

Graduate School of Development Studies

# THE IMPACT OF REGIONAL ECONOMIC INTEGRATION ON BILATERAL TRADE IN WEST AND SOUTHERN AFRICA: A COMPARATIVE STUDY OF ECOWAS, SADC AND EU PREFERENTIAL TRADE AGREEMENT

A Research Paper presented by:

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in partial fulfilment of the requirements for obtaining the degree of MASTERS OF ARTS IN DEVELOPMENT STUDIES

Specialization:

[Economics of Development] (ECD)

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> The Hague, The Netherlands November, 2010

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# List of Acronyms

ACP: African, Caribbean and Pacific

AFTA: ASEAN Free Trade Agreement

AGOA: African Growth and Opportunity Act

AMU: Arab Maghreb Union AoA: Agreement on Agriculture

ASEAN: Association of Southern-Eastern Asian Nations

BLUE: Best Linear Unbiased Estimator

CEMAC: Economic and Monetary Community of Central Africa

CEN-SAD: Communuaté des Etats Sahélo-Sahariens

CEPII: Centre d'Etudes Prospectives et d'Informations Internationales

CEPGL: The Economic Community of the Great Lakes Countries

CET: Common External Tariffs
CIA: Central Intelligence Agency

CILSS: Permanent Interstate Committee on Drought Control in the Sahel

COMESA: Common Market for Eastern and Central Africa

CM: Common Market CU: Custom Union

DOT: Direction of Trade

EAC: Eastern Africa Co-operation

EBID: ECOWAS Bank for Investment and Development

ECA: Economic Commission for Africa

ECCAS: Economic Community Central Africa States

ECOWAS: Economic Community of West Africa States

ECOMOG: ECOWAS Monitoring Group

EDI: Export Diversification Index EEC: European Economic Union EEA: European Economic Area

EFTA: European Free Trade Association EPA: Economic Partnership Agreement EMU: Economic and Monetary Union

ETAP: Expanded Agribusiness and Trade Promotion

FE: Fixed Effect

FTA: Free Trade Agreement

GATT: General Agreement on Trade and Tariff

GLS: Generalized Least Square

GSP: Generalised System of Preference

HT: Hausman Taylor

IOC: India Ocean Commission

MRU: Mano River Union LPA- Lagos Plan of Action

NAFTA: Northern America Free Trade Agreement

NTM: Non Tariff Barrier

PTA: Preferential Trade Agreement

PCS: Polled Cross Section

RE: Random Effect

RISDP: Regional Indicative Strategic Development Plan

SADC: Southern Africa Development Community

SADCC: Sothern Africa Development Co-ordination Conference

SACU: Southern Africa Custom Union

TNF: Trade Negotiation Forum

TRIP: Trade Related Intellectual Property

UDEAO: Union Douaniere entre les Etats de L' Afrique L'Ouest

UMOA: West Africa Monetary Union WACU: West African Custom Union

WAEMU: West Africa Economic and Monetary Union

WAMZ: West Africa Monetary Zone WAPP: West African Power Pool.

## **Dedication**

This research paper is dedicated to the memory of my late father; Mr. Humphrey Afesorgbor, who had been my source of inspiration and always whispered into my ears that "Hard Training Easy Battle".

#### Acknowledgement

First and foremost, my appreciation goes to Almighty God, the Creator of the entire universe for the multitude of his mercies.

Secondly, my gratitude goes to my immediate family; my mother Doris Sakyi, my sisters Francisca and Alberta Afesorgbor, who have provided me all the emotional support through thin and thick. Also to my Uncle Charles Sakyi, who had shown me the route to ISS, as far back as 2001.

My next heartfelt gratitude goes to my supervisor, Professor Dr. Peter van Bergeijk, and reader, Professor Dr. Mansoob Murshed, who have painstakingly nurtured me from a neophyte researcher to an astute researcher. They made available their books, articles and presentations at my beck and call. Their comments were very insightful. I would like to also thank all my lecturers: Professor Dr. Michael Grimm, Dr. Peter de Valk, Dr. Robert Sparrow, Dr. Karel Jansen, Dr. Andrew Fisher, Dr. Jan van Heemst (my former convenor), Dr. Nicholas Howard (my current convenor) and Professor Dr. Arjun Bedi, who has provided me all the quantitative inspirations.

I am also grateful to my ECD and ISS colleagues that have contributed in diverse ways to making my stay in The Netherland a memorable one. I would like to particularly thank Delphin (my discussant), Karen, Farid, Naomitsu, Anagaw, Mutumba, Petrus, Woinshet, Patrick, Moses and Paul. In addition, my appreciation goes to all my Ghanaian colleagues especially Samson (Amsterdam) and Rafael (London).

My last but not the least thanks go to the Netherland's government, who funded my cost of education and living expenses throughout my stay in the Netherlands.

I finally conclude by saying ayekoo (well done) to all and sundry.

# **Abstract**

Regional Trade Agreements have been proliferating exponentially in Sub-Saharan Africa and the world at large, mostly following the European Union model. With developing countries' share of world trade and output dwindling, regional economic integrations, in the forms of South-South and (or) North-South have been resorted to. However, there have been two concerns about the impact of the South-South RTAs. First, based on the classical theory of international trade, the South is not expected to trade much among themselves because of similar factor endowment. Second, is the welfare implication of trade creation versus trade diversion of the RTAs. With regards the second concern, it has been asserted that the welfare implications as based on traditional Viner's analysis is of limited relevance to SSA because its overly concentrated on static gains, through consumption, to the neglect of dynamic gains, through growth.

This paper investigates only the first concern of the impact of ECOWAS and SADC RTAs on bilateral trade because the dynamic gain which is relevant to LDCs has a long-term growth effect thereby making measurement difficult. The study finds that these blocs have contributed significantly to intra-regional trade flow contrary to classical international trade theory. However, SADC as a bloc has contributed more to intra-regional trade than ECOWAS. Additionally, the study finds that overlapping membership may undermine the efforts of the regional integration process if member states belong to another major RTA. Overlapping membership contributed positively to ECOWAS' impacts on bilateral trade while it has no impact in SADC.

# Relevance to Development Studies

With developing countries saddled with slow economic growth and development, increasing exports have been identified as one of the major channels to improve their economic fortunes. Thus, for policy makers and governments, policies that are directed at improving their trade performance both at regional and international level will be of immense relevance. With formations of RTAs contributing to large market size and increasing the competiveness of their products, this will go a long way in propelling economic growth that will bring about the overall development of member states.

# Keywords

Regional Economic Integration, South-South Regional Trade Agreement, Intra-regional Trade, Gravity Model

## CHAPTER ONE

#### 1.0 Introduction

#### 1.1. Background

Sub-Saharan Africa (SSA) growth and trade performances have been dwindling over the past years in terms of their share of world trade and world output. Several reasons have been attributed to SSA's poor economic performance ranging from institutional, political and geographic factors. With increasing consensus about the positive impact of trade on economic performance, Rodrik (1998) believes that one of the major obstacles to the economic prosperity is the trade restrictions that are imposed on the products in and outside the SSA region which makes them less competitive at the global level. In this vein, SSA countries have initiated regional economic integration (REI) schemes, taking the forms of South-South and North-South as a measure to improve their trade and economic performance.

For SSA, the call for REI dates back to the 1950s, when pioneering leaders such as Nkrumah (Ghana), Toure (Guinea), Nasser (Egypt), Kaunda (Zambia) and Nyerere (Tanzania) proposed the continent's REI. However, the majority of African leaders were of the opinion that the continent's REI was overly ambitious and thus recommended sub-regional groupings. In pursuant of the continent's REI, serious efforts were initiated in the 1970s, culminating in the Lagos Plan of Action (LPA) of 1980, canvassing African countries to establish sub-regional economic blocs (Nyirabu 2004). The call for the continent's regional integration was viewed more as politically motivated rather than economically motivated. However, Lewis (1980) in his Nobel Prize speech stated that Less Developed Countries (LDCs) are likely to experience higher growth rate and become less dependent on developed countries (DCs) if they can follow the custom union route and give preferential treatment to imports from other LDCs. Linnemann (1992) viewed the call by Lewis as what gave the impetus to the desirability and feasibility of South-South trade as a means to improving economic development.

South-South RTAs mostly aspire to follow the European Union (EU) model, thus, in measuring the success of RTAs, the EU tends to be used as a benchmark. However, it has been argued that conditions that contributed to the success of EU differ and are absent in the current REI schemes that have engulfed LDCs. The EU Trade Commissioner, De Gucht (EU website¹) indicates that "Free trade must be a tool to generate prosperity, stability and development [but

<sup>&</sup>lt;sup>1</sup> http://www.eurunion.org/eu/index2.php?option=com\_content&do\_pdf, accessed 12/04/2010

only] when supported by the right rules and institutions, free trade delivers win-win outcomes". Although, REI has been identified as a major driver for improving trade, political stability, poverty eradication, sustainable growth and development, it may only serve as a means and not an end. In line with this, Economic Commission for Africa (ECA) identifies three caveats for Africa's RTAs to become an effective instrument for the continent's long term growth and development (2004). The ECA first notes that REI can be made effective only if it is made part of overall development strategy. Secondly, the ECA recognises that REI can create winners and losers, hence, there must be critical assessment of the benefits and costs in order to minimise the costs and maximise the gains. Thirdly, ECA identifies that in realizing potential gains from REI there is need for a strong, sustainable commitment from the member countries, and they must implement domestic policies and build institutions aimed at promoting growth, macroeconomic stability and poverty reduction.

#### 1.2. Indication of the Research Problem

REI is assumed to improve trade through the increasing market access of the member countries. The effect of REI improving trade is simply based on the economic theory that, it would lead to a reduction in trade cost thereby promoting efficient allocation of resources in goods and factors of production leading to an improved welfare. Intra-regional trade among LDCs have increased not only in absolute terms but also as percentage of total trade. Between 1970 and 2006, in East and South-East Asia, the share of intra-regional trade has accounted for more than 40% of total trade, in Latin America, the percentage has fluctuated between 15 – 20%, and in Africa, this has increased to 10% from less than 5% since 1980s (UNCTAD 2007:93). Figure 1.1 indicates the trend of Africa intra-regional trade flow.

12.0 Share of intra-imports Share of intra-exports 10.0 8.0 6.0 4.0 2.0 0.0 1970 1974 1978 1982 1986 1990 1994 1998 2002

Figure 1.1: Intra-Africa trade as a percentage of total Africa Trade

Source: Yang and Gupta (2005:16)

Figure 1.1 illustrates that until 1975, Africa's intra-regional trade was declining, partly as a result of the oil crises. Aftermath, there was a steady rise in intra-regional trade from as low as 4% in 1975 to about 10% in 2002. This increasing trend coincides with the formation of major RTAs on the continent. The Economic Community of West Africa States (ECOWAS) formed in 1975, Southern Africa Development Co-ordination Conference (SADCC) in 1980, Arab Maghreb Union (AMU) in 1989, Southern Africa Development Community (SADC) in 1992, Common Market for Eastern and Southern Africa (COMESA) in 1993 and the Eastern Africa Cooperation (EAC) in 1999. The 10% intra-Africa trade as percentage of total trade has been labelled as very small. For instance, World Bank (2000) indicates that South-South RTAs have not contributed significantly to intra-regional trade and have negatively impacted on welfare. Despite the assertion of poor performance of South-South RTAs, they have been on the ascendancy in SSA. This is best captured in the paper of Yang and Gustav (2005:10) as "RTAs have been proliferating exponentially in the world... and Africa is now dense web of RTAs". Figure 1.2 below indicates Africa's growing and overlapping RTAs.

Figure 1. The African Galaxy African Union COMESA Nile River ECCAS *IGAD* SãoTomé&Princip Libya Somalia Cameroon Mauritania Morocco Egypt ECOWA! ral African Re Conseilde EquatGuinea CSSS Burundi Djibouti L'Entente Cape Verde Éthiopia Rep. Congo Rwanda Gambia Nigeria Egitrea Sudan Benin DR Cor Niger Burking Faso Togo Cote divoir Guinea-Bissau Mali Senega Angola Guinea Sierra Leone WAEMUTanzani ManoRive Mauritiu Malaw Union Zambia **CLISS** SACUACRONYMS Zimbabwe Comoros ArabMaghrebUnion Cross Border Initiative AMU CBI Madagas South Africa Economic and Monetary Community of Central Africa Permanent Interstate Crute on Drought Contr. in the Sahel Common Market for Eastern and Southern Africa CEMAC Namibia Swaziland Botswana Lesotho Reunio CILSS COMESA EAC East African Cooperation
Economic Community of Central African States
Economic Community of Western African States
InterGovernmental Authority for Government
Indian Ocean Commission
Southern African Customs Union CBECCAS Mozambique *IOC* ECOWAS IGAD IOC SACU SADO SADC WAEMU Southern African Development Community West African Economic and Monetary Union ECGLC Economic Community for Great Lake Country Free trade Customs unions CSSS Community of Sahel-Saharan States Monetary Source: Yang and Gupta (2005:11)

Figure 1.2: The Web of African Regional Blocs

## 1.3. Policy Relevance and Justification.

The ECA (2002) identifies REI as indispensable for the growth and transformation of African economies and also necessary for their integration into the world economy. Similarly, UNCTAD (2007) identifies that LDCs must integrate into the world economy as a pre-condition to accelerate output growth, productivity and improved welfare through increasing trade. However, the suggested approach according to UNCTAD is for LDCs to improve their competiveness at regional level in order to derive potential benefits from global free trade.

The study's relevance stems from the fact that, it makes comparative analysis among the RTAs and also compares the impacts of RTAs with that of EU Preferential Trade Agreement (PTA). ECOWAS and SADC have been chosen among the South-South RTAs in SSA because they are the most advanced RTAs in terms of existence and organization (ECOWAS 2006). Additionally, SADC and ECOWAS rank the first and second respectively in shares of Africa's regional communities intra-community trade based on the absolute values of exports and imports during 1994-2000 (ECA 2004: 91). These two blocs are also working to ultimately achieve an economic and monetary union (EMU), comparable to that of the EU. Table 1.1 below indicates ranks and percentage of intra-African community trade.

Table1.1: Africa's Regional Economic Communities Ranks and Shares of Total Intra-Community Trade.

Regional economic						
community	Share of exports	Rank	Share of imports	Rank		
SADC	31.1	1	30.2	1		
ECOWAS	19.8	2	20.9	2		
CEN-SAD	12.8	3	13.3	3		
COMESA	9.3	4	9.5	4		
UMA	8.6	5	8.8	5		
UEMOA	5.9	6	5.6	6		
EAC	4.7	7	4.2	8		
IGAD	4.4	8	4.6	7		
ECCAS	1.3	9	1.3	9		
CEMAC	1.1	10	1.1	10		
IOC	0.7	11	0.3	11		
CEPGL	0.1	12	0.1	12		
MRU	0.1	12	0.1	12		
Total	100.0		100.0			

Source: ECA 2004

#### 1.4. Research Objective.

To clarify analytically and empirically the effects of REI on bilateral trade flow by comparing the impacts of ECOWAS, SADC and EU PTA.

#### 1.5. Research Questions

The main research questions are

- Have ECOWAS, SADC and EU PTA contributed to intra-regional trade?
- What is the magnitude of the effects of ECOWAS and SADC on intraregional trade as compared to EU PTA?
- Does overlapping membership in ECOWAS and SADC lead to a stronger impact on trade compared to single membership?

#### 1.6. Methodology

In answering the aforementioned research questions, the empirical model employed is the gravity model. This model has widely and consistently been used and has proved to be empirical successful in terms of significance and robustness of its explanatory variables in explaining the direction of trade. The main unit of analysis will be the REI blocs, ECOWAS and SADC. The period under examination spans from 1995-2006. Although, it would have been interesting to include prior years to the formation of these blocs, there is a limitation in terms of data availability, in that trade flows proceeding these years are not available.

