for

Table 3: *Estimated Revenue Loss from Further Integration in COMESA (Percentage of Total Revenue, Excluding Grants)*

| | COMESA's share in total country's trade | | | | COMESA's share in total country's trade | | | |
| | Year 2000 | | | | Year 2001 | | | |
	Imports	Exports	Total trade	Revenue loss[a]	Imports	Exports	Total trade	Revenue loss[a]
Angola	2.0	0.02	0.6	0.0	2.6	0.02	0.9	0.05
Burundi	10.0	11.4	10.2	2.5	27.5	20.1	26.2	5.2
Comoros	14.2	1.3	12.0	6.9	10.4	0.8	8.6	4.8
Congo DR	33.5	7.5	18.3	6.0	—	—	NA	NA
Djibouti	29.4	20.4	28.7	11.4	—	—	NA	NA
Egypt	1.3	1.1	1.3	0.1	2.0	1.8	1.9	0.2
Ethiopia	3.3	12.6	5.9	1.5	2.6	16.5	5.2	1.6
Kenya	2.3	28.5	10.5	3.3	3.7	57.0	16.3	4.7
Madagascar	6.6	2.9	5.2	2.7	5.0	2.9	4.3	2.0
Malawi	10.0	10.7	10.2	1.3	10.3	15.7	12.8	1.4
Mauritius	2.8	5.4	3.8	1.1	3.3	6.2	4.5	1.3
Namibia	0.5	5.2	2.6	0.9	0.5	6.5	3.3	1.0
Rwanda	20.4	58.2	31.3	5.3	10.9	48.8	23.8	3.8
Seychelles	4.7	1.7	3.7	0.9	2.6	2.3	2.5	0.6
Sudan	5.3	6.9	5.7	1.2	6.0	2.6	4.4	0.9
Swaziland	0.17	0.00	0.16	0.05	0.06	0.00	0.06	0.02
Uganda	21.9	21.0	21.6	9.3	31.5	23.8	29.1	12.5
Zambia	7.6	18.1	12.0	3.7	7.7	8.8	8.1	2.6
Zimbabwe	3.5	10.4	6.9	0.7	6.6	2.7	4.9	0.6
Average	9.0	11.7	10.0	3.1	7.8	12.7	9.2	2.6

Note: The rates are computed as the product of taxes on international trade and the share of each country's trade in total COMESA trade, based on World Bank (2005).
Source: Authors; computation based on World Bank (2005) and COMESA (2002).
[a]As percentage of total government revenue, excluding grants (in local currency).

instance, identifies that the weakest members suspect that stronger countries will take advantage of them. And in an integration scheme in which countries are at different levels of development, and hence the gains from integration are disproportionate at least in the short run, the commitment to implement agreed upon treaties could be adversely affected. In the case of COMESA, the present industrial base of member countries is feeble except in a few countries such as Egypt, Kenya, Zimbabwe and Mauritius. Even these countries have difficulties competing with South Africa and

increasingly among the relatively industrialised one such as Egypt, within themselves. There is no concrete industrialisation programme of the national economies designed in the framework of COMESA. Further, even if gainers agree to compensate losers in principle, setting up an agreeable mechanism and implementing it in a sustainable manner is a complex exercise. And because such issues, in many cases, have not been addressed adequately or proposed solutions not implemented properly, they have contributed to the weak performance of regional agreements in Africa.

The final outstanding issues relate to the problem of poor private sector participation. To the extent that implementation of the treaties requires the understanding, conviction and confidence of the private sector, an active involvement of this sector in particular and the public at large in general are crucial. This aspect of the regional integration process in Africa has been singled out as one of the major weaknesses of regional integration initiatives (Aryeetey and Oduro, 1996; Aryeetey 2000) although it is not as severe as it used to be a decade ago. Country-level studies in SADC and COMESA by the authors of this paper show that the participation of the private sector is hampered by lack of government resources to ensure full participation, and when some resource are secured, the participation is limited at the level of the chamber of commerce officials. Moreover, lack of adequate knowledge to use existing information at the level of private sector associations is also noted as a major problem. In this regard, establishing specific government entities that would promote and administer economic integration at a country level (as some countries—Burkina Faso, Senegal, Ghana, Nigeria and few others—have done) may not only show commitment of countries but also enhance the effectiveness of implementing the treaties.

4. Concluding Remarks

In this paper, we have attempted to examine both the theoretical and empirical issues that relate to regional economic integration in Africa. We noted that most empirical studies carried out so far employed conventional gravity model with standard economic and related indicators as explanatory variables. Such an approach is limited in scope since it fails to account for political and institutional issues which we argue are central to understand the

performance of regional economic integration schemes in Africa. To overcome this limitation of the standard approach, we have attempted to complement the standard gravity model by institutional and political analysis. Since such an approach calls for some degree of specificity in terms of the unit of analysis, we have used a case study approach using the COMESA. These sets of information are used both to evaluate the success and failure of regional integration schemes in Africa and to point out the most outstanding issue that one needs to address to make the best use of existing RECs.

