

COMMODITY TRADE AND TRADE POTENTIALS IN ECOWAS

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Table of Contents

Title page.....	ii
Certification.....	iii
Dedication.....	iv
Acknowledgements.....	v
Table of contents.....	vii
List of tables.....	x
List of figures.....	xi
Abstract.....	xii
CHAPTER ONE: INTRODUCTION	
1.1 Background of the Study.....	1
1.2 Statement of Research Problem.....	1
1.3 Significance of Study.....	6
1.4 Research Objectives.....	7
1.5 Research Hypothesis.....	8
1.6 Research Methodology.....	8
1.7 Research Scope.....	8
1.8 Sources of Data.....	8
1.9 Research Outline.....	9
CHAPTER TWO: BACKGROUND TO THE STUDY	
2.1 Introduction.....	10
2.2 Formation of ECOWAS.....	11
2.3 Rationale for ECOWAS Formation.....	15
2.4 Trade Potentials in ECOWAS.....	16
2.5 Economic Description of ECOWAS Countries.....	18
2.6 Commodity trade in Africa.....	25
2.7 Commodity trade: The ECOWAS Experience.....	31
CHAPTER THREE: LITERATURE REVIEW	
3.1 Review of Definitional Issues.....	38
3.1.1 Introduction.....	38
3.1.2 Africa's trade structure and performance.....	42
3.1.3 Price Volatility and term of trade losses.....	45
3.1.4 Diversification and Productivity.....	46
3.1.5 Commodity resource curse.....	48

3.1.6	Export Diversification and Growth.....	49
3.2	Review of theoretical Issues.....	52
3.2.1	Diversification Approaches.....	53
3.2.2	Horizontal and Vertical Diversification.....	55
3.3	Review of Empirical Issues.....	57
3.3.1	ECOWAS Commodity export and commodity prices.....	59
3.3.2	Why commodity prices behave the way they do?.....	61
CHAPTER FOUR: ANALYTICAL FRAMEWORK AND RESEARCH		
METHODOLOGY		
4.1	Introduction.....	64
4.2	theoretical Framework.....	64
4.3	Model specification.....	66
4.3.1	ECOWAS Growth-Diversification Model.....	67
4.3.2	Panel Per capita trade growth model.....	67
4.4	Research Design.....	68
4.5	Econometric Methodology.....	68
4.5.1	Testing for the order of integration of series.....	70
4.5.2	Co-integration Representation.....	70
4.5.3	Error Correction Modelling representation.....	71
4.5	Data source and description.....	72
CHAPTER FIVE: EMPIRICAL RESULTS AND ANALYSES		
5.1	Introduction.....	73
5.2	Descriptive Analysis.....	73
5.3	Discussion of econometric results.....	77
5.3.1	Summary statistics of major variables.....	77
5.3.2	Discussion of estimation results.....	78
5.3.3	Testing for co-integration using Johansen Approach.....	79
5.3.4	Vector Error Correction Modeling (VECM).....	81
5.3.5	Panel Least Square estimation.....	82
CHAPTER SIX: SUMMARY, RECOMMENDATION AND CONCLUSION		
6.1	Introduction.....	85
6.2	Summary of major findings and implication.....	85
6.3	Policy recommendation.....	86
6.4	Conclusion.....	87

6.5	Limitation of study and agenda for further research.....	89
	References.....	91
	Appendix 1.....	96
	Appendix 2.....	99

List of Tables

Table 2.1	Schematic representation of ECOWAS Countries.....	13
Table 2.2	Primary Commodities (Excluding fuel) by countries in ECOWAS region...	17
Table 2.6.1	Africa’s Share of World Trade.....	25
Table 2.6.2	Share of Developing Region Export in World Merchandise Trade.....	26
Table 2.6.3	Share of Developing Region Import in World Merchandise Trade.....	26
Table 2.6.4	Merchandise Export Earnings.....	27
Table 2.6.5	LDCs receiving at least forty percent of export earnings from one or two agricultural products.....	28
Table 2.6.6	Month Average World Primary Commodity Prices, 2002-2007, 2008.....	29
Table 2.6.7	Export structure of Africa and other Developing regions by Product Category.....	30
Table 2.7.1	ECOWAS Products Share in Total Export.....	32
Table 2.7.2	ECOWAS Products Share (Excluding fuel) in Total Export.....	32
Table 2.7.3	Export to ECOWAS (as % of total export value per country).....	34
Table 2.7.4	Export to Other Africa Countries (as % of total export value per country)..	35
Table 2.7.5	ECOWAS Intra-trade.....	36
Table 5.2.1	Share of Developing Region Export in World Merchandise Trade.....	73
Table 5.2.2	Export Product Concentration.....	75
Table 5.3.1	Summary of Major Statistics.....	77
Table 5.3.2	Unit Root Tests.....	79
Table 5.3.3	Johansen Co-integration Estimates.....	80
Table 5.3.4	Vector Error Correction Estimates.....	81
Table 5.3.5	Cross-Section Fixed Effects.....	83
Table 5.3.5	Period fixed effects.....	83
Table A1	Economic Description of ECOWAS Countries.....	96

List of Figures

Figure 5.2.1	ECOWAS Region Share of World Export.....	74
Figure 5.2.2	ECOWAS Export Concentration.....	75
Figure 5.2.3	ECOWAS Exports to other regions.....	76

Abstract

In spite of the vast deposit of resources and human endowments in ECOWAS region, gains from trade have really been marginal in the region. ECOWAS members have poor performance in export of dynamic products; they remained commodity dependent in its exports, leading to transfer of economic gains across border. Over 90% of the region's export is primary products with very little value-added which accentuated from commodity price and demand inelasticity resulting in terms of trade losses and volatile foreign earnings. Based on these facts, the study tries to investigate the impact of export diversification and composition on GDP growth and GDP per capita respectively. This was achieved using econometric analyses involving co-integration technique and an analytical least square technique for the period of 1975-2009 and 1990-2007 respectively in 15 ECOWAS states. The study was deemed significant, as export diversification index induced a significant but inverse impact on GDP growth while manufacturing value-added exerts though weak but a positive effect on GDP per capita growth. The study found that the high skewness of ECOWAS to commodity export in the period observed would have been responsible to the result obtained, therefore, finding concluded that it is not how much that is exported that matters but very important is what is exported as regions with less specialization and more diversified exports generally experienced higher economic growth rates and contributed much more to overall exports. Several recommendations for policy and further studies were made in the study; notable among them is the need for ECOWAS countries to develop domestic processing capability and see export as originating from domestic sufficiency.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

In the development process of Africa, trade is regarded as very important. This stems from the fact that a favourable term of trade generates foreign exchange needed for economic advancement and ensures optimum level of societal welfare; therefore, trade balance is a major economic goal. Trade as a common practise of exchanging excess produce for scarce ones, measured by level of foreign exchange earnings is not equally obtained by every nation. The inter-country struggle to acquire maximum wealth at the detriment of trading partners had made rewards for exchanges unequal depending on the universal general preferences for trading goods. The concern of the economists overtime has been at what level of output exchange, under what exchange policies and what nature of output would such an exchange generate economic growth. Whether nations are trading (exporting) is not an ideal reasoning, but all products are not equally preferred, different products do not carry similar prices and countries restrict the volume of injections by trading partners.

Therefore, the major economic reasoning is to determine what nature of products, trade openness, volume of trade would guarantee economic growth and general societal welfare. If enhancing the volume of export and maintaining a favourable balance of payment is paramount, despite increasing volume of Africa commodity trade; does trade cause growth in Africa?

More than any other developing region, Africa's heavy dependence on primary commodities as a source of export earnings has meant that the continent remains vulnerable to market vagaries and weather conditions. Price volatility, arising mainly from supply shocks and the secular decline in real commodity prices, and the attendant terms-of-trade losses have enacted heavy costs in terms of incomes, indebtedness, investment, poverty and development. (United Nations Conference on Trade and Development-UNCTAD, 2003)

Africa's poor performance and declining share of world trade is linked to the structure and composition of Africa's trade, which rests heavily on commodity dependence and its inability to diversify export base.

The most market dynamic products (ranked by growth in export value during 1980-2000) in the world trade are manufactures; which are high-technology products, some labour-intensive manufactures, notably clothing have seen rapid growth in world trade as a result of the spread of international production networks and subcontracting. (UNCTAD, 2002)

Africa, undergarments (Standard International Trade Classification-SITC 846) are the only important export item among the most dynamic product in world trade. However, their share in total Africa exports is only 1.7 per cent. Moreover, two countries (Mauritius and Swaziland) account for just over 85 per cent of total exports of this product. Seventeen of the 20 most important export items of Africa are primary commodities and resource-based semi-manufactures. On average, world trade in these products has been growing much less rapidly than manufactures. However, trade in some non-traditional commodities has seen considerable expansion over the past two decades. Of such commodities, there are among the 20 most important export items of SSA (namely fish and crustaceans, SITC 0.34, 0.36 and 0.37), accounting for 8.5 per cent of total African export earnings in 2000. World trade in other Primary commodities that account for an important proportion of total exports of Africa, particularly agriculture products such as Coffee, Cocoa, Cotton and Sugar, has been sluggish, with the average growth of trade in such products in the past two decades barely reaching one-third of the annual growth rate of world trade in all products, i.e. 8.4 per cent over 1980-2000.

This analysis reveals that SSA barely participate in trade in market-dynamic products, which suggests that global demand for most of its main non-fuel commodity export is sluggish, a situation aggravated by high price volatility and declining real prices. Unfortunately, the continent's dependence on these commodities is unlikely to decrease significantly in the short and possibly medium run. This underscores the need for more concerted and innovative measures to reduce the problems associated with such dependence, in particular within the context of the new multilateral trading system (UNCTAD, 2003).

Comparative advantage is not a static phenomenon, it could be developed by countries, the increasing complex nature of international trade and large variation in product prices and earning instability now suggests that product of one country is no more depending on factor endowment and perfect competition, countries that wish to gain immensely must enhance export base diversification.

According to Yee and Karim 2010, in the past, this subject is often overlooked because the conventional trade theory suggests that in order to benefit from trade activities a country should specialise in its production activities, in which it has comparative advantage. However, given a different set of international economic characteristics, specialisation in economic activities needs greater consideration.

Lau Sun Yee et al (2010) study of the impact of the degree of specialisation and diversification (DSD) on economic growth in Malaysia documented empirical evidence to support diversification-led growth in Malaysia. Also, previous studies by Malizia and Ke (1993), Wagner and Deller (1998), Trendle and Shorney (2004) and Woerter (2007) shared critical impacts of diversification on economic performance in their empirical analyses.

The major reason why Africa exports remain undiversified is the weak production and value-added content. Thus, literature has shown that production in one line of product generates processes upon which other production processes are built-on.

According to Agosin 2005, export discovery are not random, but followed some sequence. Countries that become good at producing a particular export are likely to develop comparative advantages in related sectors. It has been discovered that new exports cluster together or follow a pattern in time (TV sets and DVDs or Cell phones in China, different varieties of fruits in Chile, different kinds of apparel in East Asia or Central America.

According to Hausmann and Klinger, (2007); export discovery may facilitate the emergence of other new exports in the same or in closely related sectors. An export discovery has not only positive intra-industry growth effects but also intra-industry spillovers.

1.2 Statement of Research Problem

Exports of primary commodities account for between 80 and 90 per cent of the total exports of many African countries and the long term decline in prices, the deterioration in the terms of trade and the instability of commodity markets are major constraints to growth and poverty reduction in Africa. (Adebusuyi, 2004)

There are important differences between countries that are exporting commodities and manufactures. Commodity exports are subject to short-term price and demand fluctuations, as well as suffering from medium to long-term terms of trade declines. Commodities are also generally characterized by intense price competition, so that productivity gains are normally passed on to consumers rather than benefiting producers. In contrast to the vulnerability of the

commodity dependent Africa economies, manufacturing activities of the advanced countries that drawn source from commodity imports often enjoy substantial static and dynamic economies of scale, leading to greater income stability for countries exporting manufacturers.

The periodic commodity boom has lure Africa countries into a false sense of prosperity, however, commodity booms have tended to be cyclical and it is doubtful if the present one can last forever. Africa's over dependence commodity exports with minimal value added has crashed its productive intensity and aggravated its poverty rate, putting household and government budget under immense stress. Africa's lack of productivity capacity to convert its resources into consumables and attract added surplus value has been its worst plague and uprising damnation, the continent is fast losing its vast based resource wealth to weak productive potentials leading to term of trade losses and retrogressive economic growth.

The persistent dependence of primary product export in Africa region has challenged the possibility of trade induced growth. In principles, most Africa countries are not trading, as they export 'naturally endowed resources' with no value; if the resources were not there, trade would not have occurred.

The resource-rich Africa has failed to explore to the optimum its inter and intra regional trade potentials, they export similar commodities hereby making intra-regional trade impossible. Intra-regional exports among ECOWAS countries reached a maximum of 10.1% in 1980 and have ever been declining. "ECOWAS members must use their natural wealth to build new areas of competitive advantage in non-traditional products". (Odularu, 2008).

The Africa economies depend largely on commodity export with low demand and price elasticities, resulting in price earning instability. Overtime, the Africa economies are increasing measure to foster commodity export neglecting production and export of manufactures whose prices are higher, more preferable, with high responsiveness of change in demand to income and prices.

Africa's export performance over the last 25 years with the removal of trade barriers has slightly improved but this falls far short of expectations and has been relative to the experience of other developing countries. Indeed, the much expected diversification to dynamic primary commodities and increase in manufacturing which have been meant stability and resistance to the 'vagaries of international markets' has not happened. Worse still, Africa's share of world exports has dwindled from 6% in 1980 to a mere 3% percent in 2007.

The report also identifies ‘Africa’s weak supply response’, as a major factor responsible for Africa’s non-preparedness to take advantage of recent commodity booms (UNCTAD, 2008).

Inter-trade among ECOWAS countries has remained relatively stagnant overtime, due to homogeneity of export products, basically commodities; this stood at 11.5%, 12.8%, 10.1% and 12.5% in 1999, 2002, 2007, and 2009 respectively. The dominance of over-dependence on similar commodity exports and weak processing capacity has placed ECOWAS region states favourite partner of the North America and Europe, and has dwindled the intra-trade in the region even with its integrated trade union.

ECOWAS states exports to the Europe union stood at 34.3%, 35.7%, 23.2% and 27.2% in 1999, 2002, 2007, and 2009 respectively and its imports were 55.1%, 46.6%, 49.8%, 42.0% and 36.4% in 1999, 2002, 2004, 2007 and 2009 respectively. ECOWAS region is not only a net importer but exports commodities with high price volatility and weak supply responses and imports highly dynamic products basically manufactures with higher prices leading to its term of trade losses and growth volatility; the transfer of productivity gains due to Africa’s weak productive capacity has make Africa economies vulnerable to demand swings and a victim of global trade.

The physical characteristics of homogeneous product quality among Africa countries and low degree of commodity processing has made its prices extremely inelastic as witnessed in fluctuating prices as bulk of its productivity gains is passed on.

Amit Bhaduri (2006), sees export concentration at the expense of enhanced domestic production as Joblessness; as exports originates from domestic sufficiency. He opined that concentration on export without domestic market expansion would cut labour cost and decrease purchasing power. The internal market shrinks, though export can increase, but living standards can be on decline. Therefore, for a growing commodity export dependence countries, production, not trade, is paramount.

In the 1980s, China, India and Ghana were low income countries with a per capita income of about US\$200 and Nigeria with even higher per capita income above US\$1000, twenty five years later, exports of electronics, machines parts, children’s toys and footwear have enabled China to leapfrog from a low to a middle income country. Ghana and Nigeria still export and have not become richer, Ghana income level inched up to only US\$278 and US\$639 in Nigeria. India and Malaysia’s per capita income increased by 100% and Vietnam’s by 125%.

Export diversification in non-traditional products played a dominant role in powering economic growth in China, Malaysia and Vietnam. Over the 25 years period, China's top export changed from petroleum, auto parts and outer garments to electronics-related parts and machines. In Vietnam, the change was from coal, natural rubber and crustaceans to footwear, crude petroleum oils and furniture; and Malaysia, from natural rubber and timber to electronic microcircuits and machines. (Chandra and Osorio-Rodarte, 2007)

Several Literatures noted that to become middle-income countries, Africa needs to diversify away from natural-based exports. Therefore, in order to escape the trap of the natural resource curse as proposed by Sachs and Warner, 1997, embracing export diversification is non-debate for Africa Countries to break-out of low level equilibrium trap.

The huge deposit and resource endowments of the Africa continent, as the richest endowed continent makes it a good candidate for export diversification but weak acquired capabilities of these countries has dwindle this possibility, also, what exactly each country should diversify towards to generate the needed growth in the presence of diverse political and institutional inadequacies is less clear.

1.3 Significance of the Study

The work tried to provide empirical evidence on the supposed role of export diversification on trade expansion. Export diversification towards manufacturing has often been claimed to be a key element of development strategies for Africa countries. Weak trade capacity-ability to gain access to foreign markets is seen as a significant obstacle to diversification away from traditional, often primary, exports.

The study addressed the over-arching issue of developing countries' export dependence on few products often commodities, with very volatile demand, which overtime has translated into high income instability and in turn provokes high growth volatility. The study placed export diversification strategy has capable of setting the advantage of creating a more stable income flow and generating spillovers in the economy resulting from a diversified production structure. (Pacheco and Pierola, 2008).

The study is unique as it considers the impact of ECOWAS export composition on GDP per capita which has not been really observed and econometrically evaluate the impact of diversification and concentration index on GDP growth in the region. This aspect of the study has not been looked into as most studies considered an analytical study of the subject matter

in the region. The study also considers the two prominent literature strands on the issue of export, first is the neoclassical view of trade specialization and new modern theory or the international completion theory which sees exports as originating from world demand and not specialization.

The study looked into enhancing export performance of Africa countries particularly the nexus between export diversification and economic prosperity. Particularly the disturbing questions include the following: - have export volume and prices increased consistently? How does export performance in Africa compare to export performance in other developing regions? Why has Africa not diversified its export products, particularly in terms of increasing the share of manufactures vis-a-vis primary exports? Should Africa specialise according to its comparative advantage in the production and export of primary commodities? Do emerging countries such as China, Indonesia, Japan, Malaysia, etc originally had comparative advantage in manufactures.

Given that the region was consistently a net food producer until 25 years ago and the fact that its export value-added has continually dwindled; this is an opportune season to reflect on what has happened to Africa's productive structure and on how to reconstruct and diversify its export resource content. The study is relevant to researchers and policy makers in the region as it would provide realistic policy recommendation to the trade losses and dwindling foreign earnings of ECOWAS resulting from low yielding export composition.

1.4 Research Objectives

The main objective of the study is to investigate the impact of export diversification on ECOWAS economic growth. Therefore, in achieving this, the following objectives were achieved in the study.

- ✓ To examine the impact of diversification and inter-trade among ECOWAS states in generating foreign earnings
- ✓ Examine ECOWAS export structure and its constraint towards increasing manufactures share of its exports.
- ✓ Examine the impact of increased manufacturing value added in enhancing GDP per capita and ensuring general societal development in ECOWAS region.

1.5 Research Hypotheses

The hypotheses of the study stated in alternate form are as follows

- ✓ Increasing the manufacturing value added content would result in significant achievement in economic progress.
- ✓ Enhancing the export composition and diversification would result in significant increase in real GDP of ECOWAS

1.6 Research Methodology

The research work adopted Johansen and Juselius (1990) co-integration procedure in establishing a long-run relationship among the observed variables. Johansen's methodology is typically used in a setting where all variables in the system are I(1), the estimation technique is chosen in order to determine the converging interplay of trade potentials and diversification induced growth.

The Vector Error Correction model was also adopted to determine the direction and extent of long-run convergence. The method is preferred because of its capability to capture complex dynamic relationships, incorporates all structural relationships in a competitive cross-sectional study, treat several variables endogenously, capture both short-run and long-run inter-relationships and outperform univariate time series models in parameter efficiency, goodness of fit measures as well as forecasting performance. (Moriarty 1980, Takada and Bass 1998)

1.7 Research Scope

The research study covered the Africa trade dominance and its growth generation performance, strategies to maximizing trade potentials via content diversification and possibility of Regional trade arrangement to boost inter and intra country trade among ECOWAS states. The scope for empirical study of the work shall cover the period of 1970 to 2008 over selected countries of interest in ECOWAS sub-region.

1.8 Sources of Data

Data for the research work depend solely on secondary sources, which should include journals, textbooks, articles, and electronic media relevant to the subject under study. The data set for the empirical verification on Real Gross Domestic Product-GDP, Manufacturing value-added, Agricultural value-added, service value-added, Population was sourced from

World Bank Development Indicators report, data on Investment share of GDP was sourced from World Penn Table-WPT, data on export concentration index and export diversification index was sourced from UNCTAD Handbook of Statistics.

1.9 Outline of Study

The chapter one served as an introduction to the subject matter- discussing the study background, the problem statement, objectives, hypothesis, methodology, data source and chapter outline amongst others. In chapter two, the background of the study was considered, where salient issues relating to the emergence of the study is been outlined and discussed. In chapter three, several related literature on the subject matter was reviewed in order to create a link with previous works. In chapter four, the theoretical framework came up; research methodology, data modelling and empirical testing shall be presented. Chapter five covered the analysis of research modelling and the diagnostics tests, where the result obtained from empirical testing in the previous chapter shall be discussed and tested for relevant significance. Chapter six covered the discussion of findings, research summary, policy recommendations, recommendation for further researches and conclusion. The appendixes house matters such as references, bibliography, list of figures, tables.

CHAPTER TWO

STYLIZED FACTS ON ECOWAS TRADE PATTERN

2.1 Introduction

Over the past two and half decades, West African States have been enmeshed in the struggle to attain sustainable economic development and self reliance through regional economic integration. ECOWAS was established in May 28, 1975, by the sixteen member states of West Africa [now remaining fifteen as Mauritania withdrew], as a practical approach in tackling the economic dilemma of the sub-region that is devastatingly entangled in excruciating poverty, underdevelopment and foreign dependency.

In addition, ECOWAS had strongly recognized the development and expansion of the regional market as the corner piece of its comprehensive development strategy. As clearly demonstrated in the preamble of chapter 2 Article 3 of its Revised Treaty, ECOWAS sought to achieve economic integration through liberalization of trade between its member states, removal of all impediments to free mobility of factors of production, as well as harmonization of national economic and fiscal policies of member states.

First, ECOWAS set out to form a free trade area by undertaking a progressive removal of all custom duties and other charges of similar effect, on imports and exports between member states, as well as all quota and quantitative restrictions and other administrative impediments on trade between the member states within the sub-region, as epitomized by Article 41 of its Revised Treaty.