In line with the research question of assessing the impact of these RTAs in comparison to EU PTA, the following European countries have been included: United Kingdom, Netherlands, France, Germany, Portugal, Spain, Italy, Switzerland<sup>2</sup>, Belgium, and Ireland. The bases for the selection of the European countries are that, firstly, this group of countries accounts for majority of trade flow within the European Economic Area (EEA). Secondly, the majority of these countries have colonial relationship with ECOWAS and SADC member states. Finally, the inclusion of the EU is worthwhile considering the current contentious debate about the Economic Partnership Agreement (EPA).

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<sup>&</sup>lt;sup>2</sup> Switzerland is member of European Free Trade Association (EFTA) but in 1994, the EEA was created, which enabled the EFTA countries have access to EU internal market (Straathof *et al* 2008).

#### 1.7. Organization of the Study

Following this chapter, the remainder of the chapters are as follows: Chapter 2 focuses on concepts and theories of international trade and REI and proceeds to review theoretical and empirical literature with regards to EU, ECOWAS and SADC as regional blocs. Chapter 3 focuses on ECOWAS and SADC as RTA, delving more on the history, socio-economic data, organization structure and trade flows. Chapter 4 discusses the empirical design and the model specifications. Chapter 5 presents the results from the empirical models with discussions. Chapter 6 summarises the findings from the paper, provides policy implications and suggests areas for further research.

#### 1.8. Limitations of the Study

In dealing with bilateral trade flows, there is a high probability of zero trade flows especially among LDCs. If the number of zero flows is large this is likely to affect the estimates from the models. Additionally, among the ECOWAS and SADC blocs, most of these countries share common borders, there is high possibility of informal trade across the borders that go unrecorded, thus depicting as if trade between the member states is low. Also, one major importance of RTA would be its long-term growth impact, measured through the dynamic gains; however, this study did not focus on measuring this specifically.

# **CHAPTER TWO**

#### 2.0 LITERATURE REVIEW

This chapter is divided into three sections. Section 1 delves on the general theory of international trade and REI. Section 2 provides a review of empirical literature on the impacts of RTA on bilateral trade. Section 3 focuses on providing theoretical perspective on overlapping (multiple) memberships.

## 2.1. Conceptual and Theoretical Framework

#### 2.1.1. Theories of International Trades and Regional Integration

Based on the traditional Ricardian theory of comparative advantage, countries are expected to specialize in production of goods based on their factor endowments. Thus, LDCs who are endowed with primary resources are expected to specialise in the production of primary products while DC endowed with technology specialise in industrialized goods. Heckscher-Ohlin model predicated on Ricardian theory essentially predicts countries to export goods intensive in the use of cheap factor endowments and import goods intensive in the use of scarce factor endowments (Ray 1998). Intuitively from these models, LDCs are more likely to trade with DCs than among themselves. Thus, South-South RTAs are not expected to contribute significantly to bilateral trade compared to North-South RTAs.

The North-South RTA is considered as more relevant for LDCs as trade between them is likely to result in technology transfer from the North to South, which the South needs to springboard its industrialization process(Chui et al. 2002). Focusing on North America Free Trade Agreement (NAFTA) as an example indicates this assertion may not be entirely true. There is a general conclusion that NAFTA has positively impacted on foreign direct investment and trade, however, this was not accompanied with accelerated increase in industrialized output (UNCTAD 2007). The North-South RTAs may in the case of ECOWAS and SADC blocs impede industrialisation, if there is dumping of simple manufactured goods, thereby killing local industrialization. Thus, regional integration may be a strategy to propel an export-led growth for LDCs.

Wyatt-Walter (1995) defines regional integration as a process whereby a group of countries implement a set of preferential policies to stimulate the exchange of goods and factors of production among themselves. According to Lee (2003) regional integration in Africa can be analysed from the purview of the following three theories of regional integration: market integration, regional cooperation and development integration.

Market integration involves the process of removing any trade discrimination or market barriers between countries (*ibid*). Market integration between countries varies according to the different stages of integration, which is

an indicator of the depth of the integration process. The deeper the processes of the integration, the more beneficial are the gains for the member countries. LDCs' market integration can take the form of a North-South or South-South. For ECOWAS and SADC, though they are South-South RTAs, they also have PTA with EU, which is considered a North-South RTA.

Regional cooperation is another form of integration of LDCs' RTAs. It involves a group of countries with similar economic, political and social interests collaborating in achieving these interests (Lee 2003). Regional cooperation strategy is through project or sectoral coordination of economic and physical infrastructures (SADC 2007). For instance, ECOWAS has put up a regional strategy and a plan of action to improve economic growth and reduce the poverty level. One of such strategies is the construction of West Africa Gas Pipeline, which will supply gas to member states from Nigeria (ECOWAS 2006). For SADC, it has been identified that the initial approach was more of regional co-operation than market integration.

Development integration according to Lee involves the modalities that are put in place to address the problems created by market integration. In line with Venables (2003) assertion that there are winners and losers from regional integration process. Development integration is concerned with equitable distribution of the costs and benefits from the REI process.

#### 2.1.2. Stages of Economic Integration

The level of economic integration among the ECOWAS and SADC blocs is just at the initial level of integration, a Free Trade Agreement (FTA), where trade barriers on members' trade are removed but member countries maintain their respective tariffs on goods from non-member countries. For SADC the FTA extends to more than 85% duty-free access on all goods compared to ECOWAS' FTA, although 100% extends to only traditional handicraft and unprocessed goods (ECA 2004). These RTAs have the objective of translating the FTA into a Custom Union (CU). A CU delineates a deeper form of integration in that member countries have a FTA and imposed common external policies on goods from non-member countries. From a CU, a Common Market (CM) is the next stage, which involves a CU plus free flow of factors of production. Ultimately, these blocs are to be transformed into an EMU, which consist of a CM, a single currency and harmonized economic policies. REI in Africa is just not limited to the four different stages as discussed but also includes PTA between the regional blocs or individual countries with DCs. For instance, the ECOWAS and SADC blocs have a PTA with the EU, in which the member countries have a non-reciprocal access to the European market at a reduced duty for categories of products. Table 2 below summarises the main characteristics of the different stages of REI.

**Table 2.1: Characteristics of Regional Economic Integrations** 

	Reduction of tariff on intra- regional trade	Elimination of tariffs on intra- regional trade	Common tariffs for the ROW	Free factor mo- bility	Harmoniza- tion of eco- nomic policies and single currency	ECOWAS Bloc	SADC Bloc
PTA	X						
FTA		X				✓	✓
CU		X	X				
CM		X	X	X			
EMU		X	X	X	X		

Source: ECA 2004

### 2.1.3. Effects of Economic Integration

Economic integration has an effect on the member countries through three main channels according to Hine (1994); however, these two are more relevant for LDCs as they focus more on increased output, growth and welfare.

#### i) Inter-sectoral specialization effects

The Inter-sectoral specialisation arises as a result of reallocation of country's resources among sectors as a result of tariff adjustment (Hine 1994). Economic integration leads to inter-sectoral specialization in terms of agricultural and industrial goods. Morawetz (1974) offers a well evidenced account of how LDCs REI can promote intra-industrial specialization, leading to the emergence of more efficient and larger firms. Further, leading to an increased intra-regional trade accompanied by a commensurate increase in extra-regional imports of capital goods from DCs to promote industrialization and economic growth. This inter-sectoral specialization effect is what has been viewed by many as the training ground argument, in that REI promotes indirectly the protection of infant industry to better equip them to compete efficiently and effectively at the global level (Langhammer and Hiemenz 1991). The specialization effects can also promote inter-industry trade in which industries in member states specialise in the production of goods based on differences in their resources endowment. The inter-sectoral specialization effects result in the static effect (Hine 1994).

#### Static Effect

The static effect is defined as welfare gains or losses arising from the reallocation of production and consumption patterns within the member states (Jaber 1971). Jaber identifies three assumptions under which the static effects can be realised. These include; production effect which is further divided into trade creation and trade diversion. Secondly, is the consumption effect, this emanates from inter-commodity substitution due to changes in relative prices. Thirdly, is the term of trade effect which emanates from trade diversion. Although, all the effects are equally important, LDCs' RTAs have been assessed mainly by the effects of trade creation and trade diversion.

#### **Trade Creation and Trade Diversion**

According to Viner (1950) even if a RTA leads to an increase in bilateral trade flow, it is not a sufficient condition to guarantee an increased welfare but to a large extent, depends on the net effect of trade creation and trade diversion. From Viner's analysis, trade creation may result from the shift of domestic consumption from high-cost domestic products to low-cost products from a partner country as a result of elimination of trade barriers. Thus, trade between partner countries increases in accordance with international comparative advantage. Conversely, Viner identifies the possibility of a trade diversion which involves a shift of domestic consumption from a low-cost non-member country to a high-cost member country. Trade diversion in here, may be viewed as a negative impact of integration. For LDCs that tend to have less efficient production methods, there is the high possibility of trade diversion outweighing the trade creation, thus negatively affecting welfare (Hine 1994).

Van Dijck (1992) elaborates on the necessary conditions under which welfare gains will be greater than welfare losses. Firstly, the import demand should be price elastic and price differences between member states should be large while price difference between member states and the world market should be small. Secondly, if more goods are imported from non-member states hitherto to the formation of the regional bloc, there is a high tendency of trade diversion. For LDCs, whose main exports are primary products, their prices are mostly inelastic. Based on the above conditions, Van Dijck concludes that LDCs' RTAs would have limited trade creation and often expected to have negative welfare effects.

Regardless of the question of trade diversion dominating trade creation, policy makers in LDCs may view trade diversion as beneficial, as a means of protecting infant industries in member countries (Langhammer and Hiemenz 1991). The higher cost products from the partner countries may just be the opportunity cost to promoting regional industrialization and growth. Viner's analysis of REI based on trade creation and trade diversion tend to be overly concentrating on improvement in welfare through consumption to the neglect of production. Wonnacott and Wonnacott (1981) argue that regional blocs' formations are motivated more by the potential export advantages rather than welfare implications. Thus, LDCs' RTAs are more motivated by the gains from the protection of infant industries.

#### ii) Rationalization effects

The rationalisation effect is realised from the possibility of the REI process increasing market access thereby encouraging large scale production resulting in economies of scale. Through the economies of scale, the cost of production per unit of output may decline and thereby lead to more competitive pricing by the regional producers. Also, the integration process spurs producers to greater efficiency as result of a competitive environment. The rationalization effects result in the dynamic effect (Hine 1994).

#### **Dynamic Effect**

The dynamic effect can be measured by looking at how the increases in trade resulting from a larger internal market affect economic growth of member states. Jaber (1971) identifies possible ways in which the dynamic effect can increase productivity and economic growth. First, through the economies of scale, this is brought about by the creation of a large internal market propelling firms which hitherto were producing below optimum capacity in the participating countries to an optimum production. The second possible way is about the agglomeration economies which is realised from the possibility that as new firms enter the industry, the minimum average total cost of all firms in industry fall mainly through competition. Thirdly, is through an increased economic efficiency and reduction in trade and transaction costs as unilateralism in trade polices and barriers are minimised. Fourthly, is through increased volume of investment as argued by Baldwin (1992) that trade liberalization increases the return on capital, which induces capital formation and thereby raises output.

#### Growth Promoting Impact of Trade

Through the dynamic effect of RTA, economic growth may surge for member countries. For LDCs, regionalism is pursued with the main objectives of fostering economic growth, poverty reduction and overall development through its increasing trade effects. Notwithstanding, the conclusion of little evidence of positive effect of trade openness on growth by Rodriguez and Rodrik (1998) and Rodrik et al (2004), several studies have shown otherwise. Notable among these studies are Sachs and Warner (1995), Frankel and Romer (1996), Dollar and Kraay (2003), Lewer and Van den Berg (2003), Mamoon and Murshed (2005). The main contention in these studies is about contributions of trade and institutions to economic growth. Rodrik contends that institutions rather than trade impact significantly on economic growth. However, Dollar and Kraay indicate that trade and institutions are collinear; hence, these two variables are both important for economic growth of LDCs as buttress by Mamoon and Murshed. Lewer and Van den Berg emphasize the significant impact of trade on GDP, by stating that though static effect of trade is small, it has compounding effect on GDP through its dynamic effect.

Baldwin (1992) finds the dynamic impact of trade as extremely large compared to the static effect. Furthermore, he asserts that the dynamic impact has a longer-term effect on economic growth and since its impact is not immediate, measurement becomes difficult. The static effect of REI seems to have dominated the dynamic effect because of longer-term effect of the dynamic effect. For LDCs, Jaber (1971) and Deme (1995) believe that the dynamic impact of integration rather than the static is potentially more important because of their dwindling economic growth and development. This is in line with Ezenwe's (1983) argument that the traditional theory of RTA as based on Viner's analysis is of limited relevance to LDCs essentially if more emphasis is put on static rather the dynamic gains.

For LDCs, the primary issue of concern would be whether these RTAs have contributed significantly to bilateral trade, and thereafter, look at its impact on welfare and economic growth because generally, LDCs are not ex-

pected to trade much among themselves. Thus, based on this, the empirical design employed in this study would not focus on measuring the impact of RTA on welfare or economic growth but rather to assess whether these RTAs have contributed significantly to intra-regional trade flow.

#### 2.1.4. The Economic Rationale for LDCs' Economic Integration.

RTAs have been recognised as second best to the Pareto optimal free trade for the fact that, its ultimate objective of increasing welfare of the citizens of the member states can be achieved with a non-discriminating free trade or multilateralism (Swanson 1996). Thus pointing to the fact that, REI may have been formed for entirely non-economic benefits based on the standard analysis of Pareto optimality of welfare (Hine 1994). According to WTO (2008), multilateralism improves global welfare; however the gains derived are not evenly distributed. Particularly for LDCs, these gains could be achieved at the expense of their local industrialization process if there is an influx of simple manufactured goods from DCs.

Thus, LDCs that are keen on promoting local industrialization and enhancing the competitiveness of their local firms may rather opt for REI as an alternative to unilateral reduction in tariffs. One of the main objectives of LDCs' RTA is to remove trade impediments among the member state in order to induce bilateral trade. The basis for such an assertion lies in the simple explanation that, RTA may help reduce the technical and bureaucratic bottlenecks to trade by means of co-ordinated administrative reforms and also through the dissemination of critical information on trading possibilities (UNCTAD 2007). Thereby, member states become more competitive in terms of prices of their products compared to non-members who do not benefit from the REI.

RTA do not guarantee an equal gain for all member states as there is the tendency of the more efficient ones dominating, sometimes even displacing local productions of less efficient member states. This may not be an enough evidence to discourage the rising regionalisms among LDCs mainly because signatories to the RTA ensure that modalities are devised for adequate compensation for the smaller and less efficient member states. This compensation may not come with non-preferential free trade, making it less attractive though it is argued to be more economically desirable.

The concept of trade protection has become defunct, as LDCs, that were strong proponents of protectionist policies, have voluntarily or involuntarily embraced the concept of trade openness. Largely, neoclassical economics attribute rapid economic growth to trade openness (Collier and Gunning 1994). Additionally, increases in the formation of RTAs is being viewed as complementary to trade openness and seen as a step towards a freer global trade (Van Dijk 1996). REI has contributed to a positive increase in trade openness in countries that hitherto protected their economies heavily (Swanson 1996). For

instance, countries such as Malaysia, Singapore and Thailand whose rapid economic growth have been attributed to trade protectionist policies have becomes more open economies after joining the ASEAN<sup>3</sup> FTA. Regional blocs that have effectively integrated tend to account for significant proportions of the world GDP. For example, EU and NAFTA accounted for the more than one-third of 1993 world GDP. The dominance of the EU and NAFTA in world trade is more traceable to their intra-regional trade flow. For instance EU intra-regional export accounts for 25% of world exports whiles extra-regional exports constitute only 11%. Similarly, NAFTA intra and extra regional exports account for 7% and 4% of total world export respectively (Swanson 1996).