Success or failure of a regional integration initiative should be evaluated in the context of the objectives it sets to achieve and the political, economic and institutional context under which it operates. In the case of regional integration in Africa, all regional groupings—including the more recent ones like COMESA—set out to eventually form a common market among member countries. Judged against this objective, the consensus seems to be that none of the regional groupings have to date successfully fulfilled the requirements of a functional common market; in many cases, not even that of a customs union. This is substantiated by the empirical regularity that intra-REC trade in Africa is generally found to be very low compared with each REC's trade with non-member countries, in particular, with that of European countries. This was also found to be the case in COMESA and shown in the paper. This suggests that more often than not, governments failed to implement the treaties they signed, which in turn suggests lack of political commitment in practice (in contrast to pronouncements). Some of the other possible reasons, *inter alia*, include variation in initial condition, loss of revenue, compensation issues, lack of complementarities and problem of diversification.

Despite the consensus that regional integration efforts in Africa registered disappointing results, the enthusiasm to revitalise existing groupings and form new ones (also at a continent level) seems to have gained renewed momentum in recent years. This issue has got more momentum by the signing of the African Economic Community charter by majority of countries in the continent. At a practical level, however, if regional integration is to succeed resolving the listed set of issues noted in this study, which have hindered progress thus far, is essential.

In sum, although the importance of regional economic groupings is crucial to survive in the increasingly integrating world economy, addressing major obstacles noted above is a daunting task. It is thus imperative that African governments appreciate this challenge. Although the task of overcoming these challenges primarily rests on African countries, their development partners can also play a positive role. In particular, the latter could foster the effort by supporting regional programmes such as regional infrastructure provision, growth and diversification efforts which are found to be important in this study. More importantly, African countries need not to take integration issues simply as lingering pan-African ideology but as an economic survival strategy aimed at combating marginalisation from the global economy.

Acknowledgments

References

Anderson, J. (1979) 'A Theoretical Foundation for Gravity Model', *American Economic Review*, 69: 106–116.

Aryeetey, E. (2000) 'Regional Integration in West Africa', paper presented at a policy workshop organized by the OECD Development Center at the Graduate Institute of International Studies, Geneva, 13 October 2000.

Aryeetey, E. and A. Oduro (1996) 'Regional Integration Efforts in Africa: An Overview', in J.J. Teunissen (ed.), *Regionalism and the Global Economy: The Case of Africa*, The Hague: FONDAD.

Baldwin, R. (1997) 'Review of theoretical developments on regional integration', in A. Oyejide, I. Elbadawi and P. Collier (eds.), *Regional Integration and Trade Liberalization in Sub-Saharan Africa: Framework, Issues and Methodological Perspectives*, London: Macmillan. Vol. 1, pp. 24–88.

Ben Hammouda, H., S.N. Karingi, M. Sadni-Jallab and A.E. Njuguna (2006) 'Diversification: Towards a New Paradigm for Africa's Development', Trade and Regional Integration Division (TRID), The Economic Commission for Africa, Addis Ababa (memo).

Bergstrand, J. (1985) 'The Generalized Gravity Equation, Monopolistic Competition, and the Factor-Proportions Theory in International Trade', *Review of Economics and Statistics*, 67: 474–481.

Bhagawati, J.N. (ed.) (1987) *International Trade: Selected Readings*, Cambridge, MA: The MIT Press.

Bhagwati, J. (1968) 'Trade Liberalization among LDCs, Trade Theory, and GATT Rules' in J.N. Wolfe (ed.), *Value, Capital and Growth*, Edinburgh: Edinburgh University Press.

Bhagwati, J. (1991) *The World Trading System at Risk*, New York: Harvester Wheatsheaf.

Cernat, L. (2001) 'Assessing Regional Trade Arrangements: Are South-South RTAs More Trade Diverting?', *Global Economy Quarterly*, 2 (3): 235–59.

COMESA (2002) *COMESA Merchandise Trade Statistics, Bulletin 3*, Lusaka: COMESA.

COMESA (2005) *COMESA Annual Report 2005*, Lusaka: COMESA.

COMESA (2007) 'OMESA in Brief', 3rd edn (COMESA web page at http://www.comesa.int, accessed on 3 July 2007).

Cooper, C.A. and B.F. Massell (1965) 'Towards a General Theory of Customs Union for Developing Countries', *Journal of Political Economy*, 73: 461–476.

Deardorff, A.V. (1998) 'Determinants of Bilateral Trade: Does the Gravity work in the Neoclassical World' in J.A. Frankel (ed.), *The Regionalization of the World Economy*, Chicago: University of Chicago Press.

ECA (2004) *Assessing Regional Integration in Africa*, Addis Ababa: Economic Commission for Africa.