Second, ECOWAS envisaged to gradually transform to a customs union that will eventually metamorphose into a common market, with the eventual elimination of all obstacles to free mobility of factors of production between them, while at the same time, maintaining common external tariff structure in their trade with countries outside the union.

Finally, in the preamble of chapter 9, Article 54 of ECOWAS Revised Treaty, the organization sought to cap its efforts by attaining a complete economic union through the harmonization of agricultural, industrial, transport and communication, energy and infrastructural development as well as common economic and monetary policies between member states.

The newly independent states of West Africa had squarely hoped that the success of ECOWAS will significantly ameliorate their seeming intractable socio-economic and even political problems of underdevelopment, poverty and external dependency. Yet, more than twenty-five years after its formation ECOWAS has essentially remained somewhat a “lame duck”, with hardly any meaningful impact apart from providing employment for a number of civil servants and the elaborate ceremonies of its summits. (Anadi, 2005)

2.2 Formation of ECOWAS

Earlier efforts to co-ordinate economic cooperation on a sub-regional level in West Africa dates back to 1963, with a conference on industrial harmonization in the sub-region in Lagos, Nigeria and the Niamey conference on economic cooperation in 1966. Similarly, in 1967, another conference was held in Accra, Ghana where a tentative agreement on the Articles of Association of a proposed economic community in West Africa was signed.

An interim Council of ministers mandated to prepare a Draft Treaty for the proposed community recommended that the inaugural meeting of the proposed community be held on the level of heads of states and government. Though the Heads of States and Government actually met in Monrovia in 1968 and signed the protocol for a regional group, neither the Draft Treaty nor the Protocol on customs union submitted by the interim council was adopted.

In 1972, the process was revived by the Heads of State of Nigeria and Togo by mandating their officials to streamline a framework for community cooperation based on the following guiding principles:

- a) That, the envisaged economic community should cut across linguistic and cultural differences.
- b) Should pursue limited realizable objectives.
- c) Approach adopted should be flexible and practical.
- d) Necessary institutions are to be adopted allowing all countries to become members at their convenience.

The proposals of a joint Nigeria-Togolese delegation embodied in a Draft Treaty was reconsidered in yet another ministerial meeting in January 1975, and finally signed on 28th May, 1975, by the Heads of State and Government / Representatives of the fifteen member

countries of West Africa, thus, marking the end of over a decade of unfruitful strenuous effort to institutionalize a framework for coordinating sustainable development and collective self-reliance in West Africa. ECOWAS was therefore established in 1975 to coordinate and promote trade, cooperation and sustainable development throughout West Africa. The signing of the ECOWAS Treaty of Lagos in May 28, 1975, was indeed a kind of radical response to the plague of poverty and underdevelopment bedevilling West Africa, and as a result, practically provided the much desired framework for the realization of rapid and sustainable socio-political and economic development throughout the sub-region, and has till date the following member states: Republic of Benin, Burkina Faso, Cape Verde, Cote d'Ivoire, Gambia, Ghana, Guinea, Guinea Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone and the Republic of Togo.

Established on the 28th of May, 1975, the main objectives of ECOWAS were the elimination of all tariffs and non-tariff barriers between members, the establishment of a customs union, unified fiscal policy and co-ordinated regional policies in the transport, communication, energy and other infrastructural facilities. More specifically, the ECOWAS treaty sought to:

- a) Eliminate, between member states, custom duties and other charges of equivalent effects on imports and exports:
- b) Eliminate quantitative and administrative restrictions on trade among members:
- c) Establish a common tariff structure and commercial policy towards non-member countries:
- d) Eliminate obstacles restricting the free movement of persons, services and capital between member states:
- e) Harmonize agricultural policies and promote common projects in the member states notably in the fields of marketing, research and agro-industrial enterprises:
- f) Evolve a common policy in, and jointly develop, the transport, communication, energy and other infrastructural facilities:
- g) Harmonize economic, industrial and monetary policies of members, as well as eliminate disparities in the levels of their development; and
- h) Establish a fund for co-operation, compensation and development.

Under the theoretical framework for economic integration, the implementation of the above is expressed as follows: item a and b implies the establishment of a free trade area; item c is a custom union; item d - a common market and a functioning of e - g is an economic union. (CDD, 2003) Thus, the ECOWAS saw regional integration as a multi-step process eventually leading to a customs union and then a common market integrating states in the West African sub-region politically and culturally. The three current integration organizations within West Africa (ECOWAS, West African Economic and Monetary (UEMOEA), and Mano River Union (MRU)) have promoted quite similar projects to advance their objectives, including the establishment of institutions for human development, agricultural and industrial development, and monetary cooperation. (Anadi, 2005)

Table 2.1 Schematic representation of ECOWAS countries

Countries	Land Area	Capital city	Estimated Population [millions]	Major Languages	Income Per Capita [USD]	Economic Resources	Average Annual GDP [USD billions]
Benin Republic	113,000km ²	Cotonou	6	French, Fon, Yoruba, Bariba	886	Cotton, Oil, Mining, Lime stone etc.	2.4
Burkina Faso	274,122km ²	Ouagadougou	11	French, Moore, Dioula, Peul	898	Cotton, Peanuts, Sheanuts, Gold	-----
Cape verde	4,033km ²	Praia	0.43	Portuguese, Crioulo	-----	services	-----
Cote d'Ivoire	322,462km ²	Yamoussou	15	French & other 60 native languages	1,546	Oil, Gas, Coffee, Cocoa beans & Palm oil	10.5
Gambia	11,295km ²	Banjul	1	English, Wolof, Fulani, Mandinka etc	----	Tourism, Services etc.	-----
Ghana	239,460km ²	Accra	19	English & over 100 native languages	1,793	Gold, Diamonds etc	7.4
Guinea	245,857km ²	Conakry	7	French & other native Languages	1,761	Coffee, Cotton, Fruits, Oil, Nuts etc.	3.7
Guinea Bissau	36,125km ²	Bissau	1.1	Portuguese, Crioulo	----	Rice, Maize, Plantains, Beans	----
Liberia	111, 369km ²	Monrovia	3	English & other native languages	----	Iron Ore, Timber, Diamonds etc	

Mali	1,249,192km ²	Bamako	11	French, Bambara	693	Gold, Phosphate	2.6
Niger	1,267,000km ²	Niamey	10	French & other local languages	727	Uranium, Cotton etc	2.0
Nigeria	923,768km ²	Abuja	130	English, Hausa, Ibo, Yoruba & over 200 other native Languages	744	Oil, Gas, Lime stone, Coal & others	37.9
Senegal	196,192km ²	Dakar	9	French, Wolof & other native languages	1,341	Oil, Cotton, Peanuts, Rice, Live stock etc.	4.7
Sierra Leone	71,740km ²	Freetown	5	English, Krio etc	414	Diamonds, Fishing, Agriculture etc.	0.7
Togo	56,785km ²	Lome	5	French, Yoruba & other native languages	1,346	Cotton, Cocoa, Phosphate etc	1.7

Source: World Development Report: Attacking Poverty, 2008

All these countries differ considerably in their colonial history, natural resource endowments and institutional and administrative systems. At the one end of the scale is Nigeria, rich in human and natural resources, and at the other end is Burkina Faso with poor human and natural resources. These remarkable differences significantly and constantly shape their regional relations and their ability to participate meaningfully in regional economic integration programmes.

The ECOWAS Treaty provided for a gradual establishment of a customs union, common external tariff and harmonization of economic and financial policies of member states within a period of 15 years. It also made provision for compensation for losses encountered by member states in the course of the implementation of the provisions of the treaty.

The original treaty was revised in 1993, to broaden economic integration and increase political participation and cooperation throughout the sub-region. The revised treaty sought to attain an integrated common market and a single monetary union with an institutionalized Parliament for stronger political cooperation and participation within the sub-region.

2.3 Rationale for ECOWAS formation

As noted in the works of Havey, (1979), Jaber (1999), and Anadi (2005); there is no doubt that the architects of ECOWAS were influenced by the overwhelming assumptions of

traditional integration theories, of numerous economic benefits that could accrue to member states as a result of their participation in regional economic integration programme.

One alluring assumption is the fact that integration positively affects the gross national products of member countries; as the resultant enlargement of the size of the market increases efficiency and greater advantages of economies of scale within the integrating area. Thus, as competition increases, better specialization is ensured as producers concentrate on areas in which they have the greatest advantage, thus better positioned to exploit large scale economies while at the same time, restructuring the regional economy to enhance the production base of the region.

Another contention lies in the argument that the enlarged market offered by integration will sufficiently sustain heavy industries and better ensure the least unit cost of production which will in-turn stimulate demand and consumption as well as increased investment and economic growth.

Similarly, as better allocation of resources is attained, prices go down in favour of consumers in a way that is not detrimental to producers, thus, befitting both the producers and consumers.

Added to the theoretical benefit is the argument that the enlarged market size from integration will ultimately lead to increased trade within the region. As tariffs are eliminated, free flow of trade between member states increases, leading to trade creation as member states trade more with each other.

In West Africa, economic integration is also viewed as an 'illustration of Pan-Africanism' and indeed, a practical step toward the economic liberation of the African continent. Some of the states such as Nigeria viewed integration as a veritable instrument for ensuring not only regional peace and security but also national security.

In general terms, it is hoped that economic integration in West Africa will not only usher in sustainable socio-economic and political development, but will to a large extent, provide a solid platform for a united front in negotiations involving the region and other regions of the world. Their aim is to support and enhance socio-economic development of member states and the welfare of their citizens by promoting and coordinating trade, increased cooperation and self-reliance among them; and this they hope to achieve by ensuring a common policy

regime geared toward economic and financial stability through the institutional framework of ECOWAS.

2.4 Trade Potentials in ECOWAS

ECOWAS represent 25 percent of Africa's land area, 34 per cent of its total population and 15 per cent of its GDP in 1998 with a surface area of around 6,142,000 sq. Km. The sub-region stretches from the southern fringes of the Sahara desert to the Atlantic ocean along the Gulf of Guinea to Biafra and from the eastern shores of the Atlantic from Senegal to Lake Chad.

The mainstay of all these economies is agriculture related and hereby vulnerable to adverse natural environmental conditions such as drought. Petroleum is found in large quantities in Nigeria and bauxite, diamond, gold and other precious and strategy minerals are exploited in some of the countries such as Ghana, Guinea, and Sierra Leone.

However, the export of primary raw materials, particularly agricultural produce for foreign exchange earnings, is still the dominant aspect of domestic and international trade.

Economically, however, the ECOWAS countries are relatively small with a combined GDP of US\$75.9 billion in 1998. Agriculture accounts for more than 40 per cent of the gainfully occupied population in most ECOWAS countries. In some cases the proportion exceeds 50 per cent of national output and 70 percent of gainfully employed. As industry is a rather small sector of the economies of ECOWAS countries.

The ECOWAS region predominantly exports primary products to the industrial countries in return for a large part of its requirements for consumer goods and most of the equipment and raw materials needed for its industrial development. As individual ECOWAS countries depend on a narrow range of commodities for the bulk of their export income, fluctuations in world prices and in their terms of trade are of vital concern to them. The small size and poor economic base of ECOWAS means that in isolation their development options are narrowly constrained. Their balance development, and in particular the implementation of any strategy that aims at a significant structural transformation of the economic base and export content demands ability, not just to export but diversify export base, attract new export location and increase the value added of its abundant resources.

Table 2.2 Primary commodities (excluding fuel) by countries in ECOWAS Region

Country	Product
Burkina Faso	Cotton, sesame, peanuts, shea nuts, sorghum, millet, corn, rice, livestock, hides and skins
Benin	Cotton, corn, cassava, yams, beans, palm oil, peanuts, livestock (lint and seed)

Cote d'Ivoire	Cocoa beans, coffee, bananas, palm kernels, corn, rice, manioc, sweet potatoes, sugar, cotton, rubber, timber
Cape Verde	Bananas, corn, beans, sweet potatoes, sugarcane, coffee, peanuts, fish
Ghana	Cocoa, rice, cassava, peanuts, corn, shea nuts, bananas, timber
Gambia	Rice, millet, sorghum, peanuts, corn, sesame, cassava, palm kernels, cattle, sheep, goats
Guinea	Bauxite, alumina, coffee, rice, pineapples, palm kernels, cassava, bananas, sweet potatoes, cattle, sheep, goats, timber
Guinea-Bissau	Cashew nuts, wood, cotton, fish, cassava, rice, palm kernels, corn, peanuts, beans, timber
Mali	Cotton, millet, rice, corn, vegetables, peanuts, cattle, sheep, goats
Liberia	Rubber, coffee, cocoa, rice, cassava, palm oil, sugarcane, bananas, sheep, goats, timber
Niger	Cowpeas, cotton, peanuts, millet, sorghum, cassava, rice, cattle, sheep, goats, camels, donkeys, horses, poultry, tobacco, onions, beans
Nigeria	Cocoa, peanuts, palm oil, corn, rice, sorghum, millet, cassava, yams, rubber, cattle, sheep, goats, pigs, timber, fish.
Sierra-Leone	Coffee, cocoa tobacco, rice, palm kernels, palm oil, peanuts, poultry, cattle, sheep, pigs, fish
Senegal	Groundnuts, phosphate, cotton, peanuts, millet, corn, sorghum, rice, tomatoes, green vegetables, cattle, poultry, pigs, fish
Togo	Coffee, cocoa, cotton, yams, cassava, corn, beans, rice, millet, sorghum, livestock, fish

Source: Extracted from Nationmaster Statistics, 2010

2.5 Economic Description of ECOWAS Countries¹

ECOWAS countries are generally net importer due to their economic inability and weak processing capability of their numerous resource endowments. Over-dependence on commodity and the lost of world trade share volume and falling prices of commodities has made the growth pattern of ECOWAS countries very volatile. The region is plagued with continually trade loss and diverging balance of payment deficits despite being the major exporter of commodities such as cotton, bauxite, cocoa, coffee etc.

Burkina Faso

¹ See Appendix 1 (table A1) for Economic Description (Import and Export values) of ECOWAS States.

Colonized by France as early as 1895 and formerly named Upper Volta in 1919 but gained its independence in 1960 with its capital in Ouagadougou. In the 1930's it was divided to form two separate countries but reunited as one nation in 1947. Burkina Faso has a population of about Fifteen million Three hundred thousand [2008], with a land area of approximately 274,122 square kilometres. With about 90% of the population engaged in mainly subsistence agriculture, cotton is one of the country's key crops, followed by nuts, sesame, sorghum and livestock. Industrial activity is dominated by government-controlled enterprises. The country's estimated GDP in 2004 was US\$14.5bn, with a real growth rate of 5.2%. In terms of the composition of GDP, approximately 40% consists of agriculture, 20% industrial output and 40% services.

The country remains one of the poorest countries in the world and over 90% of the population is employed in subsistence agriculture- growing peanuts, shear nuts, cotton, millet, sorghum and exports gold etc. A sizeable percentage of the population largely work as migrant workers in neighbouring countries of Ghana and Cote d'Ivoire on seasonable basis.

The main industries consist of cotton lint, beverages, textile and agricultural processing with suffocating balance payments problem in their international trade.

Benin

Benin Republic is bordered to the west by Nigeria, to the north by Burkina Faso and Niger, and to the east by Togo. The country has Port Novo as its administrative headquarters with Cotonou as its commercial capital. Located on a land area of 112, 622sq kilometres with a population of about Eight million, five hundred and forty Thousand [8,540,000] by 2008.

The national economy is propelled by subsistence agriculture based on cotton production with more than 80% of the population engaged in agricultural production. The country's industrial sector remains relatively underdeveloped and hinged on light import-substitution industries and agricultural processing. The mining industry is increasingly becoming important and based on the extraction of lime stone, gold and iron ore and phosphate. Due to inefficient and largely corrupt bureaucracy, the country has constant chronic international trade deficit.

Cote D'Ivoire

Cote d'Ivoire lies in the gulf of Guinea area of the sub region and gained independence from France in 1960 with Houphouet Boigny as its life time President. The country has

Yamoussoukro as its political capital and Abidjan as commercial capital. The population is about 20,179,602 [2008] and occupies a land area of approximately 322,462 square kilometres.

The country's economy is traditionally based on agriculture- export of cocoa and coffee and sufficiently endowed with abundant rainfall and fertile land. Indeed decades of political and economic stability in Cote d'Ivoire ushered in rapid economic growth with consistent balance of payments surplus.

However, the gains of decades of political and economic stability are threatening to disappear as the sectional conflicts continue unabated throwing the once buoyant and prosperous economy into ruins.

Cape Verde

Cape Verde is made up of ten Islands and five Islets and colonized by Portugal but became independent in 1975 with Aristide Pereira as its first President. The country lies on a land area of approximately 4,033 square kilometres, with a population of about four hundred and thirty thousand [2008]. Exports (including tourism receipts) has continually remain limited at about 27 percent of GDP, while imports represent about 60 percent of GDP

Cape Verde lacks any reasonable natural resources as the economy heavily depends on commerce, transport and indeed services. The greater per cent of the population reside in the rural areas depending heavily on imported food and foreign aid. Agricultural production is severely hindered by poor arable land and persistent drought. The country runs persistent balance of payments problems arising from its heavy dependence on imports.

The industrial sector remains underdeveloped and mainly based on light manufacture and its capacity for expansion is severely limited by the share size of its population, geographical location and indeed near absence of natural resources apart from tiny deposits of salt. Cape Verde by its share size and poor resources could not make any meaningful contribution to the efforts at attaining self-reliance through regional integration in West Africa.

Ghana

Ghana is situated in the gulf of Guinea with Accra as its capital. The nation has a population of about 23,382,848 [2008] and a land area of approximately 239,460 square kilometres with

diverse ethnic groups. Ghana's main export categories consist of 'forest products', 'agricultural products', 'energy-related products' and 'minerals and metals'

The country's once booming economy has been severely weakened by decades of instability and mismanagement. Its economy is based on subsistence agriculture and a booming mining industry in gold and diamonds. Like most member states of ECOWAS the country runs persistent balance payments problem.

Ghana like most of the member states suffers from internal political and economic pressures of nation building and development which severely limits its ability to attain sustainable development and greater participation in regional economic integration initiatives.

Gambia

Gambia is a relatively small nation that consist of a narrow strip of land and almost encircled by Senegal .The population is about one million [1995] with a land area of approximately 11, 295 square kilometres. Also, ethnically diverse which include the mandinka, Fula, Wolof, Jola etc.

Its economy is heavily dependent on few agricultural exports as well as re-exports to neighbouring countries. Services remain the engine of the economy as it contributes over 64% of the GDP. Its foreign trade depends simply on the export of groundnuts and cotton though a small scale and faces perennial balance of payments problem.

Gambia's strength in the area lies in its control of the Gambia River but severely hampered economically by its small size, poor natural resources and a decaying infrastructure, and as a result cannot make any meaningful impact in the effort to achieve sustainable development and self-reliance in the sub-region through the framework of ECOWAS.

Guinea

Guinea is located on the bulge of Africa and bordered in the south by Sierra Leone and Liberia, to the north by Guinea-Bissau and Senegal and to the east by Mali and Cote D'Ivoire with its capital in Conakry. The population is about six million five hundred thousand [2001] and occupies a land area of approximately 245, 857 square kilometres.

Guinea is blessed with abundant mineral resources which include Chrome, Cobalt, Zinc, Uranium etc and generally stable compared to other member states. However, the economy remains largely dependent on subsistence agriculture and engaged more than 80% of the population.

Guinea possesses major mineral, hydropower, and agricultural resources, yet remains an underdeveloped nation. The country possesses over 30% of the world's bauxite reserves and is the second largest bauxite producer.

The country's international trade balance fluctuates and dependent on the outset of the mining sector and the international market. In general terms, decades of Marxism and despotic leadership has left the economy grossly underdeveloped and drastically slowed down economic development.

Guinea-Bissau

Guinea-Bissau lies in the west coast of Africa and bordered to the north by Senegal and Guinea to the east and west. The country has a population of about one million five Hundred thousand [2008], with a land area of approximately 36,125 square kilometres.

Guinea-Bissau remains one of the poorest countries in the world with over 80% of the population engaged in subsistence agriculture, with a marginal industrial sector. The country runs persistent deficit in its international trade amidst little domestic investment and poor infrastructure.

One of the 10 poorest countries in the world, Guinea-Bissau depends mainly on farming and fishing. Cashew crops have increased remarkably in recent years, and the country now ranks sixth in cashew production. Guinea-Bissau exports fish and seafood along with small amounts of peanuts, palm kernels, and timber. Rice is the major crop and staple food. However, intermittent fighting between Senegalese-backed government troops and a military junta destroyed much of the country's infrastructure and caused widespread damage to the economy in 1998; the civil war led to a 28% drop in GDP that year, with partial recovery in 1999-2001.

Liberia

Liberia is bordered by Sierra Leone on the North West, Guinea to the north and Cote d'Ivoire in the east.

The country's population is about three million three hundred thousand [2008], and occupies a land area of approximately 111,369 square kilometres. The country is richly endowed with water, mineral resources, forests, and a climate favorable to agriculture, Liberia had been a producer and exporter of basic products - primarily raw timber and rubber. Liberia's exports to the U.S. consist mainly of natural rubber products.

The once prosperous economy remains so far in coma amidst devastations caused by the war and worsened by mismanagement and misrule. Export trade almost ceased throughout the conflict period limiting socio-economic activities and accumulating tremendous deficits.

So far Liberia occupies itself with reconstruction efforts in the face of continued pressure from dissident groups scattered throughout the country and therefore strategically displaced to play any meaningful role within the ECOWAS framework in the search for sustainable development and self-reliance.

Mali

Mali is bordered in the east by Algeria, in the North West by Mauritania, in the west by Senegal, in the south west by Guinea and Cote d'Ivoire and Burkina Faso in the south and Niger Republic in the south east. The country has a population of about twelve million, three hundred thousand [2008], with a land area of approximately 1,240, 192 square kilometres.

Though Mali possesses great potentials in natural resources, the country remains in poverty with poor infrastructure. Its economy is essentially based on agricultural production of cotton organized through village cooperatives. Its main export commodity is cotton but has chronic balance of payments problem. Mali is heavily dependent on foreign aid and vulnerable to fluctuations in world prices for cotton, its main export.

Other proven natural resources include salt, uranium, lime stone etc. but grossly lacks the necessary resources to exploit neither them nor the capacity to attract foreign investment. So far, Mali still occupies the unenviable accolade of being one the poorest countries in the world.

Niger

The Republic of Niger is bordered to the north by Nigeria, to the south by Benin Republic, to the west by Mali and Burkina Faso and to the east by Chad. The population is about thirteen million three hundred thousand [2008] and situated on a land area of approximately 1,267,000 square kilometres.