Conversely, it is the belief of some trade economists and institution such as Bhagwati and Panagariya (1999), Krugman (1991) and IMF (1993) that the increasing regionalism may be stifling global free trade. Krugman argued that rather than REI being a complement to global trade liberalization, it is now a substitute and impedes the growth of trade openness. Bhagwati and Panagariya used a dynamic time-path analysis to show that it is impossible to pursue a multilateralism and regionalism simultaneously because the members of RTA have less incentive to liberalise tariffs reciprocally with the non-member world. IMF stated their preference for full multilateralism over the regionalism.

In contrast to Bhagwati and Panagariya, ECOWAS (2006) indicates that REI may rather be an avenue for a joint commitment and concerted strategy to fast-tracking the process of tariff elimination. West Africa Economic and Monetary Union (WAEMU) was cited as an example, in which the member countries have jointly reduced barriers to both intra and extra-community trade than individual countries could have achieved as a result of the Union providing regular framework for cooperation and compensation mechanisms. For instance, hitherto the formation of WAEMU, the average total entry taxes stood at 65.5% which currently ranges between 0% and 22% for different categories of products. With regards to World Trade Organization (WTO), no one-sided conclusion was made about whether RTAs are building or stumbling blocks to multilateralism. However, it emphasizes that growing regionalism can pose a threat to multilateralism if higher tariffs are imposed on non-member countries (WTO 2007).

The push for a freer trade by WTO has not being so effective. For example, Murshed (1997) believes the conclusion from the Uruguay Round will not promote free trade effectively as WTO allows contingent protection for key industries which are of special relevance to countries. Thus, for LDCs, regionalism may be the channel to address some of the inadequacies in WTO agreements. Additionally, LDCs view regionalism as a channel to escape the negative impacts of the current world trading systems, to which some economists

<sup>&</sup>lt;sup>3</sup> ASEAN is Association of Southern-Eastern Asian Nations

Chang (2002) and Stiglizt (2003) have vehemently criticised as serving only the interest of DCs. The current world trading system as espoused by neoclassical economics is based primarily on the concepts of unilateral trade liberalization and specialization according to the natural comparative advantage. Khor (2006) states that LDCs are stipulating for re-negotiation in most of the existing WTO agreements as they are biased against their interests, citing the TRIPs (Trade-Related Intellectual Property Rights) and the Agreement on Agriculture (AoA) as examples.

With regards to TRIPs, Khor argues that this would put onerous burden on LDCs in terms of higher consumer prices and also impedes technology transfer from the North to the South. With agriculture serving as the backbone of most of the LDCs, the AoA was unfavourable as it proposed tariff cuts for LDCs to be deeper as compared to DCs. LDCs have become more frustrated with the WTO persistent failure to make the DCs to remove the high domestic subsidies for their farmers resulting in farmers in LDCs becoming globally uncompetitive. For instance, in July 2010, in a partner institutional viability assessment workshop organized by Expanded Agribusiness and Trade Promotion (E-TAP) in Ghana to evaluate the organization capacity a West Africa professional organization for poultry farmers. It was stated that annual imports of subsidized dressed poultry from DCs had risen from approximately 42,000 tonnes in 2005 to 130,000 tonnes in 2009, and this rising volume has resulted in almost the total collapse of the local poultry industry (Daily Graphic 2010).

DCs tend to impose higher tariff and non-trade barriers (NTBs) on agricultural exports from LDCs. The NTBs mostly take the form of health, environmental and labour standards. With tariff barriers, Cheng et al (2009:46) state that agricultural and textile products from LDCs to DCs attract as much as 300% tariffs. Thus for LDCs that are members of the WTO, and knowing the implications of the economic and trade sanctions of flouting the WTO rules, have limited choices but to integrate into global markets. However, the suggested approach according to Amponsah (2002) of integrating into the world trading system is to integrate regionally in order to access the greater flow of trade, finance and technology. Furthermore, Balassa and Stoutjesdijk (1975) believe REI would offer substantial benefits to LDCs that are yet to compete favourably in the world market. This will assist them in establishing an efficient production structure because not only is there an increasing discrimination through NTB on primary exports but also their simple manufactured exports attract higher tariffs in the DCs.

Issues of conflicts are very relevant as they have economic and politic consequences. Murshed and Mamoon (2010) indicate that increasing bilateral trade decreases the tendency of escalation of conflicts among states. REI among SSA contributes to conflict reduction and good governance both at intra and inter-state level. For instance, one major achievement of ECOWAS has been it roles in establishing a mechanism for prevention, management and resolution of conflicts, peace building and security through its regional security monitoring group (ECOMOG). This institution played a pivotal role in peace

and security in Liberia and Togo (ECOWAS 2006). Similarly, SADC has an established Organ on Politics, Defence and Security. This Organ according to Lee (2003) has been instrumental in conflict management in the SADC region. For instance, the admission of DR Congo into SADC was motivated mainly by ensuring peace and security. SADC also played an important role in ensuring political stability in Lesotho in 1998. For the fact that, trade and economic growth may be inhibited under at atmosphere of conflict and insecurity; the roles of these RTAs are vey paramount as they can be a channel for conflict resolution and also remove distortions and slacken the stranglehold of domestic institutions in directly unproductive profit seeking activities as indicated by Bhagwati (1982).

#### 2.2. Empirical Study Review

## 2.2.1 The Effect of Regional Trade Agreements on Regional Trade

RTAs may significantly improve trade flow among the member countries. This notwithstanding, how effective is RTA in contributing to intra-trade would depend to a large extent on the level of non-preferential tariff between the member countries hitherto the RTA was signed. If there are no policy-related barriers to trade, forming RTA may purely be ceremonial (Straathof et al. 2008). However, for SSA, trade barriers are copious, ranging from poor transportation network, high tariffs and NTBs, thus, RTAs may be effective in reducing these barriers to induce bilateral trade.

Empirical studies about the effect of economic integrations on bilateral trade flow started with Tinbergen (1962). Tinbergen investigated the impact of PTA on bilateral trade flow, using the membership of the British Commonwealth and the European Economic Community (EEC) as regional blocs. Tinbergen found an insignificant effect of PTA on trade flow. Following Tinbergen, Linnemann (1966) using bilateral trade flow between 80 countries as compared to 42 countries of Tinbergen found a significant relationship between the bilateral trade flow and the PTAs for the Commonwealth countries, France and French associates and the Portuguese and Belgian associates. Linnemann results did not validate the assertion of an insignificant effect of the PTA on bilateral trade flow.

Several studies that focused on European integration (EEC and EFTA) conclude that these blocs have contributed significantly to bilateral trade. Noticeable among these studies are: Aitken (1973), Abrams (1980), Brada and Mendez (1985) and Frankel (1997). Aitken utilising a cross-sectional trade flow between the periods 1951-1967, found EEC and EFTA to have significantly contributed to intra-regional trade flow but only 3 to 4 years after their formations. Abram also using pooled cross-sectional (PCS) model for the periods 1973-1976, found positive significant coefficients for EEC and EFTA. Similarly, Frankel's result indicates a significant positive impact of the EU on bilateral trade after the year 1985. Branda and Mendez further conclude that effective integration is possible for both developed and developing countries.

In a more recent empirical work, Baier and Bergstrand (2007) also conclude that RTAs have a more significant impact on intra-regional trade, and state that when the possible endogeneity that characterised most empirical studies is accounted for; the effect on RTAs on trade flows is quintupled. The result from Baier and Bergstrand is more convincing as they employed a large data size comprising of 96 countries spanning the time period from 1960 to 2000. They as well also controlled for most of the econometric problems by using Fixed Effect (FE) estimation, thereby making their estimates more reliable.

Empirical literatures on SSA RTAs are limited especially for ECOWAS and SADC. To start with, Gunning (2001) asserts that African RTAs are disappointing in terms of inducing bilateral trade flow. Gunning's assertion is not surprising since this assertion was partly based on the performance of COMESA, citing non-compliance of trade policies among member states as a major contributing factor, in that of the 80% tariff reduction target that was set in 1996 only five out of the 20 members ratified it as 2001. COMESA as regional bloc has being ineffective as some Southern African states have refused to join. SADC has also labelled membership of COMESA as incompatible with SADC (Warin *et al* 2009). Thus, the case of COMESA may not be representative for African RTAs. Although, Gunning concludes that African RTAs are better in meeting political rather than economic objectives, he believes that Africa's RTAs can bring about income convergence and become less trade diverting if external tariffs can be reduced as well for non-members.

Venables (2003) argues that RTA will lead to trade divergence among low income countries, and thus recommend that LDCs are likely to derive potential benefit rather with North-South RTAs. Similarly, Yang and Gupta (2005) are of the opinion that RTAs in Africa have been ineffective in promoting trade and thus recommend that for Africa to increase regional trade, they should focus more on broad-based liberalization. Their assertion can best be captured in the following statement:

Times series data show that the impact of the RTAs on intra-African trade seems to have been small or insignificant...intra-RTA trade in the major RTAs(SADC, COMESA, ECOWAS, WAEMU and CEMAC) has also grown erratically relative to their trade with the rest of the world, often showing no obvious trend over time (Yang and Gupta 2005:15).

In contrast to Yang and Gupta assertion of low intra-regional trade of Africa's RTAs, Rodrik (1998) believes that Africa's intra-regional trade performance may not be that small if its economic performance is taken into consideration. Rodrik attributes the low intra-regional trade to trade barriers and points out that if the high level of trade restrictions are removed among the member states this would significantly improve trade and their economic performance. In line with Rodrik's argument, Foroutan and Pritchett (1993) and Longo and Sekkat (2001) indicate the standard for measuring Africa's intra-

regional trade should not be how low but rather how low as compared to the expected.

Overtime, the few studies that employed econometric tools have quite interestingly shown that there is enough statistical evidence to buttress the significant impact of some Africa's RTAs on bilateral trade. Deme (1995) using trade flow from 1975-1991, finds a significant impact for ECOWAS, in that ECOWAS causes members to trade 0.5 (PCS) and 1.7 (FE) times more than with non-members. Although, Deme controlled for only country effects (without time dummies) in his FE model, the result confirms Baier and Bergstrand (2007) assertion of greater impact, if endogeneity is control. Cernat (2001) also supports Deme in terms of significant impact of ECOWAS on intra-regional trade; however, the estimation was cross-sectional and PCS for only the years 1994, 1996 and 1998. Cernat finds that ECOWAS contributes to trade two times among members more than with non-ECOWAS countries. For SADC, Cernat finds a positive significant impact, indicating that SADC contribute to intra-trade nine times more.

Carere (2004) controlling for possible endogeneity that are inherent in gravity model coupled with a large sample sizes of 150 countries for the period 1962-1996 indicates significant impact for ECOWAS and SADC. Carere finds ECOWAS and SADC to have contributed to intra-regional trade 0.2 and 2.7 times more respectively. Although, Carere controlled for most of econometric problems, the time period chosen was when most of the member states of these blocs did not ratified the free trade protocols. That might explain the small coefficients though significant. Carere further indicates that measuring the impact of African RTAs based on market share in world trade may be misleading because most African regional blocs' share in world trade remains unchanged over time. Carrere therefore suggests an assessment based on comparing the evolution of trade with the counterfactual in order to predict what would have happened if RTA had not been in place. Carere concludes by stating that assessment based on comparing the evolution of trade with the counterfactual indicates an impact that is three times that of the gravity estimates.

More recent empirical literature on trade performance of LDCs' RTAs is provided by Coulibaly (2007). He used a two-step estimation approach of combining gravity model and Kernel regression of estimated trade residuals in evaluating LDCs' RTAs for the period 1960-1999. Coulibaly finds that ECOWAS has had a positive and increasing impact on intra-regional trade over the estimation period; however its impact on exports to the ROW has been negative and decreasing. For SADC, Coulibaly stated that, the bloc had a continuous positive anticipation effect five years before the implementation of the treaty establishing SADC. Just like ECOWAS, SADC also had a positive and increasing impact on intra-regional trade. However, its extra-regional trade was estimated to be negative.

#### 2.3. Theoretical Perspective: Overlapping and Multiple Membership

From the review of the studies carried out on Africa's RTAs, all delineates that there is no consensus about a significant positive effect on bilateral trade as compared to that of EU. However, one point to which there seems to be some consensus was the conclusion that overlapping memberships undermine the effectiveness of African RTAs. Notable among these studies are those of Gunning (2001), Yang and Gupta (2005), Chacha (2008), and ECA (2004) who attribute to overlapping memberships as undermining the integration process. Figure 2.1 below indicates the number of countries in multiple memberships in Africa.

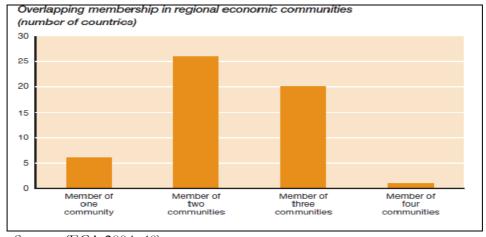


Figure 2.1: Multiple Memberships of SSA Countries in RTA

Source: (ECA 2004: 40)

Cheng et al (2009: 45) defines overlapping membership as a phenomenon whereby one country is involved in more than one RTA. According to them, overlapping membership has been an alternative to derive large economic benefits from the international economic environment as the trade negotiations at the multilateral level has consistently failed. They refer to overlapping membership as a Hub-Spokes system with the individual country being the Hub and the other countries it has an overlapping RTA being the Spokes countries. With increasing bilateralism in international trading landscape, the Hub country stands the chance of avoiding trade discrimination from the Spokes countries that are non-members of the Hub's original RTA. In that vein, RTAs that have member states involve in more than one RTA are more likely to have greater impact of inducing bilateral trade.

Analysing overlapping RTA from a different perspective, Cheng *et al* also state that this can undermine the efficiency of regional economic operations. They cite difference in the rules of origin as one major cause. Similarly, Chacha (2008) also believes that multiplicity of membership can undermine member states' commitment and loyalty in the implementation and ratification of trade protocols. Chacha identifies consistent commitment by member states to RTA as a precursor to success of the regional bloc. Thus, multiple memberships of different RTAs may sometimes be conflicting or mere duplication. For the reason that membership of RTA is not solely skew towards positive gains

but also comes with such costs as economic, political and administrative costs. Multiple memberships are likely to complicate and derail the potential gains to be derived from such arrangements. Multiple membership of RTA may result in the sharing of commitment and loyalty to the different RTAs.

It is in this vein that Chacha (2008), Yang and Gupta (2005) and ECA (2004) argue that multiple memberships may be inhibiting the full potential of these regional blocs in stimulating intra-regional trade. Chacha employing a quantitative analysis affirms that overlapping membership negatively affects the progress of RTA in SSA. Chacha's result was robust in all the different estimation methods; the FE, Random Effect (RE) and Generalised Least Square (GLS) indicate a negative impact, that is, one unit of overlap leads to 2.2% point reduction in intra-regional trade. Yang and Gupta were of the opinion that, different regional blocs have different Common External Tariffs (CET) and thus making the implementation of multiple tariffs impracticable. They suggest that African countries should streamline the RTA with overlapping memberships such that the small and ineffective RTAs will be absorbed by the large ones. The assertion of ECA can best be captured in the following statement:

The overlap among regional economic communities also adds to the burdens of member states. A country belonging to two or more regional economic communities not only faces multiple financial obligations, but must cope with different meetings, policy decisions, instruments, procedures, and schedules. Customs officials have to deal with different tariff reduction rates, rules of origin, trade documentation, and statistical nomenclatures. The range of requirements multiplies customs procedures and paperwork, counter to trade liberalization's goals of facilitating and simplifying trade (2004: 41)

In analysing the impact of overlapping memberships in ECOWAS and SADC, there are two main issues. Firstly, is whether the other RTAs are major blocs, and secondly, is whether the majority members of these other blocs are members of ECOWAS or SADC. ECOWAS member states belong to two major sub-regional blocs WAEMU and West Africa Monetary Zone (WAMZ). Although, these blocs are recognized as different regional blocs, they are all working to achieving the overall objective of the ECOWAS. Additionally, the other regional groupings are not major regional blocs that can compete with ECOWAS. Also, memberships of these other regional blocs are all members of ECOWAS. Thus, overlapping membership in ECOWAS may rather have a positive impact on the overall integration process.