Elbadawi, I. (1997) 'The Impact of Regional Trade and Monetary Scheme on Intra-Sub-Saharan African Trade' in A. Oyejide, I. Elbadawi and P. Collier (eds), *Regional Integration and Trade Liberalization in Sub-Saharan Africa, Volume I: Framework, Issues and Methodological Perspectives*, London: Macmillan.

Feenstra, R.C. (2004) *Advanced International Trade: Theory and Evidence*, Princeton: Princeton University Press.

Fine, J. and S. Yeo (1997) 'Regional integration in Sub-Saharan Africa: dead end or a fresh start', in A. Oyejide, I. Elbadawi and P. Collier (eds), *Regional Integration and Trade Liberalization in Sub-Saharan Africa: Framework, Issues and Methodological Perspectives*, London: Macmillan. Vol. 1, pp. 429–74.

Foroutan, F. and L. Pritchett (1993) 'Intra-Sub-Saharan African Trade: Is It Too Little?', *Journal of African Economies*, 2 (1): 74–105.

Frankel, F., E. Stein and S. Wei (1994) 'Trading Blocks and the Americas: The Natural, the Unnatural, and the Supernatural', *Journal Development Economics*, 47: 61–95.

Geda, A. (1998) *Trade Liberalization and Regional Economic Integration in Africa: The Case of COMESA*, Addis Ababa: Policy Analysis Support Unit (PASU) of OAU.

Geda, A. (1999) 'Preferential Reductions of Trade Barriers: Some Theoretical Issues', OAU, Policy Analysis Support Unit, *Economic Integration in Africa*, Addis Ababa: OAU.

Geda, A. (2001) 'Fiscal (Macro) Policy Harmonization in the Context of African Regional Integration'. A report submitted to Regional Integration and Cooperation Division of Economic Commission for Africa, ECA, Addis Ababa, November 2001.

Geda, A. (2007) *Fundamentals of International Economics for Developing Countries: Volume I, Trade Theory and Policy*, Addis Ababa: Department of Economics, Addis Ababa University/ Nairobi: African Economic Research Consortium, in press.

IMF (2005) *Direction of Trade Statistics*, Washington, DC: IMF.

IMF (2006) *Direction of Trade Statistics*, Washington, DC: IMF.

Johnson, O.E.G. (1995) 'Regional Integration in Sub-Saharan Africa', *Journal of European Integration*, 18 (2–3): 201–34.

Karingi, S.N., M. Sirwardana and E.E. Ronge (2002) 'Implications of the COMESA Free Trade Area and Proposed Customs Union: Empirical Evidence from Five Members Countries Using GTAP Model and Database'. COMESA Regional Integration Research Network Papers, Lusaka: COMESA.

Kemp, M. (1964) *The Pure Theory of International Trade*, Englewood Cliffs: Prentice-Hall.

Kemp, M. (1976) *Three Topics in the Theory of International Trade: Distribution, Welfare and Uncertainty*, Amsterdam: North Holland Publishing.

Kemp, M. and H. Wan (1987) 'An Elementary Proposal Concerning the Formation of Customs Union', in J.N. Bhagawati (ed.), *International Trade: Selected Readings*, Cambridge: The MIT Press.

Krugman, P. (1991) *Geography and Trade*, Cambridge, MA: The MIT Press.

Lipsey, R.G. (1960) 'The Theory of Customs Unions: A General Survey', *Economic Journal*, 70: 496–513.

Lipsey, R. (1987) 'The Theory of Customs Unions: A General Survey', in J.N. Bhagawati (ed.), *International Trade: Selected Readings*, Cambridge: The MIT Press.

Longo, R. and K. Sekkat (2001) 'Obstacles to Expanding Intra-African Trade', OECD Technical Paper No. 169, Paris: OECD.

Lyakurwa, W., A. McKay, N. Ng'eno and W. Kennes (1997) 'Regional Integration in Sub-Saharan Africa: A Review of Experiences and Issues' in A. Oyejide, I. Elbadawi and P. Collier (eds), *Regional Integration and Trade Liberalization in Sub-Saharan Africa, Volume I: Framework, Issues and Methodological Perspectives*, London: Macmillan.

Mead, J.E. (1950) *The Theory of Customs Unions*, Amsterdam: North-Holland Publishing Company.

Ndung'u, N. (2000) 'Regional Integration Experience in Eastern African Regions'. Paper presented at a policy workshop organized by the OECD Development Center at the Graduate Institute of International Studies, Geneva, 13 October 2000.

O'Connell, S. (1997) 'Macroeconomic Harmonization, Trade Reform, and Regional Trade in Sub-Saharan Africa', in A. Oyejide, I. Elbadawi and P. Collier (eds), *Regional Integration and Trade Liberalization in Sub-Saharan Africa, Volume I: Framework, Issues and Methodological Perspectives*, London: Macmillan.

OECD (1993) *Regional Integration and Developing* Countries, Paris: OECD.

Ogunkola, E.O. (1994) 'An Empirical Evaluation of Trade Potential in the Economic Community of Western States'. AERC Research Paper, Nairobi.