The economy is heavily dependent on subsistent agriculture – livestock rearing and predominantly rural and vulnerable to natural disasters such as drought, and persistent swarms of locust. Also, Uranium mining is undertaken on a limited scale albeit poor international demands with devastating balance of payment deficits.

In reality, Niger depends heavily on foreign Aid from Nigeria and other donor countries. Nigerian internal political and economic problems could neither guarantee its national stability nor its effective expansion of its trade base.

Nigeria

Nigeria is situated along the gulf of Guinea and lies between the Republic of Benin and Cameroon to the west and south, and to the north by Chad and Niger Republic. The country has an estimated population of over one hundred and forty-six million, two hundred and fifty-five [2008], and occupies a land area of approximately 923,768 square kilometres.

Nigeria's economy remains the most powerful economy in West Africa propelled by crude oil and natural gas exports. The country is most endowed in natural resources in West Africa with abundant minerals in commercial quantities and contributes more than half of ECOWAS GDP.

However, the country is dangerously bedevilled by serious abuses of power, gross mismanagement of its resources and unbridled and unimaginable corruption that has thrown the country into political and economic quagmire with a traumatized and tormented citizenry since independence. Its international trade balance of payments vacillates between surplus and deficit depending on the magnitude of corruption by the particular government in power.

Nigeria possesses the economic and political capacity to propel the sub-regional economic integration in terms of her diverse resources, large population and relatively enterprising people. But its ability to fully utilize these advantages has been severely limited by the pressures of nation building in a multi-ethnic society compounded by gross misapplication of resources and frightening corruption. Therefore, its capacity to lead a successful regional economic integration scheme is severely limited.

Sierra Leone

Sierra Leone lies on the bulge of Africa with Freetown as its Capital. Its population is about Six million three hundred thousand with a land area of approximately 71,740 square kilometres.

The country is relatively impoverished with an economy that is mainly based on the mining of diamonds for export, with the majority of the population engaged in subsistence agriculture with persistent balance of payments problem.

Even though relatively endowed with mineral resources such as iron, diamonds, gold, bauxite, rutile etc, poor infrastructure, devastating political crisis, corruption and mismanagement have combined to slow down its development leaving the country's economy in near total shambles. Of-course, under this condition, it cannot be expected to make any impact on sub-regional community efforts at self sufficiency and sustainable development through regional economic integration, trade expansion and attraction.

Senegal

Senegal is situated at the end of the western bulge of Africa with its capital in Dakar. The country has a population of about twelve million eight hundred and fifty-three thousand [2008], occupying a land area of approximately 196,192 square kilometres.

The economy is based on subsistence agricultural production in farming, livestock, forestry and services. At independence, the ruling Socialist Party pursued both market economy and State controlled economy. Its main export commodities are cotton, phosphate, fish etc and persistently suffer trade deficits.

Senegal has enjoyed relative political peace since independence and consequently, the service sector of the economy remains the most productive sector accounting for over 61% of the GDP.

Togo

The Togolese Republic is situated in the gulf of guinea and lies between Ghana and the Republic of Benin. Its population is about four million five hundred thousand [1999] with a land area of approximately 56,785 square kilometres.

The economy is as small as its size and based on subsistence agricultural production. Cotton, coffee and cocoa export forms the main export commodities. Togo is heavily dependent on both commercial and subsistence agriculture, which provides employment for 65% of the labor force. Cocoa, coffee, and cotton generate about 40% of export earnings with cotton being the most important cash crop. Togo is the world's fourth-largest producer of phosphate.

Togolese economy remains grossly underdeveloped compounded by its small size and population. Its trade balance is persistently in deficit and depends heavily on foreign Aid.

Also, its meagre exports are severely affected by the devastating price fluctuations in the World commodity market.

2.6 Commodity Trade in Africa

Africa's Share in world trade has been falling consistently since 1980 (see table 2.6.1) and the continent remains heavily dependent on the export of a few primary commodities (table 2), most of which have suffered a decline in prices leading to large terms of trade losses. (United Nations Conference on Trade and Development, 2003)

Table 2.6.1 Africa Share of World Trade

Year	1980	1985	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008
Export	6.0	4.3	3.2	2.2	2.4	2.3	2.3	2.4	2.6	2.9	3.1	3.1	3.4
Import	4.7	3.7	2.8	2.4	2.0	2.1	2.2	2.2	2.3	2.5	2.5	2.7	3.0

Computed from the UNCTAD Handbook Statistics, 2009

The Africa economy is diving deep into crisis as its import prices are rising and export prices declining. Nigeria for instance had continued to specialize in primary products (food, raw materials and organic oils and fats) and import secondary products such as chemicals, machinery, transportation equipments, and manufactures.

Table 2.6.2 Share of Developing Region Export in World Merchandise Trade

Region	1980	1985	1990	1995	2000	2002	2004	2006	2008
Developing Africa	6.0	4.3	3.2	2.2	2.4	2.3	2.6	3.1	3.5
North Africa	2.2	1.7	1.2	0.7	0.8	0.8	0.9	1.1	1.3
Sub-Saharan Africa	3.9	2.6	2.0	1.5	1.5	1.5	1.7	2.0	2.2
Developing Asia	18.0	15.5	16.9	21.0	23.8	24.1	26.0	28.7	29.6
Developing America	5.5	5.5	4.1	4.4	5.7	5.4	5.2	5.7	5.5

Source: Computed from UNCTAD Handbook of Statistics, 2009

The continent's share in world merchandise exports fell from 6.3 per cent in 1980 to 2.5 per cent in 2000 in value terms. Similarly, its share of total developing-country merchandise exports fell to almost 8 per cent in 2000, nearly a third of its value in 1980, while the share of world manufactured exports remained a little below 1 per cent. In contrast, Latin America's

share of global merchandise trade has remained by and large unchanged, while its share of manufactures has risen from 1.9 to 4.6 per cent of global exports.

Table 2.6.3 Share of Developing Region Import in World Merchandise Trade

Region	1980	1985	1990	1995	2000	2002	2004	2006	2008
Developing Africa	4.7	3.7	2.8	2.4	2.0	2.2	2.3	2.5	3.0
North Africa	1.5	1.6	1.3	0.9	0.7	0.8	0.8	0.8	1.2
Sub-Saharan Africa	3.2	2.1	1.6	1.5	1.3	1.4	1.6	1.8	2.0
Developing Asia	7.3	7.0	7.0	7.0	6.3	5.6	5.3	5.1	5.1
Developing America	15.4	21.3	17.8	18.0	22.6	21.4	19.1	18.4	15.8

Source: Computed from UNCTAD Handbook of Statistics, 2009

Among the developing-country regions, Asia's performance has been important with respect to both total merchandise exports and manufactures. Its share of global merchandise exports increased from 18 per cent in 1980 to 22 per cent in 2000, while its share of total developing-country merchandise exports increased from almost 60 to 72 per cent over the same period. Similarly, its share in global manufactures trade increased threefold, reaching 21.5 per cent in 2000.

Table 2.6.4

Merchandise Export Earnings as a Percentage of GDP and Share of Primary and Manufactured Commodities in Total Merchandise for Selected Countries, 2000			
Country	Exports as Percentage of GDP	Percentage Share of Primary Commodities	Percentage Share of Manufactures
Developing Countries			
Malaysia	110.0	20	80
Indonesia	40.7	46	54
Jamaica	19.6	30	70
Philippines	53.2	59	41
Bangladesh	11.9	9	91
Nigeria	48.7	99	1
Venezuela	27.2	88	12
Sri Lanka	33.0	25	75
Kenya	15.9	77	23
South Korea	37.8	9	91
Togo	25.0	82	18
Mexico	29.0	15	85
India	8.9	24	76
Brazil	9.4	46	54
China(excl. Hong Kong)	23.1	12	88
Developed Countries			
United Kingdom	19.8	17	83

United States	7.9	17	83
Japan	10.2	6	94

Source: World Bank, 2001 World Development Indicators (New York: Oxford University Press, 2001), tab. 6.1; and World Bank, 2002 World Development Report (New York: Oxford University Press, 2002) calculating from tabs. 3 and 4.

Production activities in the region are considerably similar for years. In other words, the economies are not diversified in their production structures, implying that the share of agriculture and services have significantly dominated their economic activities (as shown in table 2.6.4). The agricultural sector contributed between 22 and 66% of the GDP and employed 46 – 90% of the labour force.

Table 2.6.5 LDCs receiving at least forty percent of export earnings from one or two agricultural or nonfuel products

Africa	Asia	Latin America and the Carribean
Burkina faso (cotton)	Myanmar (Burma) (wood and vegetables)	Belize (sugar)
Burundi(coffee)	Fiji (sugar)	Chile (copper and metal ores)
Ivory Coast (cocoa and coffee)	Maldives (fish)	Costa Rica (coffee and fruits)
Ethiopia (coffee)	Papua New Guinea (gold and metal ores)	Cuba (sugar)
Ghana (cocoa and precious stones)	Solomon Islands (wood)	Dominica (iron and fruit)
Kenya (tea and coffee)	Tonga (vegetables)	Guadeloupe (sugar and fruit)
Madagascar (coffee and spics)		Guyana (gold and sugar)
Malawi (tobacco)		Honduras (fruit and coffee)
Mauritania (iron ore)		Jamaica (minerals)
Mozambique (fish and fruits)		Panama (fruit)
Reunion (sugar)		Paraguay (vegetable oil and cotton)
Senegal (fish and vegetable oil)		Saint Lucia (fruit)
Seychelles (fish)		
Sierra Leone (precious stones)		
Sudan (cotton and vegetables)		
Uganda (coffee)		

Source: World Bank 2004, World Development Indicators

Some African countries continue to receive 3% or less of their merchandise export earnings from manufactures, including Benin, Mali, Niger, Sudan and Uganda (none of which received more than 1% of their export earnings from fossil fuels in 1999). Nigeria received 99% of its export earnings from fossil fuels and just 1% from manufacturing in 1999. Indeed, at least 35 LDCs received at least two-fifths of their export earnings from one or two agricultural or mineral products, as indicated in above table.

TABLE 2.6.6 Monthly average world primary commodity prices, 2002-2007, 2008
(Percentage change over previous year monthly average)

Commodity group	2002-2007 ^a	2008 (1 st half) ^b	2008 (2 nd half) ^c
All commodities (excluding crude petroleum)	113	34	-35
Food	65	51	-31
Tropical beverages	67	24	-15
Vegetable oilseeds & Oils	93	-	-48
Agricultural raw Materials	80	26	-25
Minerals, ores, metals	261	52	-50

Source: UNCTAD Statistical Bulletin, 2009

Note: Prices are in current Dollars

^a Percentage change between 2002 and 2007

^b Average monthly prices for first half of 2008 compared to 2007 monthly average

^c Percentage change from the peak monthly price recorded in 2008 in comparison with the November 2008 monthly price.

Among the agricultural commodities, there were notable price increases from 2002 to mid-2008 for all sub-groups of agricultural products (food products, vegetable oilseeds and oils, agricultural raw materials and tropical beverages). In particular, the index of food prices rose to an all-time high, having risen 65 per cent in the period 2002–2007 and 51 per cent in the first half of 2008. The main movers have been essential staples such as wheat, rice and maize, which rose by 78 per cent, 73 per cent and 69 per cent, respectively, in the period 2002–2007. In the first six months of 2008, they rose again by 48 per cent, 121 per cent and 45 per cent, respectively.

Table 2.6.7 Export Structure of Africa and other Developing Regions by Product Category

	1980		2000		2008	
	All Merchandise	Manufactures	All Merchandise	Manufactures	All Merchandise	Manufactures
Africa						
Share in:						
Global export	6.3	0.8	2.3	0.6	3.2	0.9
Developing Countries' exports	20.3	7.8	7.2	2.2	8.5	2.5
Developing America						
Share in:						
Global exports	5.9	1.9	5.6	4.3	5.5	3.6
Developing Countries' export	19.1	18.1	17.5	14.8	14.3	10.1
Developing Asia						
Share in:						
Global exports	18.1	7.1	23.9	24.0	29.8	31.2
Developing Countries' exports	58.5	66.9	82.8	77.2	77.0	87.4
Memo item						
Developing Countries						
Share in:						
Global exports	31.0	10.6	29.0	36.2	38.7	35.7

Source: Computed from UNCTAD Handbook of Statistics, 2009

The value of Africa's manufactures increased by 6.3 per cent annually, this seemingly high growth rate is about half the growth rates recorded by Asia (14 per cent) and Latin America (about 12 per cent) and are from a relatively low base. It is also the result of significant growth in labour-intensive and resource-based semi-manufactures from a few countries, in particular Mauritius (garments) and Botswana (rough diamonds). Mauritius increased the value of its manufactured exports from \$115 million to \$1.2 billion between 1980 and 2000, while Botswana, which earned nothing from manufactures in 1980, exported \$4.6 billion worth in 2000. There were also increases in the value of manufactured exports from Lesotho, Namibia and Swaziland in SSA, and from Morocco and Tunisia in North Africa.

The North African countries increased the value of their manufactured exports from under \$2 billion in 1980 to almost \$5 billion in the case of Morocco and \$4.5 billion in the case of Tunisia in 2000. On the other hand, there were steep falls in the value of manufactured exports from the Democratic Republic of the Congo, Nigeria, Sierra Leone and Zambia over the period.

Even though Africa has remained commodity-dependent, it has fallen behind other regions of the world in exports of non-fuel primary commodities. Asia outperformed other developing-country regions in non-fuel commodity exports during the period under review.

2.7 Commodity Trade: The ECOWAS Experience

Africa hardly benefited from the boom in manufactured exports. According to UNCTAD (2003), Africa's share in world merchandise exports fell from 6.3 per cent in 1980 to 2.5 per cent in 2000 in value terms. Similarly, Africa's share of total developing-country merchandise exports fell to almost 8 per cent in 2000 from its value of 1980. ECOWAS share of global merchandise exports fell from 2 per cent in 1980 to 0.5 per cent in 2008, while its share of total developing-country merchandise exports marginally increased from almost 1.3% to 1.8% per cent over the same period. Similarly, its share in global manufactures trade increased twofold, reaching 0.075 per cent in 2000. The value of East Asia's total exports recorded 7 per cent average annual growth over the period under review, compared to a mere 0.6 per cent for ECOWAS (UNCTAD, 2003).

ECOWAS countries are heavily dependent on a narrow base of few agricultural and mineral exports for foreign exchange earnings and have had to endure the consequences of all problems resulting from the fluctuation of commodity prices in world markets. About 17 of the 20 most important export items of ECOWAS are primary commodities and resource-based semi-manufactures.

On average, world trade in these products has been growing much less rapidly than manufactures. In fact, world trade in other primary commodities that account for an important proportion of total exports of ECOWAS such as coffee, cocoa, cotton and sugar, has been sluggish, with the average growth of trade in such products in the past two decades barely reaching one-third of the growth rate of world trade in all products (UNCTAD, 2003). For instance, world prices for many of the commodities that Africa exports declined between 1990 and 2000: Cocoa, Cotton, sugar and copper by over 25%, coffee by 9% and minerals overall declined by 14% (WTO, 2001). As noted in Ng and Yeats (2002), one-half of traditional products in ECOWAS experience average price changes of 50 % or more during the 1990's.

Table 2.7.1 Product Share in Total Export

Year	Share of primary products		Share of Manufactures	
	Ecowas	Africa	Ecowas	Africa
1995	91.1	70.8	8.9	29.2
1996	91.4	72.1	8.5	27.9
1997	89.7	72.1	10.2	31.3
1998	86.8	63.4	13.1	36.2
1999	91.5	71.5	8.33	28.4
2000	95.8	76.5	4.05	20.6
2001	93.8	76.9	6.2	22.7
2002	89.6	73.9	9.98	25.1
2003	91.8	75.4	8	24.1
2004	90.3	76.1	8.1	22.8
2005	92.6	80.3	7.3	19.1
2006	94.0	82.3	5.8	17.1
2007	92.6	80.7	6.4	18
2008	92.1	82.0	7.6	17.6

Source: Computed from UNCTAD handbook of statistics 2009

For example, according to Soyibo and Alayande (2002), the share of agriculture varied between 14% (Cape Verde) and 47% (Guinea Bissau) in the period 1980 and 1990. The share of services also varied between 22% (Nigeria) and 71% (Guinea Bissau) in the period 1980 and 1990. The share of industrial activities was as low as 9% for Niger in 1990 with Nigerian recording the highest contribution of industrial activities at 46% in 1980. However, it is worthy to mention that agriculture and services have been dominating the productive activities of most of these economies. It is also pertinent to note that the products are basically oriented to the developed markets in Europe and North America rather than to those of West Africa.

Table 2.7.2 Product Share in Total Export

Year	Share of primary products			Share of primary products		
	Ecowas – incl. Fuels	Ecowas – excl. Fuels	Share of fuels	Africa –incl. Fuels	Africa – excl. Fuels	Share of fuels
1995	91.1	43.3	47.8	70.8	33.3	37.5
1996	91.4	37.6	53.8	72.1	31.9	40.2
1997	89.7	32.6	57.1	72.1	27.5	44.6
1998	86.8	40.7	46.1	63.4	30.4	33
1999	91.5	24.3	67.2	71.5	27.6	43.9
2000	95.8	16.7	79.1	76.5	21.8	54.7
2001	93.8	22.7	71.1	76.9	26.8	50.1
2002	89.6	26.9	62.7	73.9	25.4	48.5
2003	91.8	24.5	67.3	75.4	26.0	49.5
2004	90.3	18.8	71.5	76.1	23.5	52.6
2005	92.6	15.0	77.6	80.3	20.3	60
2006	94.0	13.4	80.6	82.3	20.4	61.9
2007	92.6	17.9	74.7	80.7	20.9	59.8
2008	92.1	15.1	77	82.0	19.3	62.7

Source: Computed from UNCTAD Handbook of Statistics, 2009

Countries within the same crop belt tend to produce similar agricultural products; hence they cannot be each other's important trade partners. However, most industrial goods penetrating the West African trade zones are processed agricultural commodities such as sugar, canned beef, frozen meat, tobacco, textiles, leather products, etc.

Worthy of note, as shown in table 2.7.2, it is surprising that though, agricultural products dominate the ECOWAS economies, the share of fuel exports has taken the most predominant nature which clearly indicates the gross weak productive capacity of ECOWAS countries. This has further supported the proof of non-productive status of Africa countries, despite its numerous economic resources endowed with the countries, fuels that is majorly supplied by few countries still occupied the leading export products.

By implication, the right policy mix for ECOWAS economies product export diversification will greatly improve the prospects for the expansion of both intra and inter regional trade in processed and agro-based industrial products. (Odularu, 2008).

Trade among the ECOWAS countries as a proportion of their total trade increased from 3 per cent in the early 1970s to over 10 per cent in 2001; and the volume has been slightly on the increase with the member countries, with Togo and Sierra Leone exporting over 60% of trade volume to ECOWAS region (table 2.7.3). The steady growth of the share of intra-ECOWAS trade in the total trade has to be viewed against the relative stagnation observed over the same period in regard to trade between ECOWAS countries and the rest of Africa (as indicated in table 2.7.4).

Table 2.7.3 Exports to Ecowas (as % of total exports value per country)

Country	1999	2000	2001	2002	2003	2004	2005	2006	2007	2009	2009
Benin	11.0	7.8	13.7	20.7	19.9	24.2	26.7	30.0	24.9	39.4	39.4
Burkina Faso	32.2	19.4	22.0	23.0	87.8	78.3	23.8	26.3	32.2	25.6	25.6
Cape verde	0.1	0.2	3.0	5.1	0.5	0.4	0.4	5.8	14.9	2.6	2.6
Cote d'Ivoire	20.8	25.5	24.6	24.6	17.5	22.2	24.8	23.4	28.7	26.1	26.1
Gambia	52.1	53.8	8.0	18.6	11.1	2.6	55.1	36.0	26.5	19.8	19.8
Ghana	10.4	7.7	7.6	9.9	11.6	7.3	9.7	52.8	32.1	7.8	7.8
Guinee	1.4	0.7	1.6	2.4	9.8	6.8	27.4	10.1	10.1	6.1	6.1
Guinee Bissau			0.1	0.8	0.1	0.3	1.5	0.4	0.1		
Liberia											
Mali	19.2	12.7	13.0	8.6	9.1	14.0	10.4	5.7	9.0	13.2	13.2
Niger	39.5	48.2	45.1	43.6	40.8	23.2	30.3	28.2	31.3	45.8	45.8
Nigeria	6.5	5.1	4.5	6.7	4.6	3.7	4.0	6.3	4.2	8.0	8.0
Senegal	16.9	16.2	17.1	21.3	26.5	30.3	30.0	32.4	37.4	31.9	31.9
Sierra Leone	33.0	46.7	65.3	93.8	28.2	0.5	11.6	5.9	47.4	91.9	91.9
Togo	16.0	22.0	46.2	46.4	46.7	53.8	53.5	57.0	60.0	68.7	68.7
Ecowas	11.5	8.6	9.6	12.8	10.2	8.9	8.4	14.2	10.1	12.5	12.5

Source: ECOWAS External Trade Statistics, 2010

In terms of trade flows, trade between ECOWAS and the rest of Africa witnessed relatively robust growth during 1970-2001. (In value terms, it increased 18 times during that period). However, it is in intra-ECOWAS trade where the greatest increase was observed, with a 36-fold increase during 1970-2001.

It might be supposed at first that the multilateral trade negotiations in which ECOWAS countries were involved would vitiate this trend, because of the increase in the volume of trade with other countries. However, that is not as evident as it seems. The dynamic effects of the process of “opening-up” can foster new opportunities for intraregional trade, particularly within the framework of strengthened integration.