Conversely, for SADC, Lee (2003) identifies the SACU, COMESA and EAC as posing a challenge to the SADC strategy of market integration. SADC member states share membership with major regional blocs: COMESA, ECCAS and EAC, with majority of the members of COMESA, EAC and ECCAS being non-SADC members. This can possibly bring conflict of interests among the different member states, thus, overlapping membership may negatively affect SADC or contributes to no greater significant impact.

# CHAPTER THREE

#### 3.0 ECOWAS AND SADC AS REGIONAL BLOCS

This chapter commences by looking at the history of REI, overlapping memberships of ECOWAS and SADC member states and the organization, structures and institution of the blocs. It then proceeds to make comparative analysis between ECOWAS and SADC blocs in terms of socio-economic indicators, resource endowment, trade with EU and the World. Finally, it compares the intra and extra-regional trade between the blocs and looks at individual member states intra-trade performance.

#### 3.1. History of Economic Integration in West Africa

Economic integration in West Africa has moved on the trajectory of geopolitics, mainly between the French and the British, which colonised West Africa. In June 1959, the Francophone West African countries comprising of Benin, Ivory Coast, Mali, Mauritania, Niger, Senegal and Upper Volta signed the convention which established the first CU in West Africa, called the West African Custom Union (WACU). However as a result of technical inadequacies in the convention and the abysmal performance of the WACU in terms of stimulating trade flow and, members met in Paris in 1966 and decided to restructure the Union. This resulted in the signing of a new convention which established the Union Douaniere entre les Etats de L' Afrique l' Ouest (UDEAO). Despite the signing of a new convention, member countries failed to abide by the principles that guide a CU, hence the Secretary-General in May 1972 announced the cessation of the bloc (Ezenwe 1983).

The Francophone West Africa countries' quest for REI did not cease with the collapse of the two previous blocs. In April 1973, the West Africa Economic Community (CEAO) was formed as an offspring from UDEAO. UDEAO had a monetary bloc, West Africa Monetary Union (UMOA), which did not collapse with the CU as result of the adoption of a common currency (CFA Franc) which was aligned to French currency. At the conference of Heads of State in January 1994, a decision was made to amalgamate UMOA and CEAO into one francophone regional bloc, WAEMU (Soderbaum 1996). Table 3.1 summarises the membership of the regional blocs in West Africa and their current status.

Table 3.1: Regional Blocs in West Africa and Current Status

Community	mmunity Members		Current status with regards to economic integration		
ECOWAS	Ghana, The Gambia, Sierra Leone, Nigeria, Guinea, Togo, Benin, Cote D'Ivorie, Senegal, Mali, Liberia, Cape Verde, Burkina Faso, Niger, Guinea Bissau	Full Economic and Monetary Union	-Tariffs removed on unprocessed goods and traditional handicraftFull elimination on tariffs on industrial good started by Benin -Second monetary zone in progress -Abolished entry and visa requirements -Macroeconomic convergence in place		
WAEMU	Togo, Benin, Cote D'Ivorie, Senegal, Mali, Burkina Faso, Niger, Guinea Bissau.	Full Economic Union	-Custom union achieved -Business laws harmo- nised -Macroeconomic policy in place		
WAMZ	Ghana, The Gambia, Sierra Leone, Nigeria, Guinea	Single Monetary Currency	-Macroeconomic convergence in place -Macroeconomic policy in place.		
Conseil de l'Entente (EC)	Benin, Togo, Cote D'Ivorie, Niger, Burkina Faso	Promoting economic and political cooperation	-Established Mutual Aid and Loan Guaranty Fund		
Mano River Union (MRU)	Liberia, Guinea, Sierra Leone	Multisectoral integration	-No progress towards the CU -Some joint infrastructure project complemented -Established MRU Centre for Peace and Development, Forestry and Training Institute and Maritime Training Institute		
Permanent Inter-State Committee for Drought Control in the Sahel (CILSS)	Mali, Niger, Senegal, Burkina Faso, Gambia, Cape Verde	Coordinating Sahelian de- velopmental programmes	-Established an Agro- meteorology and Opera- tional Hydrology Centre, Sahel Institute		

Source: Author

#### 3.2. History of Economic Integration in Southern Africa

Economic integration in Southern Africa precedes that of West Africa. Economic integration in the Southern Africa originated as far back as 1889, when the Cape Colony<sup>4</sup> and landlocked Orange Free State<sup>5</sup> formed a CU with Lesotho in 1891 and with Botswana in 1893. The Union of Southern Africa transformed into the Southern Africa CU (SACU) in 1910, which is the oldest CU in the world according to Lee (2003). Although SACU was formed in 1910, the agreement establishing the CU was ratified in 1969, after which there have been a series of renegotiation, mainly because smaller members felt there were inadequacies in the agreement which did not serve their interest. For instance there were no provisions for the share of custom revenue (Soderbaum 1996). SACU operated as FTA for goods and services between the member states and a CET imposed on non-member countries. In 1974, the Rand Monetary Area was formed by South Africa, Lesotho and Swaziland. The SACU members (except Botswana) used the South African national currency, the Rand, along-side their own national currencies (Warin *et al* 2009).

In April 1980, a regional economic summit was organised in Lusaka, Zambia by Angola, Botswana, Lesotho, Malawi, Mozambique, Swaziland, Tanzania, Zambia and Zimbabwe. In this summit, the Lusaka Declaration was made which established Southern African Development Coordination Conference (SADCC). The main objectives of SADCC were to reduce the economic dependence on South Africa and promote regional cooperation (Soderbaum 1996).

Southern African States had a PTA with the Eastern Africa, which was transformed into a regional bloc, COMESA in 1981, under the auspices of ECA. However, not all the Southern African states ratified the treaty establishing COMESA, South Africa, Namibia and Botswana are non-members of COMESA (Soderbaum 1996). Additionally, SADC has established membership in COMESA as incompatible with SADC membership and has solicited its members to secede from COMESA. As a result, COMESA has become ineffective in registering any significant impact on intra-regional trade (Warin et al 2009). Table 3.2 provides details on membership, objectives and current status of the regional blocs in Southern and Eastern Africa.

<sup>&</sup>lt;sup>4</sup> Cape Colony is part of modern South Africa, established by the Dutch East Indian Company in 1652

<sup>&</sup>lt;sup>5</sup>Orange Free State was an independent Boer republic in southern Africa Source: (Dee Rissik 1994) Culture Shock! South Africa

Table 3.2: Regional Blocs in Southern Africa and Current Status

Community	Community Members		Members S <sub>I</sub>		Current status with regards to economic integration		
SADC	Angola, Botswana, DR Congo, Lesotho, Malawi, Mauritius, Mo- zambique, Namibia, Seychelles, South Africa, Swaziland, Tanzania, Zambia, Zimbabwe	EMU	-Free trade area launchedPower pool in place - Peace and security mechanism in place -Macroeconomic convergence in place				
SACU Botswana, Lesotho Namibia, South Africa Swaziland		CU	-Custom union achieved and a monetary union between the four states in exception of Botswana				
Burundi, Comoros, Dji- bouti, DR Congo, Egypt, Eritrea, Ethiopia, Kenya, Libya, Madagas- car, Malawi, Mauritius, Rwanda, Seychelles, Sudan, Swaziland, Uganda, Zambia, Zim- babwe.		FTA	-Free trade agreement estab- lished and coverage is limited to goods				
EAC	Uganda, Kenya, Tanza- nia, Burundi, Rwanda	CU	The various institutions in places.				
Indian Ocean Commission (IOC)	Mauritius, Seychelles, Madagascar, Comoros	Promoting sustainable develop- ment	Not notified to WTO				
Economic Community of Central African States (ECCAS)	Angola, Burundi, Cameroon, Central African Republic, Chad, DR Congo, Congo, Equatorial Guinea, Gabon, Rwanda, Sao Tome and Principe	CM and Regional economic co- operations	This bloc is almost defunct because of overlapping mem- bership with Economic and Monetary Community of Cen- tral Africa (CEMAC). Not notified to WTO of				

Source: Author

#### 3.3. Overlapping Memberships of ECOWAS and SADC Countries

West Africa currently consists of six different REIs, with each country belonging to at least two of the REIs. Niger, Guinea and Burkina Faso have the highest multiple memberships, belonging to four of the regional groupings in the West Africa. SADC, just like ECOWAS, has majority of SADC member states belonging to at least two of the six regional blocs in both Eastern and Southern Africa. DR Congo has the highest membership; belonging to four different regional groupings, with Mozambique belonging to only one. Although, some of the regional groupings aims are not directly related to promoting intraregional trade, it may be a mere duplication and unnecessary as their main focus and objectives can be amalgamated with the bigger regional blocs. Table 3.3 below indicates the multiple memberships of ECOWAS and SADC member states.

Table 3.3: Multiple Memberships of ECOWAS and SADC's Members

ECOWAS Members	ECOWAS	WAEMU	WAMZ	MRU	EC	CILSS
Benin	X	X			X	
Burkina Faso	X	X			X	X
Côte d'Ivoire	X	X			X	
Guinea Bissau	X	X				
Mali	X	X				X
Niger	X	X			X	X
Senegal	X	X				X
Togo	X	X			X	
Gambia	X		X			
Ghana	X		X			
Guinea	X		X	X		X
Sierra Leone	X		X	X		
Nigeria	X		X			
Cape Verde	X			X		
Liberia	X			X		

SADC Members	SADC	COMESA	ECCAS	SACU	IOC	EAC
Angola	X	X	X			
Botswana	X			X		X
DR Congo	X	X	X		X	
Lesotho	X			X		
Madagascar	X	X				
Malawi	X	X			X	
Mauritius	X	X				
Mozambique	X					
Namibia	X	X		X		
Seychelles	X	X			X	
South Africa	X			X		
Swaziland	X	X		X		
Tanzania	X					X
Zambia	X	X				
Zimbabwe	X	X				

Source: Author Note: X denotes membership of RTA.

#### 3.4. ECOWAS and SADC as Regional Blocs

ECOWAS as a regional bloc was formed on 28th May 1975 by 15 West Africa countries. According to the Treaty of Lagos (ECOWAS website) that established ECOWAS, the main aim was to foster and promote co-operation and development of the member sates. The main channels for the realization of the aim was through the harmonisation and co-ordination of national policies in areas of economic, social, cultural and political activities. ECOWAS as a regional bloc also envelops the Francophone and Anglophone sub-regional blocs, WAEMU, which comprises of the seven Francophone member states and WAMZ, also comprising five Anglophone countries. The WAMZ was formed in December 1999 spearheaded by Ghana and Nigeria. WAEMU and WAMZ are regarded as a two-track strategy to fast-track the ultimate aim of EMU. The WAMZ are working on modalities to introduce a common currency (Eco) as WAEMU, and then an eventual merger of these two currencies into single currency for West Africa.

Considering the slow pace of ECOWAS in fully achieving its ultimate aim of EMU as stated in the Treaty of Lagos, the treaty was revised in July 1991 by the member states, now called the Abuja Treaty. The main aim of the revised treaty was to accelerate economic integration process from the perspectives of the EU. The need for revision of the treaty was mainly motivated from the perspectives of the Community adapting to changes on the international landscape in order to maximise the potential benefits from REI. The revised aim as stated in the Abuja Treaty is as follows:

The aims of the Community are to promote co-operation and integration, leading to the establishment of an economic union in West Africa in order to raise the living standards of its peoples, and to maintain and enhance economic stability, foster relations among Member States and contribute to the progress and development of the African Continent (ECOWAS Website<sup>6</sup>).

The main mechanism through which the aforementioned aim was to be achieved as stated in the Abuja Treaty in relation to promoting intra-trade was the establishment of a common market which would take the following into consideration:

- 1. the liberalisation of trade by the abolition, among Member States, of customs duties levied on imports and exports, and the abolition among Member States, of non-tariff barriers in order to establish a free trade area at the Community level.
- 2. The adoption of a common external tariff and a common trade policy vis-a-vis non-member countries.

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<sup>&</sup>lt;sup>6</sup> http://www.comm.ecowas.int/sec/index.php?id=treaty&lang=en, accessed 12/04/2010

3. The removal of barriers to free persons, between Member States, of obstacles to the free movement of goods, service and capital, and to the right of residence and establishment.

#### SADC as a Regional Bloc

SADCC metamorphosed into SADC in the Windhoek Summit in August 1992, where a decision was taken to transform SADCC into a more formalised and integrated community. Thus, SADC is considered as continuation of SADCC as SADCC members constitute the SADC membership with South Africa, Dr Congo and Mauritius being the only new admitted members. The organizational structure of SADC was built basically on that of SADCC. In line with the current challenges affecting the SADC region, the Windhoek Declaration listed these three main objectives as summarised by Soderbaum (1994: 48):

- 1. Deeper economic cooperation and integration, on the basis of balance, equity and mutual benefit, providing for cross-border investment and trade, and freer movement of factors of production, goods and services across national borders.
- 2. Common economic, political and social values and systems, enhancing enterprise and competiveness, democracy and good governance, respect for rule of law and the guarantee of human rights, popular participation and alleviation of proverty.
- 3. Strengthening regional solidarity, peace and security, in order for the people of the region to live and work together in peace and harmony

As a step towards enhancing deeper regional integration and promoting intra-regional trade, SADC has an established Institutional Framework for FTA and Protocol on Trade, which formed the legal basis for FTA. This Protocol was signed in 1996 and it commits the member states to eliminate existing trade barriers, harmonise trade procedures and documentation. There is also Trade Negotiation Forum which is responsible for trade negotiation and overseeing the effects of the trade liberalisation (SADC 2008). The SADC Regional Indicative Strategic Development Plan (RISDP) set the following time schedule and steps as a route to achieving the full EMU by 2018 (SADC 2008). Figure 3.1 below indicates plans of SADC.

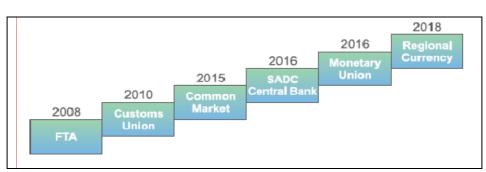


Figure 3.1: SADC Steps to Full Economic and Monetary Integration

Source: SADC 2008

# 3.5. Organization, Structure and Institutions of ECOWAS and SADC

The organization, structure and institutions of ECOWAS and SADC blocs are almost similar. According to Lagos Treaty, ECOWAS has seven institutions that perform various functions as stipulated in the Abuja Treaty. The institutions comprise of the Authority of Heads of State and Government; the Council of Ministers; the Community Parliament, the Economic and Social Council, the Community Court of Justice; the Executive Secretariat; the Fund for Cooperation, Compensation and Development; Specialised Technical Commissions. The supreme body is the Authority of Head of States and Government, who is responsible for general direction, control and progressive development of the Community.

Similarly, the SADC Treaty (SADC website<sup>7</sup>) provides the following as the established institutions: the Summit of Heads of State or Government, the Council of Ministers, Commissions, Standing Committee of Officials, the Secretariat, and the Tribunal. The Summit of Heads of State is the supreme policy-making body and it is responsible for overall policy direction and control. The Council of Ministers appoints a Chairman and Vice- Chairman who together with the council oversee the overall functioning and development of SADC. The Standing Committee comprises of members from each member states' Ministry of Finance or Economic Planning, whose main responsibility is to offer technical advisory to the Council of Ministers. The Secretariat is manned by an Executive Secretary, is responsible for the strategic planning, management, and organization of SADC programmes.

These blocs have specialised Organs, Agencies and Commissions that perform specific functions. For example, they both have development bank, parliamentary forum, legal tribunals and other specialised agencies. In terms of these Organs and Agencies, ECOWAS seems to have more, perhaps due it being established earlier. Details on these can be accessed from their websites.