Oyejide, T.A. (2000) '*Policies for Regional Integration in Africa*' Economic Research Papers, No. 62, The African Development Bank, Abidjan.

Oyejide, A., Elbadawi, I. and Collier P. (eds) (1997) *Regional Integration and Trade Liberalization in Sub-Saharan Africa, Volume I: Framework, Issues and Methodological Perspectives*, London: Macmillan.

Robinson, P. (1996) 'Potential Gains from Infrastructural and Natural Resource Investment Coordination in Africa', in J.J. Teunissen (ed.), *Regionalism and the Global Economy: The Case of Africa*, The Hague: FONDAD.

Ronge, E. (2000) 'Trade within the COMESA and between the East African Community and the European Union', The Kenya Institute for Public Policy Research and Analysis (KIPPRA), (memo).

Stevens, C. and J. Kennan (2005) 'EU–ACP Economic Partnership Agreements: The Effects of Reciprocity'. Institute of Development Studies Briefing Paper, Sussex.

Suliman, Y. (2000) 'Progress of Integration in the ECOWAS Region'. A contribution to a panel discussion on the future of integration in West Africa, presented on behalf of the Executive Secretary on the occasion of the Silver Jubilee Anniversary of ECOWAS, Abuja, Nigeria, May 2000.

Teshome, M. (1998) 'Multilateralism and Africa's Regional Economic Communities', *Journal of World Trade*, 32 (4): 115–138.

Tinbergen, J. (1962) *Shaping the World Economy*, New York: Twentieth Century Fund.

Vanek, J. (1962) *International Trade: Theory and Economic Policy*, Illinois: Richard D. Irwin.

Vanek, J. (1965) *General Equilibrium of International Discrimination: The Case of Customs Unions*, Cambridge: Harvard University Press.

Viner, J. (1950) *The Customs Union Issue*, London: Stevens & Sons Limited.

Weeks, J. and T. Subasat (1998) 'The Potential for Agricultural Trade among Eastern and Southern African Countries', *Food Policy*, 23 (1): 73–88.

World Bank (1989) 'Intra-Regional Trade in Sub-Saharan Africa Region', Technical Department Report No. 7685. Trade and Finance Division (December, Wahington, DC).

World Bank (2005) *African Database* (CD-ROM), Washington, DC: The World Bank.

Yeats, A. (1999) 'What Can Be Expected from African Regional Trade Arrangements?'. Policy Research Working Papers No. 2004, Washington, DC: The World Bank.

Zouhon-Bi, S.G. and L. Nielsen (2007) 'The Economic Community of West African States Fiscal Revenue Implications of the Prospective Economic Partnership Agreement with the European Union'. World Bank Policy Research Working Paper 4266, June 2007.

Appendix 1. The Gravity Model

The gravity equation is a simple empirical model for analysing bilateral trade flows between geographical entities. The gravity model for trade is analogous to the Newtonian physics function that describes the force of gravity. The model explains the flow of trade between a pair of countries as being proportional to their economic 'mass' (national income) and inversely proportional to the distance between them. The model has a lineage that goes back to Tinbergen (1962), who specified the gravity model equation as follows:

$$\text{Trade}_{ij} = \frac{\alpha \text{GDP}_i \text{GDP}_j}{\text{Distance}_{ij}},$$

where Trade_{ij} is the value of the bilateral trade between countries i and j; GDP_i and GDP_j are country i and j's respective national incomes. Distance_{ij} is a measure of the bilateral distance between the two countries, and α is a constant of proportionality.

Taking logarithms of the gravity model equation above, we can get the linear form of the model and the corresponding estimable equation as:

$$\text{Log}(\text{Trade}_{ij}) = \alpha + \beta_1 \log(\text{GDP}_i\text{GDP}_j) + \beta_2 \log(\text{Distance}_{ij}) + \mu_{ij}.$$

This baseline model, when estimated, gives relatively good results. However, we know that there are other factors that influence trade levels. Most estimates of gravity models add a certain number of dummy variables to test for specific effects, for example, being a member of a trade agreement, sharing a common land border, speaking the same language and so on.

Anderson (1979) showed that the gravity model could be derived from expenditure share equations, assuming commodities to be distinguished by place of production. Anderson also showed that the model should also, to be fully consistent with the generalised expenditure share model, include remoteness measures in bilateral share equations, as used in this paper. Bergstrand (1985) showed that the gravity model can also be derived from models of trade in differentiated products. Such trade must lie at the core of much of manufacturing trade, given the very large two-way flows of trade in even the most finely disaggregated industry data. Deardorff (1998) showed that a suitable modelling of transport costs produces the gravity equation as an estimation form even for the Heckscher–Ohlin model. Finally, Feenstra (2004) has used the gravity model in the context of a monopolistically competitive model and trade in differentiated products with its empirical application.