Table 2.7.4 Export to other Africa countries as % of total exports value per country

Country	1999	2000	2001	2002	2003	2004	2005	2006	2007	2009	2009
Benin	3.0	4.8	5.1	8.2	6.3	5.2	6.0	5.6	6.6	8.0	8.0
Burkina Faso	0.7	0.4	1.3	1.6	0.7	0.9	1.9	2.8	1.1	1.4	1.4
Cape verde	0.2	1.5	1.6	2.1	1.8	0.2	7.0	4.4	2.4	0.9	0.9
Cote d'Ivoire	4.9	6.3	6.3	5.5	7.6	5.1	5.0	5.9	8.9	6.1	6.1
Gambia	0.4	11.4	0.1	0.3	0.1	11.5	3.9	0.0	9.0	3.9	3.9
Ghana	2.5	2.1	3.5	10.8	10.2	5.7	6.2	12.5	11.2	40.8	40.8
Guinee	6.8	7.2	13.8	3.1	2.6	1.5	4.7	2.6	2.0	1.5	1.5
Guinee Bissau				0.0		0.6		0.0	0.0		
Liberia											
Mali	30.4	35.0	31.1	0.8	2.7	45.3	36.1	73.2	68.3	73.2	73.2
Niger	0.7	1.0	1.7	0.7	1.1	2.0	3.0	1.0	3.4	0.5	0.5
Nigeria	3.5	1.9	1.8	3.0	3.8	4.4	2.9	3.7	3.6	4.2	4.2
Senegal	7.0	6.6	9.0	7.1	5.8	6.5	7.3	7.3	9.1	8.3	8.3
Sierra Leone	0.2		4.8				0.2	18.1	1.2	0.7	0.7
Togo	8.7	9.2	6.7	5.6	3.5	4.0	5.6	4.5	3.5	1.1	1.1
ECOWAS	4.9	3.3	4.2	4.5	5.2	5.6	4.2	6.8	6.5	8.0	8.0

Source: ECOWAS External Trade Statistics, 2010

The trade balance between West African countries and the EU declined sharply from around 1996. From a trade surplus of around \$US 1.7 billion in that year, it had stabilized at around \$US 2.5 billion by 2001. The overall trade balance has been very volatile. Although nearing equilibrium towards the end of the period under consideration, it witnessed significant fluctuations throughout. It is noteworthy that with regard to the rest of Africa, the region has been in equilibrium.

In terms of exports, the region did not register any significant export growth towards the EU during the 1990s. A slight decline in exports towards the EU around the mid-1990s was followed by a rallying back to the levels reached at the beginning of the decade, i.e. around \$US 3.2 billion.

Exports towards the rest of Africa remained stable at the relatively low level of around \$US 3 billion. Total exports from the region, however, increased noticeably, from over \$US 19 billion to nearly \$US 30 billion towards the end of the 1990s. Exports towards the EU remained relatively stable at around \$US 10 billion. However, while the export volumes had accounted for around half of total exports from the region during the early 1990s, the proportion had decreased to just one-third a decade later. This underscores the development of diversification of the destinations for ECOWAS exports. Therefore, ECOWAS countries

needs to capture more destination of world demand by developing new products and diversifying the present export base content.

ECOWAS imports from the EU increased fairly modestly (40 per cent over the whole period under consideration), from over \$US 8 billion in 1990 to nearly \$US 12 billion a decade later. A similar trend, although more marked, is observable in regard to total imports, which is easily explained by the fact that the EU is the region's main supplier. However, as with the exports, the imports have been coming from increasingly varied suppliers. (Remi Lang, 2006)

Table 2.7.5 ECOWAS inter-trade

Year	Exp. To Europe	Imp. From Europe	Exp. To North America	Imp. From North America	Exp. To Asia	Imp. From Asia
1999	34.3	55.1	28.6	10.4	21.5	21.4
2000	30.9	53.4	38.7	9.6	19.0	22.6
2001	33.1	51.3	34.3	9.7	16.6	25.0
2002	35.7	46.6	26.8	10.4	20.1	29.5
2003	31.9	44.0	33.2	11.9	17.9	22.9
2004	25.1	49.8	38.9	9.6	18.4	24.4
2005	24.2	43.4	39.1	13.4	21.0	28.5
2006	27.1	43.4	44.2	10.9	15.0	30.9
2007	23.2	42.0	43.8	12.0	12.3	30.8
2009	27.2	36.4	40.9	7.6	12.8	33.3
2009	27.2	36.4	40.9	7.6	12.8	33.3

Source: ECOWAS External Trade Statistics, 2010

As seen in the table above, majority of Africa exports are targeted to the European and America market while very few intra-regional trade occurs, and the multitude of Africa's export product are primary product; characterized with falling prices and term of trade loss hereby causing foreign earnings volatility. Whereas, Africa's imports are majorly of food and electronics with continuous hike in global prices, this has accounted development challenges of the continent except for few countries with crude oil (though still plagued with development challenges due to bad governance). In aggregate, products such as Petroleum oils and oils obtained from bituminous minerals and crude accounts for about 68% of ECOWAS export, while others are majorly unprocessed raw commodities with very low value added.

According to a United Nations Economic Commission for Africa (UNECA) 2004 study, the benefits of intra-African trade include:

- i.) Enlarged regional markets provide incentives for private cross-border and foreign direct investments flows, especially for large-scale investments in manufacturing and service projects which are subject to economies of scale.
- ii.) Expanded intra-African trade should generate faster growth and income convergence in regional economic communities.
- iii.) The diversification of production structures from production and trade of primary commodity will ultimately weaken the long-term dependence of African countries on developed markets for manufactures.

However, ECOWAS policy makers are concerned by the economic and political risks associated with heavy dependence on commodity exports. This is based on the notion that high concentration of exports on primary commodities and natural resources can have detrimental effects on a nation's growth prospects. In other words, resource-rich economies would grow slower than others, as if natural resources were a 'curse'. Furthermore, it has been argued that resource wealth increased the likelihood of civil wars, and favours authoritarian rule, and worsens income inequality. Hence, diversification to non-traditional, manufactured goods has been considered as a primary goal of national development strategies in many low-income countries. (Odularu, 2008)

CHAPTER THREE

LITERATURE REVIEW

3.1 Review of Definitional Issues

The focal point of this aspect is to examine significant attention devoted in recent years to export diversification as a key ingredient of strategies aimed to improve growth performances in Africa (e.g., Elbadawi, 2000; Collier, 2002; Ng-Yeats, 2002; Bonaglia-Fukasaku, 2003). Diversifying away from traditional exports is supposed to raise growth rates, because traditional exports face limited demand due to their low income elasticity and depressed, if not outright declining, terms of trade and to lower the variability of growth rates, as traditional exports are particularly vulnerable to exogenous shocks, primarily from unforeseen prices movements and unfavourable weather conditions. This aspect examines the earlier and current definitional attentions to reducing commodity dependence and enhancing growth performance in ECOWAS region.

3.1.1 Introduction

International trade has often played a crucial though not necessary benign role in the historical experience of the developing world. Throughout Africa, Asia, the Middle East, and Latin America, primary product exports have traditionally accounted for a sizable proportion of individual gross national products. In some of the smaller countries, up to 25% or more of the monetary GNP is derived from the overseas sale of agricultural and other primary products or commodities such as coffee, cotton, cocoa, sugar, palm oil, bauxite, and copper. In the special circumstances of the oil-producing nations in the Persian Gulf and elsewhere, the sale of unrefined and refined petroleum products to countries throughout the world accounts for over 70% of their national incomes. Unlike the oil-producing states and newly industrializing countries like South Korea, Taiwan, and Singapore, many developing countries must depend on non-mineral primary-product exports for the majority of their foreign-exchange earnings. This is a particularly serious problem in sub-Saharan Africa. Because the markets and prices for these exports are often unstable, primary-product export dependence carries with it a degree of risk and uncertainty that few nations' desire. This is an important issue because prices of primary goods have been falling.

Some African countries continue to receive 3% or less of their merchandise export earnings from manufactures, including Benin, Mali, Niger, Sudan and Uganda (none of which received more than 1% of their export earnings from fossil fuels in 1999). Nigeria received 99% of its

export earnings from fossil fuels and just 1% from manufacturing in 1999. Indeed, at least 35 LDCs received at least two-fifths of their export earnings from one or two agricultural or mineral products. In addition to their export dependence, many developing countries rely, generally to an even greater extent, on the importation of raw materials, machinery, capital goods, intermediate producer goods, and consumer products to fuel their industrial expansion and satisfy their rising consumption aspirations of their people. For most developing nations, import demands have increasingly exceeded their capacity to generate sufficient revenues from the sale of exports. This has led to chronic deficits on their balance of payments position vis-à-vis the rest of the world.

Primary commodity prices have tended to move in cycles that are highly correlated with fluctuations in global aggregate demand. Over the past 48 years, commodity prices have followed a cyclical pattern of rising and falling prices of varying amplitudes and durations. After a period of steady declines from 1995 to 2002, international commodity prices reversed course and after 2002 experienced sustained increases, rising to unprecedented levels in the first half of 2008. However, since mid-2008, commodity prices have fallen sharply in a reversal of recent trends.

The amplitude of the recent rise in commodity prices is unprecedented. By mid- 2008, UNCTAD's price index for non-fuel commodities reached its highest level in current dollars since 1960, rising 113 per cent between 2002 and 2007, and 34 per cent in the first six months of 2008, compared to the 2007 level. The broad-based rise in prices was led by the boom in metal and mineral prices which, in the aggregate, increased 261 per cent between 2002 and 2007 and again by 18 per cent in the first half of 2008. The price of oil also rose sharply from a 2002 average monthly level of \$25 per barrel to an average of \$108 per barrel in the first half of 2008. In fact, in July 2008, oil traded for as much as \$147 per barrel, although it subsequently retreated.

Among the agricultural commodities, there were notable price increases from 2002 to mid-2008 for all sub-groups of agricultural products (food products, vegetable oilseeds and oils, agricultural raw materials and tropical beverages). In particular, the index of food prices rose to an all-time high, having risen 65 per cent in the period 2002–2007 and 51 per cent in the first half of 2008. The main movers have been essential staples such as wheat, rice and maize, which rose by 78 per cent, 73 per cent and 69 per cent, respectively, in the period 2002–2007. In the first six months of 2008, they rose again by 48 per cent, 121 per cent and 45 per cent, respectively.

Although remarkable, it is useful to place the recent boom in commodity prices in historical perspective. As will be noted, from around 1980 to about 2002, the price index for all non-fuel commodities was on a declining trend in both nominal and real terms, with a sharper fall in real terms. All major commodity groups also experienced real price declines. For most commodity groups, while the current boom has brought about some improvement in prices in real terms, these are not at all-time highs as in the case of nominal prices. In fact, only in the case of petroleum and the minerals, ores and metals group are prices at all-time highs in both nominal and real terms. It is noteworthy that, despite the recent price increases, tropical beverage prices, in both nominal and real terms, are still below their historic highs of the late 1970s and their recent highs of the mid-1990s.

From the work of Peter Svedberg (1996), there are two main, largely opposing, schools of thought to explain the reason for the slow growth of exports in the typical SSA country. One stresses factors that are external to the individual country, slow volume growth of world primary commodity markets and deteriorating barter terms of trade being the main issues. The other line of thought emphasizes factors that are internal to the respective country, that is, a variety of domestic policies that have affected export supply adversely.

The assertion of a strong influence of export diversification reform on export performance in developing countries has remained largely unresolved in the literature. The argument is based on whether export diversification has led to positive or negative export performance. While some studies have found a positive association between trade liberalization and export performance (Svedberg, 2000, Santos-Paulino, 2003, Ahmed 2000, Michaely et al 1991, Thomas et al 1991), some other studies have also found little empirical evidence to support a link between trade liberalization and export performance (Shafaeddin, 1994; Greenaway and Sapsford, 1994; Jenkins, 1996; Agosin, 1991, Clarke and Kirkpatrick, 1991).

Singer and Gray (1988) queried if export diversification influences export performance. Using empirical data (67-73, 77-83) they show that changes in world demand carried greater weight in determining export performance than changes in export composition. The (Spearman) rank correlation between export orientation and growth is high and significant when world market conditions are favourable. Also the correlation is stronger (and significant) for higher-income countries for both sub periods than for lower-income countries. More recently, Ahmed (2000) investigated the response of Bangladesh's aggregate merchandise exports to a change in export composition based on trade liberalization programme during the period 1974-1996.

Empirical results suggest that there exists a unique long-run or equilibrium relationship among real quantities of export, relative export price and export-weighted real effective composition, relative export price (lagged two quarters), real effective composition, predicted values of real GDP (lagged one quarter) and a dummy variable capturing the effects of trade liberalization programme have all emerged as important determinants of an aggregate export supply function for Bangladesh.

Similarly, Santos-Paulino (2000) examined the impact of trade liberalization on export performance for a sample of developing economies using the export demand function approach. Results from his study showed that exports react negatively to an increase in relative prices and positively to an increase in world income growth, while export duties have detrimental effect on export performance although the impact is relatively small. Among regional blocs, her result indicated that Latin America and Africa possessed high-income elasticities and highest long run price elasticity. He concluded that trade liberalization emerges as a fundamental determinant of export growth in all the countries in their sample.

Utkulu et al (2004) argued that a traditional model of export supply with explanatory variables such as export prices, variable home and foreign costs, and productive capacity can be further extended by taking the effects of trade reform which consists of measures to reduce anti-export bias. He argued that trade reform leads to the reduction of anti-export bias and strong supply response. The result revealed that prices, relative prices, and real exchange rates have no significant effect on the Turkish export supply in the long run. In addition, the result from the extended model also showed that factors such as trade reform, import compression, and technological innovation have significant effects on the Turkish export supply.

Sanguinetti, Pantano and Posadas (2002) examined the consequences of the unilateral liberalization and regional agreements on the trade structure of Argentina. They found evidence that the trade structure of Argentina has suffered a significant modification. In particular, imports and exports have been subject to a process of de-concentration due to trade reform. Their result revealed that tariff preferences and economies of scale were responsible for these changes.

Nevertheless, evidence tends to show that successful export diversification has been associated with increased growth either at the same or beforehand. (Ahmed 2000, Edwards, 1993). For instance, Jenkins (1996) established that one of the anticipated gains from the trade liberalization policies adopted by many Latin America countries in recent years is improved

export performance. He concluded that improved export performance is largely the result of a more realistic and more stable real exchange rate after, while the trade expansion reforms have had little impact. He noted certain deficiencies of Bolivia's export performance, such as the increased emphasis on primary and semi-processed products, and the lack of diversification in terms of both products and markets. In the same vein, Cameron, Kihangire and Potts (2002) examined the long-run elasticity of response of its predominantly agricultural primary commodity exports during the floating exchange rate regime in Uganda.

The results suggest that Uganda's exports are positively and significantly correlated with relative prices and the levels of exchange rate, but negatively correlated with the terms of trade, capacity utilization, and exchange rate variability. Closer examination of individual sub-sectors indicates that the negative response to diversification efforts is not universal for all products. Policy-wise, the results suggest that Uganda's export-led growth strategy must recognize the importance of these issues, but that it should also take full account of the differences in supply conditions and responses of particular sub-sectors.

3.1.2 Africa's Trade Structure and Performance

The structure of developing-country exports, taken as a whole, has changed significantly over the past two decades. Currently, about 70 per cent of these exports are manufactures. This is in sharp contrast to the situation two decades ago, when primary commodities accounted for three-quarters of developing-country exports. These figures, however, hide significant variations among developing regions. Africa hardly benefited from the boom in manufactured exports. At around 30 per cent in 2000, the share of manufactured exports in the continent's total merchandise exports had increased by only 10 percentage points compared to 1980 shares.

The continent's share in world merchandise exports fell from 6.3 per cent in 1980 to 2.5 per cent in 2000 in value terms. Similarly, its share of total developing-country merchandise exports fell to almost 8 per cent in 2000, nearly a third of its value in 1980, while the share of world manufactured exports remained a little below 1 per cent. In contrast, Latin America's share of global merchandise trade has remained by and large unchanged, while its share of manufactures has risen from 1.9 to 4.6 per cent of global exports. Among the developing-country regions, Asia's performance has been important with respect to both total merchandise exports and manufactures. Its share of global merchandise exports increased from 18 per cent in 1980 to 22 per cent in 2000, while its share of total developing-country

merchandise exports increased from almost 60 to 72 per cent over the same period. Similarly, its share in global manufactures trade increased threefold, reaching 21.5 per cent in 2000.

The value of Asia's total exports recorded 7 per cent average annual growth over the period under review, compared to a mere 1 per cent for Africa. While the value of Asia's non-fuel commodity exports increased by 5 per cent per year, those of Africa rose by only 0.6 per cent. Africa recorded the worst performance in terms of the annual growth rate of merchandise exports, as well as in the other categories of exports – primary and non-fuel primary commodities, and manufactures.

While the value of Africa's manufactures increased by 6.3 per cent annually, this seemingly high growth rate is about half the growth rates recorded by Asia (14 per cent) and Latin America (about 12 per cent) and are from a relatively low base. It is also the result of significant growth in labour-intensive and resource-based semi-manufactures from a few countries, in particular Mauritius (garments) and Botswana (rough diamonds). Mauritius increased the value of its manufactured exports from \$115 million to \$1.2 billion between 1980 and 2000, while Botswana, which earned nothing from manufactures in 1980, exported \$4.6 billion worth in 2000.

There were also increases in the value of manufactured exports from Lesotho, Namibia and Swaziland in SSA, and from Morocco and Tunisia in North Africa. The North African countries increased the value of their manufactured exports from under \$2 billion in 1980 to almost \$5 billion in the case of Morocco and \$4.5 billion in the case of Tunisia in 2000. On the other hand, there were steep falls in the value of manufactured exports from the Democratic Republic of the Congo, Nigeria, Sierra Leone and Zambia over the period.

Even though Africa has remained commodity-dependent, it has fallen behind other regions of the world in exports of non-fuel primary commodities. Asia outperformed other developing-country regions in non-fuel commodity exports during the period under review.

The trends discussed above indicate that most African countries have been losing market shares in commodity exports to other developing countries, while at the same time most have been unable to diversify into manufactured exports. Africa's difficulties in maintaining market shares for its traditional commodities derive from its inability to overcome structural constraints and modernize its agricultural sector, combined with the high cost of trading (UNCTAD, 1999).

Africa has not been able to increase the productivity of its agriculture because of a combination of factors, including land tenure and small-scale farming, rudimentary technology and policies that reduced the role of state institutions in innovation and investment in the sector. As a result, it has lost its competitive advantage in producing cocoa, tea and coffee vis-à-vis the new and more competitive producers in Asia and Latin America. The loss of market shares for cotton and sugar is largely the result of high subsidies and domestic support for less competitive producers in the United States and Europe. The United States is the world's largest exporter of cotton thanks to huge cotton subsidies, which in 2001–2002 amounted to \$3.9 billion, double the level in 1992 and \$1 billion more than the value of total United States cotton production during the season at world market prices (Oxfam, 2002).

However, according to the estimates of the International Cotton Advisory Committee (ICAC), the cost of producing a pound of cotton in Burkina Faso is 21 US cents compared to 73 US cents in the United States. Estimates by the ICAC indicate that market prices could have been about 70 per cent higher in the absence of government support for the cotton industry in 2001–2002 (Townsend, 2003).

African countries have not diversified their exports towards more dynamic primary commodities and manufacturing goods, which are less prone to the vagaries of international markets. Africa as a whole has even lost export market share, which was down from 6 per cent of world exports in 1980 to about 3 per cent in 2007. Hence, it is clear that the recent substantial rises in African countries' export earnings have not allowed Africa to recover its lost market share. The Africa's weak supply response is the most important impediment to the continent's export performance; the future export policies should focus more on ways to increase production for export. Refocusing Africa's development priorities on structural transformation that could enhance export diversification is necessary in order to increase the continent's supply capacity and export response.

African countries remain by and large dependent on the export of a few commodities, and terms of trade losses have further aggravated their capacity to invest in human and physical infrastructure. Present levels of national savings and investment are insufficient to ensure a process of accumulation necessary to place Africa on a sustainable growth path. Despite commitments by the international community to assist Africa in its efforts to achieve accelerated growth, the support provided has fallen far short of expectations. Indeed, official development assistance has suffered a continuous downward trend, representing less than one-third of the internationally agreed targets. Furthermore, despite recent action for the

reduction of African debt, including the enhanced HIPC initiative, a permanent exit from debt problems is proving elusive.

3.1.3 Price Volatility and Term of Trade Losses

The most market-dynamic products (ranked by growth in export value during 1980–2000) in world trade are manufactures. While the majority of these are high-technology products, some labour-intensive manufactures, notably clothing, have seen rapid growth in world trade as a result of the spread of international production networks and subcontracting (UNCTAD, 2002). In Africa, undergarments (SITC 846) are the only important export item among the most dynamic products in world trade.

However, their share in total African exports is only 1.7 per cent. Moreover, two countries (Mauritius and Swaziland) account for just over 85 per cent of total exports of this product.

Seventeen of the 20 most important non-fuel export items of Africa are primary commodities and resource-based semi-manufactures. On average, world trade in these products has been growing much less rapidly than manufactures. However, trade in some non-traditional commodities has seen considerable expansion over the past two decades. Of such commodities, three are among the 20 most important export items of SSA (namely fish and crustaceans, SITC 034, 036 and 037), accounting for 8.5 per cent of total African export earnings in 2000. World trade in other primary commodities that account for an important proportion of total exports of Africa, particularly agricultural products such as coffee, cocoa, cotton and sugar, has been sluggish, with the average growth of trade in such products in the past two decades barely reaching one-third of the annual growth rate of world trade in all products (i.e. 8.4 per cent over 1980–2000).

This analysis reveals that SSA barely participates in trade in market-dynamic products, which suggests that global demand for most of its main non-fuel commodity exports is sluggish, a situation aggravated by high price volatility and declining real prices.

Unfortunately, the continent's dependence on these commodities is unlikely to decrease significantly in the short and possibly medium run. This underscores the need for more concerted and innovative measures to reduce the problems associated with such dependence, in particular within the context of the new multilateral trading system.

Africa's difficulty in breaking into trade in market-dynamic products is also related to the significant changes that have occurred in recent years in international trade in agricultural products.

World trade has shifted away from traditional commodity exports to non-traditional ones such as fruits, vegetables, fish and seafood, which have high income elasticity and lower rates of protection in industrial and large developing countries. While there have been significant declines in trade, ranging from 18 to 11 per cent between 1980–1981 and 2000–2001 for coffee, cocoa, tea, sugar and sugar products and textile fibres, international trade in fruits and vegetables has increased by 15 per cent, fish and seafood by 12 per cent and alcoholic and non-alcoholic drinks by 10 per cent. Developing- country exports of temperate products (milk, grains and meats) have also increased marginally, mostly to other developing countries with much lower rates of tariff and non-tariff barriers than developed countries.

African countries depend on two to three main primary commodity exports for the bulk of their foreign exchange earnings, and they have had to contend with the problem of short-term instability of primary commodity prices, which is greater than that of prices for non-primary tradable commodities (Maizels, 1987; Kaldor, 1987). Peaks (or booms) in commodity prices are interspersed by longer troughs (or slumps), which have a large impact on African countries via a variety of channels. Export revenues are a major determinant of these countries' balance of payments position, external indebtedness, fiscal situation, and levels of savings and investment, and hence their aggregate supply and demand schedules.

