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IMPACT OF INTRA-AFRICAN TR\DE: A CASE STUDY OF THE PREFERENTIAL TR\DE AREA (PTA) FOR EASTERN AND SOUTHERN AFRICA

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A DISSERTATION

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BY

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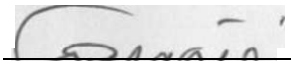
DECLARATION

This thesis is my original work and has not been presented for any other degree in any other University.

Signature: — Date: J i J > i J 3 i ±

S.A. OCHOLA

This thesis has been submitted for examination with my approval as the University SuDervisor:



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Dr. A.B. AYAKO

In memory of my father and mother who taught me my A, B, C and instilled in me the joy of learning.

Dedication

This thesis is dedicated to my loving wife Truphosa (Phosa) Awino Ochola who, for the past 30 years has shown remarkable tolerance and during which time I have devoted myself to the pursuit of knowledge. I dedicate this thesis to her as a sign of my deep appreciation and love for her unparalleled understanding and support.

The thesis is also dedicated to our six children: Rachel, John, Robert, Lucy, Judith and Isabella who in recent years have equally and admirably participated in the struggle for knowledge. May they go on to write better theses and contribute even more to life than their "Daddy" hopes he has.

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To my children, Rachel, John, Robert, Lucy, Judith and Isabella, I have nothing but great admiration for inspiring me to keep on. By undertaking this research, I hope I have imparted to them the joys of the pursuit of knowledge. My special thanks are reserved for my wife Phosa for her fortitude and forbearance in tolerating me, even when the going got tough and rough. Her unparalleled support is a mark of her deep understanding and appreciation of the beauty of knowledge. Indeed, I cannot compensate my family enough for having cheerfully foregone my company during the preparation of this study. I only hope that the outcome of this work will justify their patience. The message I would like to pass onto them is simple and straightforward - it is that the pursuit of knowledge should be a life-long endeavour which should not be obstructed by any form of human barriers. It should be the goal of every generation!

In spite of its limitations, for which I take full responsibility, I still have the conviction that this work will generate interest and assist policy-makers in reviewing once again the whole issue of economic integration within the coctext of the Eastern and Southern .African sub-region. The process of economic integration still has an unfinished agenda so the search for further enlightenment must continue.

ABSTRACT

The study uses the residual and gravity models, and graphical analyses to estimate the impact of the creation of a Preferential Trade Area (PTA) for Eastern and Southern Africa, on the economies of the countries belonging to the trade arrangement. The models and graphical analyses, use adjusted data from a variety of sources, covering the period between 1982 and 1996 and uses 1983 as the cut-off point for the post and pre-PTA periods. By computing the domestic share (Ds), share of imports from partners (Ps) and non-partners (Ns) from the apparent consumption equation, the residual model uses the changes which occur in the three factors were used to indicate gross trade creation, net trade creation and trade diversion. The changes are used directly or indirectly to assess the impact of the formation of the PTA on trade effects, growth, industrialization and transfer of technology. The graphical analyses are however, used to indicate the trend in the changes that occur over the period. The gravity model on the other hand, uses the two-tailed t-test to assess the impact of the PTA creation on the four hypotheses being tested in the study. This is achieved by assessing the significance of t-values on the various variables that affect the imports from country / to country *j,* and by measuring the correlation between the various variables using R^2, which should be greater than 0.5. The results obtained through regression analysis are then used to estimate the direct or indirect effects of the different variables on trade effects, growth, industrialization and transfer of technology

The models and the data used in the study reveal that only countries with relatively more diversified production structures tend to benefit and to claim bigger shares of intra-PTA trade than those with less diversified economies. Surprisingly enough, countries with a weak manufacturing base and productive structures also experienced trade creation as a result of this weakness. The study further revealed that countries with strong trade links with third countries increased the level of their intra-PTA trade, and that income, population as well as exchange rates piayed significant roles in the expansion of trade. The compiimentarity between trade creation and diversion would be crucial in generation industrialization within the PTA arrangement by promoting greater trade in manufactures through increased trade diversion.

The key policy emphasis which the study makes is in the creation of critical and strategic pre-requisites within each economy, through the building of human capacity and capabilities; addition of value to products by the countries of the region before their exportation; and rigorous promotion of trade links with both industrialized and other countries. Even though the results derived from this study could not yield conclusive evidence as to the impact of the PTA formation, the study indicated areas where tiirther research could be directed, such as the minimum level of development required before benefits could be reaped from integration, as well as the type of model that would be most appropriate in the light of the data difficulties. This Study spells out areas for policy considerations and indicates that the limitations of the study do not invalidate any conclusions reached in the analysis.

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SELECTED LIST OF ABBREVIATIONS

.ADR	African Development Report
ADB	African Development Bank
AEC	African Economic Community
ASEAN	Association of South East Asian Nations
ASYCUDA	Automated System of Customs Data
BOAD	Banque Ouest Africaine de Developpement
CACM	Central America Common Market
CARICOM	the Andean Group and the Caribbean Economic Community
CEAO	West African Economic Community
CEPGL	Economic Community of Countries of the Great Lakes
CET	Common External Tariff
COMESA	Common Market for Eastern and Southern Africa
EAC	East African Community
EACM	East African Common Market
EACU	East African Customs Union
EC	European Community
ECA	United Nations Economic Commission for Africa
ECCAS	Economic Community of Central African States
ECOWAS	Economic Community of West African States
EEC	European Economic Community
EOI	Export-Oriented Industrialization
FAL	Final Act of Lagos
FFEA	Federation in French Equatorial Africa
GATT	General Agreement on Tariff and Trade
GCC	Gulf Cooperation Council
GDP	Gross Domestic Product
GNP	Gross National Product
HDR	Human Development Report
ISI	Impost-Substitution Industrialization
LAFTA	Latin American Free Trade Area
LDC	Least Developed Countries
LPA	Lagos Plan of Action
MECOSUR	Southern Cone Common Market
MIES	Multinational Industrial Enterprises
MRU	Mano River Union
NAFTA	USA-Mexico-Canada Free Trade Area

SELECTED LIST OF ABBREVIATIONS

NIDL	New International Division of Labour
OAU	Organization of African Unity
OECD	Organization for Economic Co-operation and Development
PBTPI	Pacific Basin Trade Preferences Initiative
PTA	Preferential Trade Area
SACU	South African Customs Union
SADC	Southern Africa Development Community
SADCC	Southern Africa Development Coordination Conference
SSA	Sub-Saharan Africa
TINET	Trade Information Network
TNCs	Transnational corporations
UDAO	West African Customs Union
UDEAC	Central .African Customs and Economic Union
UDEAO	Union Douaniere des Etats de l'Afrique de l'Ouest
UDE	Equatorial Customs Union
UMAO	Union Monetaire Ouest Africaine
UN	United Nations
UNCTAJD	United Nations Conference on Trade and Development
UNDDO	United Nations Industrial Development Organization
WACH	West African Clearing House
WDR	World Development Report
WER	World Investment Report

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CHAPTER ONE

INTRODUCTION

1.1 Integration Trends

The past decade and a half have witnessed the resurgence of regional economic integration groupings at the global level. The fundamental objectives for the formation of sub-regional and regional economic integration schemes is to enable the economies of the member countries participating in the arrangements to achieve, individually and collectively, higher levels of economic development that would otherwise prove elusive under autarky regimes. Such an approach is particularly compelling for the Sub-Saharan African (SSA) countries whose economies are still characterized by: a general low level of economic development, gross national product (GNP) per capita of less than US$400, fragmented small domestic markets, widespread human poverty (Human Development Report (HDR), 1997), and the highest number of least developed countries (LDCs) [Foroutan, 1992], In 1995, there were 33 LDCs in Sub-Saharan Africa as compared to 15 such countries in the rest of the world (UNCTAD, 1995).

Even though the establishment of some regional economic groupings, such as the East African Customs Union (EACU), Federation in French Equatorial Africa (FFEA), South Africa Customs Union and Federation of Rhodesia and Nyasaland predate the formation of the European Economic Community (EEC) in 1957, its creation became

the motive force behind the decision in the 1960s by many developing countries to form regional groupings. In Latin America, the groupings included the Latin American Free Trade Area (LAFTA), the Central America Common Market (CACM), the .Andean Group and the Caribbean Economic Community (CARICOM). In the Middle East, the creation of the Gulf Cooperation Council (GCC) was seen. In SSA such integration schemes included the East African Community (EAC), Central African Customs and Economic Union (UDEAC), the West African Economic Community (CEAO), the Economic Community of West African States (ECOWAS), the Preferential Trade Area (PTA) for Eastern and Southern Africa which since 1994 was transformed into the Common Market for Eastern and Southern Africa (COMES A), and the Southern Africa Development Coordination Conference (SADCC), which, in 1992, became the Southern .African Development Community (SADC).

The transformation of the EEC into a single market of the European Community (EC) in 1992 and its unprecedented overall success and impact on industrialization and economic recovery process in western European countries, played a crucial role in the resurgence of regional economic integration at the global level (Inotai, 1991). The regionalization trend was witnessed by the establishment of the USA-Mexico-Canada Free Trade Area (NAFTA) in north America. In Latin America, revitalization of regional co-operation was undertaken at regional and bilateral levels. One result was the creation of Southern Cone Common Market (MERCOSUR) in 1991. In .Asia, where, in the past, emphasis had been put on extra-regional economic and trade relations, steps were taken to create a regional common market. The other regionalization trends were reflected by the emergence of the Pacific Basin Trade

Preferences Initiative (PBTPI). Another initiative in the offing is the formation of the Euro-Mediterranean Free Trade Area. In 1993, the South Asian Preferential Trading Agreement was established with the aim of forming a Common Market between Bangladesh, Bhutan, India, the Maldives, Nepal, Pakistan and Sri-Lanka. In Africa, the initiative undertaken under the Lagos Plan of Action (LP A) and the Final Act of Lagos (FAL) to establish an African Economic Community (AEC) by the year 2000, moved closer in June 1991 by the signing at Abuja, Nigeria, the Treaty establishing the AEC. The AEC was officially launched in 1997 after the ratification of the Treaty by the required two-thirds of the Organization of African Unity (OAU) member States in 1994.

The examination of the objectives of the various regional integration schemes in Africa (African Development Report (ADR), 1993) reveals the basic aim of achieving five main goals, namely:

(i) trade liberalization on the basis of elimination of tariff and non-tariff barriers to intra-regionai trade;

(ii) establishment of a common external tariff and a common commercial policy towards third countries;

(iii) free mobility of factors of production, labour, capital and services amongst member States;

(iv) harmonization of economic policies of the member States with respect to agriculture, industry, infrastructures and monetary affairs; and

(v) trade facilitation through the establishment of clearing and payments arrangements and trade information systems

The verdict is that progress in these areas has been uneven (ADR, op. cit). While some integration schemes have performed relatively well, others have only recorded modest progress and others have existed in name only.