Appendix 2

Table A1: *Intra-COMESA Trade, 2004, by Exporting Country (US $, million)*

Country	Angola	Burundi	Comoros	Congo DR	Djibouti	Egypt	Eritrea	Ethiopia	Kenya	Madagascar	Malawi	Mauritius	Mozambique	Rwanda	Seychelles	Sudan	Swaziland	Tanzania	Uganda	Zambia	Zimbabwe
Angola		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0	0	0	0	0	0	0	0	0	0	0
Burundi	0.00	0.00	0.00	0.41	0.00	0.00	0.00	0.00	0.04	0.00	0	0	0	3	0	0	0	0	1	0	0
Comoros	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.18	0	0	0	0	0	0	0	0	0	0	0
Congo DR	0.00	1.65	0.00	0.00	0.00	0.00	0.00	0.00	0.27	0.05	0	0	0	11	0	0	0	1	0	2	6
Djibuti	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0
Egypt	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0
Eritrea	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0
Ethiopia	0.00	0.00	0.00	0.00	27.12	0.00	0.00	0.00	1.06	0.00	0	0	0	0	0	13	0	1	0	0	0
Kenya	0.54	26.87	7.78	71.10	5.76	0.00	9.00	19.00	0.00	9.95	14	5	3	106	5	34	0	144	427	6	2
Madagascar	0.00	0.11	2.74	0.20	0.00	0.00	0.00	0.00	0.57	0.00	0	31	0	0	1	0	0	0	0	0	0
Malawi	0.00	0.00	0.00	1.75	0.00	0.00	0.00	0.00	0.23	2.91	0	0	22	0	0	0	0	2	0	1	8
Mauritius	1.00	0.63	4.34	0.00	0.01	0.00	0.00	0.04	9.04	97.81	0	0	3	1	12	0	0	6	0	1	4
Mozambique	0.64	0.00	0.00	0.74	0.00	0.00	0.00	0.00	2.64	0.00	50	0	0	0	0	0	3	2	0	1	35
Rwanda	0.00	0.88	0.00	2.04	0.00	0.00	0.00	0.06	0.31	0.00	0	0	0	0	1	0	0	0	1	0	0
Seychelles	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19	0	6	0	0	0	0	0	0	0	0	7
Sudan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.57	2.18	0.02	0	0	0	0	0	0	0	0	0	0	0
Swaziland	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0
Tanzania	2.33	21.95	0.60	26.32	0.08	0.00	0.39	0.00	58.75	3.79	30	3	3	6	0	0	1	0	13	5	1
Uganda	0.00	13.23	0.00	16.93	0.00	0.00	0.00	0.00	103.01	0.00	1	0	0	27	0	21	0	8	0	0	0
Zambia	0.08	0.41	0.00	21.24	0.00	0.00	0.00	0.00	1.74	0.00	9	1	0	0	0	0	0	22	0	0	18
Zimbabwe	3.69	0.28	0.00	12.37	0.38	0.00	0.00	0.45	3.32	0.08	47	2	19	0	0	1	0	5	1	70	0

Source: IMF (2006), 'Direction of Trade Statistics'.

Table A2: *Intra-COMESA Trade, 1992, by Exporting Country (US $, million)*

	Angola	Burundi	Comoros	Djibouti	Ethiopia	Kenya	Lesotho	Madagascar	Malawi	Mauritius	Mozambique	Namibia	Rwanda	Seychelles	Somalia	Sudan	Swaziland	Tanzania	Uganda	Zambia	Zimbabwe	COMESA total
Exporting country																						
Angola																				0.1		0.1
Burundi						4.36							3.35							0.02	0.57	8.3
Comoros								0.03			0.04											0.07
Djibouti		0.2			1.9	0.1									25.6							27.8
Ethiopia				21.54		1.13					0.01					9.03		0.12	0.34		0.05	32.22
Kenya	1.3	6.6	0.6	1.2	8.2			1	3.2	15.9	11.7		25.5	1.4	9	28.1	1.8	31.4	108.2	6.2	8.4	269.7
Lesotho											0.03									0.2	0.7	0.93
Madagascar																						0
Malawi		0.08				0.08				0.17	17.39							0.91		7.11	4.35	30.09
Mauritius			2.01	0.03	0.01	1.42	0.02	10.93	0.14				4.06		0.01		0.26	0.2	0.05	0.39	7.75	27.28
Mozambique	0.11					1.66		0.97	1.35	0.05					0.42			1.72		0.03	4.73	11.04
Namibia						0.09					0.01									0.6	0.2	0.9
Rwanda		0.2				0.04												0.01				0.25
Seychelles																						0
Somalia				0.45		0.1													0.14			0.69
Sudan					0.3						0.2				0.1			0.1				0.7
Swaziland						7				1.63					0.05					9.6	13.1	31.38
Tanzania		18		0.3	0.2	6.8			0.5	0.5			21							1.1	2.7	51.1
Uganda					0.02	1.83							0.61		0.01	0.1				0.16	0.29	3.02
Zambia	1	5.8			0.09	8.5			4.8	0.02	0.1	0.3	0.01					3.5	0.01		14	38.13
Zimbabwe	7.9	1.9		0.09	0.2	14.9	1.5	0.1	52.3	1.17	40.4	3		0.6		2	0.7	6.2	0.7	56.2		189.86
Total																						723.56
Intra-COMESA's trade as percentage of world trade																						5.81%
COMESA's export to the world																						12,453

Source: Compiled from COMESA Documents, Lusaka, Zambia.