<sup>&</sup>lt;sup>7</sup> http://www.sadc.int/index/browse/page/715#, accessed 12/04/2010

#### 3.6. Socio-economic Indicators of ECOWAS and SADC Countries

The ECOWAS currently consist of 15 countries from West Africa, with a combined GDP of US\$306 billion and a total population 290 million (for 2008), signifying the ECOWAS total market. The distribution of the socioeconomic indicators as at 2008 indicates Nigeria as accounting for more than 70% of the total income of the bloc and more than half of the population. Nigeria's high GDP is mainly due to the fact that, it is an oil producing country. Nigeria is ranked the fifteenth in the world in terms of oil production (CIA Website8). Average growth in the West Africa region stands at 5% with Niger being the fastest growing economy, with a growth rate of 10%, probably taking advantage of its vast large area, in which the proportion allocated to agriculture has increased from 24% in 1980 to 34% in 2007. Togo experienced the lowest growth rate of 1% in 2008. More than half of member countries have their growth rate above average of 5%. Cape Verde has the highest per capita income of \$1,973.

Comparatively, SADC as at 2008 consists of 15 countries. The combined GDP for the SADC region as at 2008 stood at \$468 billion, which is shared among the total population of 264 million. The SADC GDP is higher in comparison to ECOWAS by almost \$100 billion. The SADC has three middle income countries South Africa, Mauritius and Botswana as compared to none in ECOWAS. South Africa just as Nigeria accounts for more than 50% of the region's GDP. The total land area stands at 9.6 million (square kilometres), almost as twice that of the ECOWAS region. The DR Congo accounts for the largest land area, population and it is endowed with many natural resources but this does not translate into high production and income possibly because, the country has been plagued by almost two decades of civil war. Average growth rate in the region stands at 6% (2008) with seven of the member states growth rates above the average for the bloc. Figures 3.2 and 3.3 below provide information on the distribution of socio-economic indicators. More details are provided in the appendices 3 and 4.

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<sup>&</sup>lt;sup>8</sup> https://www.cia.gov/library/publications/the-world-factbook/geos/ni.html, accessed 01/11/2010.

Member Country Distribution of ECOWAS
GDP, Population and Land Area

80.0%
70.0%
60.0%
50.0%
20.0%
10.0%
10.0%

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Figure 3.2: Socio-economic Indicators of ECOWAS Member States

Source: Author, computed based on WDI, World Bank

Country

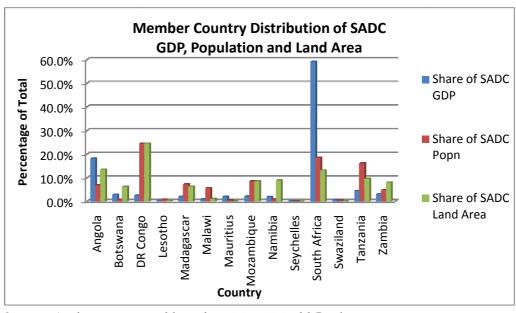


Figure 3.3: Socio-economic Indicators of SADC Member States

Source: Author, computed based on WDI, World Bank

#### 3.7. Resources Endowment of ECOWAS and SADC Member States

West and Southern Africa are endowed with many natural resources. SADC region is endowed with more natural resources than ECOWAS region. For ECOWAS, Ghana is among the largest producers of Gold and Cocoa. Cote D'Ivorie is also the world largest producer of Cocoa. Nigeria is among the world leading oil producers. Similarly, for the SADC region, natural resources endowment is a potential contributor to their exports and GDP. South Africa has abundant supply of natural resources, being the world largest producer of Gold, Platinum and Chromium. In SADC, the endowment is not just limited to South Africa, Angola ranks 17<sup>th</sup> in the world's oil production, Namibia ranks fifth in the world in the Uranium deposit (CIA website). Tables 3.4 and 3.5 below indicate the resource endowment of the blocs.

**Table 3.4: Minerals endowment of West Africa Countries** 

Mineral	Country
Crude petroleum	Benin, Côte D'Ivorie, Nigeria
Gold	Benin, Côte D'Ivorie, Ghana, Guinea, Liberia, Mali, Niger, Nigeria
	Sierra Leone
Limestone	Benin, Niger, Nigeria
Salt	Ghana, Senegal, Sierra Leone, Niger
Manganese	Ghana
Bauxite	Ghana, Guinea, Sierra Leone
Diamonds	Côte D'Ivorie, Ghana, Guinea, Liberia, Sierra Leone
Iron ore	Benin, Nigeria
Phosphate	Benin, Mali, Nigeria, Senegal, Togo
Coal	Niger, Nigeria
Uranium	Niger
Gas	Côte D'Ivorie, Nigeria
Gypsum, plaster	Benin

Source: ECOWAS website

**Table 3.5: Resources Endowment of SADC Member States** 

Country	Mineral Endowments
Angola	Petroleum, Diamonds, Iron ore, Phosphates,
	Bauxite, Gold
Botswana	Diamond, Copper, Nickel, Salt
DR Congo	Diamond, Gold, Cobalt, Zinc, Petroleum
Madagascar	Petroleum, Chromites
Namibia	Uranium, Diamond, Lead, Silver, Tungsten
South Africa	Gold, Platinum, Chromium, Petroleum
Tanzania	Gold
Zambia	Copper, Cobalt
Zimbabwe	Coal, Gold, Platinum, Copper, Nickel, Steel

Source: Author, collated from CIA website

### 3.8. ECOWAS and SADC PTA with EU (Lomé Convention)

At the time of signing the Lomé Convention, EU (then EEC) had not signed a PTA with ECOWAS and SADC as blocs. However, they being members of African, Caribbean and Pacific (ACP) countries benefited from General System of Preference (GSP) that allowed non-reciprocal access to the EU market. Briet (2010) believes that the EU has been a long-standing supporter of REI throughout the world, including ACP countries, mainly motivated by its own experience over the years. The EU demonstrated their support for an exportled growth in the ACP countries through the signing of the Lomé Convention.

#### The Lomé Convention

According to the European Commission (EC) Website<sup>9</sup>, the Lomé Convention sets out the principles and objectives of the EU cooperation with the ACP countries. The Convention was revised every five years. The Lomé I was signed in 1975, after the Britain joined the EEC. The main characteristics of the Convention as stated by the EC website include:

- Non-reciprocal preferences for most exports from ACP countries to EEC
- Equality between partners, respect for sovereignty, mutual interests and interdependence
- The right of each state to determine its own policies
- Security of relations based on the achievements of the cooperation system.

The Lomé I was followed by the Lomé II (1979), Lomé III (1984) and Lomé IV (1990). In the signing of the new agreement, major changes were not made to the original convention but only additional new programmes were introduced. For instance in the Lomé II, the Sysmin Programme was introduced, a programmed designed to assist ACP countries that were heavily dependent on revenue from the mining activities and experiencing export losses. In the Lomé III attention was shifted from industrial promotion to self-reliant development on the basis of food security and self sufficiency. The Lomé IV signed in 1990 spanned a ten year duration. However, a mid-term review was carried out in 1995, with emphasis on the promotion of human rights, democracy and good governance, strengthening of the position of women, the protection of the environment, decentralized cooperation, diversification of ACP economies, promotion of the private sector, and increasing regional cooperation (EC website). As a continuation of the Lomé Convention, EPA came into limelight. The EPA was devised as a commitment to make the EU PTA compatible with WTO reciprocity concept.

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<sup>&</sup>lt;sup>9</sup> http://ec.europa.eu/development/geographical/cotonou/lomegen/, accessed 12/04/2010

#### 3.9. ECOWAS and SADC Trade with EU

EU has been the leading trading partner for both ECOWAS and SADC. However, though, EU still remains the largest export destination for SADC's exports; it is being replaced with Northern America for that of ECOWAS' exports. EU's share of ECOWAS export has declined from 35% (average 1996-2000) to 30% (average 2000-2006). In absolute terms, SADC trade more with EU than ECOWAS trade with EU. Figures 3.4 and 3.5 indicate the destinations for averages exports for ECOWAS and SADC respectively.

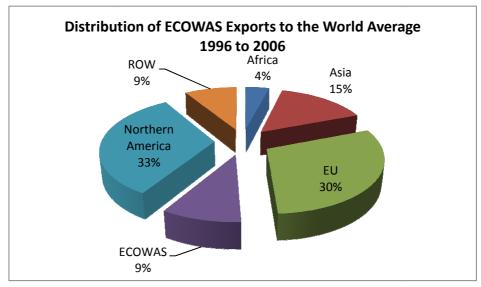


Figure 3.4: Export Destination of ECOWAS

Source: Author, Computed based on Statistics from ECOWAS Website

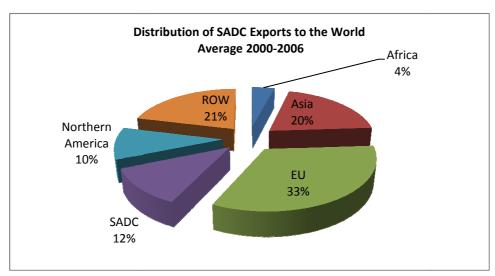


Figure 3.5: Export Destination of SADC

Source: Author, Computed based on Statistics from SADC Website

Figures 3.6 and 3.7 below provide further analysis of the terms of trade for ECOWAS and SADC with the EU. The trend indicates that ECOWAS experienced unfavourable terms of trade with the EU between the periods 1997-2005. However for SADC, there was huge trade deficit before 1998 and thereafter SADC experienced almost an equal trade balance with the EU. There performance of ECOWAS and SADC against the EU depends to a large extend on the structure of trade.

Figure 3.6: ECOWAS-EU Terms of Trade

Source: Author, based on IMF Direction of Trade

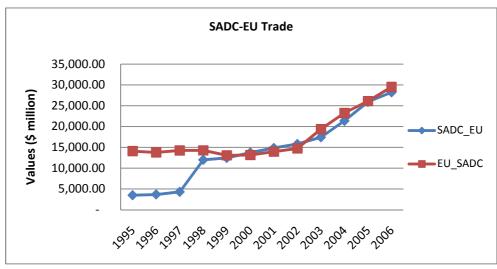


Figure 3.7: SADC-EU Terms of Trade

Source: Author, based on IMF Direction of Trade

**Note**: EU in figures 3.6 and 3.7 comprises of 10 EU countries as stated in section 1.6 ECOWAS\_EU (SADC\_EU) captures exports from ECOWAS (SADC) to EU. EU\_ECOWAS (EU\_SADC) also captures exports from EU to ECOWAS (SADC).

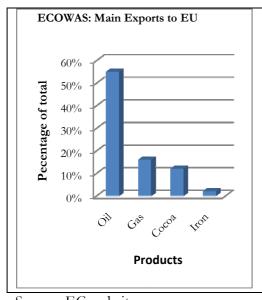
#### 3.10. The Structure of ECOWAS and SADC Trade with EU

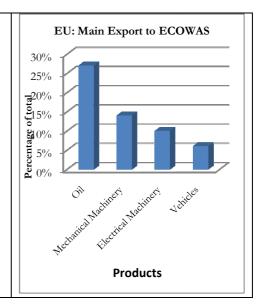
Exports from ECOWAS region to EU is mainly primary commodities with crude oil accounting for more than 50%. For ECOWAS, the main exports are petroleum products and Cocoa. Thus, Nigeria, Ghana and Cote D'Ivorie are the major beneficiaries. For SADC exports are dominated by few products such as diamonds (from Botswana), petroleum (Angola), fish and beef (Namibia), sugar (Swaziland) and tobacco. In comparison of the structure of trade, SADC exports are primarily agricultural and mineral products just like ECOWAS, however, they are more diversified than ECOWAS (EC 2005). Additionally, ECOWAS tend to export more agricultural products to EU market than SADC while SADC also exports more mineral resources to EU.

The EU is also making in roads in agricultural exports to the ECOWAS region, however, with the EU farmers benefiting from input subsidies, they are likely to be more efficient than the farmers in the ECOWAS region thereby displacing local agricultural development. Busse et al (2004) indicates that in 2002, EU agricultural products and raw materials export to ECOWAS account for 24% of total EU exports to ECOWAS.

Analysis of structure of trade between the ECOWAS and SADC with EU indicates that industrial import from EU is not substantial. Industrial machinery needed to promote industrialization accounts for less than 25% of total imports from EU. Furthermore, a breakdown of EU-ECOWAS trade structure indicates that ECOWAS' machinery imports from EU constitute a small proportion of total manufactured goods import from the EU. The rest of the manufactured goods are mainly the valued added raw materials which can easily be produced in the ECOWAS member states. Raw material accounts for more than half of the EU imports from ECOWAS. However, SADC machinery imports as percentage of total import from EU is almost 35%, twice that of ECOWAS. This is mainly because of the mining activities that are dominant in SADC region than ECOWAS. Figures 3.8 and 3.9 below provide details on the trade structure between the blocs.

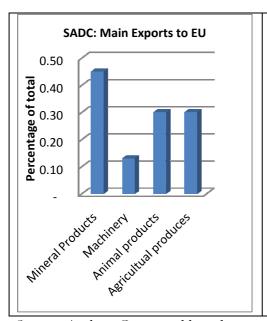
Figure 3.8: Structure of ECOWAS-EU Trade, 2008

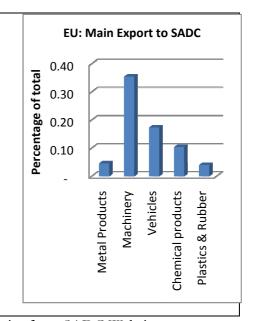




Source: EC website

Figure 3.9: Structure of SADC-EU Trade, 2006





Source: Author, Computed based on statistics from SADC Website

### 3.11. The Trend of ECOWAS and SADC Trade with the World

Analysis of the trend of ECOWAS trade with EU as a percentage of total ECOWAS trade indicates a declining trend, both in terms of exports and imports. ECOWAS exports to EU has declined steadily from almost a height of 45% of total ECOWAS export in 1996 to about 20% in 2008. This decline in ECOWAS exports to EU will not affect the total export of ECOWAS as over the same period there has been an upsurge in exports to Northern America. Exports to other part of the world are also increasing. Exports to Africa are gradually increasing from below of 10% reaching a peak of almost 20% in 2006 but decline narrowly to 15% in 2008. Similarly, exports to Asia have also being increasing gradually, peaking at 20% in 1998 and 2005 but declined to 12% in 2008. Also, imports from EU have been declining just like exports, with ECOWAS turning to Asia for its imports. Possible reason to dwindling exports to the EU can be attributed to a large extent to high tariff and non-tariff barriers that imposed on the goods especially on agricultural products and simple manufactures from the region. The decline in ECOWAS region's exports from 2006 onwards may partly be traced to current global recession. Surprisingly, this global meltdown did not affect the region's export to Northern America. The increasing exports to North America can be attributed to the Trade and Development Act, AGOA<sup>10</sup>, which was signed in 2000. AGOA grants a preferential access to exports of 6400 items from eligible SSA countries to USA. Figures 3.10 and 3.11 provide details on ECOWAS trade with the world.