The question arising is what underpins the rising tide towards "New Regionalism?" (Fernandez, 1997). The basic argument is that the creation of regional trade arrangements provides mechanisms through which intra-regional trade expansion and accelerated development of the integrated area can be achieved (Oyejide, 1998). In other words, the theory of regional integration offers an explanation for the postulated growth inducing effects emanating from the static and dynamic gains from such arrangements (Lipsey, 1960 and Viner, 1961). By widening the markets and enhancing trade expansion (World Bank, 1991), the regional arrangements end in enhancing the division of labour, improving the efficiency with which resources are allocated, encouraging competition, product specialization, including the development of entrepreneurial skills, (Balassa *et al.,* 1971) and creating economies of scale (Syrquin and Chenery, 1989). In the context of SSA countries, it has been stated that the economies can only reduce the cost ot industrialization by exploiting economies of scale through regional integration arrangements (Lyakurwa *et al.,* 1997). It is out of these expected gains that member States enter into such arrangements to form regional integration schemes

For the developing countries in general, the issue of regional integration has often been analyzed on the basis of the theory of customs union, as to whether welfare losses arising from the effects of trade diversion would be sufficiently offset by the welfare gains from trade creation (Viner, 1961). It is equally assumed that the traditional international trade theory would yield variants that would adequately explain the process of regional integration (Weintraub, 1987; Chenery, 1965 and Balassa, 1961). The experience gained in the application of these integration models demonstrates that for the developing countries, the basic economic rationale for integration might not be found in static efficiency criteria of resources and production reallocation effects as provided in the theory of customs union, but rather in terms of economic activities associated with growth potential for the countries involved in the integration schemes (Viner, 1961 and Heller, 1961). In other words, the dynamic effects.

Fundamentally, it has been argued that by forming economic groupings, the developing countries would be able to obtain a more equitable participation in the growth of the international economy. Article XXTV of the General Agreement on Tariff and Trade (GATT) observes that the dynamism of substantially free trade among a group of countries would lead to the growth of trade of these countries with the rest of the world (Weintraub, 1987), thus correcting the prevailing "inequality accentuating" trade tendencies which mostly concentrate benefits in the more developed countries[1] by generating trade creation in the south and trade diversion from the north (United Nations Industrial Development Organization (UNIDO), 1985). Even though trade diversion may lead to the misallocation of resources, it is deemed the lesser evil in the context of the integration groupings aimed at enhancing regional import substitution

industrialization (ISI) [Cooper and MasseU, 1965a], In this context, ISI is expected to generate greater competition within the region and, thus, induce higher levels of productivity than would otherwise be possible within the confines of individual domestic markets (Oyejide, 1998).

Indeed, over the years, the objectives and functions of regi ial economic integration schemes among the developing countries have become more complex and varied. Therefore, the benefits of any regional schemes should not only be analyzed within the neo-classical economic framework, but should equally be understood within a broader context of institutional framework as well. Hence, the success or failure of these regional integration groupings should not be judged purely in economic terms, but also in accordance with the institutional, political and economic conditions, as well as historical circumstances, that gave birth to such efforts. The current debate, which will not form pan of this research, is that non-traditional gains from regional trade agreements are perhaps more important than traditional gains to be derived from such arrangements (Fernandez, 1997). Some, which are political in nature, provide insurance mechanism against future events, and act as a coordination device for those who stand to gain from trade liberalization.

The experience in CACM indicates that, since its creation, a rapid expansion of trade amongst its member countries was realized during the early period and between 1970 and 1980 when the expansion averaged 25%. The increase in intra-CACM trade took place mainly in manufactured goods, permitting the exploitation of economies of scale and the upgrading of productive structures. In MERCOSUR, intra-area trade

registered a significant increase due to the imposition of a common external tariff (CET) with respect to non-MERCOSUR members (Yeats, 1998). It has been stated that the expansion of intra-area trade is likely to lead to a higher degree of industrial capacity utilization, as a result of increased competition and exploitation of created opportunities (Rodrik, 1988).

In Africa, the OAU Heads of State and Government Summit adopted in April 1980, the Lagos Plan of Action and the Final Act of Lagos which enjoined all African States to pursue the strategy of greater collective self-reliance and to undertake, during the 1980s, all necessary steps to strengthen existing regional economic communities and to establish new ones to cater for ail the sub-regions of Africa, namely: West Africa, Central Africa, North Africa, Eastern and Southern Africa. Furthermore, the Summit undertook to promote co-ordination among the existing sub-regional groupings during the 1990s in order to promote the gradual creation of an African Economic Community by the year 2000. This was the first ambitious programme of economic integration and co-operation that emerged in Africa.

In the West .African sub-region, there were several attempts at economic co-operation before and after independence. The schemes formed include, the West African Customs Union (UDAO) in 1956, made up of the Federation of French West African States: Bemn (Dahomey), Burkina Faso (Upper Volta), Cote d'lvoire, Guinea, Mali, Mauritania, Niger, and Senegal, which became Union Douaniere des Etats de l'Afrique de l'Ouest (UDEAO) in 1966 and which was eventually transformed into the West African Economic Community (CEAO) in 1972; the Conseil de FEntente (1959)

composed of: Benin, Burkina Faso, Cote d'lvoire, and Niger, the Ghana-Burkina Faso Customs Union (1961); Union Monetaire Ouest Africaine (UMAO); and the Nigeria-Benin Customs Union. Some of these initiatives underwent several economic and political difficulties and did not survive. The proliferation of various types and forms of economic groupings continued unabated despite a "cemetery" of defunct or aborted schemes. To date there are not less than 50 of such organizations in the sub-region.

The most recent attempts include the creation of the Economic Community of West African States (ECOWAS), Mano River Union (MRU), the River Basin Organization, the West African Clearing House (WACH), Banque Ouest Africaine de Developpement (BOAD), Union Economique et Monetaire Ouest Africaine (UEMOA)[2] and African Solidarity Fund, to mention only a few[3]. The ECOWAS[4], which was created in 1975, covers 16 countries, and to which member States of CEAO and MRU[0] also belong, seeks to promote co-operation and development in all fields of economic activities, particularly in the areas of industry, transport, telecommunications, energy, agriculture, natural resources, commerce, monetary and financial questions, and in social and cultural matters.

In order to achieve these objectives, a number of measures have been proposed, namely: the elimination of trade barriers, establishment of new productive capacities through the adoption of an industrial common policy; and the guaranteeing of fair distribution of benefits from economic integration. It should, however, be noted that the political misfortunes of the sub-region have crippled the effectiveness of

ECOWAS, and eliminated CEAO and MRU altogether. CEAO has been replaced by UEMOA

In the Central African sub-region, three distinct groups of countries can be identified. The first group were part of the French regime (Cameroon, Central African Republic, Chad, Congo and Gabon), while the second group comprised the countries which were under the protectorate of the Belgium regime (Burundi, Congo Democratic Republic (formerly Zaire) and Rwanda), and the third one was composed of countries that were part of the Portuguese regime (Angola, Equatorial Guinea, Principe and Sao Tome). Since 1910, in French Equatorial Africa, there existed some degree of integration, especially between Chad, the Central African Republic, Congo and Gabon. This federation, however, broke up in 1956 as a result of disagreements that arose with respect to the distribution of the federal revenue that seemed to favour the poor land-locked countries namely: the Central African Republic and Chad. In 1959, the Convention creating the Equatorial Customs Union (UDE) was signed. The convention sought to remove the underlying disagreement among the countries concerned by establishing a new distribution formula for fiscal revenue. In. 1°61, UDE was enlarged to incorporate Cameroon, and this resulted in the signing of the Treaty creating the Central African Customs and Economic Union (UDEAC)[7]. The basic two main objectives of UDEAC are: trade liberalization through the establishment of a common external tariff including the removal of tariff and non-tariff barriers; and the harmonization of customs legislation, fiscal, industrial and transport policies and overall development plans. Other mechanisms were also introduced such as a Taxe Unique (Single Tax) System and Solidarity Fund. These mechanisms are supposed to

ensure equitable distribution of benefits, as well as compensating those that might benefit less from the customs union.

The other three countries which had come under different colonial administrations: (Burundi, Congo Democratic Republic and Rwanda) had an uneasy relationship, and only managed to forge reasonable relations after a subsequent change of Government in Rwanda and the creation of the Republic of Burundi. The three established the Economic Community of the countries of the Great Lakes (CEPGL). The CEPGL has also had its ethnic nightmares which have paralyzed the proper functioning of the integration efforts in the Great Lakes area. The 11 countries of Central Africa decided in December 1987 to create an Economic Community of Central African States (ECCAS)[8]. The objectives of ECCAS encompass those of UDEAC and deal specifically with the promotion of free trade, free mobility of factors of production and harmonization of policies in almost all the economic sectors.

In the North African sub-region, which embraces Algeria, Egypt, Libya, Morocco, Sudan, Tunisia and now Mauritania, co-operation has been at a bilateral level, except for the Maghreb made up of Algeria, Libya, Morocco and Tunisia. Recently, a more concerted effort towards fostering cooperation has resulted in the creation of the Arab Maghreb Union (AMU). In order to accelerate the process of economic integration, the creation of a free trade area, the introduction of a community identity card and the preparation of the subsequent stages of the Maghreb development strategy had been set in motion. More importantly, the AMU members are cultivating a climate for cooperation and partnership with the five countries of southwestern Europe (France,

Italy, Malta, Portugal and Spain). Political differences have made it difficult for the countries of the region to make concrete achievements in regional cooperation. Two of the North .African countries, namely Sudan and Egypt are members of PTA/COMESA, with Egypt joining in June 1998.

In the Eastern and Southern African sub-region, there are at least four distinct groups of countries: the three East African countries (Kenya, Tanzania and Uganda) which belonged to the former East African Community (EAC), the South African Customs Union (SACU), the, then, Federation of Rhodesia and Nyasaland, SADC, PTA, IGAD and IOC. In the early 1960s, there existed the Central African Federation and the East African Community. The Central African Federation disintegrated largely because of political reasons, while the EAC disintegrated in 1977 due to problems relating to different levels of economic development, as well as political differences amongst the constituent member States

Economic cooperation among three East African countries: Kenya, Uganda and Tanzania had a relatively long history having been established in 1917 as a customs union. Prior to independence, a large number of common services were established and operated. From the 1950s onwards, several difficulties began to emerge, mainly due to the centralization of common services in Nairobi and Mombasa, as well as the tendency of industries to cluster around Nairobi, giving rise to unequal growth in inter-territonai trade. .After independence, a number of measures were undertaken to correct the imbalances. These included the signing of the 1964 Kampala Agreement which essentially stipulated that any expansion of capacity in the existing firms should

be either located in Uganda or Tanzania and not in Kenya, and that the distribution of new industries should be based on the principle of fairness to the three countries.