The relative ease of collecting taxes on international trade, and the lack of alternative “tax handles”, mean that government revenues in most African countries depend heavily on taxes levied on exports and imports. This makes fiscal earnings highly vulnerable to changes in the value of export earnings. For a group of 19 African countries, trade taxes as a percentage of GDP declined from an average of almost 6 per cent in 1975 to about 5.5 per cent in 1995, but this was still high compared to the average of just over 3 per cent of GDP for other developing-country regions, and less than 0.5 percent in the Organisation for Economic Co-operation and Development (OECD) (Ebrill et al., 1999). According to the Economic Commission for Africa, over the period 1991–2001, import duties comprised 34 per cent and 22 per cent of government revenues respectively in least developed and non-least developed countries of Africa compared to an average of 15 per cent for developing countries.

3.1.4 Diversification and Productivity

Sub-Saharan Africa has become the region in the developing world with the highest ratio of agriculture to GDP since 2000, which reflects the lack of structural transformation.

The value of sub-Saharan African agricultural production remained stable between 1995 and 2000, while the nominal value of its agricultural exports declined slightly from about \$16.6

billion to \$14.7 billion between 1995 and 2000, before rising to \$25.3 billion in 2006 (UNCTAD, 2008b). However, as compared with the significant increases in the value of agricultural exports from Latin America and from East and South-East Asia, the increase in the value of sub-Saharan African agricultural exports following liberalization appears rather modest.

Two factors underpin this modest increase in value of sub-Saharan African agricultural exports. First, the recovery in agricultural production since 2000 does not appear to have been widespread. Although there has been some expansion in agricultural exports from sub-Saharan Africa, the region's share of global exports has remained fairly small, with agricultural exports becoming concentrated in a small number of countries. Over the period 2002–2005, just three countries accounted for about 56 per cent of total sub-Saharan African agricultural exports, the largest exporter being South Africa, followed by Côte d'Ivoire and Ghana. Second, sub-Saharan Africa continues to depend on traditional non-fuel primary commodity exports such as coffee, cotton, cocoa, tobacco, tea and sugar. Traditional commodities were the top exports of the region in value terms in 2000: this situation had not changed in 2005, although there were some changes in the rankings, only cotton was in the top three in both years and, more importantly, in 2005 fewer countries exported the top four products.

There was a steady increase in the export volumes of these traditional commodities from the mid-1990s onwards. The fact that this did not translate into a higher value of exports until after 2000 reflects the low prices of these commodities on the world market at the time. These commodities were affected by high price volatility and, until about 2002, by falling prices. During the 1970s, 1980s and 1990s, the volatility in terms of trade for sub-Saharan African exports was about twice as high as for East Asian exports and nearly four times as high as for exports from industrial countries (UNCTAD, 2003).

This continuing dependence on traditional commodity exports also reflects the region's inability to tap fully into the international trade in "market-dynamic" (non-traditional) commodities, such as horticulture and processed foods. These products are highly income-elastic, with lower rates of protection in industrialized and large developing countries (UNCTAD, 2003). In the period 2000–2005, no African country featured among the world's 20 leading exporters of processed food, although these include countries such as Argentina, Brazil, Mexico, India, Indonesia and Thailand. South Africa, the largest African exporter of these products, had a global market share of less than 1 per cent. Mauritius, the second-largest

exporter of processed products in sub-Saharan Africa, came a distant 59th in the global rankings, with only a 0.2 per cent market share. In the case of semi-processed products, South Africa was the only sub-Saharan African country among the top 20 exporters in the period 2000–2005. There were no sub-Saharan African countries at all among the leading exporters of processed products in that period (OECD, 2008).

Africa's share in world agricultural imports decreased steadily from 5.4 per cent in 1985 to 3.2 per cent in 2006. This could be explained, in part, by the fact that global trade in agriculture is no longer dominated by the traditional bulk commodities. These are the least dynamic in terms of export growth, and their share in total agricultural exports has declined substantially. Most of the developing countries that remained commodity-dependent in 2003–2005 (two thirds of which are in Africa) have thus been struggling to defend their historical positions in the international market. In the last 25 years, trade in horticulture and processed food has grown at double the rate of traditional bulk commodities.

Thus, these products are now comparable to non-agricultural products in terms of export growth. Indeed, the continent's potential in commercial agriculture remains largely untapped, with only a fledgling agribusiness sector in most countries (OECD, 2008).

3.1.5 Commodity Resource Curse

It has often been argued that natural resource-based economies suffer from a “resource curse.” Some of the reasons point toward historical declining terms of trade of primary commodities, the possible occurrence of Dutch Disease effects through an appreciating real exchange rate, or lack of incentives of the commodity-based economy to diversify and industrialize. For instance, (Sachs and Warner 2001), find a negative relationship between resource abundance and growth while the results of (Gylfason 2001), indicate an inverse relationship between resource intensity and education, which according to the author implies that natural resource-based economies might not have the incentives to heavily invest in human capital accumulation.

In recent years the “resource curse” view has somewhat altered. Resource abundance could bring about technological progress and new knowledge (World Bank, 2002), and some time series models do not find robust evidence for a “resource curse” (Lederman and Maloney, 2007). Also, many OECD countries such as Australia, Canada, or the Scandinavian countries started out as resource-based economies but succeeded in diversifying their economies. (Bonaglia and Fukasaku 2003) argue that resource-rich, low-income countries should

diversify into resource-based manufacturing or processing of primary commodities instead of following the conventional path of low-skill manufacturing. For instance, both mining and forestry have developed into knowledge-intensive sectors with high technological content with upstream as well as downstream activities. Similarly, the global growth of fresh food products has led to increasing vertical diversification (processing of those products) but also horizontal diversification into nearby product groups such as cut flowers or specialty fresh vegetables for many low-income countries.

Below are few country examples where export diversification and per capita income growth have been closely associated over some stage of their development path. The works of (Heiko Hesse 2008), show the development of export concentration, measured by the Herfindahl index at the 4-digit levels, and income per capita for Malaysia, Thailand, Chile, and Uganda during the period 1962–2000.

Both Malaysia and Thailand have seen a remarkable decline in export concentration over the past 40 years. Besides moving into manufacturing exports (such as clothing and electronics), Malaysia and Thailand also pursued the development of their resource-based sectors (palm oil/rubber in Malaysia and agriculture/fish in Thailand) into higher value-added products.

Chile is often regarded as another successful example of a resource-based economy that diversified into new export activities. Many of the new export products such as wine, salmon, fruits, or forestry products are close to Chile's comparative advantage especially its favorable agro-ecological environment, whereas manufacturing has been almost absent in Chile's export diversification (Agosin and Bravo-Ortega, 2007).

3.1.6 Export Diversification and Growth

The process of economic development is as a process of structural transformation where countries move from producing 'poor-country goods' to 'rich-country goods'. A precondition for this transformation is often the existence of an elastic demand for countries' exports in world markets so that countries are able to leverage global export markets without fearing negative terms of trade effects. In many developing countries, there is often very low domestic demand so exports remain one of the few channels that in the longer run significantly contribute to higher income per capita growth rates of a country. Many countries that are commodity dependent or exhibit a narrow export basket often suffer from export instability arising from inelastic and unstable global demand, so export diversification is one way to alleviate these particular constraints.

Another issue relates to the competitiveness of a country's exports since globalization and accelerating cross-border trade exposes countries' exports to global competition. To be successful in export diversification, countries' exports need to be globally competitive to take advantage of leveraging world markets.

According to structural models of economic development, countries should diversify from primary exports into manufactured exports in order to achieve sustainable growth (Chenery, 1979; Syrquin, 1989). Vertical export diversification could according to the Prebisch- Singer thesis reduce declining terms of trade for commodity-dependent countries.

Export instability is another reason for the benefits of export diversification, which is analogous to the portfolio effect in finance. Commodity products are often subject to very volatile market prices so that countries that are dependent on these commodities may suffer from export instability. This could discourage necessary investments in the economy by risk-averse firms, increase macroeconomic uncertainty, and be detrimental to longer-term economic growth. Export diversification could therefore help to stabilize export earnings in the longer run (Ghosh and Ostry, 1994; Bleaney and Greenaway, 2001).

Endogenous growth models such as (Matsuyama, 1992) emphasize the importance of learning-by-doing in the manufacturing sector for sustained growth. Related to export diversification, there could be knowledge spillovers from new techniques of production, new management, or marketing practices, potentially benefiting other industries (Amin Gutierrez de Pineres and Ferrantino, 2000). Producing an expanding set of export products can be seen as a dynamic effect of export diversification on higher per capita income growth. Relatedly, (Agosin 2007) develops a model of export diversification and growth where countries below the technological frontier widen their comparative advantage by imitating and adapting existing products.

Furthermore, models in the product cycle literature (Vernon, 1966; Krugman, 1979; Grossman and Helpman, 1991) obtain diversity of export products by the North innovating and the South predominantly imitating and exporting the products from cheap labour countries.

The empirical literature on the link between export diversification and per capita income patterns is small. Al-Marhubi (2000), in a conventional cross sectional country growth regression adds various measures of export concentration to the basic growth equation and does find that export diversification promotes economic growth. These findings are robust to

different model specifications. Also in a cross-sectional regression, Agosin (2007) finds that export diversification has a stronger effect on per capita income growth when a country's exports grow faster than alone. Lederman and Maloney 2007, in a dynamic cross-country panel model also find some evidence in support of diversification-led growth. Within country studies by Amin Gutierrez de Pineres and Ferrantino (1997) as well as Herzer and Nowak-Lehmann (2006) examine the link between export diversification and economic growth in Chile, and their findings do suggest that Chile has benefited greatly from diversifying its export base.

Hausmann and Klinger (2006), that analyzes the benefits of export diversification and exports in general for economic growth, both empirically and theoretically. In their framework, economic growth is not driven by comparative advantage but by countries' diversification of their investments into new activities. An essential role is played by the entrepreneurial cost-discovery process. According to the model of (Hausmann and Rodrik 2003), entrepreneurs face significant cost uncertainties in the production of new goods. If they succeed in developing new goods, the gains will be socialized (information spillovers) but the losses from failure end up being private. This leads to an under-provision of investments into new activities and a suboptimal level of innovation. The bottom line is that, the government should play an important role in industrial growth and structural transformation by promoting entrepreneurship and creating the right incentives for entrepreneurs to invest in a new range of activities (Hausmann and Rodrik 2003).

Related to cost discoveries, foreign demand discoveries can be important (Vettas, 2000). Sometimes, domestic producers do not know whether there will be enough foreign demand from producing and exporting an existing or a new good. Only when they start exporting the product, foreign consumers become more aware of the product and its features, possibly triggering more foreign demand. Since other domestic producers of the same product observe its failure or success, imitation is an externality that could be conducive to higher growth.

Agosin 2007 and Agosin and Bravo-Ortega 2007, illustrate these demand discoveries with exports of Chilean wines. Domestic production of Chilean wines goes back to the seventeenth century but only from the mid-1980s did some entrepreneurs produce wines to the tastes of foreign consumers by introducing better foreign production techniques. The discovery of this new export opportunity made wines one of the main export products in Chile.

Hausmann, Hwang, and Rodrik 2006, develop an indicator that measures the productivity level associated with a country's export basket. This measure is significantly positively

affecting economic growth. In other words, countries that produce high-productivity goods enjoy faster growth than countries with lower-productivity goods. The authors develop a model based on the cost-discovery process that supports their empirical findings. The key is that the transfer of resources from lower-productivity to higher productivity goods with the presence of elastic demand of these goods in export markets generates higher economic growth: Countries are what they export.

Hausmann and Klinger (2006), develop a model of structural transformation in the product space and empirically show that the speed of structural transformation depends on current export goods being closely located to other goods of more sophistication and higher value. They find that the product space is very heterogeneous, and it is desirable for a country to have a high density of the product space near its productive capabilities. It is often the case in many developing countries that they have specialized in exporting certain goods but are not able to transfer those assets and skills to the production of more sophisticated goods. This might be another argument for export diversification since it might allow countries to acquire skills and assets that could be relevant for goods in the nearby production space. In other words, there might be knowledge spillovers or learning by doing from export diversification (Amin Gutierrez de Pineres and Ferrantino, 2000).

Another aspect is the role of innovation in export diversification. In principle, there is a distinction between inside-the-frontier (goods already produced elsewhere) and on-the-frontier innovations (patents). Klinger and Lederman (2006) investigate the relationship between innovation and export diversification and find that developing countries that are in the diversifying stage are mainly characterized by a higher frequency of inside-the-frontier discoveries.

3.2 Review of Theoretical Issues

Whether countries should pursue diversification or specialization in export production has been a topic that has generated much discussion in the theoretical literature and in policy circles. Broadly seen, one strand of the literature advocates greater export diversity as good for economic growth and development, while another sees specialization, in accordance with a country's comparative advantage, as more appropriate. Despite much theorizing however, the empirical evidence on the relationship between export diversification and economic development remains limited (Herzer and Nowak-Lehmann 2006). There is even less evidence on the economy-wide impacts and requirements of greater export diversification vis-à-vis specialization.

One of the earliest ideas in the theory of economic development is that the degree of specialization or diversification of a country's production and trade structure is important for its economic development. From Adam Smith's recognition of the importance of the division of labour and specialization for economic growth and development, to the standard Heckscher-Ohlin Samuelson (HOS) model of international trade, the position in neoclassical economics has been that countries should specialize in producing and exporting according to their comparative advantage.

However, after the Second World War, with the reconstruction of Europe and increasing independence of many former colonies, one of the earliest ideas in the emerging new discipline of development economics was that economic diversification not specialization may be good for economic growth and development. Active government intervention in industrialization and export diversification was encouraged.

Seminal contributions in this regard include the Prebisch-Singer thesis (Prebisch 1950; Singer 1950) and the 'big push' arguments advocated by Rosenstein-Rodan (1943). The key argument was based on the view that developing countries' dependence on primary commodity production and exports leaves them vulnerable to commodity shocks, price fluctuations and declining terms of trade, especially since the income elasticity of the demand for primary commodities is low. This in turn results in a country's foreign exchange reserves, and thus its ability to afford imported inputs, becoming subject to fluctuation and uncertainty. In such a case, beneficiation of raw commodities before exporting is seen as adding more value to production and raising employment, and providing more stability and growth in export earnings.

At this point it is necessary to make a distinction between vertical and horizontal diversification. Vertical diversification has been the main focus in this initial development literature. It is said to occur when a country's production and export structure shifts from primary commodities to manufactured goods. Most often it occurs when a country starts processing commodities that were previously exported in raw form (Cramer 1999).

3.2.1 Diversification Approaches

During the 1980s and 1990s, four further strands of literature stressed the potential benefits of export diversification for economic development. One strand proposed that countries should produce and export goods for which the world demand is increasing, and that irrespective of whether or not a country produces primary goods or manufactured goods, it is this

compatibility with world demand that will determine the extent to which a country's exports will grow. This strand of literature is strongly based on the view that exports are good for economic growth, and that export-led growth (as experienced by Japan and the East Asian tigers) is the most appropriate development path for the developing world (Alexander and Warwick, 2007). In this view, the impact of export diversification is conditional on the type of goods that are exported, and its consistency with world demand.

A second strand of literature has its base in the endogenous growth theory which sees diversification of exports from primary commodities into high-skilled, high-technology goods as desirable because trade in these products allows for more scope for growth through productivity gains than traditional commodity exports. There are more opportunities for spillover effects in manufactured trade than in primary commodity trade (Herzer and Nowak-Lehmann 2006). Spillover effects are partly due to skills and technological upgrading (learning-by-doing and learning-by-exporting), which have more positive externalities than in primary commodity production (Petersson 2005). Mengistae and Pattillo (2004) for instance find that manufacturing exporting firms in Africa are up to 17 per cent more productive than non-exporters, primarily due to learning-by-exporting effects.

The two strands discussed above often come to the same practical conclusion in recommending that (i) countries diversify exports into high-skilled, high-technology products and (ii) that countries use trade liberalization as the primary means to obtain higher and more diversified exports (Pineres and Ferrantino 1997; Edwards and Alves 2006).

A third strand takes a portfolio theory approach. Brainard and Cooper (1968) propose that risk-averse countries should diversify their exports taking into consideration the covariability of different export goods' world prices. It recognizes the merits in the neoclassical HOS-trade models' recommendation that a country should specialize according to comparative advantage, but points out that this might not hold under uncertainty, and that uncertainty will reduce overall world trade as risk-averse producers of primary commodities reduce their production thereof (Ruffin 1974; DeRosa 1991).

Diversification in exports is needed to offset uncertainty if financial institutions that can provide insurance are lacking, as is for instance the case in many African countries (Chang 1991; Osakwe 2007). Using cross-country data Strobl (2005) finds that trade liberalization results in greater variability in export earnings, and that there are significant welfare gains for countries in diversifying into a more 'optimal' export structure, although the precise magnitude of these gains are country specific.

A fourth strand of literature where diversification is advocated originated from among the explanations of African countries' poor economic growth in the 1980s. Here it was observed that countries that have a rich endowment of natural resources, and tend to depend on exporting one or a few highly-valued natural resources, such as oil, minerals or coffee, tend to grow slower than countries with a more diversified, non-resource based export structure (Arezki and Van der Ploeg 2007). Sachs and Warner (2001) term this the 'natural resource curse'. Three main reasons have been advanced as to why a rich endowment of natural resources would be bad for economic growth: 'Dutchdisease' effects whereby the real exchange rate appreciates during resource booms (Bonaglia and Fukasaku 2003), increasing rent-seeking behaviour and corruption, and civil conflict over these valuable resources.

Despite the apparent need for diversification as motivated in the literature surveyed above, a thread of scepticism has remained with regard to the appropriateness and practicality of greater export diversification in many developing countries. Owens and Wood (1997) argue that in the case of Africa, comparative advantage implies that the emphasis should not be on vertical diversification, but on expanding primary commodity exports, and horizontally diversifying only primary production and exports.

3.2.2 Horizontal and Vertical Diversification

According to Kenji & Mengistu (2009), export diversification can be categorised into two types, namely: horizontal diversification and vertical diversification. The former refers to diversity of product across different type of industry, while the latter covers diversity of product within the same industry, i.e. value-added ventures in further downstream activities. Both type of diversification is expected to positively induce economic growth.

Theoretically, there are many way through which export diversification promotes economic growth. According to Herzer and Nowak-Lehmann (2006), export diversification could positively affect economic growth by reducing the dependency on limited number of commodities. This argument is particularly true in the case of commodity-dependent developing countries, where overdependence on agricultural sector could according to the Prebisch-Singer thesis reduce the terms of trade. The basic reason for this due to Hesse (2008) is the high degree of price volatility of commodity products.

Another way of illustrating the dynamic effect of export diversification on growth is by linking the connection between these two variables based on modern theory vis-à-vis the classical trade theory. Based on the modern trade theory, there are three main features of modern market behaviour.

First, the increasing dynamic features of production factors and national policies to influence the production capacity to grow with increasing return.

Second, the expansions of trade model from perfect competition to the imperfect competition especially the monopolistic competition. This is partially related to the first factor, whereby increasing intensity of trade liberalization among nations and mobilization of production factors have enable firms in one country to expand their production without being constrained by diminishing return Krugman and Obstfeld 2003. This arguments, in contrast to the classical trade theory, implies that could involve in various production activities without confining to their comparative advantage, Hausmann, Hwang, & Rodrik 2007. While the aforementioned two factors explain the market behaviour from the supply side, the third characteristic of modern trade theory is attributed to the demand side. This is reflected by domestic market peculiarities across different countries, which are not fixed and varies in various aspects such as taste, average income, knowledge, gender, age, culture and geographical division. While production in each particular country tries to meets unique characteristic of domestic market demand, it also enters symmetrically into the international market demand and subsequently offers the market with goods and services, which are different in the form of functionalities, taste, design, ingredient, quality, and appearances. This is termed as the home market effects on the pattern of trade by Krugman (1980). According to Krugman (1980) a country tends to export those goods for which they have relatively large domestic market. (Yee Lau Sim and Abdul Karim, 2010)

According to Rodrik (1998) the ratio of trade to GDP in Africa is comparable to that of countries of similar size and income. This is taken to suggest that the continent's specialization according to its comparative advantage is not the constraint on its growth.

There is also a growing literature that doubts the practicality of diversification for resource-rich, skill-scarce developing countries. Krugman (1987) illustrates the difficulty of diversifying due to the self-reinforcing (lock-in) effects of initial specialization, which may act as a 'development trap' if that specialization is in slow growing sectors (Bardhan and Udry 1999). DeRosa 1991 notes that export diversity may not come about without government targeting certain sectors which may, however, be welfare-reducing if fiscal resources are used in this process. Cramer 1999, discusses some of the practical difficulties and country experiences in attempts at vertical diversification. These include poor macroeconomic policies, a high-transaction costs business environment and political

uncertainty that reduce foreign direct investment, as well as a lack of efficient trade facilitation Zanamwe, 2005.

Developed-country policies towards the developing world have also been seen to be detrimental in some cases to export diversification. Foreign aid, for instance, has been identified as leading to Dutch-disease type of effects in African countries, thereby contributing to limited export diversification Osakwe, 2007. Trade preferences (special and differential treatment under the World Trade Organization, WTO) are argued to be undermining the ability of African countries to diversify their export structures, Mold, (2005). Gamberoni (2007), for instance, finds evidence that some EU preference schemes (e.g., the ACP Lomé scheme) have been hindering export diversification, either by creating an incentive for countries to specialize in the product(s) with preferential access, or by limiting the efforts of developed countries to open up their markets more generally.

China and India's outstanding economic performance and their remarkable role in the global economy have generated a great amount of attention and research. This largely reflects their active international trade activities and their role in financial markets. This is also echoed in their rapidly growing exports, and in their increasing demand for imports. Economic performance in Brazil and South Africa has been less dramatic.

However, these countries are growth engines for developing countries in general, and for their regional neighbours in particular.

The pattern of exports and specialization has evolved during the last years in developing countries, particularly in China, Brazil, India and South Africa (CIBS) and other newly industrialized countries. Several trends have emerged, including: first, a decline in the relative importance of primary product exports (principally food), which initially were weighty in most cases; second, initial importance and subsequent relative decline in textile, clothing and footwear exports from these economies; and, third, a rise in the export share of skill-, capital- and technology-intensive goods, such as electrical machinery, chemicals and pharmaceuticals, computer and communications equipment. Notably, some of these goods embody advanced, international best-practice technology. (Amelia U. Santos-Paulino, 2008)

3.3 Review of Empirical Issues:

The specialization pattern and an increasing higher value added of the exports of China, India, Brazil and South Africa have important implications on productivity and economic growth in these countries. Existing research shows that the variety of goods that a country

produces and exports is affected by knowledge spillovers and specialization which, in turn affects economic growth (Busson and Villa 1997; Amable 2000; Hausmann, Hwang and Rodrik 2007; Rodrik 2006). Moreover, the available evidence implies that a country's pattern of specialization and exports could be as important as openness to international trade. In this regard, Farberger (2000) shows that countries that have managed to increase their presence in the technologically most progressive industries (e.g., electronics) have experienced higher productivity growth than other countries.