Comparatively, the proportion of SADC export to the EU is also declining however not as rapidly as in the case of ECOWAS. This may be as a result of EU stringent health and labour standards which mainly affect agricultural products, which ECOWAS tend to export more to EU than SADC. ECOWAS exports of agricultural commodities to EU are about 31% of total export compared to less than 15% of the SADC bloc. Despite the dominance of EU imports from SADC, Asia and Africa is gradually becoming destinations for SADC exports. Even with SADC, imports from Asia have overtaken the EU between 2004 and 2006. Figures 3.12 and 3.13 provide details on SADC trade with the world,

<sup>&</sup>lt;sup>10</sup> AGOA is African Growth and Opportunity Act, details can be accessed from the website: <a href="http://www.agoa.gov/agoalegislation/index.asp">http://www.agoa.gov/agoalegislation/index.asp</a>,

Figure 3.10: Trend of the Percentage of ECOWAS Exports to the World

Source: Author, Computed based on statistics from ECOWAS Website

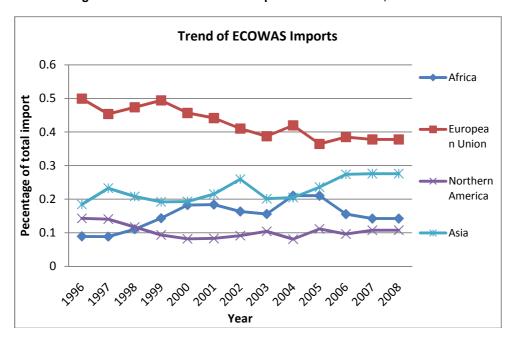


Figure 3.11: Trend of ECOWAS Imports from the World, 1996-2008

Source: Author, Computed based on statistics from ECOWAS Website

**Distribution of SADC's Export** 40% Africa Percentage of total export 35% Asia 30% 25% 20% 15% Northern 10% America 5% 0% 2000 2001 2003 2002 2004 2005 2006 Year

Figure 3.12: Trend of SADC Exports to the World, 2000-2006

Source: Author, Calculations based on statistics from SADC Website

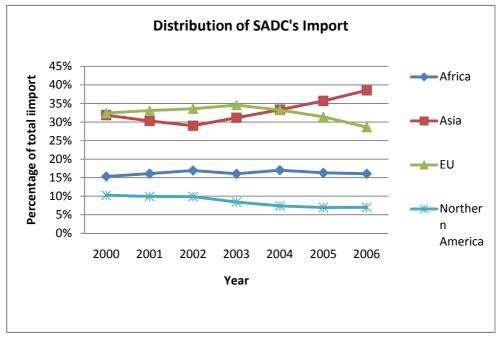


Figure 3.13: Trend of SADC Imports from the World, 2000-2006

Source: Author, Calculations based on statistics from SADC Website

# 3.12. Intra-Regional Trade Flow

ECA (2004) has indicated that African intra-community trade have performed better relative to total intra-African trade. Intra-regional trade for ECOWAS and SADC have followed a similar pattern of African intra-community trade flow. Table 3.6 presents information on intra-regional trade for ECOWAS and SADC.

Table 3.6: Intra-community Trade as Percentage of Total Trade

Years	1970	1980	1990	Average 2001-2008
ECOWAS				
Exports	3.1%	10.6%	8.9%	10%
Imports	3.3%	10.2%	14.9%	12.8%
SADC				
Exports	-	2.7%	6.9%	12%
Imports	-	3.8%	6.0%	14%

Sources: Yang &Gupta (2004:17), averages (calculated based on statistics from ECOWAS and SADC websites).

Intra-regional trade as a percentage of total trade in ECOWAS is still very low, with the current average about 10%. However, considering the fact that this transcended from a low of 3% in 1970 to the present 10%, is a strong indication that ECOWAS has contributed in promoting intra-ECOWAS trade. Trade flow within the SADC bloc just like ECOWAS delineates a greater prospect for a significant impact in the future. SADC intra-regional trade as proportion of total trade is slightly higher than that of ECOWAS though also small. A comparative trend analysis of performance of ECOWAS and SADC based on intra-regional exports indicates SADC as performing better than ECOWAS from 1997. This could possibly be due to South Africa joining in 1994 and structure of intra-trade. Figure 3.14 compares the trend.

Comparative Trend of Intra-Regional Export

9,000.00
8,000.00
7,000.00
6,000.00
4,000.00
3,000.00
2,000.00
1,000.00
1,000.00

SADC

Figure 3.14: Comparative Trend Analysis of ECOWAS and SADC

Source: Author, based on IMF Direction of Trade.

The structure of intra-regional trade explains to a large extent while SADC is performing better ECOWAS. ECA identifies that increased capacity to produce and trade manufactured goods as a potential for the success of RTAs. Intra-regional manufactures exports (1994-1999) as a percentage of total exports for ECOWAS and SADC stand at 16% and 60% respectively (ECA 2004). Additionally, the export diversification index (EDI) for SADC is far better than of ECOWAS, however, ECOWAS has been improving its EDI, with this decreasing from 0.83 (2000) to 0.77 (2008), For SADC this stands 5.9 (2008). For the EDI, the closer to 1 indicates a bigger difference from the world average, which is used as the standard (UNCTAD 2009).

# 3.13. Intra-Regional versus Extra-Regional Trade Flow

In comparison of the value of ECOWAS intra-regional trade to that of extra-regional trade, the extra-regional trade far exceeds intra-regional trade in absolute terms. Extra-regional exports and imports are almost 9 and 2.5 times more than intra-regional exports and imports respectively for the period 1996 to 2008. However, average annual growth rate of intra-regional trade is higher than that of extra-regional trade for the same period. Average growth rate stands at 9% for intra-regional exports as compared to 6% for extra-regional exports and average annual growth for intra-regional imports and exports are 35% and 20% respectively. Similarly, for SADC, extra-regional trade is more compared with intra-regional trade in absolute terms. However, the average annual growth rate of intra-regional exports is slightly higher than that of the average annual growth rate of extra-regional export.

With the average growth rate for intra-regional trade more than that of extra-regional trade; this indicates that ECOWAS and SADC blocs trade more internally than externally in annual growth rate terms. Comparing the intra-regional exports among ECOWAS and SADC indicates that SADC has contributed more to improving bilateral exports among members than with ECOWAS. Details on annual volume of trade and growth rates are provided in the appendices 6 and 7.

#### 3.14. Individual Member States Intra-Trade Performance

Individual country's share of total intra-regional trade indicates Nigeria, Cote D'Ivorie and Ghana dominance in ECOWAS between the periods 1996-2008. This notwithstanding, a careful analysis of the trend indicates the dominance of Nigeria and Cote D'Ivorie have been dwindling, and the other countries such Ghana, Burkina Faso, Mali and Senegal are improving. This delineates a move towards an even spread of the benefits arising from the integration process. Nigeria in 1996 accounted for about 61% of total intra-regional export but this declined to 35 % in 2008, Burkina Faso and Ghana accounted for 1% and 2% in 1996 but this has increased to 7% and 16% in 2008 respectively. Countries that account for the lowest and seem not to be improving their shares are countries that have been plagued by conflict. For example Liberia, Sierra Leone, Guinea and Guinea Bissau are the conflict prone member states.

On the individual SADC member states' performance with regards to the share of the SADC intra-regional trade for the period 2000 to 2006, South Africa which accounts for more than half of the SADC GDP, accounts for about only 22% of the total intra-regional trade. Other member states such as Angola, Mozambique, Tanzania, Zambia and Zimbabwe individually account for more than 5%. This points to the fact that growth in intra-regional trade may bring about equitable development, regional convergence and would provide a platform for smaller countries to grow in tandem with more economically advanced member states through an internally promoted export growth. Surprisingly, Zimbabwe despite the trade sanctions account for about 18% of the SADC intra-exports. One plausible reason could be that as a result of trade sanctions that inhibit trade flow externally; Zimbabwe tends to channel its exports internally through the SADC region. Figures 3.15 and 3.16 describe the individual country performance in terms of share of intra-regional export.

Percentage of ECOWAS Member States of Total Intra-Export **Average for 1996 to 2008** 0.45 0.4 Percentage of total 0.35 0.3 0.25 0.2 0.15 0.1 0.05 0 Sierra Leone Gambia Benin Cape Verde Ghana Liberia Nigeria **Burkina Faso** Guinea Senegal Cote d'Ivoire Mali Niger **Guinea Bissau Countries** 

Figure 3.15: ECOWAS Member States' Share of Total Intra-Regional Export

Source: Author, Computed based statistics from ECOWAS Website

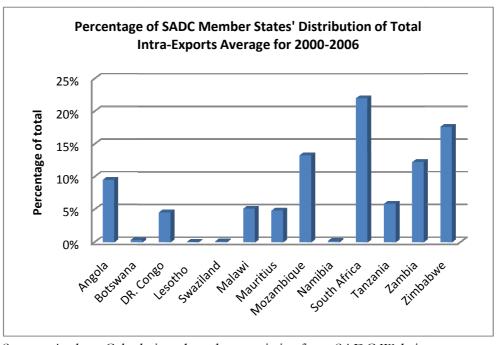


Figure 3.16: SADC Member States' Share of Total Intra-Regional Export

Source: Author, Calculations based on statistics from SADC Website

# **CHAPTER FOUR**

#### 4.0. DATA DISCUSSION AND EMPIRICAL DESIGN

This chapter has two sections. Section 1 discusses the data and provides summary statistics on exports for the RTAs. Section 2 focuses on the empirical model, the gravity model.

#### 4.1. Data Discussion

This paper considerably relies on panel data from the following sources; the International Monetary Fund (IMF) database on the direction of trade (DOT) matrix for export flows from the period 1995 to 2006. According to IMF, exports valuation is based on the United Nation guidelines of free on board (f.o.b), which is the transaction value at the frontier of the exporting country. The data focus on 15 West Africa, 11 South Africa and 10 European countries<sup>11</sup>. The SADC member states reduce from 15 to 11 as result of the DOT data summing the trade flows of Botswana, Namibia, Swaziland and Lesotho to that of South Africa. The data on geographical distances, contingency, GDP, population and others are also obtained from CEPII<sup>12</sup> database. The data on memberships of the RTAs were collated from the websites of the regional blocs.

The dataset is balanced panel with 15,120 (36 x 35 x 12) observations. It consists of symmetric trade (export<sup>13</sup>) flows between 36 countries for a period of twelve years. Missing values in dataset is 665, thus all in all, the total number observations is 14,455. The zero flows within 14,455 observations are 3020. Descriptive statistics from the empirical data with regards to average export per different RTAs is provided in table 4.1 below. ECOWAS\_EU denotes average export from an ECOWAS member to an EU member and EU\_ECOWAS denotes export from EU member to ECOWAS member and similarly for SADC\_EU and EU\_SADC. Comparison of the averages can be made in reference to pair of countries both in different RTA denoted by NO RTA (reference category). On average a pair of countries that belong to ECOWAS exports to each other 5 times more than a pair in which one member is an ECOWAS member and the other SADC member. For SADC this is about 12 times more.

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<sup>11</sup> Check appendix two for all list of countries

<sup>&</sup>lt;sup>12</sup> CEPII is Centre d'Etudes Prospectives et d'Informations Internationales

<sup>&</sup>lt;sup>13</sup> Export values in \$ million

Table 4.1: Mean of export i\_j

RTA	Mean
ECOWAS	15.12
	(71.68)
SADC	41.07
	(131.51)
EU	15350.66
	(17391.11)
ECOWAS_EU	71.12
	(247.13)
EU_ECOWAS	79.35
	(181.68)
SADC_EU	136.40
	(425.63)
EU_SADC	162.68
	(621.14)
NO RTA	3.69
	(37.23)

Standard deviations are in parentheses

#### 4.2. The Gravity Model

The traditional gravity equation as according to Tinbergen (1962) and Linnemann (1966) has the simple form.

$$X_{ij} = Y_i^{\alpha} Y_j^{\beta} D_{ij}^{\gamma}$$
, here  $\alpha, \beta > 0, \gamma < 0$ 

Tinbergen and Linnemann found that the greatest contribution to the explanation of variations in bilateral trade flow is made up of the GDP variables of the two countries and the distance between them. In the above equation Xij is the bilateral trade flow between countries i and j and this is explained by the potential supply (exporter GDP), potential demand (importer GDP) and transportation cost (proxy geographical distances).

Although, the gravity model according to Van Bergeijk and Brakman (2010) has being empirical successful in terms of its consistency and robustness with respect to economic theories in both policy and academic circles, it has also been critiqued extensively for its lack of sound micro-economic theoretical foundation. For instance, it has been criticised as not accounting for the effects of relative price, possibly resulting in omitted variable bias (Burger et al. 2009). However, several attempts have been made in providing the theoretical foundations. Details of these can be accessed from Anderson (1979), Anderson and Wincoop (2003), Baldwin and Taglioni (2006) and Baier and Bergstrand (2009).

# 4.3. Model Specification

In this empirical study the traditional gravity model will be extended, in which more controlling variables are added to the traditional gravity model. The dependent variable will be total bilateral trade measured in term of exports. The use of exports as measure of bilateral trade is to account for the fact most importers especially in these African blocs tend to deliberately under-report their imports as means to avoiding excessive import duties as indicated by Baldwin

and Taglioni (2006). The explanatory variables consist of the main variable of interest, which is dummy variable for RTAs, and controlling variables: population, distance, land-area, contingency, common currency and GDP. These controlling variables are expected to have meaningful statistical and economic relationship with the dependent variable. Two models will be estimated using PCS, RE, FE and Hausman-Taylor (HT) estimations. The explanations of variables are indicated in appendix 1. The models are as follows:

#### Model 1

Model 1 below captures the effect of the ECOWAS, SADC and EU PTA on bilateral export in comparison to reference category (No RTA). EU is also included as this is most often used as benchmark to measure RTA in the world, however, comparison between the EU and the other RTAs would not meaningful as EU has reached an EMU. The dummy variables ECOWAS\_EU, SADC\_EU capture the impact of EU PTA. EU\_SADC and EU\_ECOWAS capture exports from the EU to the blocs but does not measure impact of EU PTA as this was not reciprocal under the study period.

$$\begin{split} \ln(\mathbf{X}_{\mathbf{i}\mathbf{j}\mathbf{t}}) &= \alpha_0 + \alpha_t + \alpha_{ij} + \beta_1 \ln(\mathbf{Y}_{\mathbf{i}\mathbf{t}}) + \beta_2 \ln(\mathbf{Y}_{\mathbf{j}\mathbf{t}}) + \beta_3 \ln \mathbf{D}_{\mathbf{i}\mathbf{j}\mathbf{t}} + \beta_4 \ln(\mathbf{Pop}_{\mathbf{i}\mathbf{t}}) + \beta_5 \ln(\mathbf{Pop}_{\mathbf{j}\mathbf{t}}) + \\ & \beta_6 Cont_{\mathbf{i}\mathbf{j}} + \beta_7 \mathbf{Col}_{\mathbf{i}\mathbf{j}} + \beta_8 \mathbf{Area}_{\mathbf{i}} + \beta_9 \mathbf{Area}_{\mathbf{j}} + \lambda_1 ECOWAS_{\mathbf{i}\mathbf{j}\mathbf{t}} + \lambda_2 \mathbf{SADC}_{\mathbf{i}\mathbf{j}\mathbf{t}} + \\ & \lambda_3 EU_{\mathbf{i}\mathbf{j}\mathbf{t}} + \lambda_4 \mathbf{ECOWAS}_{\mathbf{E}\mathbf{U}} + \lambda_5 \mathbf{SADC}_{\mathbf{E}\mathbf{U}} + \lambda_6 \mathbf{EU}_{\mathbf{E}\mathbf{C}\mathbf{OWAS}} \\ & + \lambda_7 \mathbf{EU}_{\mathbf{S}\mathbf{A}\mathbf{D}\mathbf{C}} + \varepsilon_{\mathbf{i}\mathbf{j}} \end{split}$$

### Model 2

The model 2 below is intended to measure the impact of overlapping membership within the ECOWAS and SADC blocs.

$$\begin{split} \ln(\mathbf{X}_{\mathbf{i}\mathbf{j}\mathbf{t}}) &= \alpha_0 + \alpha_t + \alpha_{ij} + \beta_1 \ln(\mathbf{Y}_{\mathbf{i}\mathbf{t}}) + \beta_2 \ln(\mathbf{Y}_{\mathbf{j}\mathbf{t}}) + \beta_3 \ln \mathbf{D}_{\mathbf{i}\mathbf{j}\mathbf{t}} + \beta_4 \ln(\mathbf{Pop}_{\mathbf{i}\mathbf{t}}) + \beta_5 \ln(\mathbf{Pop}_{\mathbf{j}\mathbf{t}}) + \\ & \beta_6 Cont_{\mathbf{i}\mathbf{j}} + \beta_7 \mathrm{Col}_{\mathbf{i}\mathbf{j}} + \beta_8 \mathrm{Area}_{\mathbf{i}} + \beta_9 \mathrm{Area}_{\mathbf{j}} + \lambda_1 ECOWAS_{\mathbf{i}\mathbf{j}\mathbf{t}} + \lambda_2 \mathrm{SADC}_{\mathbf{j}\mathbf{j}\mathbf{t}} + \\ & \lambda_3 EU_{\mathbf{i}\mathbf{j}\mathbf{t}} + \lambda_4 \mathrm{ECOWAS}_{\mathbf{E}\mathbf{U}} + \lambda_5 \mathrm{SADC}_{\mathbf{E}\mathbf{U}} + \lambda_6 \mathrm{EU}_{\mathbf{E}\mathbf{C}\mathbf{OWAS}} + \\ & \lambda_7 \mathrm{EU}_{\mathbf{S}\mathbf{A}\mathbf{D}\mathbf{C}} + \lambda_8 (\mathrm{ECOWAS}^* \, \mathrm{Mult}_{\mathbf{R}\mathbf{T}\mathbf{A}}) + \lambda_9 (\mathrm{SADC}^* \, \mathrm{Mult}_{\mathbf{R}\mathbf{T}\mathbf{A}}) + \varepsilon_{\mathbf{i}\mathbf{j}} \end{split}$$

Thus, the interaction between the blocs and the variable of multiple memberships (Mult\_RTA) are introduced. This variable (Mult\_RTA) indicates the number of RTAs, a pair of countries belongs to. From the empirical data, a pair of ECOWAS members in more than two RTAs is about 36% compared to 52% in SADC. In that regard, the priori expectation will be that if overlapping memberships have a positive or negative impact, its impact should be more in SADC than ECOWAS. However, as argued before for ECOWAS, overlapping membership is rather expected to have a positive impact, and for SADC an insignificant or a negative impact. Table 4.2 indicates the percentage of pair of countries in ECOWAS and SADC in a number of RTAs.