In 1967, the EAC was established. Its main thrust, apart from the creation of various specialized councils and the Common Market Tribunal, were: the introduction of instruments for the promotion of balanced, industrial development, such as the harmonization of fiscal incentives, the transfer tax system and the establishment of the East African Development Bank. Before its collapse in 1977, the East African Common Market (EACM) was one of the most advanced integration schemes institutionally and structurally in Africa. Hence, the difficulties it confronted constitute an invaluable lesson of the problems of economic integration in developing countries particularly in SSA.

The SACU which is made up of South Africa, Botswana, Lesotho and Swaziland, was created in 1910. Namibia joined in 1990. It has more limited objectives aimed at the abolition of tariff and non-tariff barriers, and in ensuring the free mobility of goods and services, as well as labour. This is a customs union of unequals, and where benefits accrue mainly to the Republic of South Africa. Its existence has created some difficulties to the expansion of trade amongst the SADC member States.

More recently, two distinctive groupings have emerged within the sub-region: SADC[9], and the PTA/COMESA for Eastern and Southern African States[10] In April 1980, SADC was formed. Its objectives are:

(i) reduction of economic dependence generally, but particularly on the Republic of South Africa;

(ii) forging of links in order to create genuine and equitable regional integration;

(iii) mobilization of resources to promote the implementation of national, inter-State and regional policies; and

(iv) concerted action to secure international co-operation within the framework of the strategy for economic liberalization.

Borrowing heavily from the experiences of trade-based communities such as the Federation of Rhodesia and Nyasaland, the EACM, and the SACU, the SADC member States sought to avoid models that would lead to growing disparities between the weaker and stronger States. This was done by putting greater emphasis on the coordination of production rather than on trade. In 1992 SADCC was transformed into the Southern African Development Community (SADC) and its membership grew to 14 countries when South Africa became a member in 1994, Mauritius in 1995, Seychelles in 1996 and Congo Democratic Republic in 1997. The objectives of SADC have since been broadened . include aspects of community building and it has signed a number of protocols in an attempt to upgrade the process of economic integration. However, attempts to liberalize intra-SADC trade faced obstacles due to the unwillingness on the part of SACU members to dismantle high tariff barriers against other SADC member States. This caused a great deal of friction, especially between Zambia and Zimbabwe and South Africa on the one hand, and between Zambia and Zimbabwe and other SACU members on the other hand

The need to overcome the difficulties inherent in a smaller grouping as those described above underpinned the creation of a much larger grouping, the PTA for Eastern and Southern African States in December 1981. The PTA, which was considered as a first step towards the establishment of a Common Market and eventually an Economic Community", aimed to promote co-operation and development in ail fields of economic activities particularly in the areas of trade, customs, industry, transport and communications, agriculture, natural resources, and monetary affairs. The measures envisaged for the achievement of these objectives included: the gradual reduction and eventual elimination of customs duties on imports of commodities produced within the PTA and contained in the Common List; the establishment of common rules of origins with respect to products that would be subjected to preferential treatment; and co-ordination of policies in the various economic sectors. In other words, the objectives and activities of the PTA envisaged the removal of tariff barriers and other restrictions, as well as the gradual establishment of a common external tariff which is one of the features of a Customs Union.

There is, however, a growing realization among the various economic integration groupings that the removal of tariff and non-tariff barriers are, by themselves, not sufficient conditions tor increasing the level of intra-bloc trade (Foroutan op.cit). The structural problems and institutional biases operating against intra-bloc trade expansion perhaps relate more to the existing trade and production patterns which do not allow the expansion of the regional economies to generate the threshold scales necessary to trigger the needed strategic complementarity and to attract adequate levels of

investment that would facilitate the development of core modern manufacturing industries and the transfer of technology within the region (Ndulu and Elbadawi, 1994). The pattern of production now in existence is one which is still shaped by the demand and consumption pattern from outside the region, which largely favours the traditional production of agricultural products, such as coffee, cocoa, tea, palm oil, cotton, copper and iron ore.

1.2 Statement of Research Problem

While the feasibility of the objectives of economic integration has now been established by both experience and theory (Winters, 1992), and the ability of these regional schemes to increase inter-State trade among the participating members (Balassa, 1967), the results obtained thus far still send mixed signals about the performance of these schemes even within the developed countries. Some empirical studies (Mayes, 1978 and Winters, op. cit) which indicate that the EC has had a phenomenal effect on economic growth as a result of the growth of exports, also show that some of the EC economies experienced apparent loss from the integration. Post-EC enlargement studies (Mendes, 1986) show that the countries which suffered loss during the initial EC integration, 1961-72, now register positive growth, with the exception of one country (Denmark) which experienced a loss. Other empirical studies (Mendez, 1986) assert that the formation of the EC integration scheme was not a prerequisite for the realization of comparative advantage or economies of scale, when it is noted that EC only achieved moderate growth when compared with its principal comparator countries.

Empirical studies carried out with respect to regional integration schemes in developing countries yield a mixed outcome as to their performance. With the exception of the Association of South East Asian Nations (ASEAN) countries, the trade and growth effects could not be sustained with respect to other developing countries either because of the introduction of other quantitative restrictions (United Nations Conference on Trade and Development (UNCTAD), 1990) or due to lack of implementation (Oyejide, 1996). Other studies (Brada and Mendez, 1985) have found that effective integration is possible for both developed and developing countries. However, despite the proliferation of the regional schemes amongst these developing countries, and the overwhelming political interest shown by the third world countries in intensifying regional co-operation to counter growing protectionism by the developed countries and to promote export-oriented development strategies, little work has been carried out to assess the performance of these integration schemes in developing countries.

In Africa, the formation of regional integration schemes coincided with the era of export pessimism, and an unfavourable world trading system as a result of declining commodity terms of trade and unfair protectionism against LDC exports. Trade could, therefore, not be reiied upon to promote development in developing countries. The pursuit of regional integration as a strategy was justified on the basis of these arguments.

As a result, regional integration as a strategy has occupied centre stage within African political circles. The first two post-colonial meetings in 1958 and 1960 adopted regionalism as the only viable vehicle for overcoming the economic obstacles imposed by the smallness and fragmentation of national economies. It was therefore no coincidence that at the inaugural meeting of the OAU in May 1963, regionalism was enshrined in the OAU charter. Ten years later in May 1973, the Tenth Ordinary Session of the OAU adopted the "African Declaration on Co-operation, Development and Economic Independence" in which the Heads of State and Government reaffirmed the principles and objectives set forth in the OAU Charter, underscoring the importance of collective self-reliance. In 1980, the OAU Summit adopted the LPA and the FAL that enjoined ail African States to pursue the strategy of greater collective self-reliance. During the 1980s, all necessary steps were undertaken to strengthen existing regional communities and to establish new ones. The aim was to have an individual framework cater for all the sub-regions of Africa, in order to put in place building blocks for the formation of an African Common Market by the year 2000, and eventually an African Economic Community. The LPA gave added impetus to the formation of the PTA, and the negotiation of the Treaty for its establishment was started in 1978.

The rationale for the creation of these regional schemes has been based on both theoretical and political grounds. At the theoretical level, it is argued that the small .African economies, by pooling their markets, would be able to widen the scope in which the exploitation of economies of scale and the reduction in the cost of industrialization through import-substitution strategy couid be achieved From the

political perspective, the pooling of markets would enhance collective self-reliance and boost the capacity of SSA countries to bargain at the international level. It is these positive gains from regional integration arrangements that make member States submit to the constraints of a regional organization.

The performance of the various integration schemes in SSA has remained mixed. The signing of the treaties establishing these arrangements have neither resulted in the removal of trade barriers, nor stimulated intra-regional trade because conditions for greater exchange do not exist. It would appear that certain conditions must be met before the theoretical advantages of regional trade integration could materialize. These prerequisites include *inter alia,* pre-existence of high levels of intra-group trade before the formation of these schemes; complementarities among the regional partners in goods and factors of production; potential for production differentiation between partners arising from differences in income levels, consumption pattern and tastes (Oyejide, 1998); and, what Foroutan (1992) summarized as the need for each partner to gain something from integration or an equitable compensation mechanism to be given by the gainers to the losers. However, these are precisely the pre-conditions that are not to the satisfaction of the existing SSA groupings in general.

The apparent poor performance or failure of regional integration schemes in SSA has not diminished interest in their survival by those at the highest political level. The ambiguity of the theory of regional integration emphasizes the importance to undertake an evaluation of some of the existing integration schemes in Africa, since they are widely viewed as being unsuccessful (Mansoor and Inotai, 1991; Langhammer. 1991

and Foroutan, 1993). To date, not enough work has been done to conclusively end the controversy that surrounds the usefulness or not of these arrangements The PTA, as a case study, is therefore appropriate to offer as a general assessment on the issue of regional integration in Africa. The need for further research into this area is self-evident.

Indeed, little empirical work has been carried out to examine, analyse and assess the impact of PTA formation on trade effect and growth effect on the economies of the PTA countries. Further research into these areas would help in shedding additional light into the issues of regional co-operation. A more informed knowledge on some of these issues could only assist the policy-makers to have a more enlightened debate in the formulation of policies on how best economic integration could be made an effective instrument for economic development, or what alternative approaches needed to be pursued. The identification of factors that either facilitate or hinder the effectiveness of the PTA would perhaps assist towards formulating a new intra-PTA trade strategy that would lead to the expansion of intra-PTA trade. Even though some of these factors are relatively well-known, they have not been empirically explored, despite their relevance to the success or failure of regional integration efforts. It is against this backdrop that an attempt to assess the impact of the PTA formation on the economies of the PTA region will be carried out. It is equally hoped that this research will shed more light on the conceptual ambiguity and controversy that surrounds the effectiveness of regional integration schemes in SSA.

As previously stated, little empirical work has been carried out to examine, analyse, and assess the impact of intra-PTA trade on economic growth or even the factors that prevent the realization of the goals of intra-PTA trade expansion. Knowledge of the sources of factors that either impede or facilitate the expansion of intra-PTA trade is fundamental for the formulation of policies aimed at its promotion.

1.3 Objectives of the Study

The broad objectives of this Study are to establish whether the expansion of intra-PTA trade contributed to economic growth and development of the participating economies. Since Viner(1961) it has been well understood that benefits for members of a trading bloc arise through trade creation by a shift in the terms of trade. The expansion of intra-area trade is said to improve the welfare of members in a number of ways, for example, by leading to a higher degree of capacity utilization as a result of a reduction in the cost of infant industries; accumulation of skills and growth in technological capabilities especially in those enterprises that export to the developing countnes (Kitamura, 1971), and the enhancement of competition and specialization. In other words, smaller countries will have to adopt regional cooperation as a method of enhancing import-substitution and in the specialization industrialization process (Svrquin and Chenery, 1989). Indeed, the creation of trading blocs will provide a base for the manufacturing production by enhancing the attractiveness of small countries as enlarged markets for industrial activities (Puga and Venables, 1998).