Table A3: *Intra-COMESA Trade, 1985, by Exporting Country (US $ million)*

Exporting country

	Angola	Burundi	Comoros	Djibouti	Ethiopia	Kenya	Lesotho	Madagascar	Malawi	Mauritius	Mozambique	Namibia	Rwanda	Seychelles	Somalia	Sudan	Swaziland	Tanzania	Uganda	Zambia	Zimbabwe	Total to COMESA
Angola																						0
Burundi						1.98					3.58					0.09		1.09	0.53	0.23		7.5
Comoros									0.4													0.4
Djibouti		0.8			1.6				0.1				3.6									6.1
Ethiopia				12.21		0.46			0.37		0.47		0.05			6.13		0.12	0.23			20.04
Kenya		18.4	2.4	2.4	3.5				0.64	4.5	5.2		32.8		3.7	25.9		12	83.3	1.1	1.2	197.04
Lesotho																						0
Madagascar																						0
Malawi		0.92				0.07				0.15	3.46		0.07					0.35		15.7	5.79	26.51
Mauritius			1.01	0.01	0.32			0.07										0.75		0.02		2.18
Mozambique						0.19		0.27										0.7		0.14		1.3
Namibia																						0
Rwanda		0.52				2.96												0.1	0.13			3.71
Seychelles																						0
Somalia				0.01		0.11								0.11				0.09				0.32
Sudan				0.1														0.1				0.2
Swaziland		0.33													0.03			0.18		5.5	0.9	6.94
Tanzania		2.1		0.2		1			0.4	0.2	2.1		1.3		0.5	1.9			1.8	0.8	0.2	12.5
Uganda					0.02	1.13							0.26			0.04		2.46				3.91
Zambia	0.8	1.4		0.2		2.8	1.5		3	0.1	0.2		0.03					4.8	0.1		12.2	27.13
Zimbabwe	6.7	1.1			6.6	3.3	0.4		12.4	1.6	12.7		0.9			0.7	2	4.9	0.5	37.3		91.1
Total																						406.88
Intra-COMESA's trade as percentage of world trade																						5.34%
COMESA's export to the world																						7,614

Source: Compiled from COMESA Documents, Lusaka, Zambia.

Table A4: *Intra-COMESA Trade (Imports and Exports) (FOB Value, US $ million)*

Country	1980	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	2000	2001	2002	2003	2004
Angola	0	5.3	5	6	18	9	6	5	13	15	19	21	23	11	13	16	15	30.4
Burundi	41.3	34.68	37.82	33.82	33	41	51	46	45	45	25	16	24	25	59	32	52	54
Comoros	12.43	5.38	3	3.91	4	5	9	9	12	16	18	18	22	5	4	3	5	7.8
Congo DR	26.7	34.72	49.37	49.82	146.82	40	39	39	84	90	122	129	158		141		349	317
Djibouti						33	39	46	50	63	73	81	90	78	83	85	128	39.4
Egypt						149	232	124	130	189	171	181	194	238	305	620	321	316.9
Ethiopia and Eritrea[a]	79.08	31.61	41	10	11	52	46	75	88	129	138	153	165		263		247	186
Kenya	473.59	355.09	298.91	252.26	427.92	322	369	472	549	684	748	813	894	523	609	743	578	704.7
Madagascar	7.35	5.87	8	13	89.73	29	37	5	49	70	89	101	116		80		48	79
Malawi	48.62	51.91	66.73	67.55	111.46	91	71	77	126	151	240	260	282	92	130	113	153	175.3
Mauritius	21.23	16.52	14.91	19	30.82	63	73	47	85	110	132	142	159	135	156	189	148	143.3
Namibia	0	0.7	0	3	2	11	5	7	31	40	48	56	64					
Rwanda	99.26	163.78	47.55	46.55	88.46	69	63	61	72	88	104	114	129	62	43	27	33	60.4
Seychelles	4.02	1.32	2	3	6.64	16	8	7	8	10	13	14	15		15		27	14
Sudan	35.22	36.05	29.73	25.82	18	58	93	81	76	82	104	118	137	277	304	338	493	412.7
Swaziland	7.02	13.98	21.55	27.27	24.46	23	37	22	21	26	39	46	53	70	52	102	121	120.2
Tanzania	82.25	41.01	60.19	58.83	77.19	108	137	189	247	320	361	387	429					
Uganda	201.59	90.46	96	91	206	64	98	147	181	225	255	277	305	221	375	363	396	582.5
Zambia	75.38	100.56	120	143	188	189	205	127	164	187	307	359	384	237	223	193	352	471.4
Zimbabwe	69.63	183.2	245	182	328	252	204	202	337	380	451	489	555	219	136	323	151	213.9
Total	1,284.67	1,172.14	1,146.76	1,035.83	1,811.5	1,624	1,822	1,788	2,368	2,920	3,457	3,775	4,198	2690	2886	3819	3542	3857.2
COMESA's percentage in the world total	5.7	5.5	5.4	4.0	6.3	4.0	4.3	4.6	5.3	5.6	6.0	6.4	6.2	4.7	5.3	6.9	5.2	6.0

Source: Compiled from COMESA Documents, Lusaka, Zambia (updated from COMESA web page).
[a]Up to 1991, after that Ethiopia.