**Table 4.2: Pair of Countries in Number of RTAs** 

Number of RTA	ECOWAS (%)	SADC (%)
1	63.16	48.18
2	26.32	45.55
3	9.57	7.27
4	0.96	-

#### 4.4. Econometric Concerns

### **Endogeneity in Gravity Model**

In estimating the gravity model to assess the impact of RTAs on the intraregional trade, there are two main econometric concerns. Firstly, is the concern of reverse causality between exports and RTA variables, in that, countries that trade more are likely to form RTAs, however for these blocs, they were formed when intra-regional trade was very low. Also, membership was influenced more by geographical factors than trade. In that sense, I assumed there is no reverse causality. Secondly, is the concern of unobserved heterogeneity, which the FE estimator can control the time-invariant heterogeneity. The unobserved heterogeneity becomes a problem when PCS, rather than the FE estimation is used. The PCS estimator imposes the restriction that the intercept and slope of the variables are the same irrespective of the time and trading partners. Imposing such restrictions is unrealistic, thus producing biased and inefficient estimates (Cheng and Wall 2005). Cheng and Wall recommend relaxation of this strict assumption by introducing a time and country-pair fixed effects. The FE estimator controls the likelihood of unobserved time-invariant heterogeneity within the cross-sectional units (individual countries) and timeinvariant omitted variables, thus controlling the error term correlating with the exogenous variables. Political, ethic, historical and cultural factors are some of the time-invariant variables that affect the bilateral trade between two countries. It is in this vein that, Cheng and Wall (2005), Feenstra (2004) and Anderson and Wincoop (2003) and Fidrmuc (2009) believe that country specific FE rather PCS estimation of the gravity model will be consistent with the theoretical concerns and thus produce best linear unbiased estimators (BLUE). This FE is captured by the two intercepts  $\alpha_t$  and  $\alpha_{ij}$  as in the models. Therefore, in line with Cheng and Wall, dyadic (country-pair) FE is introduced based on the assumption of a unique country pair FE such that  $\alpha_{ii} \neq \alpha_{ii}$  implying a FE for every direction of flow.

# Differencing Away of Time-Invariant Variables

The use of a FE in panel data to forestall the problem of unobserved heterogeneity leads to two main concerns as identified by Hausman and Taylor (1981), however, the differencing away of the time-invariant variables is main concern. Cheng and Wall devised a method in estimating the effect of the time

invariant variables. This can be done by regressing country-pair fixed effects on the time invariant variables as indicated in the equation below:

$$\begin{split} \widehat{\alpha}_{ij} &= \alpha_0 \ + \beta_3 \text{lnD}_{ijt} + \beta_6 Cont_{ij} + \beta_7 \text{Col}_{ij} + \beta_8 \text{Area}_i + \beta_9 \text{Area}_j \ + \lambda_1 ECOWAS_{ijt} \ + \\ & \lambda_2 \text{SADC}_{ijt} \ + \lambda_3 EU_{ijt} + \lambda_4 \text{ECOWAS\_EU} + \lambda_5 \text{SADC\_EU} + \lambda_6 \text{EU\_ECOWAS} \\ & + \lambda_7 \text{EU\_SADC} + \varepsilon_{ij} \end{split}$$

With respect to the variables in the models: distance, contingency, common currency and land area are all time-invariant, hence are swept away in FE estimation. Additionally, the variables of interest measured by dummy variables are also affected since the member states were already members of these RTAs under the study time period.

Nevertheless, Cheng and Wall method for estimation time invariant variables, the Hausman-Taylor (HT) method would also be used for robustness check. The applicability of HT method is premised on the main assumption that the country-pair effect is random rather than fixed, mainly because the fixed effect removes the time-invariant explanatory variables (Carrere 2004). The HT method requires that only a subset of the explanatory variables is endogenous or correlates with the pair country random effects. In this vein, many studies that employed HT method, using Hausman over-identification test, identified the GDP and the population variables as the endogenous variables. For instance Carrere (2006), Brun etal (2002), Carrere (2004) and Egger (2002) all identified the GDP and population variables as the endogenous variables within the gravity equation. With this priori information, these same variables would be treated as endogenous.

#### Zero Flows

From description of the dataset, the zero flows constitute about 21% of the total available observations. These zero flows are lost in the estimation of the models as a result of logarithmic transformation. Burger *et al* (2009) elucidate on the econometric problems posed by such logarithmic transformation. Although, they pointed out three main concerns, the main one of concern is the inability of the log-log function to deal with zero-valued trade flows. Since the large zero-valued trade flow is an indication of lack of trade flow as indicated by Frankel (1997), the exclusion of these zero-valued flows from the gravity model may result in biased estimates.

However, a breakdown of distribution of the zero flows indicates that 60% of them relate to a pair of countries not in the same RTA. Thus, reenforces that RTA influences the direction of trade. Thus, based on this, I assumed the zero trade flow may not undermine the reliability of the results.

# **CHAPTER FIVE**

# 5.0. EMPIRICAL RESULTS AND DISCUSSION

# 5.1. Empirical Results

In this section, the empirical results of the gravity equations as per the different estimation techniques measuring the impact of ECOWAS and SADC in comparison to EU PTA are presented. The table 5.1 below is an estimation of the model 1 as constructed in the previous chapter.

Table 5.1: Empirical Results of the Estimation of Gravity Equation

VARIABLES	Pool Cross	Random	Hausman-	Fixed
	Section	Effect	Taylor	Effect
Reference category: No RTA				
ECOWAS	1.982***	1.879***	1.968***	1.862***
	(0.136)	(0.349)	(0.401)	(0.120)
SADC	2.040***	2.045***	2.453***	2.459***
	(0.133)	(0.414)	(0.328)	(0.127)
EU	1.325***	4.175***	3.181***	4.283***
	(0.218)	(0.544)	(0.725)	(0.112)
ECOWAS_EU	1.109***	2.057***	1.351***	1.354***
	(0.150)	(0.377)	(0.467)	(0.0847)
SADC_EU	1.696***	3.131***	2.375***	2.360***
	(0.149)	(0.383)	(0.478)	(0.0843)
EU_ECOWAS	0.520***	2.072***	1.898***	2.386***
	(0.144)	(0.375)	(0.441)	(0.0719)
EU_SADC	0.0127	1.828***	1.688***	2.207***
	(0.145)	(0.397)	(0.455)	(0.0850)
Contingency	1.769***	2.042***	2.272***	1.980***
	(0.0951)	(0.286)	(0.353)	(0.0883)
Colonial ties	1.666***	1.712***	1.429***	1.548***
	(0.0667)	(0.221)	(0.377)	(0.0786)
Common Currency	0.956***	0.400***	0.567***	0.395***
	(0.0793)	(0.0735)	(0.104)	(0.0879)
Log distance	-0.324***	-0.321*	-0.175	-0.179***
	(0.0648)	(0.183)	(0.232)	(0.0565)
Log Exporter Popn	0.464***	0.969***	2.083***	1.278**
	(0.0558)	(0.155)	(0.282)	(0.537)
Log Importer Popn	0.309***	0.814***	2.522***	2.146***
	(0.0547)	(0.144)	(0.299)	(0.527)
Log Exporter GDP	1.062***	0.674***	0.494***	0.478***
	(0.0338)	(0.0846)	(0.0632)	(0.115)
Log Importer GDP	0.672***	0.362***	0.157**	0.153
	(0.0328)	(0.0762)	(0.0657)	(0.0985)
Log Exporter Land Area	-0.518***	-0.630***	-1.278***	-0.783***
	(0.0303)	(0.0872)	(0.187)	(0.0124)
Log Importer Land Area	-0.269***	-0.446***	-1.495***	-1.265***
	(0.0297)	(0.0867)	(0.200)	(0.0125)
Constant	-7.567***	-0.469	15.72***	23.99***
	(0.845)	(2.411)	(3.542)	(0.556)
Observations	11435	11435	11435	11435
R-squared	0.711			0.664
D 1 1 1	.1 *** -0	01 ** <0.05	str = 20.4 -1	1 .

Robust standard errors in parentheses, \*\*\* p<0.01, \*\* p<0.05, \* p<0.1, the time dummies were included but not reported here.

In checking for robustness of the equations, the Hausman test was used to determine whether there was any significant statistical difference is the estimates obtained under the different estimation methods. The result of the Hausman test is indicated in appendix 5.

Based on the Hausman test, there was no systematic difference between the FE and the HT estimators. Overall, apart form the distance variable that was statistically insignificant under HT estimator, all the other estimates are robust in terms of magnitude, sign and statistical significance between the FE and HT estimators. An indication that the estimates obtained under these FE are robust and valid. Comparatively, between FE and HT estimators and the RE and PCS indicate that there were systematic differences. This points to the fact that the results from the PCS and RE may be biased and inconsistent as result of the possible endogeneity. The results give credence to the Baier and Bergstrand (2007) argument that if the endogeneity is controlled for, regional blocs have a stronger impact under FE estimators compared to PCS estimator. The FE estimates were use in the interpretation of the results, with the coefficient converted using (exp<sup>β</sup>-1), holding all other variables constant.

# 5.2. Impact of Border, Colonial ties, Distance and GDP

Although, the above effects are not the primary focus for this paper, their impacts in the gravity equation can not be disregarded. The estimates of these variables show very convincing, accentuating the success of the gravity model in explaining the variations in direction of trade. This is supported by the high R-square in the FE model.

Based on priori expectation, countries that share common borders are likely to trade more than other countries that do not. Thus, the dummy variable capturing border effect was expected to have a significant positive effect on bilateral trade. The result from the FE model indicates a strong positive statistical border effect, in that, countries that shared common borders tend to trade 6.2 (e<sup>1.980</sup>-1)times more than those which do shared common borders, holding all other variables constants.

It is a popular belief the influence of colonial ties may have diminished especially in directing bilateral trade flow but the results here show otherwise. Colonial ties have statistical significant effect on export, indicating that countries that had colonial relationship tend to trade 3.9 times more than those countries which do not.

The GDP of country signifies both the production capacity and the market size of the economy. As reiterated by Van Bergeijk and Yakop (2009:11) that "the supply of goods positively depends on the exporting country's economic size and production capacity... and the demand for these exports depends positively on the importing country's market which is represented by its GDP". The result as obtained in both columns 3 and 4 indicates GDP as having positive significant impact of exports. However, it has a less than proportionate increase in exports in that a

1% increase in GDP leads to 0.478% point increase in exports of the exporter country. Under the FE model, the importer GDP was insignificant but significant under HT. The distance variables used as a proxy to capture transportation cost indicates a negative relationship confirming distance as an intangible trade barrier.

# 5.3. The Impact of ECOWAS in Comparison to SADC

If based on classical models of international trade, the priori expectation from the empirical results should be an insignificant impact of these blocs on trade, because primarily the members of these RTAs supposedly have similar factor endowments. To the contrary, ECOWAS as a regional bloc has a significant impact on intra-regional exports. ECOWAS member states tend to export 6.4 times more to member states compared to non-members (reference category). SADC compared to ECOWAS seems to be doing better in terms of intra-regional trade, in that SADC causes member states to trade 10.5 times more compared to non-members. The strong significant impact of ECOWAS and SADC on bilateral trade is in line with Longo and Sekkat (2001:13) assertion that "at an empirical level, gravity model analyses have established that trade flows between African countries are not lower than expected. The empirical result re-enforces the earlier finding in figure 3.14 where the comparative trend analysis indicates that SADC has a greater volume of intra-regional export compared to ECOWAS.

The higher impact of SADC as compared to ECOWAS can be attributed to the fact that unlike ECOWAS, whose FTA extends to unprocessed goods and traditional handicraft, SADC FTA is applicable to all goods. One major tool in the SADC trade protocol which makes it more effective than that of ECOWAS was that the tariff reduction strategy reflects on the varying capacities of the individual economies. For instance, Mauritius consented to allow 65% of the import from SADC member states duty free and Tanzania at same time allowed only 9%, which has now been extended to 88%. Comparatively, for ECOWAS, only Benin has removed tariffs on industrial goods (ECA 2004). Additionally, from the structure of trade, it was identified that, SADC intra-regional exports composed more diversified and manufactured goods than that of ECOWAS.

The effects of larger economies, Nigeria in ECOWAS and South Africa in SADC, are major concern as these economies can influence the results to a large extent. However, since their sizes in terms of GDP and population are controlled for, I do not expect very significant changes especially, in terms of statistical significance of the blocs. Additionally, in the section 3.14, where I focus on the trade performances of the individual countries, although these two countries account for highest intra-trade, they did not account for substantial shares. A sensitivity analysis conducted by removing these countries from the list of countries confirms that these countries did not unduly influence the positive significance of the blocs. This result is indicated in appendix 8.

# 5.4. The Impact of ECOWAS and SADC as Compared to EU and EU PTA.

The EU as a bloc is not the main focus because comparison between EU and these blocs would not be plausible because the EU is at higher stage of integration. This notwithstanding, the significant impact of ECOWAS and SADC is an indication that there are prospects for blocs to contribute comparatively to the EU when they achieved their ultimate aim of EMU. One major point worth noting here is the strong belief that estimates for the ECOWAS and SADC may have been underestimated considering the fact that cross-border trade among the member states may have gone unrecorded while trade within EU members are fully recorded.

With regards the EU PTA, the empirical result as obtained strongly supports the earlier finding that the ECOWAS-EU trade has not improved the overall terms of trade of the ECOWAS bloc. The variable (ECOWAS\_EU) which captures the impact of EU PTA granted to ECOWAS member states though significant has a lower impact compared to ECOWAS. The dwindling terms of trade of ECOWAS bloc with EU is also compounded by high level of EU exports to the region; which is captured by the variable (EU\_ECOWAS).

SADC trade with the EU as shown by the empirical results indicate that the PTA with EU is quite effective in inducing exports to the EU. The EU GSP contributes to SADC exports to EU even more than SADC contributes to intra-regional export. The GSP has help SADC to improve its term of trade with the EU, almost exporting as much to EU as to imports from EU.

# 5.5. The Impact of Multiple Membership within ECOWAS and SADC

With regards the impact of overlapping membership, the effects are not similar for both blocs. Overlapping membership has had a rather significant positive impact for the ECOWAS bloc. For the SADC bloc the impact though positive was insignificant. Table 5.4 below is an estimation of model 2.