The specific objectives of this research, therefore, are aimed at providing *inter alia,* the following:

(i) systematic documentation of existing studies on regional economic integration;

(ii) evaluation of the different models and methods used in the estimation of the effects of intra-area trade on development;

(iii) identification in (ii) of an appropriate framework for measuring or estimating the impact of intra-PTA trade on development in terms of trade effects, growth, industrialization and transfer of technology;

(iv) adoption of the specific model(s) identified in (iii) to obtain empirical results on the developmental impact of intra PTA trade;

(v) analysis of the empirical results obtained in (iv) to identify sources and factors that contribute or impede the effectiveness of intra-PTA trade expansion;

(vi) use of the results obtained in (v) to derive possible alternative approaches or policy options of making intra-PTA trade an effective developmental strategy.

By fulfilling these objectives, it is hoped that some contribution will be made at establishing whether intra-regionai trade can lead to economic development and to providing explanations on how to find solutions to the constraints and shortcomings that undermine the effectiveness of PTA/COMESA as a regional economic integration scheme in SSA.

1.4 Justification of the Research

While it has been established by both experience and theory that increased intra-group trade does lead to economic growth and development within the context of developed economies (Vamvakidis, 1998), it appears that no real assessment of the impact of intra-PTA trade on the economies of the participating member countries has been undertaken. This study will therefore attempt to fill this lacuna. This is to be achieved by carrying out the evaluation, assessment, and identification of models and methods to be used in measuring the impact of intra-PTA trade on development as set out under the objectives of this study. It is being postulated that, by gaining intimate knowledge and insight on the various factors that contribute either to the success or failure of intra-PTA trade, a clear picture might emerge on what measures need to be undertaken to improve the situation.

The identification of the sources of growth or of bottlenecks preventing the expansion of intra-PTA trade couid well reveal areas in which policy emphasis needs to be placed, whether on import substitution industrialization; sub-regional or regional industrial complementation schemes; and trade liberalization through the abolition of tariff and non-tariff barriers. It could equally provide guidelines as to what emphasis needs to be struck between a policy for increased exports within the preferential trade arrangement or with the rest of the world; measures to remove obstacles and bottlenecks to intra-PTA trade expansion; the promotion of multinational industries or on small and medium-scale enterprises and the building of human technical capabilities

tor the acquisition, assimiiation, adaptation and development of technologies for industrial development. The analysis of some of these issues perhaps forms the first b .sis tor the justification of this Study.

The second justification of this research is that it might provide policy-makers with new ideas on how to move into the next phase of import-substitution industrialization in inufar^nng of intermediate products and capital goods, which require large-scale production gionai trade arrangement. In addition, it might give policy-makers ideas on hov o effect SDeciaiization in the manufacture of parts, compc ents ana accessories on an efficient scaie. In this respect, the Study could perhaps prove useful in enabling the countries of the PT A sub-region to participate in the international division of labour.

Thirdly, by carrying out this research, the findings might enable the member States of the PTA grouping to reassess their approach to regional integration. The Study couid probabiv reveai areas which require improvement and perhaps lead to better management of these integrauon schemes. It couid aiso possibly lead co the formulation of a better model framework for analysing the impact of regional integration schemes on economic development

The fourth justification for the Study is the fact that it might reveai other interesting areas for further research. These could possibly cover such areas as: the inter-relationship between domestic trade expansion and intra-PTA trade expansion; or the minimum level of economic development that a counuy needs to attain before it can

denve the full benefit from its participation in an economic integration grouping, and the possibilities that could be opened by the liberalization of trade. These justifications and others that may emerge from the research are likely to provide interesting areas for future research.

Fifth and lastly, apart from perhaps bridging the information gap that might exist in this important area, the research done by systematically compiling documentation on studies undertaken in this area, wiil provide additional reference materials to the existing ones: thus, stimulating further research and a more informed debate at policy-level. This could lead to a better formulation of appropriate policy options which could be used in finding solutions to the problems that control the effectiveness of "egionai integration schemes in SS A. .Ail these justifications constitute the usefulness of the research.

1.5 Plan of the Dissertation

Following the Introduction. Chapter Two examines the historical background and the rationale for the formation of the PTA in particular and for regional economic integration in general. Chapter Two provides an overview of the performance of the PTA. Chapter Three reviews the literature on economic integration by focusing on the expenence of regional economic integration in SSA in general, and in ESA, in particular. Chapter Three however, draws on the empirical studies of other regional integration groupings as weil, in order to compare how thev have performed in relation to those in SSA. The review of the literature will be particuiariv useful as it will help

to throw light on "'grey" areas that other researchers might not have adequately analyzed, besides indicating the departure which this research intends to make from the existing studies.

Chapter Four is devoted to the analysis or review of the methodology to be used in the Study. This is achieved by examining some of the models or methods that have been used in evaluating the impact of economic integration on economic development. Since most of the empirical studies have been carried out with respect to other regional integration groupings, an attempt will be made to modify some of these models. In the context of the limitations posed by scarcity of data, perhaps a different approach or modei will be formulated which may be more relevant to the situation. This is an important Chapter as it will heip in fulfilling the objectives of this research.

On the basis of the methodology adopted for evaluating the impact of economic integration on development. Chapter Five, uses the selected methodology to test the basic postulates of the study, namely: effects on trade and industrialization; technology transfer: and economic growth. By analysis, the impact of intra-PTA trade on these economic variables, factors that either promote or impede the effectiveness of regional economic integration might be brought to light. The examination of some of these factors will reveal the extent to which the success or failure of regional integration can be attributed to these factors and what needs to be done to enhance the effectiveness of regionai integration schemes.

Chapter Five examines the empirical results and interprets data by either establishing similarities or deviations from expected trends By reasoning why differences or similarities occur, the Chapter helps to prove or disprove the importance of intra-African trade expansion within the context of regional economic integration groupings. The Chapter could weil iiluminate another alternative policy direction.

Chapter Six. which is the final chapter, summarizes research findings, draws policy implications and makes recommendations. The chapter also points out research limitations and suggests areas for further research.

FOOTNOTES

Document entitled, " Co-operation Against Poverty submitted to the Conference of Non-Aligned States, Lusaka, Zambia, September 1970.

2. UEMOA Member States are: Benin, Burkina Faso, Cote d'lvoire. Guinea Bissau, Mali, Niger. Senegal and Togo

3. For a full listing of these organizations reference should be made to: EC.VMULPOC Directory of Intergovernmental Organizations in West .Africa, ECA/MULPOC/NIA/IGO/90/V/13, February 1991.

4. ECOWAS Member States are: Benin. Burkina Faso, Cape Verde, C5te d'lvoire, Gambia. Ghana. Guinea-Bissau. Liberia. Mali. Mauritania, Niger, Nigeria, Senegal, Sierra Leone and Togo.

5. CEAO Member States are: Benin. Burkina Faso, Cote d'lvoire, Mali, Mauritania, Niger, and Senegal.

6. MRU Member States are: Guinea. Liberia and Sierra Leone.

UDEAC countries are: Cameroon. Central .African Republic, Chad, Congo. Equatorial Guinea. Gabon, Sao Tome and Pnncipe.

8. ECCAS comprises: .Angola. Burundi. Cameroon, Central .African Republic, Congo, Equatorial Guinea. Rwanda. Sao Tome and Principe, Chad and Zaire.

SADCC which was Southern .African Development Co-ordinating Committee is now Southern .African Development Community (SADC) and is made up of fourteen countries namely: .Angola, Botswana. Congo D R., Lesotho. Malawi. Mauritius, Mozambique. Namibia, Seychelles, South Africa. Swaziland, Tanzania. Zambia and Zimbabwe.

10 PTA/COMESA comprises of: .Angola, Burundi, Congo D R., Comoros, Djibouti, Egypt, Ethiopia, Eritrea, Kenya. Lesotho, Malawi, Mauritius, Madagascar. Mozambique. Namibia. Rwanda. Somalia. Sudan. Seychelles. Swaziland, Tanzania, Uganda. Zambia and Zimbabwe. The potential membership would additionally include: Botswana, and South .Africa Lesotho and Mozambique have suspended their membership.

CHAPTER TWO

BACKGROUND

2.1 The Origins of the PTA

In the eariv 1960s the idea of a larger Economic Communitv in Eastern .Africa had already gained currency with the formation of the East Africa Economic Community (EAC) in 1967 The member States of the sub-region wanted to use the EAC as a nucleus, through which a larger Eastern African Community could be achieved. It was agreed that the EAC would open up its membership to other neighbouring countries. In fact. Somalia. Swaziland and Zambia applied for membership. Burundi and Ethiopia also showed interest in belonging to the EAC. The negotiations for the enlargement of the community that started with the application of Zambia were protracted. The enlargement of the EAC membership did not materialize before its collapse in 1977.

The desire to forge greater regional cooperation was supported by a quest to break away from the loggia of underdevelopment and to give content to political independence. In this connection. African countries adopted a number of strategies in order to transform their economies (Kaunda. 1979). These strategies included: the expansion of exports of primary commodities to the developed countries; import-substitution industrialization: the promotion of the exports of manufactured products to the industrialized countries: and the redeployment or relocauon of some industrial piants by transnational corporations from developed countries to developing countries. These strategies failed to bring about the transformation of .African economies because

the demand for and the prices of primary commodities continued to decline due to increased production of synthetic substitute products in developed countries. .Africa's share of world trade declined steadily from the 1970s and showed a marked downward trend from 14 9% in 1980 to 6.4% in 1995 (ECA, 1996).

The reliance of import-substitution industrialization on small domestic markets pre-empted the exploitation of economies of scale ana specialization while its operation behind high tariff wails, made it become less competitive and a net foreign exchange user. The export promotion of manufactured products couid not make a break-through either Apart from being faced with the protectionist policies of the developed countries, internally, the lack of a technological base meant that the capacity to compete with the cheap imports of manufactured products from the developed countries was not possible as .Africa's share of world manufacturing output stagnated at 0.6% . The achievement of a projected one percent ievei by the year 2000 (UNEDO. 1983; Leontieff *et al.,* 1977 and ECA, 1995) was proving difficult. In the 1990's the agricultural sector still accounted for about 33% of gross domestic product (GDP) as compared to 31% in 1978 The agricultural exports equally lost their competitiveness at the global level and, the relocation of industries from developed countries which was pan of the global phenomenon, had only a very limited impact as the incorporation of most of the SSA economies into the New International Division of Labour (NTDL) had not been on a level comparable to those of either Asia or Latin .American countries iHiggot, 1986). Even with the exception of such countries as Cote d'Tvoire, Nigeria. Kenya and Zimbabwe (Shaw and Grieve, 1978), the depth if such incorporation was. at best, still very superficial. Whereas, the strategy took the form of export-oriented

industrialization (EOI) in South East Asia and to a lesser extent in Latin America, in SSA it virtually remained export-oriented development on the basis of agricultural and other pnmary products and not on manufactured goods (World Bank, 1981). Industrialization on the basis of this strategy largely remained the "orphaned child" of transnational corporations and lack all the basic elements essential to the process of industrial deepening and autonomous growth. .Africa's growth in the manufacturing value added (MVA) suffered a steady decline, and in 1980 its share fell to 1.5% of world MVA to 0.8% in 1994 (World Bank, 1997) - pushing .African countries into a state of de-industnalization.