Moreover, understanding the determinants of export patterns is paramount to economic performance in general, and to development economics in particular. For developing countries, exports are a major source of foreign exchange, a way to maximize economies of scale and specialization, and a channel to new technologies and knowledge spillovers (Lall 2000; Santos-Paulino 2002). Greenaway, Morgan and Wright (1999) study export-growth dynamics, and demonstrate that there is not only a strong positive connection between exports and growth, but that the composition of those exports is important in determining the strength of growth. (Amelia U. Santos-Paulino, 2008).

As illustrated in the work of Imbs and Wacziarg, (2003), Diversification may result more endogenously from a growing demand for a variety of goods as a country's income increases. This in turn suggests that low-income countries with a specialized export structure should aim to maximize the benefits of such exports for household income and demand. It implies that an unequal distribution of income may act as constraint on diversification.

Imbs and Wacziarg (2003) using cross-sectional and cross-country data find a U-shaped relationship between the degree of sectoral concentration in a country's production structure and the level of development (as measured by per capita income). This evidence is consistent with the view that countries will first diversify and then specialize in their production (and exports) over their stages of development. Hummels, Ishii and Yi (2001) and Yi (2003) give further support to the notion that countries at further stages of development may tend to specialize also in their export structure, by identifying the importance of vertical specialization (when a country specializes in a specific stage of production rather than in the production of the whole product) in global trade. Vertical specialization, for example, has been responsible for 50 per cent of the growth in USA trade since 1962 (Yi 2003).

The work of Naude and Rossow (2008) investigated the extent of export diversification and specialization in South Africa over the period 1962-2000 and its relationship to GDP per capita using the computable general equilibrium (CGE) model. The study found a tentative U-

shaped relationship between Per capita GDP and export specialization, that export diversification, resulted in higher GDP growth and employment. The claim was as well supported by a Granger Causality test conducted in the study (greater export diversification results in a more substantial increase in exports that in the case of greater export specialization).

The works of Brainard and Cooper (1968), Osakwe (2007) and Stobl (2005) using cross-country data found that trade expansion results in greater variability in export earnings, and that there are significant welfare gains for countries in diversifying into a more optimal export structure. In light of several analyses conducted in estimating the effect of export diversification on GDP growth, this study observed the long-run co-integrating relationship between GDP growth rate and Export diversification and concentration index. This is considered important in order to establish the claims of previous work on the impact of export diversification and concentration index on ECOWAS region, as similar works in the region neglected the effect of concentration index.

3.3.1 ECOWAS Commodity Export and Commodity Prices

The work of Augus Deaton 1999, provides information on the structure of sub-Saharan African commodity exports in 1990. It shows those commodities that account for more than 10 percent of the value of total exports in each country such as (Oil 93% in Angola, Cotton 42% in Benin, Diamond 80% in Botswana, Cotton 57% in Burkina Faso, Cocoa 26% in Cote d'Ivoire, Bauxite 76% in Guinea, Diamond 18% in Liberia Cotton 62% in Mali Uranium 83% in Niger, Oil 98% in Nigeria Fish 28%, Groundnut oil 17% in Senegal, Phosphate 44%, Cotton 21% in Togo), together with the share of exports accounted for by the 25 commodities and the share of all exports in GDP. Because a few commodities that are important for a few countries are not included in his analysis, his work was adjudged to have occasionally understated the dependence of African economies on primary commodity exports.

There is also room for debate on the definition of a primary commodity, and on how much processing is required to disqualify it. But the degree of processing in Africa's exports is generally low. These exports have in common a relatively small share of labour in their value and, their prices behave differently from the prices of manufactured exports. With only a few exceptions (such as Guinea in bauxite or Senegal in groundnut oil), African countries' exports of these commodities are too small a share of world exports to permit individual countries to have much effect on world prices. Note the diversity of experience across the continent. Although several commodities are important for a number of countries, such as cotton, coffee,

diamonds, oil, and gold, the mix varies greatly from country to country, and some commodities are important only to one or two countries, such as uranium in Niger, phosphates in Togo, or iron ore in Mauritania. The diversity is important because prices of different commodities do not move in parallel. Although fluctuations in world demand impart common components to many price series, supply conditions differ across goods, and relative prices are far from constant. In consequence, the use of commodity price indexes makes more sense for industrialized importers than for the exporters, whose individual experiences are different. Conditions of production are also heterogeneous across countries, as are the social and economic characteristics of producers.

Minerals (except sometimes diamonds) are usually produced in enclaves, are owned or mined by foreign interests or by the state, and are readily subjected to high taxes or royalties. As a result, fluctuations in mineral revenues typically accrue directly to the state. Some agricultural crops are grown by smallholders (coffee and cocoa), and some are produced on plantations (bananas, tea and sugar), and the distinction helps determine the distributional consequences of income fluctuations. Some agricultural crops are annuals (cotton, groundnuts, sugar and tobacco), some are tree-crops (cocoa, coffee, tea and rubber), and the dynamic structure of supply fluctuations depends on such differences.

A single year's cotton harvest can be lost without adverse consequences for the next, but the destruction of an orchard by pests, frosts or fires reduces supply until new trees come on line, which usually requires several years. The political identity of the producers sometimes affects rates of taxation levied by export taxes, or through mandatory purchasing by parastatal "stabilization" boards (Bates, 1981, 1983, 1989; Lofchie, 1989). Kenyan political leaders have been drawn from those who grow coffee, and coffee is not directly taxed in Kenya.

The same was true with cocoa producers in Cote d'Ivoire. But Ghana's first leader, Nkrumah, like Muhammad Ali in Egypt a century before, saw cocoa producers merely as a resource to be exploited, and in Nigeria, the oil in the south of the country has funded governments (and kleptocrats) drawn from northern tribes.

Putting the matter conservatively, real commodity prices show a distinct lack of a positive upward trend; owners of a constant flow of primary commodity would not have seen much growth in their real income. For further evidence as well as econometric characterizations of trends, Grilli and Yang (1988), Cuddington and Urzua (1989), Cuddington (1992), Spraos (1990), and Ardeni and Wright (1992). Cocoa and coffee prices are lower relative to the U.S. CPI than they were a century ago. The cotton price shows no trend for a century from 1820,

and the rise since then has been less than the rise in the CPI, as have been the nominal increases in gold and copper prices. What commodity prices lack in trend, they make up for in variance. For example, the coffee price in April 1977 was more than six times its June 1975 level and, in only eight months in 1994, it increased by a factor of three.

These enormous swings generate equally enormous swings in exporters' revenue and, like other economic cycles, tend to persist for several years at a time. Commodity price movements are positively auto-correlated even at annual frequencies; for most commodities, the first order autocorrelation coefficients are in excess of 0.8 (Cuddington, 1992; Deaton and Laroque, 1992). Unlike cycles in consumption or income, these cycles are not ultimately persistent; shocks do not appear to have long-run effects and, in the long run, real primary commodity prices revert to trend or, in most cases, to a long-run unchanging average.

The cocoa and coffee prices show the classic picture of an essentially trendless series punctuated by sharp upward spikes that last for several years; this asymmetry, with upward peaks but few or no matching troughs, characterizes many primary commodity prices, and generates a marked positive skewness in the prices. Note finally, again as illustrated in the work of (Amelia U. Santos-Paulino, 2008), that the prices of different commodities tend to move together, though the correlations are much closer for some pairs (coffee and cocoa) than for others (copper and gold).

3.3.2 Why commodity prices behave the way they do?

According to Augus Deaton 1999, sensible development and macroeconomic policy rules for commodity-exporting countries must be grounded in an understanding of the behaviour of commodity prices. The urgency and attractiveness of export diversification depend greatly on whether real prices can be expected to trend up or down in the future. Inter-temporal smoothing- how much of revenues should be spent and how much saved-requires that governments and private individuals understand what drives price swings, and how long they are likely to be prolonged. Much of the discussion on trends has been dominated by the Prebisch (1959)-Singer (1950) thesis that, in the long run, commodity prices fall relative to the prices of the manufactures that the exporting countries must import. The argument is in part that the income elasticities for primary commodities are lower than those for manufactures, so that the demand for the latter grows more rapidly than the former, and in part that manufacturing industries at the centre have market power that enables them to exploit the countries at the periphery. In the long run, according to this theory, the market will complete the task that colonialism left unfinished.

A much better theoretical account which gets much less attention is contained in the last (and apparently little read) section of Arthur Lewis's famous 1954, paper on unlimited supplies of labour. Lewis asks why, in spite of well-documented productivity growth, the real wages of sugar workers in the West Indies failed to grow. His answer is that wages cannot grow in the presence of unlimited supplies of labour at the subsistence wage. As a result, the benefits of technical progress in sugar plantations and sugar refining accrue, not to the workers, but to consumers in the industrialized countries. He contrasted this outcome with that for a wheat farmer in Canada, whose wage is set in the industrial labour markets of North America where the aggregate supply of labour is limited, and where real wages can therefore rise in response to technological change. For African producers of tropical crops, the implication is that, in the long run, the price of coffee or cocoa cannot rise above the costs of growing it in the lowest real wage country where coffee and cocoa can be grown. Although it is hard to find the data to test such a proposition formally, it is broadly in accord with the long-run behaviour of the prices of tropical commodities. There is no trend, because the poorest workers in the tropics remain as poor as ever. Prices always eventually revert to base because, while short-run events can increase prices, sometimes for many years, long-run marginal cost is set by the poverty of the tropics and supply will eventually be forthcoming.

Policy prescriptions from well-fitting but inappropriate models are potentially catastrophic: income from a commodity boom, instead of being seen as a long-lived but ultimately temporary windfall, is misdiagnosed as permanent (the random walk case) or as the first instalment of an even larger windfall in the offing (when price changes are positively auto-correlated) so that consumption should rise by even more than current windfall income. That some African countries appeared to follow such prescriptions, facilitated (and encouraged) by international bankers, should not disguise the absurdity of the analysis. Models with more economic content also have a poor track record. For many years the World Bank prepared its own commodity price forecasts for use in assessing economic prospects, for advising their clients, and for evaluating projects involving commodities, almost all of which would have appeared more profitable, and thus more loan-worthy, the higher were expected commodity prices. Some of these forecasts were wildly incorrect; two of the most spectacular cases, copper and cotton, are shown in the works of Deaton and Miller, (1995).

Conclusively, the theoretical nexus between commodity dependence reduction and growth potential has occupied literature in recent times, but not much econometric verification of the dichotomy between commodity trade and growth in ECOWAS has been considered. From the

foregoing theoretical analysis, it's been evident that ECOWAS loss of trade accentuated gradually from its weak capability to transfer its rich resource endowment to dynamic products, which resulted into the current transfer of resource gain from the region. In light of the present globalization and economic integration among nations, ECOWAS needs to restructure its export composition and sees exports as originating from domestic sufficiently in order to generate gains from trade.

CHAPTER FOUR

RESEARCH METHODOLOGY

4.1 Introduction

This chapter establishes links with previous empirical works in the selected area; it is a basis for testing our theoretical claims empirically, justification of the research objectives and validation of hypothesis.

4.2 Theoretical framework

This presents a straight-ward generalization of the model proposed by Herzer and Nowak-Lehmann's (2006) as used by Gustavo Ferreira (2009) to test the hypothesis that export diversification has influenced economic growth in Costa Rica via externalities of learning-by-exporting and learning-by-doing.

According to Gustavo Ferreira (2009), the economy is constituted by n sectors from which s are export sectors, thus $S \in n$. It also assumed that each i sector is represented by one firm, and that their corresponding output, at a given point in time t , is determined by a neoclassical production function:

$$Y_{it} = f_{it}(K_{it}, L_{it}, P_t) \text{ ----- (1)}$$

Where k_{it} and L_{it} are the standard capital and labour inputs respectively. The input P_t is an index of public knowledge and seen as a positive externality in equation (1)

The knowledge externality has two main properties:

Knowledge externality is primarily generated by the export sectors as a result of both learning-by-exporting and learning-by-doing. Learning-by-exporting arises when an export sector acquires knowledge from their foreign purchasers who share part of their know-how and offer advice on productivity enhancement. On the other hand, the basic idea behind learning-by-doing is that knowledge creation occurs as a by-product of production and it depends on the firm's cumulative output.

Hence, firms will increase their stock of knowledge as they expand their exports, and this accumulation process will accelerate as a firm exposes itself to competitive international markets.

Gustavo (2009) assumed that each export sector S_t produces an equal amount of public knowledge P_t . Hence, a nation's level of aggregated knowledge is given by the following equation

$$P_t = S_t P_{et} \text{-----} (2)$$

Given that P_{et} is a constant and not directly observable parameter, the level of knowledge in the economy can be instead expressed as a function of the number of export sector

$$P_t = Z(S)_t \text{-----} (3)$$

It is assumed that primary goods tend to have a lower potential for learning-by-doing and learning-by-exporting comparatively to manufactured goods. Consequently, they hypothesized that the pace of knowledge creation in the economy will increase with an increase in the share of manufactured products in total exports.

Based upon this premise, a new knowledge equation can take the following form

$$P_t = Z(S_t, MX_t) \text{-----} (4)$$

Where the share of manufactured products in total export (MX_t) and the number of export sectors (S_t) are proxies for the stock of knowledge in the economy

The second main property of this model is that knowledge P_t is considered a public good and constant within all sectors. By treating P_t as a given, our production function fit has constant-returns-to-scale. It is also assumed that all firms operate in perfect competition and are price takers.

Now, the aggregate production Y_t is written as function

$$Y_t = \sum_{i=1}^n Y_{i,t} = f_{i,t}(K_{it}, L_{it}, P_t) \text{-----} (5)$$

Inserting the public knowledge parameter of equations (4) into the production function, we get

$$Y_t = f_{it}(k_{it}, L_{it})(S_t, MX_t) = K_t^\beta L_t^\delta S_t^\psi MX_t^\gamma \text{-----} (6)$$

Where K_t and L_t represent respectively the stock of accumulated capital and labour force of the economy, and parameters are constant.

Inclusion of the number of export sectors and the shares of manufactured exports as explanatory variables to equation (6), it is implied that both horizontal and vertical export diversification influence economic growth via externalities of learning-by-doing and learning-by-exporting. That is, are greater than zero.

In order to test the second hypothesis, we made us of dynamic panel growth model based on GMM estimator developed by Arellano and Bond (1991)

To investigate the relationship between export diversification and per capita income, we will therefore use the equation of the system GMM estimator similar to Laderman and Maloney (2007).

Therefore, we estimate a general growth equation of the form:

$$\Delta y_{i,t} = \alpha y_{i,t-1} + X'_{i,t} \beta + y_t + \eta_i + v_{i,t} \text{-----} (7)$$

Where $\Delta y_{i,t}$ denotes the log differences of income per capita in period t, $y_{i,t-1}$ is the log initial income, $X_{i,t}$ is a vector of potential determinants of growth, y_t captures sample-wide time effects, η_i are the unobserved time-invariant country-specific effects, and $V_{i,t}$ is the residual error component.

4.3 Model Specification

To empirically justify the research objectives and obtain the long-run relationship between growth and export diversification, hereby validating the extent of growth induced by increasing manufacturing export value added and its returns to societal development; two models shall be developed to test each of the hypothesis.

4.3.1 ECOWAS Growth-Diversification Model

To empirically test the long-run relationship between economic growth and increased manufacturing value added (diversification) in the ECOWAS region, the equation below is deemed fit

$$Y_t = ECI_t^\varphi, EDI_t^\beta \text{-----} (8)$$

Where Y_t is real GDP in period t , EDI_t is the export diversification index of Ecowas region and ECI_t Export concentration index.

Transforming equation (7) into a log-linear regular form, we have

$$\text{Log}Y_t = \alpha + \phi \text{log}ECI_t + \beta \text{log}EDI_t + v_t \text{-----} (9)$$

Where \log is the natural logarithm of the variable, and estimates ϕ , β represent elasticities. The error term v_t is assumed to be white-noise (random walk) normally and identically distributed.

Equation (9) will be subjected to empirical scrutiny and the model will test the diversification-led growth hypothesis for the manufacturing sector in Ecowas states.

$$H_0 : \phi, \beta = 0$$

$$H_1 : \phi, \beta > 0$$

It is hypothesized that estimates ϕ , β are positive and statistically significant, thus confirming the diversification-led growth.

4.3.2 Panel Per capita trade growth model

In the testing the country specific diversification induced growth in the Ecowas region, a model form of the GMM estimator will be adopted but the empirical validation shall be based on ordinary panel regression.

$$\Delta y_{i,t} = \alpha y_{i,t-1} + X'_{i,t} \beta + v_{i,t} \text{-----} (10)$$

Where $\Delta y_{i,t}$ denotes log difference of income per capita in period t , $y_{i,t-1}$ is the log initial income, $X_{i,t}$ is a vector of potential determinants of growth and $V_{i,t}$ is the residual error component.

$$X'_{i,t} = IV_t^{\alpha 1}, AGR_t^{\alpha 2}, MFR_t^{\alpha 3}, SEV_t^{\alpha 4}, SPE_t^{\alpha 5} \text{-----} (11)$$

Where IV_t is investment, AGR_t is the share of agriculture contribution to GDP (agricultural value added), MFR_t is the share of the manufacturing sector to GDP (Manufacturing value added), SEV_t is the share of the service sector to GDP (services value added), and SPE_t is the percentage share of primary export.

$$\log y_{i,t} = \alpha_0 + \alpha_1 \log y_{i,t-1} + \alpha_2 \log IV_t + \alpha_3 \log AGR_t + \alpha_4 \log MFR_t + \alpha_5 \log SEV_t + \alpha_6 \log SPE_t + V_t \dots \quad (12)$$

It is hypothesized that the estimates $\alpha_1, \alpha_2, \alpha_3, \alpha_4, \alpha_5, \alpha_6, \alpha_7$ are positive and statistically significant but a greater magnitude is expected from α_4, α_5 in order to appropriately validate the bases of the research.

$$H_0: \alpha_1, \alpha_2, \alpha_3, \alpha_4, \alpha_5 = 0$$

$$H_1: \alpha_1, \alpha_2, \alpha_3, \alpha_4, \alpha_5 > 0$$

4.4 Econometric Methodology

The study relies on secondary data; the fifteen member states of ECOWAS including Benin, Burkina Faso, Cape Verde, Cote D'voire, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra-Leone and Togo. The required data set on the variables to be tested in the models adapted for the study were drawn from these countries.

In performing the empirical analysis, the first step is to examine the time series properties of all the variables. For proper model specification, the unit root and co-integration test shall be conducted.

The Augmented Dickey-fuller (ADF) root tests for determining variables orders of integration shall be presented. The test for the order of stationarity has led to the development of the Dickey- Fuller (1979) set of unit root tests. We test the null hypothesis of a difference stationarity against the alternative hypothesis of a level stationarity. That is:

$$H_0: Y_t = I(1)$$

$$H_1: Y_t = I(0)$$

With critical values which are all negative and larger (in absolute terms) than ADF statistics; if the null hypothesis cannot be rejected then Y_t cannot be stationary. It may be $I(1)$ or $I(2)$ or have an even higher order of integration. The test for unit root is pertinent because it has been observed that, very often time series data are non stationary. In such cases, the residuals of these time series are correlated with their own lagged values, thereby violating one of the standard Ordinary Least Square assumptions; hereby making estimates biased and inconsistent with standard errors generally underestimated.

In determining the long-run relationship of the variables, the study shall adopt a co-integration test based on the approach of Johansen (1988) and Juselius (1990) for testing the long-run dynamic behaviour of variables under study. The vector error correction model shall be adopted for testing the short-run dynamics and guarantee successful correction of errors generated in each period within the model, the Johansen procedure unlike the Engel and Granger two steps static procedure, allows the simultaneous evaluation of multiple relationships and imposes no prior restrictions on the co-integration space.

From the foregoing econometrical analyses, it is established that before regression analysis of equation model can be made, it is essential to identify the order of integration of each time series provided that the variable can be transformed into a stationary variable through differencing, concerning the dynamic growth model in equation above which is rewritten below.

$$\text{LOG}(Y) = \alpha_0 + \varphi\text{LOG}(\text{ECI}) + \beta\text{LOG}(\text{EDI})$$

The differenced model can be written as

$$\text{LOG}(\text{DY}) = \alpha_0 + \varphi\text{LOG}(\text{DEDI}) + \beta\text{LOG}(\text{DECI})$$

Most studies assume that time series data are stationary. However, it has been argued that this assumption is not appropriate for most economic variables and that these variables are better modeled as integrated of order one I(1) processes, that is, non stationary and needs to be differenced once to become stationary.

A non-stationary series can be reviewed as a testable hypothesis by performing unit root test. A test for unit root has its origin in the work of Fuller (1976) and Dickey and Fuller (1979, 1981). The theory of co-integration arises out of the need to ensure the long run equilibrium or relationship of the observed variables. The theoretical stages involved are as follows.

4.4.1 Testing for the order of the integration of the series

The test for the order of stationarity has led to the development of the Dickey- Fuller (1979) set of unit root tests. We test the null hypothesis of a difference stationarity against the alternative hypothesis of a level stationarity. That is:

$$\mathbf{H}_0: \mathbf{Y}_t = \mathbf{I}(1)$$

$$\mathbf{H}_1: \mathbf{Y}_t = \mathbf{I}(0)$$

With critical values which are all negative and larger (in absolute terms) than ADF statistics; if the null hypothesis cannot be rejected then Y_t cannot be stationary. It may be I(1) or I(2) or have an even higher order of integration.

4.4.2 Co-integration Representation

After determining the order of integration as established in the first stage, the second stage proceeds to obtain the co-integrating vector in the regression equation. This is conducted using the Johansen procedure, the indication of one (unique) co-integrating vector at appropriate lag that ensure non serial correlation confirms the convergence of the estimated variables.

4.4.3 Error Correction Modeling Representation

Having established the long run series convergence, and that the variables are co-integrated, the third stage proceeds to estimate the error correction representation. The ECM incorporates the full (short run) dynamics of the model specified above. The theory of error correction model arises out of the need to integrate short run dynamics with long run equilibrium. At this stage all the conventional statistical tests of significance are considered to be appropriate including the diagnostic tests for the assessment of the adequacy of the model. Co-integration is a necessary condition for error correction model to hold.

The purpose of the ECM is to switch to a short run model. Allowance is made for any short run divergence, in a corrective mechanism by which previous disequilibria in the relationship between the level of money balance and the level of one or more of its determinants, are permitted to affect the current change in money holdings.

Theory expects that the ECM be negative and highly significant implying that an error in the current period is being corrected in the previous period.