Table 5.3: Empirical Results of Multiple Memberships

VARIABLES	
ECOWAS	0.904***
ECOWAS	
CADO	(0.157)
SADC	2.454***
	(0.256)
EU	4.280***
	(0.113)
ECOWAS_EU	1.350***
	(0.0848)
SADC_EU	2.363***
	(0.0844)
EU_ECOWAS	2.381***
	(0.0719)
EU_SADC	2.210***
	(0.0851)
ECOWAS*Mult_RTA	0.604***
	(0.0685)
SADC*Mult_RTA	0.0150
	(0.143)
Contingency	1.883***
	(0.0883)
Colonial ties	1.550***
	(0.0785)
Common currency	0.395***
	(0.0879)
Log distance	-0.194***
	(0.0568)
Log Exporter GDP	0.478***
	(0.115)
Log Importer GDP	0.153
Log Importer ODI	(0.0985)
Log Exporter Population	1.278**
Log Exporter ropulation	(0.537)
I I D l - t	
Log Importer Population	2.146***
T T 1 A	(0.527)
Log Exporter Land Area	-0.786***
	(0.0122)
Log Importer Land Area	-1.268***
	(0.0126)
Constant	24.20***
	(0.559)
Observations	11435

Robust standard errors in parentheses,

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

The interaction terms: ECOWAS\*Mult\_RTA and SADC\*Mult\_RTA, capture the impact of overlapping memberships in ECOWAS and SADC respectively. For the ECOWAS, a pair of member states belonging to additional RTA increases trade between them by 0.83%. The positive impact under ECOWAS may be attributed to fact that, there are only two major sub-blocs that all the ECOWAS member states belong to WAEMU and WAMZ, these blocs are complementary to ECOWAS. Additionally, all the members of these two sub-blocs are all members of ECOWAS. For this reason, they may not impede or negate the performance of the ECOWAS, in that sense the result is very plausible.

Conversely, for SADC, among the regional blocs to which its' member states belong are COMESA, ECCAS and EAC, which are major RTAs in Southern, Eastern and Central Africa. There are many more members of these blocs who are non-SADC members. The insignificant impact of the overlapping membership within SADC indicates that, a pair of countries belonging to an additional RTA does not increase trade between them. This points to the fact that these other regional blocs' trade rules and regulations may undermine the full implementation of SADC trade rules and regulations as there is likelihood of conflicting rules of origin.

# CHAPTER SIX

#### 6.0. POLICY IMPLICATIONS AND CONCLUSION

The major focus of this paper has been to make comparative assessment of the impact of ECOWAS and SADC, in terms of inducing bilateral trade. Results from the study indicate that ECOWAS and SADC have contributed significantly to inducing bilateral trade flow contrary to the popular belief that SSA's RTAs are mere ceremonial and better in meeting political rather than economic objectives. Comparatively, SADC as a bloc have had greater impact compared to ECOWAS. The main reason found to have contributed to this is that, in SADC, exports are more diversified than in ECOWAS though primarily the exports are primary products. Additionally, with SADC, its trade protocol extends the tariff-free access to both primary and industrial goods compared to ECOWAS, which only extends to agricultural and traditional handicrafts.

REI in these two blocs also encompassed the PTA with the EU, which was granted to ACP countries through the Cotonou Agreement. Results measuring the impact of this also indicate that EU PTA has contributed significantly to bilateral trade between them. However, trade between ECOWAS and SADC with EU has been declining, with that of ECOWAS declining rapidly as compared to SADC. SADC has been more effective in taking advantage of the PTA compared to ECOWAS. Thus, resulting in ECOWAS experiencing trade deficit with EU compared to that of SADC, which has been experiencing balance trade with the EU.

With several studies attributing overlapping memberships in SSA RTAs as a major challenge to effectiveness of the RTA, the results from this study produce an interesting outcome. The study identifies that a pair of countries in additional RTA does not necessarily lead to greater bilateral trade among them. However, if the other RTAs that member states belong, do complement the integration process of the original RTA and without conflicting or undermining the effectiveness of the original RTA, this can have a positive impact. In this vein, overlapping memberships had a significant positive effect on bilateral trade within the ECOWAS bloc; however, its impact was insignificant for SADC.

The policy implications of this study can not be ignored especially to policymakers and government of LDCs. With LDCs increasingly facing competition at the global level, results from this study indicates that LDCs can significantly improve their dwindling trade performance if they can focus on expanding their internal market and use this internal market as training ground to improve their efficiency and competiveness in order to compete favourably at the global level. For the purpose of the EPA, which has not been substantially concluded between the EU, ECOWAS and SADC, the result from this study indicates some policy implications of EPA for ECOWAS and SADC. In that, SADC can benefit substantially from this EPA if it would improve its export

diversification. Although, this applies equally to ECOWAS, ECOWAS should be more concerned with improving the quality of their agricultural products in order to meet the NTB imposed by EU and also extends its FTA to cover industrial goods. Finally, trade negotiators from ECOWAS and SADC regions should intensify their campaign at WTO negotiations for the withdrawal of government subsidies for the EU farmers, as there has been increasing exports of agricultural and animal products to their regions.

With UNCTAD (2007) identifying that increasing intra-regional trade among LDCs is a potential indicator of export diversification and industrialization and also the belief that North-South RTA impedes industrialization in the South. Further research will be relevant to examine whether South-South RTAs contribute significantly to intra-industry trade, mainly through disaggregating total trade into primary and manufactured goods and assessing the impacts of RTA on especially industrial goods. This is very relevant because for LDCs, increasing bilateral trade will be more beneficial if larger proportions are industrial goods or simple manufactures.

# **Appendices**

### **Appendix 1**: Description of the Variables in estimation models

### Variables of Interest - Dummy RTA Variables

- ECOWAS is 1 if i and j belong the ECOWAS regional bloc, 0 otherwise
- SADC is 1 if i and j belong the SADC regional bloc, 0 otherwise
- EU is 1 if i and j belong the EU regional bloc, 0 otherwise
- ECOWAS\_EU (i\_j) is 1 if i is an ECOWAS member and j is EU member, 0 otherwise
- SADC\_EU is 1 if i is an SADC member and j is EU member, 0 otherwise
- EU\_ECOWAS (i\_j) is 1 if i is an EU member and j is ECOWAS member, 0 otherwise
- EU\_SADC (i\_j) is 1 if i is an EU member and j is SADC, 0 otherwise

# Note: ECOWAS\_EU≠EU\_ECOWAS, SADC\_EU≠ EU\_SADC

### **Controlling Variables**

- X<sub>ijt</sub> is merchandise total exports in million dollars from country i to j
  at time t
- $Y_{it}$  is the Exporting country's GDP measured in million US\$ at time t
- $Y_{jt}$  is the Importing country's GDP measured in million US\$ at time t
- D<sub>ij</sub> is the population weighted geographical distance between country i and j in kilometres
- *Pop<sub>it</sub>* is Exporting country's population measured in million at time t
- Pop<sub>it</sub> is Importing country's population measured in million at time t

# Controlling dummy variables:

- Contij is 1 if i and j share a land border, 0 otherwise
- Colij is 1 if i and j are colonies or shared a colonial relationship, 0 otherwise
- CUij is 1 if i and j use the same currency, 0 otherwise
- $\alpha_t$  denotes the time fixed effect time dummy
- $\alpha_{ii}$  denotes the country pair fixed effect.
- eij is the error term.

**Appendix 2**: List of Countries included in the Study

	Country	RTAs
1	ANGOLA	SADC
2	BELGIUM	EU
3	BENIN	ECOWAS
4	BURKINA FASO	ECOWAS
5	CAPE VERDE	ECOWAS
6	CONGO-DR	SADC
7	CÔTE D'IVOIRE	ECOWAS
8	FRANCE	EU
9	GAMBIA, THE	ECOWAS
10	GERMANY	EU
11	GHANA	ECOWAS
12	GUINEA	ECOWAS
13	GUINEA-BISSAU	ECOWAS
14	IRELAND	EU
15	ITALY	EU
16	LIBERIA	ECOWAS
17	MADAGASCAR	SADC
18	MALAWI	SADC
19	MALI	ECOWAS
20	MAURITIUS	SADC
21	MOZAMBIQUE	SADC
22	NETHERLANDS	EU
23	NIGER	ECOWAS
24	NIGERIA	ECOWAS
25	PORTUGAL	EU
26	SENEGAL	ECOWAS
27	SEYCHELLES	SADC
28	SIERRA LEONE	ECOWAS
29	SOUTH AFRICA	SADC
30	SPAIN	EU
31	SWITZERLAND	EU
32	TANZANIA	SADC
33	TOGO	ECOWAS
34	UNITED KINGDOM	EU
35	ZAMBIA	SADC
36	ZIMBABWE	SADC

Appendix 3: Socio-economic Indicators of ECOWAS Members

Countries	GDP (in million, current US\$)	Real GDP Growth Rate (%)	Per capita GDP	Popula- tion ( in million)	Land Area (Sq Km)
Benin	6,680.07	5	483.87	9.27	110,620
Burkina Faso	7,948.24	4	272.79	19.4	273,600
Côte d'Ivoire	2,823.25	2	806.11	19.09	318,000
Guinea Bissau	23,413.95	3	184.55	1.68	28,120
Mali	429.61	5	403.45	13.06	1,220,190
Niger	8,740.31	10	1,077.66	13.35	1,266,700
Senegal	5,354.26	2	686.55	12.5	192,530
Togo	4,266.12	1	318.18	6.64	54,390
Gambia	781.52	6	315.03	1.63	10,000
Ghana	16,123.44	6	466.14	21.97	227,540
Guinea	13,208.53	8	353.54	10.14	245,720
Sierra Leone	1,954.33	5	264.69	5.88	71,740
Nigeria	212,079.67	6	788.22	153.62	910,770
Liberia	870.10	7	164.36	3.75	96,320
Cape Verde	1,729.60	6	1,973.20	0.53	4,030
ECOWAS	306,403.00	5.07	570.56	292.51	5,030,270
WAMZ	244,147.49	6.2	437.52	193.24	1,465,770
WAEMU	59,655.80	4	529.15	94.99	3,464,150

Source: World Development Indicators. Note: GDP, Growth Rate, Popn (2008), Per Capita GDP (Average 2000-2008)

Appendix 4: Socio-Economic Indicators of SADC States, for 2008

Country	GDP	Growth	Per Capita	Land Area	Popn
	(\$ billion)	Rate	<b>GDP</b> (\$)	(sq km)	(million)
Angola	84.94	13	4,714	1,246,700	18.02
Botswana	13.41	3	6,982	566,730	1.92
DR Congo	11.67	6	182	2,267,050	64.26
Lesotho	1.62	4	791	30,350	2.05
Madagascar	9.46	7	495	581,540	19.11
Malawi	4.27	10	288	94,080	14.85
Mauritius	9.32	5	7,345	2,030	1.27
Mozambique	9.85	7	440	786,380	22.38
Namibia	8.84	3	4,149	823,290	2.13
Seychelles	0.83	3	9,580	460	0.09
South Africa	276.45	3	5,678	1,214,470	48.69
Swaziland	2.84	2	2,429	17,200	1.17
Tanzania	20.49	7	496	885,800	42.48
Zambia	14.31	6	1,134	743,390	12.62
Zimbabwe	X	X	X	386,850	12.46
Total	468.30	6	2,794	9,646,320	275.96

Source: WDI.

**Note**: statistics provided in this table 3.10 and figure 3.9 are on 14 member states, without Zimbabwe as the WDI did have current statistics on the country. GDP and Per Capita GDP (at Current US\$)

# Appendix 5: Hausman Test

H<sub>o</sub>: Differences in coefficients are not systematic

Results from the Hausman Test

Test	Model 1	Model 2	Chi-Sq	p-value	Conclusion
Test 1	HT	FE	16.60	0.1628	Accept Ho
Test 2	RE	FE	90.13	0.0000	Reject Ho
Test 3	RE	PCS	138.04	0.0000	Reject H <sub>o</sub>
Test4	НТ	PCS	211.9	0.0000	Reject H <sub>o</sub>
Test 5	НТ	PCS	1507.89	0.0000	Reject H <sub>o</sub>

Appendix 6: Annual Volume of Trade and Rate of Growth of ECOWAS

Year	Total	Annual	Total	Annual	Total	Annual	Total	Annual
	Intra	Growth	Extra	Growth	Intra	Growth	Extra	Growth
	Export	Rate-	Export	Rate-	Import	Rate-	Import	Rate-
	Million	Intra	Million	Extra	Million	Intra-	Million	Extra
	\$	Export	\$	Export	\$	Import	\$	Import
	Export		Export		Import		Import	
1996	3,661		42,392		7,640		24,414	
1997	3,864	6%	40,557	-4%	8,772	15%	28,076	15%
1998	3,165	-18%	28,052	-31%	12,752	45%	34,762	24%
1999	2,584	-18%	22,412	-20%	17,436	37%	31,808	-8%
2000	2,847	10%	33,196	48%	10,881	-38%	30,714	-3%
2001	2,306	-19%	24,032	-28%	11,072	2%	36,191	18%
2002	3,148	37%	24,544	2%	10,634	-4%	37,638	4%
2003	3,269	4%	31,996	30%	21,783	105%	54,153	44%
2004	4,183	28%	46,859	46%	14,388	-34%	43,571	-20%
2005	5,328	27%	58,046	24%	14,373	0%	56,845	30%
2006	9,905	86%	67,081	16%	60,148	318%	132,573	133%
2007	6,647	-33%	61,319	-9%	66,767	11%	155,876	18%
2008	6,979	5%	64,385	5%	68,770	3%	160,552	3%
Average	4,453	9%	41,913	6%	25,032	35%	63,629	20%

Source: Computed based on statistics from ECOSTAT

**Appendix 7**: Annual Volume of Trade and Rate of Growth of SADC

Year	Total Intra Export Million \$	Annual Growth Rate- Intra Export	Total Extra Export Million \$	Annual Growth Rate- Extra Export	Total Intra Import Million \$	Annual Growth Rate- Intra- Import	Total Extra Import Million \$	
2000	4,435		33,880		5,186		36,810	
2001	4,099	-8%	33,112	-2%	5,059	-2%	34,848	-5%
2002	4,345	6%	33,493	1%	5,412	7%	36,751	5%
2003	5,538	27%	40,535	21%	6,652	23%	46,539	27%
2004	6,913	25%	51,936	28%	9,527	43%	63,878	37%
2005	8,134	18%	58,444	13%	10,698	12%	73,672	15%
2006	9,215	13%	67,707	16%	11,507	8%	89,455	21%
Average	6,097	12%	45,587	11%	7,720	13%	54,565	14%

Source: Computed based Statistics from SADC Trade

**Appendix 8**: Estimates of Model 1 with and without Nigeria and South Africa

VARIABLES	All Countries	All Countries (without Nigeria
		& South Africa )
Reference category: No RTA		,
ECOWAS	1.862***	2.178***
	(0.120)	(0.130)
SADC	2.459***	2.003***
	(0.127)	(0.136)
EU	4.283***	3.915***
	(0.112)	(0.120)
ECOWAS_EU	1.354***	1.557***
	(0.0847)	(0.0909)
SADC_EU	2.360***	2.470***
	(0.0843)	(0.0891)
EU_ECOWAS	2.386***	2.440***
	(0.0719)	(0.0774)
EU_SADC	2.207***	1.975***
	(0.0850)	(0.0910)
Contingency	1.980***	1.949***
	(0.0883)	(0.0920)
Colonial ties	1.548***	1.718***
	(0.0786)	(0.0831)
Common Currency	0.395***	0.409***
	(0.0879)	(0.0900)
Log distance	-0.179***	-0.333***
	(0.0565)	(0.0578)
Log Exporter Popn	1.278**	1.579***
	(0.537)	(0.564)
Log Importer Popn	2.146***	2.417***
	(0.527)	(0.535)
Log Exporter GDP	0.478***	0.480***
	(0.115)	(0.120)
Log Importer GDP	0.153	0.107
	(0.0985)	(0.105)
Log Exporter Land Area	-0.783***	-1.038***
	(0.0124)	(0.0130)
Log Importer Land Area	-1.265***	-1.431***
	(0.0125)	(0.0133)
Constant	23.99***	29.94***
	(0.556)	(0.575)
Observations	11435	10081
R-squared	0.664	0.723

# [Reference]

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