It is for these reasons amongst others, which led the countries of the Eastern and Southern .African sub-region to undertake a political commitment. In March 1978. they adopted the Lusaka Declaration of Intent and Commitment to the Establishment of a Preferential Trade Area (PTA) for Eastern and Southern African States. In addition, they established an Intergovernmental Negotiating Team (INT) and a Timetable for its work. The INT was charged with the responsibility of negotiating the Treaty and Protocols for the establishment of the PTA. The fact that these measures were undertaken in the wake of the collapse of the EAC, shows an overwhelming faith in the contribution which regional cooperation could make to development. The whole process, of establishing a new grouping by the countries of the sub-region, had to contend with the spectre of the failure of EAC. which in fact, underpinned the push towards formation of a much larger economic grouping. It was beiieved that this wouid create a greater chance of survival and the capacity to accommodate inter-country differences and to withstand external shocks.

The Lusaka Declaration of Intent and Commitment to the Establishment of a Preferential Trade .Area for Eastern and Southern .African States (ECA/MULPOC/Lusaka/78) committed member States to: affirm the acceptance and commitment to the establishment of PTA as a first and major step towards the creation of an effective common market, agree to negotiate a Treaty for the establishment of the PTA and such Protocols; create conditions favourable to the achievement of such purposes and to give etfect to the Treaty; and to review the Treaty so that it could be up-graded to create a sub-regionai Common Market and eventually an Economic Community for Eastern and Southern African States The negotiations of the PTA Treaty and Protocols took eight rounds of INT negotiations, which were conducted within a period of four years. Negotiations were based on 19 principles, the nineteenth of which related to the Protocols.

On the 21 December 1981. the Treaty with its 12 Protocols was signed in Lusaka. Zambia, by nine[1] out of the 18 member States that had been party to the negotiations. Before the end of 1982. three more countries joined, nameiv Lesotho, Swaziland and Zimbabwe. The current total membership of the PTA stands at 22, after Lesotho and Mozambique suspended their membership in 1997 The txill list of the countries is shown in the map appended to this Study (Appendix 1).

2.2 Objectives of the PTA

The PTA Treaty comprises 51 .Articles and 12 Protocols. The aims of the PTA which are spelt out in .Article 2 of the Treaty, are to promote cooperation and development in

ail fields of economic activity, particularly in the fields of trade, customs, industrv, transport, telecommunication, agriculture, natural resources, manufacturing and monetary atfairs. Its objective is to raise the standard of living of its people, fostering cioser relations among the member States and contributing to economic progress bv maintaining economic stability and socio-economic development of the African continent The objective of the PTA is consistent with the 1974 Declaration on the New International Economic Order (NTEO), which made collective self-reliance through economic integration and cooperauon among developing countries, the cornerstone of the Declaration's development strategy It was with this in mind that President Kenneth D. Kaunda, on the occasion of the inaugural launching of the PTA for Eastern and Southern .African States, stated that the establishment of the PTA not oniy provides the

> *'Framework for the restructuring of the economies through planned collective development of agriculture, industry, mining, transport and communication, human resources, energy and intra-Africcm trade, but also provides an instrument for redirecting development from its external orientation to one which is internally based, thus reducing dependence on the developed countries"* (Kaunda, 1981).

Article 2 (4) (a) requests member States to undertake *inter alia* by way of appropriate Protocols, to:

i i) reduce gradually or eiiminate custom duties and other charges of equivalent effect with respect to products produced and traded within the PTA:

In Article 3, member States are urged to make every effort to plan and direct their policies with a view to creating conditions favourable for the achievement of the objectives of the PTA. To this end, the provision of the Treaty which calls for the gradual establishment of a Common Market (Article 3(2)) for Eastern and Southern African States (COMESA) was achieved in 1994

The long-term objective of transforming the PTA into an Economic Community for Eastern and Southern .African States has yet to be achieved. The transformation of the PTA into COMESA widened its scope for deepening the process of economic integration, by facilitating free movement of goods and services, and to make the area an attractive investment zone. This basically entailed the elimmanon of obstacles to the free movement of payments and cross-border and foreign direct investments; the free movement of means of transport; persons: removal of non-tariff barriers and other obstacles and restrictions or constraints to trade; and establishment of common external tariffs and a customs union. Indeed, while the tariff reduction schedules have been revised from time to time, the target of zero tariffs by the year 2000 has been maintained.

The continued dependency on the inhented institutional structures as weil as the lack of a well-dehned poiicv framework, pose major bottlenecks to the realization of the PTA objectives. The pre-requisite for the achievement of successtiil economic integration which requires a higher degree of trade iibenzation at the national level (Ndulu and Elbadawi. 1994) are still largely lacking within the PTA region. Some of these include: macro-economic policy; low levei of technological development: pursuit

of import-substitution; lack of co-ordination and common industrial policies; inadequacy of transport and communication infrastructures; existence of tariff and non-tanff trade barriers; and the structural weaknesses in the economies in general. The performance of some of the key sectors will be examined within this Chapter.

The positive experience of the impact of regionalization in Europe provided the initiative for the creation of vanous regional and sub-regional economic groupings as pointed out in Chapter One. The movement towards economic integration is therefore viewed as a necessary response by poor countries to assert their independence and to stop seeking 'sympathy' in their dealings with developed countries. In fact, Third World countries in general had postulated the need for different regional and sub-regional units as a conditioning factor of economic development processes, cultural assertion and technical modernization (Herrera. 1987). The creation of the PTA is within this mould and is aimed at enhancing intra-regional trade expansion and is considered a developmental strategy for accelerating the process of economic growth and development in the individual PTA countries.

2.3 Institutional Framework for PTA

For the attainment of the PTA objectives, an elaborate institutional mechanism was set up. The main institutions of the PTA include: the Authority; the Council of Ministers; the Secretariat; the Tribunal and the Commission; the Committees and such technical ana specialized bodies as may be established or provided for by the Treaty < Article 5).

The Authority, which is the supreme organ of the PTA is responsible for the general policy guide. Its decisions and directions became binding on ail other institutions of the PTA, other than the Tribunal within its jurisdiction. The decisions of the Authority were taken by consensus. The Authority meet once a year, but could also hoid extraordinary meetings at the request of any member State, supported by one-third of the members of the Authority. Indeed, subject to the provisions of the Treaty, the Authority determines its own rules of procedure.

The Council of Ministers, which consists of ministers as may be designated by each member State is charged with the responsibility to:

(i) keep under constant review and ensure the proper functioning and development of the PTA;

(ii) make recommendation to the Authority about matters relating to policy aimed at providing efficient and harmonious functioning and development of the PTA;

(iii) provide directions to ail other subordinate institutions of the PTA; and

(iv) exercise such other powers and perform such other duties as were conferred or imposed on it by the Treaty, or determined by the Authority, from time to time.

The Council meet at least twice a year, and one such meeting is held immediately before an ordinary meeting of the Authority. Extraordinary meetings of the Council can be held at the request of a member State, provided that such a request is supported by one-third of the member States. The Council determines its own procedure, subject to any directions that the Authority might give, for convening and conducting its business. The decisions of the Council are also reached on the basis of consensus, but,

where an objection is recorded on behalf of a member State to a proposal submitted for the Council's decision, the proposal would, unless such objections were withdrawn, be referred to the Authority for its decision.

The Secretariat of the PTA established by .Article 9, is to be headed by a Secretary-General appointed by the Authority for a renewable four year period. The Secretary-General is the principal executive officer of the PTA. In the discharge of its fiinctions, he/she is to be assisted by such other staff as the Council might determine. The terms and conditions of service of the Secretary-General and other staff of the Secretariat, have to be governed by regulations made by the Council from time to time. However, the Secretary-Generai can only be removed from office by the Authority upon the recommendation of the Council. The appointment of the staff to work at the Secretariat is be on the basis of technical competence and the desirability to maintain an equitable distribution of appointments to such offices among citizens of all member States.

The functions of the Secretary-General and the Secretariat include:

(i) assisting the institutions of the PTA in the performance of their duties;

(ii) submitting reports on the activities of the PTA to all meetings of the Authority and the Council;

(iii) responsibility for the administration and finances of the PTA and all its institutions and to act as secretary to the Authority and the Council;

(iv) monitoring on a continuous basis, the tunctioning of the PTA;

(v) undertaking on his/her own initiative, or at the request of the Authority, studies or work and services as related to the aims of the PTA; and

(vi) performing dudes imposed upon him/her by .Article 9(7) of the Treaty.

The Tribunal of the PTA. which was established by Article 10 of the Treaty, as the judicial organ charged with ensuring the proper application or interpretation of the provisions of the PTA Treaty In addition, the Tribunal is to adjudicate upon such disputes as may be referred to it in accordance with .Article 40 of the Treaty. The said .Article 40 calls upon member States to settle amicably disputes arising amongst member States, by direct agreement between the parties concerned. In the event of failure to settles such disputes, a party to the dispute could refer the matter to the Tribunal and the decision of the Tribunal on such issues would be final.

The Intergovernmental Commission and Technical Committees established by Article 11 of the PTA Treaty, consists of the following Commission and Committees:

(0 Intergovernmental Commission of Experts;

(ii) Customs and Trade Committee;

(iii) Clearing and Payments Committee;

(iv) Committee on Agricultural Co-operation;

(v) Committee on Industrial Co-operation;

(vi) Transport and Communications Committee;

(vi) Committee on Botswana, Lesotho and Swaziland.

Except tor the Clearing and Payments Committee, the membership of which is to be composed of representatives from the financial and monetary institutions, the Commission and other Committees are to be served by representatives designated by the member States. To carry out their tasks, advisers could assist them. Indeed, since the work of the Commission and Committees are so technical, such sub-committees as was deemed necessary could be established for the purpose of discharging specific functions, as well as to decide on the composition of such sub-committees.

The work of the Commission involved the overall supervision in the implementation of the provisions of the PTA Treaty, and a member State could request the Commission to investigate any particular matter. The Commission is also expected to submit from time to time, reports and recommendations to the Council, either on its own initiative, or upon the request of a Council report concerning the implementation of the provisions of the PTA Treaty. The Commission is assisted in its work by the Committees, which occasionally submit their reports and recommendations to the Commission. Subject to any directives that might be given by the Council the Commission or a Committee could meet as often as deemed necessary for the discharge of its functions and could determine its own rules of procedure.