Table A5: *COMESA Trade (Imports and Exports) with Third Countries (US $ million)*

Country	1980	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	2000	2001	2002	2003	2004
Angola	3,035.0	3,378.7	3,862.0	4,344.0	5,454.0	4,935.0	6,152.0	4,281.0	4,278.0	5,133.0	6,492.0	6,420.0	5,762.0	10,950	9,699.8	11,469.6	13,235.1	13,219.6
Burundi	189.7	271.3	269.2	225.2	277.0	300.0	248.0	213.0	307.0	292.0	137.0	194.0	279.0	215.9	164.9	164.9	186	99.7
Comoros	43.6	84.6	88.0	94.1	105.0	142.0	135.0	119.0	119.0	152.0	160.0	157.0	164.0	37.5	39.1	39.1	39.5	43.1
Congo DR	2,316.3	1,713.3	1,835.6	2,690.2	2,517.2	2,589.0	2,257.0	1,749.0	2,135.0	2,762.0	2,678.0	2,207.0	2,079.0	1,646.3	1,945.5	1,945.5	2,574.9	2,299.6
Djibouti	0.0	0.0	0.0	0.0	0.0	276.0	512.0	497.0	442.0	463.0	461.0	449.0	495.0	267.5	246.7	246.7	256.6	274.7
Egypt	0.0	0.0	0.0	0.0	0.0	11,372.0	11,109.0	11,174.0	12,770.0	14,991.0	16,382.0	16,895.0	24,605.0	18,547.2	15,356.9	15,356.9	16,804.1	21,973.9
Ethiopia	1,067.9	1,541.4	1,465.0	1,405.0	1,359.0	587.0	1,752.0	1,661.0	1,797.0	2,207.0	2,395.0	2,510.0	2,602.0	1,481.7	2,004.6	2,004.6	2,997.8	1,783.3
Kenya	3,501.4	2,343.9	775.1	2,865.7	2,733.1	2,870.0	2,803.0	2,547.0	3,913.0	4,937.0	5,083.0	4,381.0	5,069.0	4,461.7	4,576.9	4,576.9	4,847	4,143.5
Madagascar	993.7	684.1	631.0	696.0	894.3	704.0	684.0	689.0	712.0	797.0	1,200.0	1,274.0	1,438.0	1,465.3	866.7	866.7	1,693.4	614.7
Malawi	685.4	520.1	620.3	768.5	928.5	1,009.0	1,165.0	849.0	924.0	945.0	1,069.0	1,198.0	1,292.0	809.2	922.2	922.2	1,005.4	965.7
Mauritius	1,027.8	1,858.5	2,285.1	2,291.0	2,791.2	2,690.0	2,852.0	2,974.0	3,181.0	3,405.0	3,963.0	3,718.0	3,759.0	3,412.6	3,294.2	3,294.2	3,695.3	3,696.5
Namibia	72.0	36.3	58.0	171.0	720.0	547.0	439.0	425.0	683.0	647.0	553.0	570.0	513.0					
Rwanda	216.7	323.2	457.5	381.5	299.5	328.0	421.0	307.0	221.0	249.0	429.0	354.0	282.0	135.9	138.9	138.9	113.7	93.7
Seychelles	110.0	114.7	197.0	279.0	285.4	291.0	308.0	305.0	271.0	323.0	410.0	451.0	524.0	381.1	582	582	536.2	570.9
Sudan	2,082.8	1,507.0	1,625.3	1,918.2	1,798.0	1,709.0	1,527.0	1,444.0	1,523.0	1,737.0	1,733.0	1,899.0	2,409.0	2,426.1	3,027.7	3,027.7	4,422	3,066.3
Swaziland	252.0	229.0	313.5	274.7	380.5	1,206.0	1,382.0	1,452.0	1,623.0	1,921.0	1,812.0	2,169.0	2,252.0	1,794.8	1,542.2	1,542.2	2,954	1,896.8
Tanzania	1,655.8	1,062.0	1,038.8	979.2	1,359.8	1,838.0	1,847.0	1,777.0	1,783.0	1,984.0	1,793.0	2,290.0	2,346.0					
Uganda	739.4	712.5	700.0	644.0	557.0	538.0	480.0	489.0	783.0	981.0	1,072.0	1,146.0	976.0	805.7	912.8	912.8	1,216.2	984.5
Zambia	2,557.6	1,444.4	1,620.0	1,817.0	1,610.0	1,699.0	1,384.0	1,466.0	1,049.0	1,581.0	1,566.0	1,888.0	2,055.0	1,750	2,584.1	2,584.1	2,167.1	1,950.2
Zimbabwe	555.4	2,157.8	2,133.0	2,756.0	3,096.0	2,893.0	3,056.0	2,774.0	3,671.0	4,108.0	4,417.0	4,867.0	5,011.0	3,312.6	2,705.7	2,705.7	5,426.9	4,104.9
Total	21,102.3	19,982.9	19,974.2	24,600.2	27,165.5	38,523.0	40,513.0	37,192.0	42,185.0	49,615.0	53,805.0	55,037.0	63,912.0	54,401.1	51,166.4	51,166.4	64,818.9	60,614.8
Third Country as percentage of total	94.3	94.5	94.6	96.0	93.7	96.0	95.7	95.4	94.7	94.4	94.0	93.6	93.8	95.3	94.7	93.1	94.8	94.0