In estimating the model two, a panel least square analytical procedure is attempted to sieve the effects of the trade composition indicators on per capita income. Afterwards, the model estimated the country and period fixed effects.

4.5 Data Source and Description

Variable	Description	Source
Real GDP	Monetary Value of goods and services produced within a country over a period of time, adjusted for price level changes.	World Development Indicators (WDI)
Share of Manufactured export	Corresponds to the share of manufactured exports to total exports.	World Development Indicators (WDI)
Export Diversification index	The Herfindahl-Hirschmann Index (HHI) is calculated by taking the square of export shares of all export categories in the market $HHI = \sum s_i^2 ; i = 1, 2, \dots, n$ This index gives greater weight to the larger export categories and reaches a value of unity when the country exports only one commodity or service (high concentration).	UNCTAD Statistics Report
Real GDP per capita	Gross Domestic product divided population adjusted for purchasing power parity	World Development Indicators (WDI)
Export Concentration index	The Concentration Ratio (CR) measures the export share of only the largest export categories. It is calculated as follows: $CR(x) = \sum s_i ; i = 1, 2, \dots, n$ where x is less than the total number of export commodities n . This ratio gives equal emphasis to the x largest export categories but neglects the remaining categories in the export market. If the ratio value is close to unity, this means that the x categories included in the ratio make up the entire export bill and hence concentration is high.	UNCTAD Statistics Report
Investment	Investment share of real GDP per capita	Penn World Table (PWT) 6.1
Agriculture/GDP ratio	Value added of agriculture in constant 2000 as percentage of GDP	World Development Indicators (WDI)
Manufacturing/GDP ratio	Value added of Manufacturing in constant 2000 as percent of GDP	World Development Indicators
Service/GDP ratio	Value added of service in constant 2000 as percent of GDP	World Development Indicators

CHAPTER FIVE

EMPIRICAL RESULTS AND ANALYSES

5.1 Introduction

This chapter focuses on the presentation and analysis of data to address the issue of commodity trade and export performance of ECOWAS region. The analysis is scheduled to be in two forms, descriptive analysis and econometric analysis. The chapter start-off with descriptive analyses to give required insight of the trend on commodity trade and export performance. The estimation was done using E-views 6.0 statistical software.

Afterwards, the impact of export diversification indicators and other factors such as export concentration index, population, investment share of GDP were presented and discussed.

The descriptive analysis is used to achieve the second objective as specified in the earlier chapters while the econometric analysis answers the first and last objectives.

5.2 Descriptive Analysis

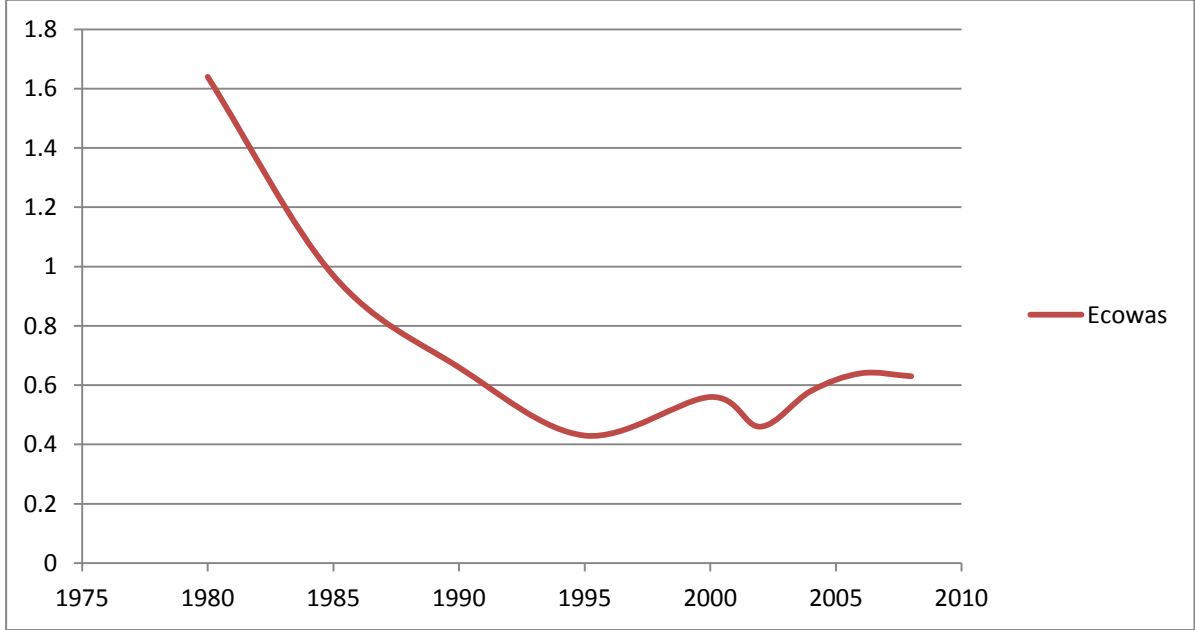
This aspect explains the structure of export performance in ECOWAS region, the nature of export concentration and major constraint of the region in diversifying into high-technology dynamic products; as required to answer the second objective specified in the first chapter. The aspect made use of Ms Excel office package and Jarque-Bera normality test from E-views 6.0 statistical package.

Table 5.2.1 Share of Developing Region Export in World Merchandise Trade

Region	1980	1985	1990	1995	2000	2002	2004	2006	2008
Ecowas Region	1.64	0.97	0.66	0.43	0.56	0.46	0.58	0.64	0.63

Source: Computed from UNCTAD Statistical Bulletin (2009)

Fig. 5.2.1 Region Share of World Export



Computed from UNCTAD Statistical Bulletin (2009)

The structure of exports in the developing countries has been changing over-time, ECOWAS is gradually losing concentration in international trade after its world export share reached a maximum of 1.6% in 1980 and has been dropping since then (fig.5.2.1). Over the past two and half decades, the share of ECOWAS in world trade has decreased dramatically. Export growth has dropped also in absolute terms, making real export earnings stagnant or declined significantly.

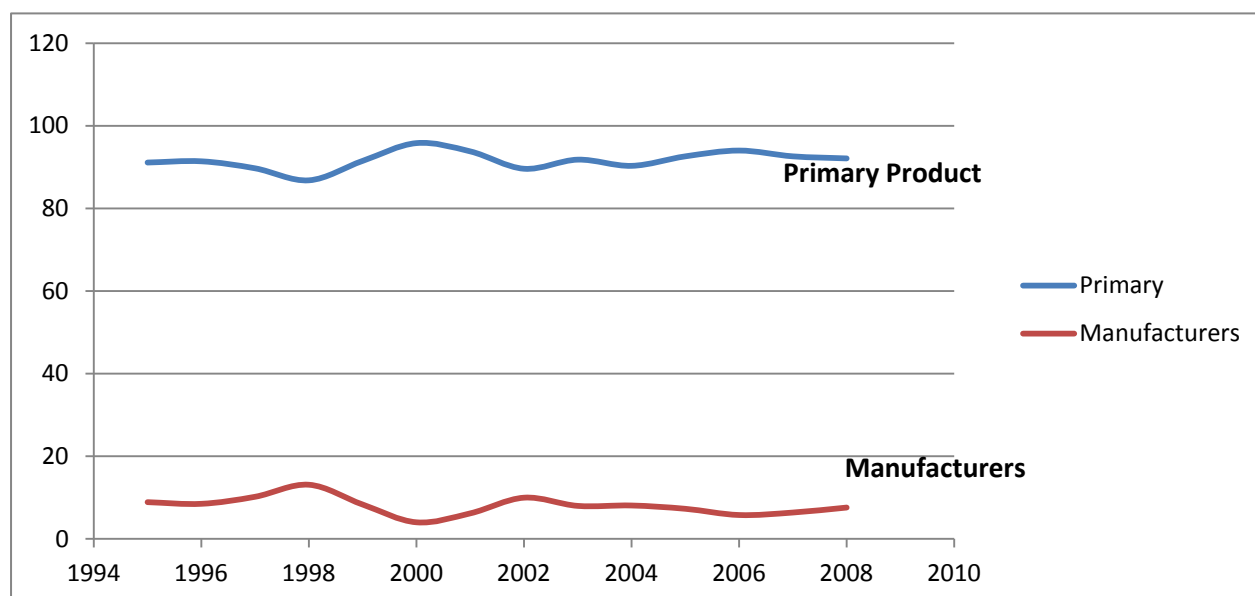
The sluggish performance of export sector in most of the SSA countries seems to have caused grave problems, ECOWAS countries has continually remained net-consumers making capacity utilization and growth declined notably in most of the countries. This in turn, has affected the export sector negatively as a vicious circle has been established.

Table 5.2.2 Export Product Concentration

Year	Share of Primary Products	Share of manufactures
1995	91.1	8.9
1996	91.4	8.5
1997	89.7	10.2
1998	86.8	13.1
1999	91.5	8.33
2000	95.8	4.05
2001	93.8	6.2
2002	89.6	9.98
2003	91.8	8
2004	90.3	8.1
2005	92.6	7.3
2006	94.0	5.8
2007	92.6	6.4
2008	92.1	7.6

Source: Computed from UNCTAD Statistical Bulletin (2009)

Fig. 5.2.2 ECOWAS Export Concentration



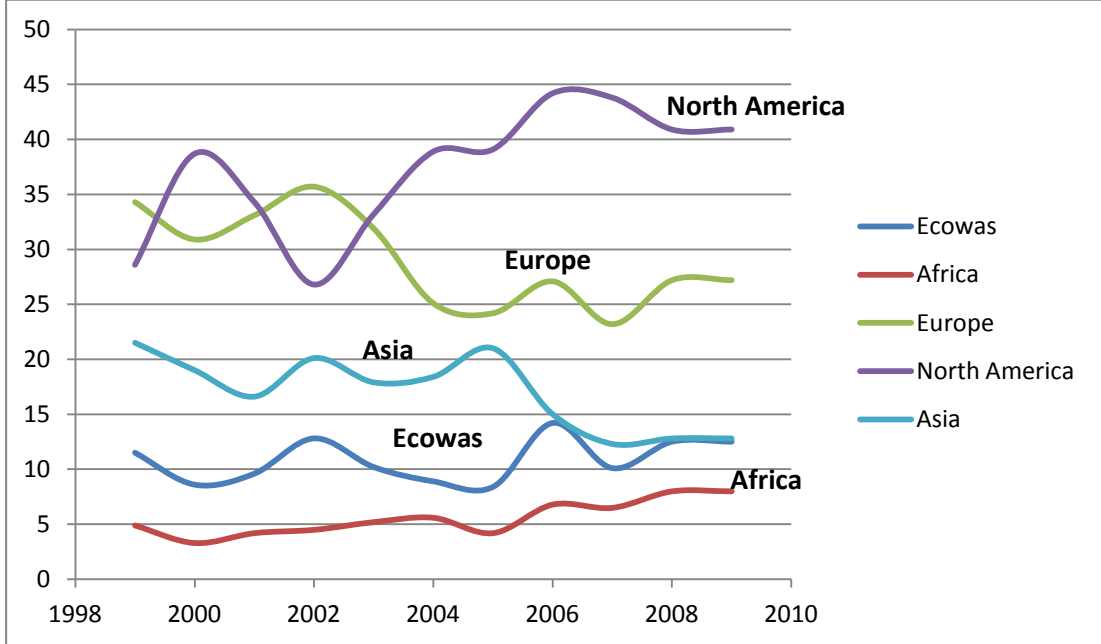
Source: Computed from UNCTAD Statistical Bulletin

ECOWAS Region greater reliance on a small number of primary exportable commodities for foreign earnings has been a challenging issue (figure 5.2.2), larger percentage of ECOWAS export is concentrated on Primary commodities, reaching maximum of 96% in 2000 and never fall below 90% while manufacturers share never rise above 13%. The dispensation of weak ECOWAS development is accentuated as a result of a secular and unpredictable declining in international prices of these primary exportable commodities that, in turn, lead to

unstable export earnings. Africa’s over-dependence on primary commodities has narrowed the growth prospect of the region, its low demand and income elasticities has placed prices in a continuous downward trend in real terms, price volatility continue to be very high; non-traditional commodities exports have grown in importance and developing countries are losing market share even in traditional commodities largely due to failure to capture more value-added on their commodities.

As widely visible, a sack of cocoa or coffee does not cost as much as a tractor or a motor vehicle and while technology can aid the quick supply of a motor vehicle in order to take advantage of market boom, it takes time (an average of 5-7 years) to plant and harvest cocoa; from the foregoing analysis, it’s evident that Africa have not kept up with the general development of these commodity sectors in order to establish sectors that draws source from the abundant commodity resources.

Fig. 5.2.3 ECOWAS Exports to other Regions



Source: Computed from UNCTAD Statistical Bulletin (2009)

The constraint towards increasing the manufacturing value-added in ECOWAS region has been majorly due to weak inter-trade among ECOWAS region as a result of homogenous products paraded by the member countries. As shown in (figure 5.3), ECOWAS major trade partner has continually remained North America and Europe, hereby transferring commodity values across border due to low processing capability of ECOWAS region. For instance, a basic carrot costs 39P, when peeled and sliced goes for 283P and when processed and ready to eat costs 600P

5.3 Discussion of Econometric Results

An econometric analysis carried out to analyze the effects of diversification on economy growth and per capita income.

5.3.1 Summary Statistics of Major Variables

Summary statistics of variables used for analysis is presented in table below. All variables except GDP, GDPK, IV & POP seem to follow a normal distribution at both 5% and 1% significance level as explained by Jarque-Bera test. Jarque-Bera test is a goodness-of-fit measure of departure from normality, based on the sample kurtosis and skewness.

According to the Jarque-Bera test, the higher the statistics, the higher the log likelihood that variables are normally distributed. The dependent variables are GDP and GDPK, in which the average growth in ECOWAS is about 11.20 per cent of growth with a standard deviation of 0.66 per cent. The average income in ECOWAS is 5.77 per cent of total income in ECOWAS with standard deviation of 0.548. This implies that an individual in ECOWAS member states earn about 0.55 per cent of total income as earnings.

Table 5.3.1 Summary of Major Statistics

	LNGDP	LNECI	LNEDI	LNGDPK	LNAGR	LNIV	LNMF	LNPOP	LNSEV
Mean	11.2041	-0.51849	-0.252157	5.774746	19.88779	2.145194	18.74418	15.40863	20.39557
Median	11.3310	-0.55466	-0.246542	5.697093	20.26007	2.195609	18.57320	15.91946	20.54283
Maximum	11.6562	-0.03149	-0.209487	7.144407	21.72245	3.850617	21.53784	16.77397	22.52166
Minimum	8.97790	-0.77219	-0.307885	4.867534	17.46018	0.146199	16.71203	12.78074	17.72808
Std.Dev.	0.66009	0.18358	0.025531	0.547988	1.114787	0.535292	1.334166	1.128407	1.236911
Skewness	-2.99303	1.17173	-0.496038	0.597984	-0.568209	-0.365715	0.393002	-1.000460	-0.437288
Kurtosis	10.7603	4.60907	2.865135	2.757227	2.268752	3.840840	2.419276	2.651539	2.658879
Jarque-Bera	56.0326	4.71391	0.584736	10.73521	13.16366	8.952760	6.884268	29.73514	6.352331
Probability	0.00000	0.09470	0.746494	0.004665	0.001385	0.011375	0.031996	0.000000	0.041745

Computed by the researcher using E-views 6.0

The average export concentration is -0.52% with a standard deviation of 0.18. The degree of export diversification has a value of -0.25% on the average and 0.026 as standard deviation.

ECOWAS GDP value-added on agriculture, manufacturers and services has the average value of 19.9%, 18.7%, and 20.4% respectively; with a standard deviation of 1.1%, 1.3% and 1.2% respectively.

The greatest fluctuations experienced in GDP, GDPK, AGR & POP may not be unconnected to variation in global demand for commodities. The implication of this is that countries that

depend basically on commodities would be more vulnerable to unfavourable foreign earnings and instabilities due to term of trade losses (see Prebisch-Singer hypothesis). This supported some previous study where it is acknowledged that a major challenge facing Africa countries in the global market is undue concentration on exportation of primary commodities.

5.3.2 Discussion of Estimation Results

This analysis starts with examining the time series property of the series using ADF and Philip-Perron test, the results were found satisfactory and the Johansen co-integration test and the Error Correction Modelling were conducted to ascertain the long-run equilibrium convergence and the speed of disequilibrium adjustment respectively. The tests were carried out using E-views 6.0 statistical package in order to achieve the first objective of the research work.

Unit root test using Augmented Dicky Fuller and Philip-Perron tests

This aspect examines the integration order of each variable used in the empirical model. Assuming the same order of integration greater than zero of the selected variables is a necessary but not a sufficient condition for co-integration. The ADF controls for possible serial correlation in error terms by adding the lagged difference terms of the regressand.

The result of the stationarity test is given below using the ADF and Philip-Perron test. The figures show that each series is first difference stationary at one percent using ADF and Philip-Perron test; these results are impressive hence ADF test is used for co-integration test.

The analysis of the data usually starts with the unit root tests of variables. This is to enable us ascertain the time series properties of the variable in the model. Generally, two unit root tests were conducted; to ascertain whether the variables are stationary in levels and whether they are stationary in difference.

The summary of these tests are presented in tables 5.6 and 5.8 respectively. Each test was conducted using Augmented Dickey Fuller (ADF) and Philip-Perron tests. The interpretation of the estimated results of the tests is presented in section below. Preceding sections gives the appraisal of estimated results which comprises the test of hypotheses and discussion of result.

A Johansen co-integration regression analysis was carried out to ensure the long-run equilibrium relationship of the variables. In doing this, the variables were tested for

stationarity. This was carried out because most economic variables are not stationary at levels because such data depends on the past trend or past behavioral pattern.

The specified techniques and preceding procedures were carried out to check for variable stationarity and co-integration of series.

Table 5.3.2 Unit Root Tests

STATIONARY TEST AT LEVELS (ADF)					
VARIABLES	ADF STATISTIC	C V @ 1%	CV@ 5%	CV@10%	Remarks
LNGDP	-2.176611	-3.615588	-2.941145	-2.609066	Non-stationary
LNECI	-2.529568	-4.004425	-3.098896	-2.690439	Non-stationary
LNEDI	1.248430	-4.057910	-3.119910	-2.701103	Non-stationary
STATIONARY TEST AT LEVELS (Philip Perron)					
LNGDP	-2.160573	-3.615588	-2.941145	-2.609066	Non-stationary
LNECI	-2.504726	-4.004425	-3.098896	-2.690439	Non-stationary
LNEDI	-0.603115	-4.004425	-3.098896	-2.690439	Non-stationary
STATIONARY TEST AT FIRST DIFFERENCE (ADF)					
VARIABLES	ADF STATISTIC	C V @ 1%	CV@ 5%	CV@10%	Remarks
LNGDP	-3.924841***	-3.621023	-2.943427	-2.610263	I(1)
LNECI	-3.894983**	-4.297073	-3.212696	-2.747676	I(1)
LNEDI	-4.766389***	-4.297073	-3.212696	-2.747696	I(1)
STATIONARY TEST AT FIRST DIFFERENCE (Philip Perron)					
LNGDP	-3.537730**	-3.621023	-2.943427	-2.610263	I(1)
LNECI	-6.714935***	-4.057910	-3.119910	-2.701103	I(1)
LNEDI	-6.380721***	-4.057910	-3.119910	-2.701103	I(1)

Computed by Researcher using E-views 6.0

**significance at 5% & 10% level

***significance at 1%, 5% & 10% level

5.3.3 Testing for Co-integration using Johansen Approach

Having noted that all variables can be characterized as integrated series with order of integration equals to 1, I(1), we first examine their long-run relations using co-integration analysis. The appropriate lag structure is found to be one which is sufficient to render the term serially uncorrelated. Since the variables are integrated at the same order, there is the need to test for co-integration relationships using Johansen approach. This approach is selected because the Engel and Granger two step procedure conceals information on the coefficients of the explanatory variables in the co-integrating vector, hence makes the approach inappropriate in many cases including this study. The results using this approach are found to be sensitive to the lag length used. The Akaike information criterion is used in selecting lag length to be included in the estimation. Co-integration tests of the models assume quadratic deterministic

trend in data. Both trace and maximum eigenvalue test results indicate the existence of a unique co-integrating vector between test variables for growth model.

Table 5.3.2 presents the Trace Test statistic; the result indicates the existence of one (1) co-integrating equation in the model. A result is chosen at the value where the trace statistic is less than the corresponding critical value. Here, it is evident that there are at most one co-integrating equation with a trace value of 9.011731 and a critical value of 18.39771 at the 5% level of significance.

Table 5.3.3 Johansen Co-integration Estimates

Trace Test				
Eigenvalue	Trace static	5% critical value	Prob**	Hypothesized No. of CE9(s)
0.98346	58.24083	35.01090	0.0000	None*
0.42031	9.01173	18.39771	0.5788	At most 1
0.18592	2.46849	3.84146	0.1161	At most 2
Maximum Eigenvalue Test				
0.983467	49.22910	24.25202	0.0000	None*
0.420315	6.543238	17.14769	0.7618	At most 1
0.185929	2.468493	3.841466	0.1161	At most 2
Co-integrating coefficient normalized on growth (standard error in parentheses)				
LNGDP	LNECI		LNEDI	
1.000000	-0.248917		3.564271	
	(0.00768)		(0.22715)	

Source: Computed by Researcher using E-views 6.0

The result showing the estimated number of co-integrating vectors using maximum Eigenvalue test (table 5.3.2) reveals that there is one (1) co-integrating equation in the model. In this test, there is at most 1 co-integrating vector with a maximum Eigen-value of 6.543238 and critical value of 17.14769 at the 5% level of significance. The trace and maximum Eigenvalue tests produce an impressive result, and are however chosen for the purpose of this analysis because they are more likely towards the long-run equilibrium path. The presence of one co-integrating equation shows that there exist a long-run convergence relationship among the variables estimated, that is the regressant (LNGDP) and the regressors (LNECI), (LNEDI) possess a converging relationship in the long-run.

The estimated long-run parameters, which readily available from the Johansen procedure, suggest both the export concentration index and export diversification index to be statistically significant in explaining the variation in economic growth, but while the export concentration index is positively related with growth, the diversification index shows a negative relation with economic. Thus, this implies that the degree of export diversification plays a significant

role (though negative in case of ECOWAS) to economic growth. The result differs and inconsistent with those of Al marhubi (2000), Pineres & Ferrantino (2000), Herzer & Lehman (2006), Agosin (2007) and Lau Sim and Abdul Karim (2010). This is likely due to the heavy concentration of ECOWAS and its over-dependence on commodity exports; the positive relation of the concentration index (as indication of specialization), suggest that ECOWAS has maintained specialization only on a weak spillover generating export; which contrast the modern international competition theory, that a country cannot solely depend on particular industrial activities but should be more proactive to offset national factor disadvantages in sustaining national competition advantage. A proven impacts of such diversity on economic performance was confirmed by Malizia and Ke (1993), Wagner and Deller (1998), Trendle and Shorney (2004) and Woerter (2007) in their empirical analyses.