2.4 Overall Performance of PTA

2.4.1 Tariff Reductions and Elimination of other Barriers

Articles 12 and 13 of the PTA Treaty advocate the gradual reduction and elimination of customs duties and non-tariff barriers to trade conducted among the PTA countries.

The process to eliminate import duties on products produced and traded by member States, started as early as 1983. when the PTA started its operational phase. During 1983 to 1992, member States accorded preferential treatment to specific products negotiated amongst themselves every two years. A list of the 212 commodities were contained in the initial Common List in 1983, with the addition 98 commodities 1987, 389 in 1989 and 43 in 1990 As provided for in Article 1 of the Protocol on the reduction and elimination of trade barriers on selected commodities to be traded within the PTA, the Common List is defined as the list of commodities which shall originate in the member States, and which is of both export and import interest to the member States and is established from time to time, in accordance with the provision of Article 3 of the Protocol.

The implementation of the Common List programme, proved quite cumbersome and as can be observed, the list could only grow every two years. Besides, the problem of identification and qualification of the products to be included in the Common List were complex ana restrictive in nature, in accordance with the Protocol on Rules of Origin. The Rule eliminated products produced by foreign owned companies even though these generated high employment and revenue to government and utilized local raw materials in large quantities, as compared to locally-owned companies. By 1993, the PTA Rule of Origin had to be streamlined and simplified by abolishing the local ownership criterion ana the Common List of Commodities altogether. Products from member States were accorded preferential treatment if they qualified under the main rules, such as bemg wholly produced, and those with local value added of not less than 45%; or import content of not more than 60%; or those which qualified under the

exception list A and B of substantial transformation; or a minimum local value added of 25% if they were goods denned by Council and listed as those of economic importance; or a minimum local value of 30% for products consumed in large quantities, but which were in short supply in the member States. This amendment watered down the original intention of the Rules of Origin, which was aimed at forcing governments to increase value added in the production of goods that would figure in intra-PTA trade. The result was that more goods were allowed to qualify for preferential treatment, even though companies that were wholly owned by foreigners produced them. The rationale for such an approach was to promote intra-PTA trade, as well as foreign direct investment into the region (COMESA Secretariat. 1998a).

.Although tariff reduction schedules were revised in 1988 and 1993, the zero tariff target by the year 2000 was still maintained. The new current tariff reduction programme which was adopted in January 1993, gave the following schedules, nameiy: October 1993 a reduction of 60%, October 1994 a reduction of 70%. October 1996 a reduction of 80%, October 1998 a reduction of 90% and October 2000 a reduction of 100% (COMESA Secretariat, 1998b). The implementation status by the PTA member States as of April 1998 indicated that six countries: Comoros, Eritrea, Kenya, Sudan, Uganda and Zimbabwe had effected 80% tariff reductions. Two countries, Malawi and Mauritius had achieved a 70% reduction, whilst three countries, Burundi, Rwanda and Zambia had reduced their tariffs by 60%. The remaining countnes had not effected any tariff reduction, even by a single rate.

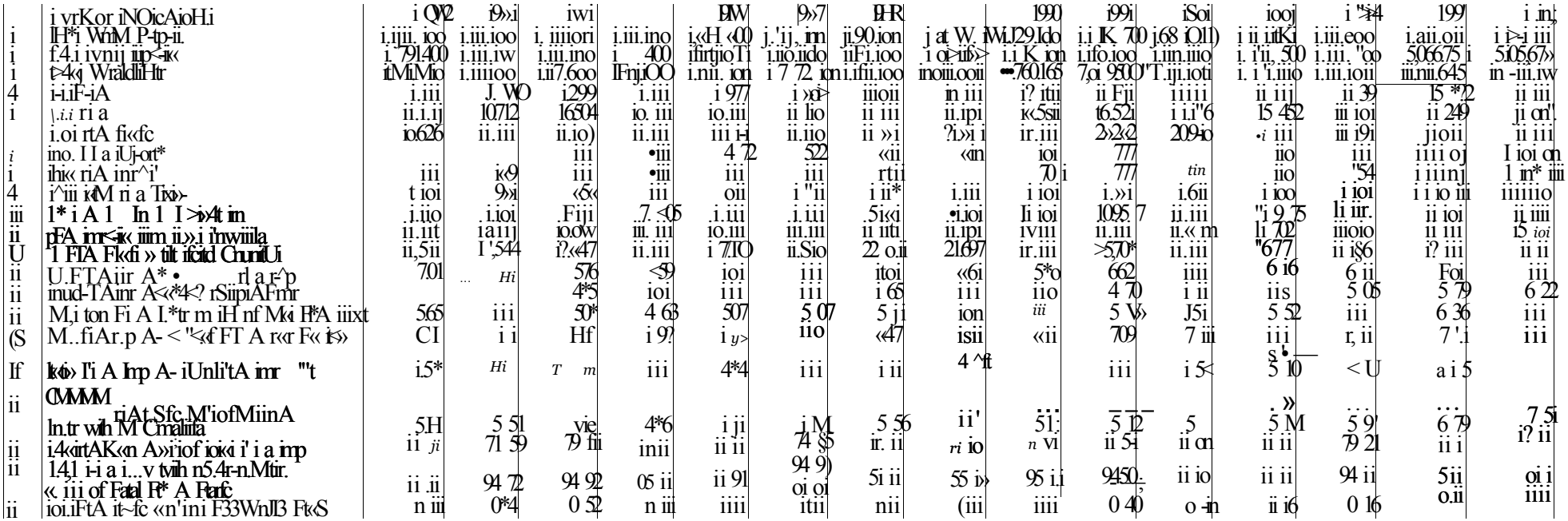
It is evident from the tariff reduction schedules that all countries were behind with the implementation programme By 1998, not a single country had reached the 90% target. A number of explanations have been advanced for the slow progress. The three main reasons which were cited are: protection of some infant industries; delay in the reduction of tariff by trading partners had forced others to slow down their own tariff reduction programme and social instability in some member States. It would appear that the overriding factor in the tariff reduction will depend on the commitment which governments show towards the programme The lack of commitment, and the ambivalence towards the tariff reduction programme can only act to undermine the agreed schedule.

2.4.2 Overview of Trends in Intra-PTA Trade

One of the main objectives of the PTA was to increase intra-PTA trade through trade liberalization, facilitation, promotion and financing measures. The importance attached to this objective can be seen by the fact that 20 out of 51 Articies of the PTA Treaty and seven out of the 14 Protocols were devoted to trade and financial cooperation in the PTA sub-region. The Treaty envisaged that this would be achieved through gradual reduction and eventual elimination of tariffs and non-tariff barriers amongst the member States of the PTA. The operational mechanism of achieving this was by the establishment of a Common List of Commodities as has been pointed out. What has been the actual expenence in the promotion of intra-PTA trade? This is to be revealed in the overview of trends in intra-PTA trade.

From Table 2.1 on PTA Trade Indicators, it will be noted that while intra-PTA exports have increased from US$554 million in 1982 to US$854 million in 1994 and US$1,308 million in 1996 in nominal value terms, in percentage terms it registered a decline from 7 02% to 6.38% in 1994 and increased to 7.51% in 1996. The overall trend of intra-PTA export over the past 15 years remained almost stagnant at around 6.3% on average. On the other hand, intra-PTA import as a percentage of the total PTA import had averaged about 4.7 over the same period. In other words, total intra-PTA trade as a percentage of total PTA trade averaged about 5 .4% between 1982 and 1996. When total PTA trade as a percentage of total world trade is examined, it will be observed that there has been a steadv decline from 0.56% in 1982 to 0.37% in 1996. Another remarkable feature revealed in Table 2.1 is the similarity between intra-PTA trade and PTA trade with third countries. Total intra-PTA trade as a total PTA trade increased from 5.65% in 1982 to 6.81% in 1996, an insignificant increase on the average, while total intra-PTA as total PTA trade with Third countries increased from 5.98% to 7.31% over the same period. The average increase in each case was about 0.08%. Perhaps this indicates that the poor performance in intra-PTA trade was also reflected in its equally poor performance with third countries, which perhaps implies that intra-PTA trade is a function of its trade with third countries. When other averages are analysed such as intra-PTA exports as a percentage of total PTA exports, or intra-PTA imports as a percentage of total PTA imports, and intra PTA imports as percentage of total PTA imports from Third countries, the figures were 6.33%, 4.73% and 4.95% respectively. The average of total PTA trade with third countries as a percentage of total PTA trade still stood at 94.6%, while the average of total PTA trade as a percentage of total world trade was 0.44%. The data confirm that intra PTA trade is

TABLE 2.1: TRADE INDICATORS BETWEEN 1902 AND 1994



NM I liis table is Cot the 22 P1 A member States Hint include Madagascai Namibia nml Seychelles
Items I to 12 in million of US dollars fcntl Items 13-21 in percentage

Somce tntia PTA/COMPSA Trade Potential. PIA/TC/CT/XVI/4. August l<><M and COMPSA Statistical Unit 1996
COMESA selected Indicators. Match 1098
Wot **ld I** inrie Statistics **and t** IN **Monthly Bulletin** of Statistics No **May** 1998

still very limited and that the dependence of the region on trade with third countries has not been reduced, and conforms to the trade pattern that has been in existence before the formation of the PTA trade arrangement.

Analysis of intra-PTA trade on a country by country basis, between 1982 and 1996 as shown in Table 2.2, reveals that ten countries, namely: Ethiopia, Kenya. Madagascar, Malawi. Mauritius, Namibia, Rwanda. Tanzania, Uganda and Zambia increased their imports from the other PTA member States by more than US$20 million On the intra-PTA export side, six countries increased their exports to other PTA countries by more than US$20 million, and these include: Kenya. Madagascar. Mauritius, Tanzania. Zambia and Zimbabwe. This increase averaged above 7% in both cases. The six countries which experienced a decline in exports were: Comoros, Ethiopia, Lesotho, Mozambique, Rwanda and Sudan. Angola on the other hand recorded no exports while Burundi registered a decline in imports from PTA countries.