Source: Compiled from COMESA Documents, Lusaka, Zambia (updated from COMESA web page).

Table A6: *Top Six Countries' Shares in the Top Ten Comesa Exports (1997–98) to the EU in US $ and Trade in the Top Ten COMESA Imports (1998) from the EU (in US $)*

SITC	Commodity description	Malawi	Kenya	Uganda	Tanzania	Zambia	Zimbabwe	Total COMESA Exports[a]	SITC		COMESA imports from EU	COMESA exports to EU
071	Coffee and coffee substitutes	11,729,000 (1.1)[b]	242,988,000 (23.5)	274,078,500 (26.6)	70,198,000 (6.8)	7,392,500 (0.7)	26,842,000 (2.6)	1,031,869,000 (22.8)[c]	542	Medicaments (including veterinary medicaments)	214,646,000	1,565,000
667	Pearls, precious and semi-precious stones unworked, worked	112,000 (0.01)	9,723,000 (1.0)	783,500 (0.1)	9,723,000 (1.0)	2,500,500 (0.3)	4,591,500 (0.5)	963,547,000 (21.3)	764	Telecommunication equipment and parts	211,913,000	4,396,000
845	Articles of apparel of textiles fabrics whether or not knitted or crotcheted	—	405,000 (0.08)	—	7,242,000 (1.5)	32,500 (0.01)	4,896,000 (1.0)	481,728,000 (10.6)	781	Motor cars and other motor vehicles for transports of persons	170,554,000	2,696,000
121	Tobacco unmanufactured, tobacco refuse	14,567,500 (3.1)	9,012,500 (1.9)	6,099,500 (1.3)	44,173,500 (9.3)	6,468,500 (1.4)	251,708,500 (53.1)	473,541,000 (10.4)	782	Motor vehicles for the transport of goods and special motor vehicles	156,921,000	221,000
061	Sugar molasses and honey	15,399,000 (3.4)	562,000 (0.1)	6,286,000 (1.4)	11,778,500 (2.6)	19,036,500 (4.2)	25,189,500 (5.5)	455,429,000 (10.0)	784	Parts, n.e.s. and accessories of motor vehicles of group 722, 781, 782	154,872,000	942,000
292	Crude vegetable materials, n.e.s., e.g. cut flowers	2,872,000 (1.1)	132,252,500 (50.0)	—	7,221,500 (2.7)	11,602,000 (4.4)	55,222,000 (20.9)	264,520,000 (5.8)	728	Other machinery and equipments specialised for particular industry and parts	138,820,000	109,000
333	Petroleum oils obtained from bituminous minerals, crude	—	—	353,500 (0.1)	—	—	—	255,532,000 (5.6)	723	Civil engineering and contractors' plants and equipment	137,817,000	5,134,000
074	Tea and mates	15,293,500 (6.9)	184,159,000 (83.4)	—	5,401,500 (2.4)	—	4,816,500 (2.2)	220,755,000 (4.9)	716	Rotating electric plants	125,527,000	1,133,000
841	Mens' or boys' coats, jackets, blazers similar articles of textiles	—	1,642,000 (0.8)	—	—	183,500 (0.1)	12,272,000 (6.0)	203,584,000 (4.5)	679	Tubes, pipes and hollow profiles of steel or iron	123,196,000	—
036	Crustaceans, molluscs and other aquatic animals	65,000 (0.04)	—	—	—	—	—	183,651,000 (4.1)	046	Meals and flours of wheat and flours of meslin	112,758,000	—

Source: Ronge (2000), based on PC-Trade Analysis System.
Note: [a]The top ten products represent 65.5% of the of the total COMESA exports to the EU for the period 1997–98.
[b]The figures in parentheses represent the percentage of each country's exports in the total COMESA exports of a particular product category.
[c]The figures in parentheses in the shaded column represent the proportion of the particular product category in the total of the top ten products in 1997–98.