Though continual over-dependence will affect long-run growth but not to the magnitude and significance of degree of diversification.

5.3.4 Vector Error Correction Modeling (VECM)

Table 5.3.4 Vector Error Correction Model for growth, standard errors in () & t-statistics in []

Variable	D(LNGDP)	D(LNECI)	D(LNEDI)
ECT(-1)	-0.55417	4.374742	-0.035628
	(9.74003)	(2.05374)	(0.14517)
	[-2.18626]	[2.13014]	[-0.24543]

Computed by Researcher using E-views 6.0

Since there is co-integration among dependent variables and its fundamentals, an error correction model has to be estimated by incorporating the lagged error correction term in the set of regressors. The error correction term is the residual from the static long run regression and it joins the set of differenced non-stationary variables to be estimated to capture both short and long run dynamics.

The VECM analysis shows that the model has a negative sign, the magnitude of the coefficient of error correction term lies between zero and one. This shows that 55 per cent of the short run disequilibrium adjusts to the long run equilibrium each year and also the significance of the error correction term indicate that the speed of growth model to converge to the long run equilibrium point exist and moderate.

5.3.5 Model 2: Panel Least Square Model

The estimation attempts to sieve the impact of export concentration on ECOWAS per capita growth considering individual country fixed effects and period specific effects. The estimation is carried out to achieve the third objective as specified in chapter one of the write-up, a panel least square of 15 ECOWAS states is considered in the analysis.

Variable	coefficient	T	sig.
C	9.1997	4.3343	0.0000
LNAGR	0.1741*	5.9864	0.0000
LNIV	-0.0239*	-2.3565	0.0198
LNMFRR	0.0279	1.3044	0.1942
LNPOP	-1.5684*	-11.1213	0.0000
LNSEV	0.8239*	28.4213	0.0000

Source: Computed by Researcher using E-views 6.0

$R^2 = 0.5034$

Dw = 0.4983

*Significant at 1%, 5% and 10%

Inconsistent with the hypothesis, we could not confirm a significant impact of manufacturers value-added on per capita income, which could have arise from the region less concentration on production and export of manufactures. The coefficient of the investment share of GDP was negative signalling that the low capital injection in improving value-added in ECOWAS impacted negatively on GDP per capita.

The population variable is one of the most potent, from the estimation; population was consistently more significant (with higher negative magnitude). This implies the recognition of the potential impact of population in dwindling GDP per capita in the face of low income of some ECOWAS members. The transfer of value-added, literally transfer of income across border in line with rising population has economically endangered ECOWAS region.

The estimated result from panel least square procedure suggest that the coefficients of agriculture value-added, manufacture value added and service value added are positively related with real per capita income; while investment share of growth and population are negatively related with real per capita income. These results show that the observed variables are statistically significant in explaining the variation in real per capita income, except manufacturing value-added. This contrasted earlier works and is likely due to the weak processing capability and low production of dynamic high-technology products in ECOWAS region. In Africa, undergarment (SITC 846) are the only important export item among the

most dynamic product in world trade, their share in total Africa exports is only 1.7 percent and two countries (Maritius and Swaziland) account for about 90% of total exports of this product; none of ECOWAS Countries produce and export a dynamic product. (Unctad, 2003)

Table 5.3.5 Cross-Section Fixed Effects

S/N	Country	Fixed Effects
1	Benin	0.071783
2	Burkina Faso	0.474609
3	Cape Verde	-1.516755
4	Cote D'ivoire	0.479028
5	Gambia	-0.714706
6	Ghana	
7	Guinea	0.343972
8	Guinea-Bissau	-0.435558
9	Liberia	
10	Mali	0.526674
11	Niger	0.421572
12	Nigeria	
13	Senegal	0.335824
14	Sierra-Leone	
15	Togo	0.013558

Source: Computed by researcher using E-views 6.0

Table 5.3.6 Period Fixed Effects

S/N	Date	Effects
1	1990	-0.191335
2	1991	-0.144391
3	1992	-0.130320
4	1993	-0.111446
5	1994	-0.086879
6	1995	-0.061563
7	1996	-0.053451
8	1997	-0.034022
9	1998	-0.007391
10	1999	0.012843
11	2000	0.019718
12	2001	0.046801
13	2002	0.049813
14	2003	0.064747
15	2004	0.080834
16	2005	0.107170
17	2006	0.109908
18	2007	0.126067

Source: Computed by Researcher using E-views 6.0

As seen above (table 5.3.5) shows the unobserved effects by the explanatory variables as it relates to individual countries; the country-specific fixed effects reveals the individuals countries position as it relates to the regressant (real per capita income) that is not captured by the regressors in the model. It shows that the magnitude and degree of real per capita income

when the explanatory variables are assumed constant. This seems to indicate that on account of relatively low trade indicators (specified explanatory variables), GDP per capita in the region is driven by some other variables. ECOWAS members such as Cape Verde, Gambia, Guinea-Bissau have negative fixed effect (falling real per capita income) which could have resulted from political, governance or economic instability. The country fixed effects of Ghana, Liberia, Nigeria and Sierra Leone could not be obtained because of unavailability of enough data to estimate the effects.

The period fixed effect as illustrated in (table 5.3.6) shows the periodic magnitude of the regressand (real per capita income) when all the explanatory variables is held constant, the result of the model shows a declining real per capita income until 1999 when the ECOWAS region real per capita regains and has remained at almost constant level.

CHAPTER SIX

SUMMARY, RECOMMENDATION AND CONCLUSION

6.1 Introduction

This chapter presents summary of the major findings in study, policy recommendations of the findings, as well as conclusion. In addition, agenda for further research and limitations of the study are also presented

6.2 Summary of Major Findings and Implications

The study found that ECOWAS export has been concentrated around primary commodities, mainly agriculture and fuel with over 90% of the region export on these commodities whereas neglecting production and manufacture export which has a greater capacity to induce growth.

The study found that a very weak trade link among the ECOWAS member states resulting from their exportation of homogenous commodities, larger percentage of ECOWAS trade occur with the Europe and North America countries which largely results in transfer of value across border. The heavy concentration on Primary commodities has dwindled the capacity of intra-regional trade and industrial productivity in ECOWAS region.

Also the heavy dependence on agriculture caused a severe fluctuations in the ECOWAS GDP and agriculture value-added, and has continually weaken the GDP per capita in the region due to the continually loss in trade terms and unstable foreign earnings caused by the price and demand inelasticities of Commodity export; hereby making the ECOWAS economy highly vulnerable.

The study found that, the degree of export diversification in ECOWAS though negatively related to economy growth but significant in explaining the trend in economic growth over-time, this implies that export basket of ECOWAS region is highly concentrated as supported by the estimate of the degree of concentration index. Though, inconsistent with expectation, the influence of export diversification on growth as indicated by the endogenous growth theory hypothesis cannot be over-emphasized; the inconsistency with ECOWAS is likely due to fact that the region has not really experienced any successful attempt of export diversification. The study reveals that the concentration index is positively and significantly related to growth, this shows that ECOWAS export earnings is sourced from a category of commodity (primary commodities). The negative relation of Export diversification index to

growth implies that export diversification has been constrained in ECOWAS and therefore yielding an unfavourable spill-over effect.

The study found agriculture value-added to induce positively GDP per capita, likewise manufacture value-added and service value-added. The agriculture and service value added was found to highly significant in explaining the trend in GDP per capita. This implies that the earning of the ECOWAS region is concentrated on agriculture export and services rendered whereas, production and manufacturing activities plays an insignificant role. This has accentuated the retrogressive nature of the region economies, as manufactures which attract large gain with high demand elasticities and quick supply response is been neglected.

The study found that the investment share of GDP vary inversely with GDP per capita which would have resulted from the entire resource export of the region. Over-time, ECOWAS states sole dependence on exploration of resource endowments has greatly reduced investment in sectors capable of generating more earnings.

The population variable was found to carry the largest magnitude, also negatively related to GDP per capita and highly significant in explaining the trend (downward) in GDP per capita of ECOWAS region. This implies that the population level in the region has a great drowning effect on the economic well-being of the region, and will the increase in expected population growth of the region and loss of income; the incidence of poverty (as widely witnessed) might be increasing.

6.3 Policy Recommendations

Base on the findings noted in the previous section, this section makes some recommendations that will be relevant for some policy consideration. First and foremost, there is urgent need for ECOWAS states to place more emphasis on the exports of manufacturers' products and make efforts to reduce concentration on exports of primary (agriculture and fuel) products. This will help improve their international trade performance especially with respect to reducing term of trade losses and unfavourable shocks in foreign earnings.

Also, the region should focus on production of products for domestic need; in doing this, the ECOWAS states will escape the trap of homogenous export and foster more intra-trade links. The region should see production as major objective rather than exports; this enhances industrial activities and innovations in the region. This attempt retains economic gains of resource within the region and foster economic well-being, the critical mass of ECOWAS

challenge is weak productive capacity, this has accentuated the progress of the member states and the sole cause of social and economic evils within the region. ECOWAS should see exports as originating from domestic sufficiency.

ECOWAS needs to concentrate efforts on exports of commodities that attract more stable earnings by increasing the value-added of its major exports and encouraging investment into viable sectors. Continue dependence on primary commodities would only diverge the region from achieving stationary stage of income and perpetually place the region in income trap; concentration of efforts on quick supply response and highly dynamic products which attract higher price in the international market would revive the economies of the region.

Also, the region should attempt a horizontal diversification in the short-run by expanding the variety of usefulness of its export basket. For instance, products such as Cocoa, Crude, Coffee etc can be processed into their various usefulness before exporting rather than exporting in crude form. Industries should be developed to explore and handle several components of these products. Crude for instance, at processing stage can be sieved into several components such as gases, kerosene, diesel, motor oil, petroleum jelly, etc; this implies that several industries can be developed from crude resource.

The ECOWAS member states should concentrate on mass injection of capital investment in viable sectors of their economies, the region should invest heavily in developing sectors that are capable of generating spill-over and export discovery that would enhance comparative advantage along a new export cluster and facilitate the emergence of new exports. This would accentuate the level of human capital utilization, societal advancement and global trade penetration of the region.

6.4 Conclusion

In recent years, especially with the advent of globalization and economic integration, gains from trade have gained increased interest among nations. As elucidated in the study, though there have been increased research effort on export diversification of commodity dependent nations in ECOWAS but most of these studies descriptively relate export diversification to growth. This, inter alia, was what inspired this particular study. In effect, the study in literature exploration observed that not much research has been done in relating GDP per capita to the nature and basket composition of exports and the effect of diversification of

exports on ECOWAS GDP. Most studies that econometrically relate economic growth to diversification degree were done mostly in Asia.

In furtherance, ECOWAS performs insignificantly on exports of dynamic products. The region average export of manufacture product is below 10% in the period 1995-2008. The region's performance in exports of high earning products in the global market is drastically below the world average, as the region exports of commodity products exceed 90% in the period 1995-2008. Moreover, the region has a rising population; this with low yielding export earnings and governance instability has aggravated the incidence of poverty in the region.

In view of the above and poised with the need for knowledge contribution, the study used a sample of 15 countries in ECOWAS for the period of 1995-2009 to empirically evaluate the nexus between GDP per capita and export composition, and GDP and diversification index in ECOWAS. In achieving the empirical expectation, the study engaged data obtained from World Development Indicators, National Master Statistics, UN Comtrade Database, Penn World Table, among others, in different aspects of the estimation process. The first aspect of the econometric estimation process employed a Johansen co-integration and Error Correction Modelling techniques. This was deemed appropriate to capture the long-run effect of diversification and concentration index on GDP

The second aspect of the estimation process involved the use of panel data analytical technique based on fixed and period effects model. The rational was to sieve the effects of export composition on GDP per capita.

Based on the above technique of analysis, the formulated models were estimated in the light of different categories of export composition and their influence on growth performance, other factors besides export composition such as investment share of GDP and population were equally assessed with respect to the nature of their influence on export performance.

Conclusively, the study has been able to examine the impact of export performance and diversification on GDP using ECOWAS member states. It has made contribution by increasing the volume of empirical research in the areas of commodity export dependence and economic prosperity especially in ECOWAS. Several findings were made from the analyses; one notable finding that made the study distinct from previous research efforts was that diversification index has no valid and negative impact on GDP and manufacturing value-added has a weak impact on GDP per capita. As illustrated in the research, this would have

accentuated from the fact that no meaningful diversification efforts has witnessed a commendable success in ECOWAS. Thus, it is expedient for the region to diversify, as experiences from Asia countries and current global demand gives credence on manufacture products attracting more stable foreign earnings and generates economic spill-overs.

6.5 Limitation of Study and Agenda for Further Research

The study unlike some similar works on trade, did not use the system GMM estimation technique or gravity model given that the focus was on evaluating the long-run nexus between export composition and growth. Also, considerable efforts were made to estimate individual countries export diversification impact on GDP but the needed data were not available for most of the countries. Hence, the study made use of the available ECOWAS diversification index as provided by UNCTAD; this might not really represent the ideal in ECOWAS member states. Further studies can increase the reliability of inferences by observing the situation in the member states.

The study attempted some comparison with other regional groupings to evaluate ECOWAS export structure and performance but the comparison is seemed ambiguous. Further studies should attempt comparing ECOWAS export structure and composition with other major sub-groupings to adequately ascertain ECOWAS performance.

The influence of diversification index on GDP can be taken up in further research; other analytical and econometric techniques of estimation with more observations can be used to ascertain the actual effect of diversification index on GDP in ECOWAS. Further researches could undertake a field study to some countries and export agencies to examine their actual export base composition and the level of per capita impact induced by different categories of exports. The study attempted such field visits but the exercise became elusive as a result of inadequate funding. This exercise is expedient for further researches in order to carry-out an in-depth case study, recognising the inappropriateness of available economic data.

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APPENDIX 1

Table A1 Economic Description of ECOWAS States

Year	Import (US Million)	Export (US Million)
Burkina Faso		
1996	590.64	187.2
1998	656.3	237.4
2000	500.6	169.6
2002	580.0	175.4
2004	1034.7	413.6
2006	1329.2	476.5
2008	1687.9	542.9
Benin		
1996	522.9	259.3
1998	599.3	206.9
2000	585.3	199.4
2002	765.9	249.3
2004	901.6	323.6
2006	1822.8	327.1
2008	2506.3	492.5
Cote D'Ivoire		
1996	2821.1	4282.0
1998	2997.8	4393.1
2000	2493.2	3580.7
2002	2586.5	5027.6
2004	4703.8	6583.1
2006	7686.9	8194.8
2008	4864.3	6332.2
Cape Verde		
1996	313.7	30.2
1998	260.4	37.1
2000	257.8	44.3
2002	326.2	47.5
2004	591.8	37.5
2006	789.9	46.7
2008	1100.6	56.5
Ghana		
1996	170.7	12.4
1998	216.3	20.7
2000	180.5	15.6
2002	150.3	3.6
2004	224.9	11.4
2006	246.1	10.3
2008	321.8	13.1
Guinea		
1996	596.6	736.3

1998	635.5	670.8
2000	520.1	692.1
2002	711.9	475.0
2004	846.8	169.5
2006	977.6	148.9
2008	872.5	124.3
Guinea-Bissau		
1996		
1998		
2000		
2002	47.3	43.1
2004	111.8	139.1
2006	94.7	56.8
2008	117.1	61.2
Mali		
1996	808.7	410.4
1998	811.4	589.1
2000	792.9	544.6
2002	930.7	868.3
2004	1422.4	723.6
2006	1740.3	916.8
2008	1757.4	868.6
Niger		
1996	270.8	214.9
1998	366.9	209.2
2000	282.9	201.3
2002	406.6	173.2
2004	725.9	406.9
2006	806.2	259.3
2008	905.4	340.5
Nigeria		
1996	17145.4	
1998	18362.0	
2000	5663.0	
2002	8514.3	
2004	10895.5	
2006	22613.2	
2008	33636.8	
Sierra Leone		
1996		
1998	3515.6	4.7
2000	135.0	2.2
2002	204.7	0.9
2004	169.1	1.2
2006	771.1	29.7
2008	1416.4	6.1

Senegal		
1996	1329.6	729.9
1998	1538.6	817.7
2000	1542.4	627.8
2002	2152.7	918.6
2004	3138.2	1091.8
2006	3669.2	1148.4
2008	4913.5	1242.8
Togo		
1996	430.9	239.3
1998	462.7	274.7
2000	351.0	161.8
2002	438.3	199.9
2004	601.7	356.0
2006	779.4	264.2
2008	945.5	321.4

APPENDIX 2

The Results of the estimated models as obtained from E-views 6.0

Date: 12/10/10 Time: 23:25
 Sample (adjusted): 1997 2008
 Included observations: 12 after adjustments
 Trend assumption: Quadratic deterministic trend
 Series: LNGDP LNEDI LNECI
 Lags interval (in first differences): 1 to 1

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.983467	58.24083	35.01090	0.0000
At most 1	0.420315	9.011731	18.39771	0.5788
At most 2	0.185929	2.468493	3.841466	0.1161

Trace test indicates 1 cointegrating eqn(s) at the 0.05 level

* denotes rejection of the hypothesis at the 0.05 level

**MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None *	0.983467	49.22910	24.25202	0.0000
At most 1	0.420315	6.543238	17.14769	0.7618
At most 2	0.185929	2.468493	3.841466	0.1161

Max-eigenvalue test indicates 1 cointegrating eqn(s) at the 0.05 level

* denotes rejection of the hypothesis at the 0.05 level

**MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegrating Coefficients (normalized by b'S11*b=I):

LNGDP	LNEDI	LNECI
-73.17489	-260.8152	18.21446
53.66002	102.8106	-0.238199
-46.69930	-483.4747	8.597473

Unrestricted Adjustment Coefficients (alpha):

D(LNGDP)	D(LNEDI)	D(LNECI)
0.471247	0.001571	-0.094494
-0.280613	-0.002750	-0.078531
0.024478	0.002867	0.023143

1 Cointegrating Equation(s): Log likelihood 63.56180

Normalized cointegrating coefficients (standard error in parentheses)

LNGDP	LNEDI	LNECI
1.000000	3.564271	-0.248917
	(0.22715)	(0.00768)

Adjustment coefficients (standard error in parentheses)

D(LNGDP)	-34.48346
	(13.1681)
D(LNEDI)	-0.114926
	(0.23569)
D(LNECI)	6.914607
	(3.97479)

2 Cointegrating Equation(s): Log likelihood 66.83342

Normalized cointegrating coefficients (standard error in parentheses)

LNGDP	LNEDI	LNECI
1.000000	0.000000	0.279737
		(0.19547)
0.000000	1.000000	-0.148320
		(0.05497)

Adjustment coefficients (standard error in parentheses)

D(LNGDP)	-49.54115	-151.7584
	(12.5929)	(38.9061)
D(LNEDI)	-0.262482	-0.692339
	(0.27394)	(0.84634)
D(LNECI)	2.700636	16.57172
	(3.97889)	(12.2929)

Vector Error Correction Estimates

Date: 12/10/10 Time: 23:26

Sample (adjusted): 1997 2008

Included observations: 12 after adjustments

Standard errors in () & t-statistics in []

Cointegrating Eq:	CoIntEq1
LNGDP(-1)	1.000000
LNEDI(-1)	5.693722
	(0.45597)
	[12.4872]
LNECI(-1)	-0.407916
	(0.04073)
	[-10.0161]
C	-10.17394

Error Correction:	D(LNGDP)	D(LNEDI)	D(LNECI)
-------------------	----------	----------	----------

CointEq1	-11.55417 (9.74003) [-1.18626]	-0.035628 (0.14517) [-0.24543]	4.374742 (2.05374) [2.13014]
D(LNGDP(-1))	-2.132480 (17.2920) [-0.12332]	0.113222 (0.25773) [0.43931]	2.761626 (3.64612) [0.75741]
D(LNEDI(-1))	13.39296 (40.8374) [0.32796]	-0.485092 (0.60866) [-0.79699]	-8.362559 (8.61079) [-0.97117]
D(LNECI(-1))	-1.531812 (2.32856) [-0.65784]	-0.006277 (0.03471) [-0.18086]	0.452428 (0.49099) [0.92146]
C	0.022012 (0.71642) [0.03072]	-0.013672 (0.01068) [-1.28041]	-0.162865 (0.15106) [-1.07814]
R-squared	0.263169	0.335860	0.554759
Adj. R-squared	-0.157877	-0.043649	0.300336
Sum sq. Resids	5.002597	0.001111	0.222415
S.E. equation	0.845374	0.012600	0.178252
F-statistic	0.625036	0.884987	2.180456
Log likelihood	-11.77757	38.69563	6.901430
Akaike AIC	2.796261	-5.615938	-0.316905
Schwarz SC	2.998305	-5.413894	-0.114861
Mean dependent	-0.184154	-0.006224	0.014638
S.D. dependent	0.785629	0.012333	0.213102
Determinant resid covariance (dof adj.)		4.08E-07	
Determinant resid covariance		8.09E-08	
Log likelihood		46.89767	
Akaike information criterion		-4.816278	
Schwarz criterion		-4.088918	

Dependent Variable: LNGDPK
 Method: Panel Least Squares
 Date: 12/10/10 Time: 23:23
 Sample: 1990 2007
 Periods included: 18
 Cross-sections included: 11
 Total panel (unbalanced) observations: 173

	Coefficient	Std. Error	t-Statistic	Prob.
LNAGR	0.174102	0.029083	5.986415	0.0000
LNIV	-0.023903	0.010144	-2.356523	0.0198
LNMFRR	0.027992	0.021459	1.304412	0.1942
LNPOP	-1.568386	0.141026	-11.12125	0.0000
LNSEV	0.823993	0.028992	28.42128	0.0000
C	9.199693	2.122529	4.334307	0.0000

Effects Specification

Cross-section fixed (dummy variables)

Period fixed (dummy variables)

R-squared	0.996913	Mean dependent var	5.774746
Adjusted R-squared	0.996207	S.D. dependent var	0.547988
S.E. of regression	0.033748	Akaike info criterion	-3.769959
Sum squared resid	0.159446	Schwarz criterion	-3.168464
Log likelihood	359.1015	Hannan-Quinn criter.	-3.525936
F-statistic	1412.836	Durbin-Watson stat	0.786355
Prob(F-statistic)	0.000000		