Analysis of the share of intra-PTA trade to total PTA trade in 1991, 1992, 1994 and 1996 in Table 2.3, shows that each PTA member State traded more with third countries as opposed to other members of the PTA region. The 1991 intra-PTA trade figures in the Table indicate that Rwanda, Somalia, and Uganda derived more than 10% of their total imports from the PTA region, while Angola. Comoros, Ethiopia. Kenya, Lesotho. Sudan, Tanzania ana Zimbabwe imported less than 5% of their total imports from the PTA region during 1991. From the data, it can be observed that there exists wide variations among the member States in terms of intra-PTA imports which range from 30% in Uganda to 0.8% in Angola. In 1994 the figure ranged from

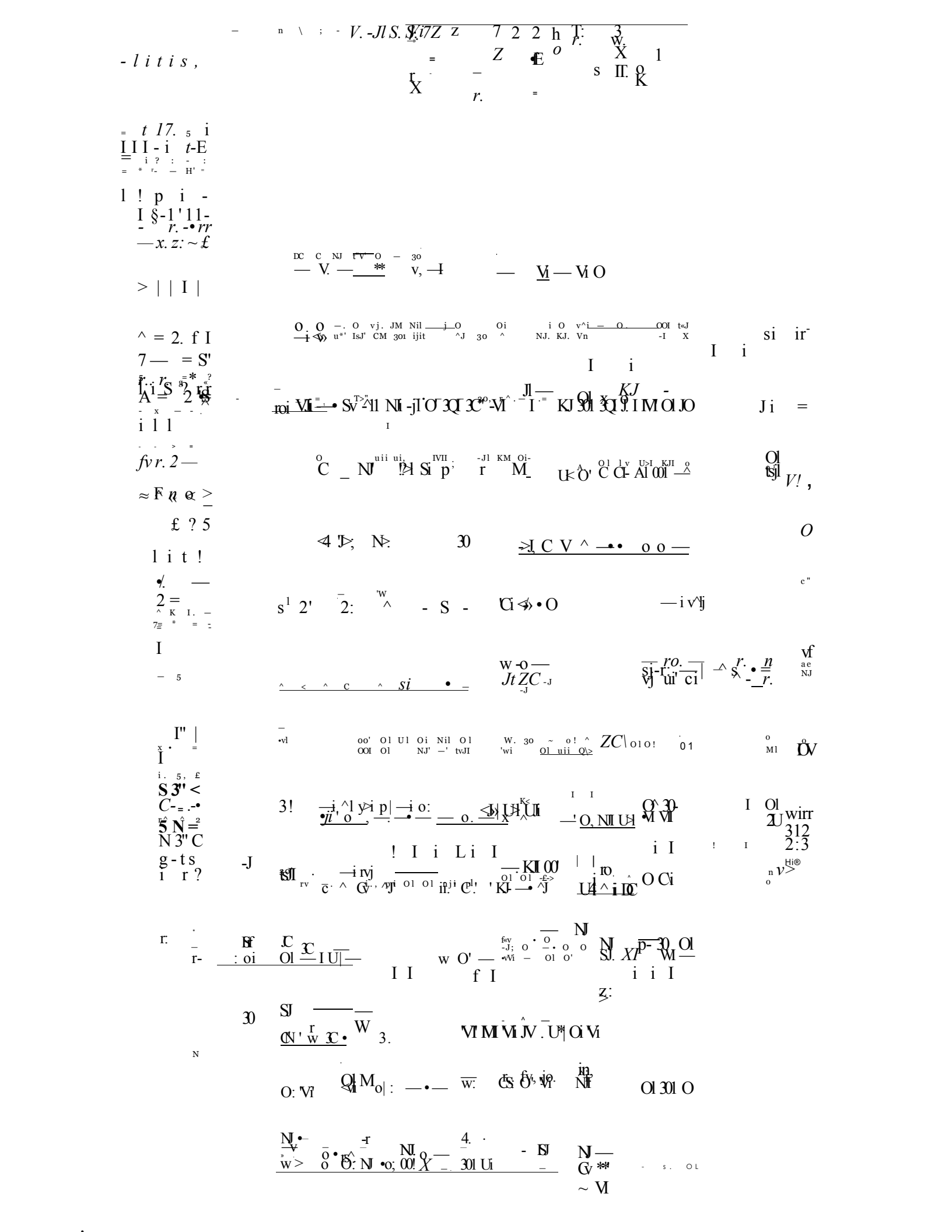


Table 2.3: Direction of PTA trade for 1991, 1992, 1994 and 1996

Country	1991 Imports: Total	1991 Imports: Intra PTA Imports US$ Mill	1991 Imports: Imports from PTA as a % of Total Imports	1991 Exports: Total	1991 Exports: Intra-PTA Exports US$ Mill	1991 Exports: Exports to PTA as a % of total Exports	1992 Imports: Total	1992 Imports: Intra-PTA Imports US$ Mill	1992 Imports: Imports from PTA as a % of Total Imports	1992 Exports: Total	1992 Exports: Intra PTA Exports US$ Mill	1992 Exports: Exports to PTA as a % of total Exports
Angola	1971	6	0	3091	0	0	2480	10.31	0.42	1641	0.1	0
Burundi	247	24	10	101	7	7	2221	32.78	14.83	105	8.3	7.9
Comoros	120	2	2	28	0	0	110	5.42	4.93	28	0.07	0.25
Djibouti	176	22	6	54	26	48	491	23.63	4.81	58	27.8	47.93
Eritrea	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ethiopia	1114	10	1	307	29	9	1395	10.93	0.78	261	32.22	12.2
Kenya	2229	65	3	1324	251	19	2071	48.97	20.36	1180	269.7	19.51
Lesotho	103	7	2	58	0	0	87	10.54	10.77	88	0.93	1.06
Madagascar	N/A	N/A	N/A	N/A	N/A	N/A	614	13.03	2.12	181	101.86	56.53
Malawi	545	37	7	413	34	8	624	62.29	9.98	149	30.09	6.7
Mauritius	445	20	7	1120	7	1	1536	28.31	1.84	1238	27.28	2.2
Mozambique	899	85	9	390	6	2	880	76.67	8.71	306	11.04	3.61
Namibia	N/A	N/A	N/A	N/A	N/A	N/A	176	3.3	1.88	245	0.9	0.37
Rwanda	213	34	16	203	14	7	288	50.47	17.52	98	0.25	0.26
Seychelles	N/A	N/A	N/A	N/A	N/A	N/A	139	6.25	4.5	121	0.2	0.17
Somalia	197	36	18	106	1	1	211	36.38	17.24	109	0.69	0.63
Sudan	1419	38	3	358	1	0	1081	30.24	3.63	123	0.7	0.22
Swaziland	77	6	8	327	27	8	68	2.76	4.06	334	31.18	9.3
Tanzania	1090	37	3	385	18	5	1362	45.65	3.37	435	51.1	11.75
Uganda	464	100	22	171	2	1	415	109.44	26.37	171	3.02	1.75
Zambia	1066	87	8	1061	41	4	1218	161.01	13.11	1142	38.13	3.34
Zimbabwe	1488	51	3	1511	198	13	2029	57.04	2.81	1511	189.86	12.38
TOTAL	15063	662	4	11068	662	6	17496	825.62	4.7	12453	825.62	6.6

Country	1994 Imports: Total	1994 Imports: Intra PTA Imports US$ Mill	1994 Imports: Imports from PTA as a % of Total Imports	1994 Exports: Total	1994 Exports: Intra PTA Exports US$ Mill	1994 Exports: Exports to PTA as a % of total Exports	1996 Imports: Total	1996 Imports: Intra-PTA Imports US$ Mill	1996 Imports: Imports from PTA as a % of Total Imports	1996 Exports: Total	1996 Exports: Intra PTA Exports US$ Mill	1996 Exports: Exports to PTA as % of total Exports
Angola	1299	4	0.31	2864	0	0	1831	15	0.8	4396	0.0	0
Burundi	252	29	11.51	175	13	7.43	123	14	11.4	37	8.0	21.6
Comoros	114	0	7089	55	0	0	168	17	10.1	14	0.0	0
Djibouti	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Eritrea	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ethiopia	1125	33	2093	304	0	0	1390	51	3.7	472	0.0	0
Kenya	2739	41	1057	1658	375	22062	3604	57	1.6	2203	572	26
Lesotho	65	3	4062	83	0	0	N/A	N/A	N/A	N/A	N/A	N/A
Madagascar	509	19.45	3.25	521	13	3.5	658	49	7.4	617	25	4.1
Malawi	467	57.91	12.4	386	32	8.29	695	135	19.4	494	20	4
Mauritius	1908	31.73	1.66	1254	32.45	2.59	2193	49	2.2	1573	66	4.2
Mozambique	1132	87	7.69	224	5	2.23	N/A	N/A	N/A	N/A	N/A	N/A
Namibia	142	6	4.23	516	5	0.97	216	33	8.7	366	13	3.6
Rwanda	270	68	25.19	72	1	1.39	381	95	24.9	168	1	0.6
Seychelles	N/A	N/A	N/A	N/A	N/A	N/A	339	11	3.2	169	1	0.6
Somalia	N/A	N/A	n/a	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sudan	1290	34	2.64	515	0	0	1418	56	3.9	474	0	0
Swaziland	75	2	2.67	282	13.73	4.87	66	4	6.1	258	26	10.1
Tanzania	1330	126	9.47	494	61.46	12.41	1772	240	13.5	805	95	11
Uganda	520	135	25.96	369	8	2.17	739	222	30	559	12	
Zambia	517	67	12.25	758	73	9.63	974	100	10.3	1000	115	
Zimbabwe	2005	47	2.24	1729	216	12.49	3092	74	2.4	3111	140	
TOTAL	15969	802.09	5.02	12259	848.64	6.92	21016	1308		17411	1,308	

NB. Figures for 1992 include: Madagascar, Namibia and Seychelles, while 1991 do no as indicated

Source: Computed from Total COMESA Imports and Exports Trade data and Intra COMESA Exports and Imports Data

26% in Uganda to 0 3 % in .Angola. On the export side, Djibouti. Kenya and Zimbabwe directed more than 10% of their total exports to PTA member States in 1991, whereas in 1994 the countries which exported more than 10% of their total exports to the PTA region were Kenya, Tanzania and Zimbabwe. In both years exports from at least seven countries constituted less than 2% of their total exports to the region. In 1996, the data indicate that seven countries imported less than 4% from the PTA region whereas seven countries imported more than 10% from the region, with Malawi, Rwanda and Uganda recording the highest percentages imports of 30%, 25% and 19% respectively. During the same year, Burundi and Kenya registered the strongest export to the PTA region of 26% and 22% respectively.

Furthermore, Table 2.3 indicates that in 1992 the intra PTA imports were only 4.7 % of the total imports while 6.6% of overall PTA exports were amongst the member States. In 1994. the figures were 5.0% and 6.9%, respectively, and in 1996 the figures were 6.2% and 7 5%, respectively, recording a slight increase in both cases. From the available trade statistics it is possible to discern an intra-PTA trade pattern which can be grouped into five intra PTA-trade cluster zones of: Northern. East .African. Central ana Southern Africa, Western Africa and Indian Ocean. The Northern Zone which consists of five countries, namely: Djibouti, Ethiopia, Kenya, Somalia and Sudan controls 28% of total intra-PTA trade, with Kenya controlling nearly 85 .5% and Ethiopia 6.9% of such trade. The East African Zone comprises five countries, namely Burundi, Kenya. Rwanda. Tanzania and Uganda and controls 50% of the total intra-PTA trade, with Kenya playing a key role by controlling 48%, followed by Tanzania which controls 26% of total intra-PTA trade in the zone. The Central and Southern

Africa Zone, consists of .Angola, Lesotho, Malawi. Mozambique. Namibia, Swaziland. Zambia and Zimbabwe and controls 33.4% of the total intra-PTA trade, with Zimbabwe accounting for about 47% of that trade within the zone followed by Zambia which accounts for 24% and Malawi 18% of the total trade within the zone

The Central .Africa zone composing Burundi. Malawi, Mozambique, Tanzania, Zambia and Zimbabwe accounted for about 43 .6% of the total intra-PTA trade. Within this zone, the relative percentage shares are 36.3% for Zimbabwe, 29% for Tanzania and 18 .8% for Zambia. The share of the Indian Ocean zone, made up of Comoros, Kenya, Madagascar, Mauritius, Seychelles. Tanzania and Zimbabwe, in total intra-PTA trade is about 61% which is the highest share. The leading exporters within this zone are Kenya ('39.4%), Zimbabwe (26%), Tanzania (21%) and Mauritius (7.2%). From the above analysis, the centre of gravity for intra-PTA trade growth seems to be Kenya and Zimbabwe, perhaps indicating that the two countries have relatively more diversified economies vis-a-vis the other member countries of the PTA region.

A comparison of the share of intra-group ex port trade in total exports of the various regional groupings in Table 2.4 below reveals very interesting results. An examination of the information summarized in the Table indicates that SSA economic groupings are the least performers. The next group is LAFTA whose intra-group export trade does not differ significantly from those of SSA groupings. Even though CACM performed better from 1970 to 1980. from there onwards, and especially between 1985 and 1990 there was a marked decline.

Table 2.4: Regional Groupings Comparison Share of Intra-Area Export Trade in Total Exports

	1970	1975	1980	1985	1990
PTA	8.0	9.3	7.6	5.5	5.9
1 SADC	2.6	3.7	2.1	3.9	4.8
ECOWAS	2.9	4.0	3.5	5.3	5.7
UDEAC	4.8	2.7	1.6	1.9	3.0
CEAO	6.3	12.7	8.9	8.7	10.5
LAFTA	10.1	13.4	13.0	8.0	10.6
CACM	26.2	23.4	25.4	15.5	14.2
1 NAFTA	36.3	35.0	33.6	39.7	41.5
.ASEAN	14.8	11.2	18.3	184	18.5
I EEC	53.2	52.5	55.7	54.7	60.6

Source: IMF Direcnon of Trade. WDR
World Atlas. UN
Reconstructed from F. Foroutan Table 3: Paper No. 3
World Bank. Washington D C. April 2-3. 1992

The ASEAN grouping, on other hand, started slightly lower than CACM in its intra-group export share of the total exports, but has since registered a significant increase over the years, rising from 14.8% in 1970 to 18.5% in 1990 It should be noted however, that the increase has not so much been because of preferential trade arrangements but mainly because of the unilateral liberalization measures taken by the individual ASEAN countries outside the ASEAN trade framework. The groupings from the developed countries such as NAFTA and EEC have shown very robust intra-group exports, which rose from 36% to about 42% and from 53% to 61% in 1970 to 1990, respectively.

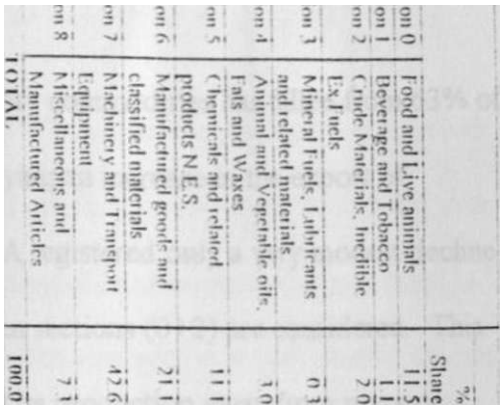
When pre-intra PTA trade figures are compared against those of SADC, ECOWAS, UDEAC and CEAO, it can be seen that CEAO performed relatively better in percentage terms, with its share of intra-CEAO export trade reaching its peak in 1975. The intra-PTA trade exports peaked in 1975 but started to decline from 9.3% to 5.9%.

In 1990. while SADC was registering an increase It is interesting to note that, prior to the formation of the PTA in 1982, the share of intra-PTA export trade was much higher than during the post-PTA era. Perhaps the share was higher partly due to the existence of the then East African Common Market and partly because of the bilateral trade arrangements concluded among the countries of the sub-region. The only grouping that had performed better than the PTA was CEAO whose intra-CEAO export trade reached its peak in 1975 nearly four years after its creation. .Analysis of the trade data at country levei indicates that only a few countries within each economic groupings in SSA account for a disproportionate share of intra-group trade. In the PTA. as pointed out already, Kenya and Zimbabwe accounted for 32% and 27% of intra-PTA exports respectively, while in ECOWAS the equivalent countries are Cote d'lvoire and Nigeria accounting for 42% and 30%. respectively In other words, trade flows have been uneven within the PTA. The overall pattern of intra-PTA trade has remained basically similar to what it was prior to the formation of the scheme, even though the potential for its expansion still remains enormous. This anomaly raises a fundamental issue as to whether the creation of these integration schemes within the SSA context are beneficial or are not a sufficient inducement for trade creation.

The direction of PTA trade has followed the overall pattern and trend of the African continent with its most important trading partners being at the global levei. Whereas the global market provided 80 per cent of Africa's total trade both exports and imports in 1980, for the PTA countries it provided on average 94% between 1980 and 1992. Most of the PTA countries trade mainly with the developed market economies, especially those of the European Union (EU) which accounted for 46% and 57% of

these countries" exports respectively in 1980 and 1992, and provided 54% and 48% of their import requirements during the same periods The high degree of geographical concentration is due to historical legacy and the infrastructural relationships that developed out of that contact.

The commodity structure of intra-PTA trade does not seem to deviate from the continental one which shows that primary commodity exports and manufactured imports still dominates the region's trade. Table 2.5 on PTA trade according to the SITC grouping, shows that there is a wide scope for intra-PTA trade expansion in manufactured products, machinery ind transport equipment which accounted for about 64% of the PTA's imports in 1988, 64% in 1989 and 66% in 1990 Food and live animals (Section 0) and chermcai and related products not elsewhere specified i Section 5) accounted for nearly the same percentage shares of imports over the same periods. The Table further reveals that the importation of machinery and transport equipment showed an increase from 42.6% in 1988 to register 46.9% in 1990. On the export side, the mam leading commodity groups in totai exports were manufactured goods (Section 6) by 36.7% in 1988 and 38.2% in 1990. The next was food and live animals (Section 0) which accounted for 35.6% in 1988 and declined to 34.4% in 1990. Crude materials, including inedible oils (Section 2), made up 17.1% of total exports in 1988 and 14 7% in 1990. The exportation of machinery and transport equipment (Section 7) which accounted for a mere 0.4% in 1988 and 1.2% in 1990 contrasted sharpiy with the import side of the commodity, as indicated above. This contrast underlines the extremely low level of industrial development and the rudimentary nature of technological capacity in the PTA region.



on 0	Food and Live animals	11.5
on 1	Beverage and Tobacco	1.1
on 2	Crude Materials, Inedible	2.0
on 3	Mineral Fuels, Lubricants and related materials	0.3
on 4	Animal and Vegetable oils, Fats and Waxes	3.0
on 5	Chemicals and related products N.E.S.	11.1
on 6	Manufactured goods and classified materials	21.1
on 7	Machinery and Transport Equipment	42.6
on 8	Miscellaneous and Manufactured Articles	7.1
	TOTAL	100.0

While in South East .Asia the share of primary commodities has fallen from 63% of the total exports in 1985 to 36% in 1987, implying an increase in the export of manufactures (World Bank, 1986); the PTA registered only a very modest decline from 52.7% in 1988 to 49 1% in 1990 when sections (0+2) are considered. This indicates that the region has not diversified its production away from primary commodities.

The main conclusion that can be drawn from the above analysis is that the intra-PTA trade structure has not changed significantly in terms of direction and composition. It would appear that the formation of the PTA. has neither resulted in intra-group trade expansion nor commodity diversification. Indeed, an UNCTAD study has confirmed :hat mtra-bloc trade of most of the regional groupings in the developing countries sutfered serious setbacks in the 1980s particularly in Latin America and .Africa (UNCTAD, 1990). In fact, between 1980 and 1985. intra-Andean trade. CACM and CEAO declined by over 20%. ECOWAS and CEAO by over 40%, while that of the PTA declined by about 23% between 1982 and 1990. A number of factors have perhaps contributed to this rather poor performance, and prevented regional economic groupings from generating intra-group trade.

2.5 Industrialization

Even though the issue of industrialization was the subject matter of Article 24 of the PTA Treaty and Protocol on Industrial Cooperation, which have both advocated promotion of complementarity, industrial development and expansion of trade in

industrial products, as well as the setting up of multinational industrial enterprises including the dissemination and exchange of information, it would not appear that much progress had been made in the industnaiizauon process as demonstrated in Table 2.6 showing trends in the share of the manufacturing sector in GDP during the period 1980 to 1993. The data in the Table reveals an extremely low level of indusiriai development. The manufacturing sector, generally regarded as the real indicator of the levei of industrial development, shows that three countries. Kenya, Zambia and Zimbabwe, account for nearly 60% of the manufacturing output within the PTA region. The remainder of the countries together account for about 40% of the output with seven of them having shares below 2%. The observed low levei of industrial development can neither permit any diversification of the economies, nor allow the trade in manufactured products to take root. As indicated in the trade figures, it is only Kenya and Zimbabwe which have a relatively better manufacturing base and these have managed to derive benefit from the formation of the PTA. In most of the countries, the manufacturing base is still at a very rudimentary stage.

Several studies have confirmed that at SSA levei, the industrial performance has been very poor. The growth of MVA over the period 1980-1993 was only 3% per annum in real terms, and the rate declined steadily, from 3 .7% in the first half the of 1980s to 2% between 1989 and 1994 The trend persisted within the latter period, with MVA growth failing from 3.3% during 1989/90 to 0.4% in 1991/92 and registering a modest growth increase of 1.7% in 1992-94 (ADB. 1996). The share of MVA in SSA fell from 1.5% of world MVA in 1980 to 0.8% in 1994 (World Bank. 1997).

The share of manufactured exports from SSA to industrialized countries remained at 0.3% for five industries (wearing apparel, industrial chemicals, electrical machinery, transport equipment and professional and scientific goods) according to a study by the UNIDO (1996). For the ten PTA countnes. the share of MVA to GDP declined from 12.6% in 1991 to 12.3% in 1994 on average. This perhaps explains why very iimited progress has been made in expanding intra-PTA-trade in manufactured goods, despite the adoption of protocols and other measures aimed at promoting industrial development in the sub-region. It is argued that the value-added export-oriented activities that have sustained growth in many dynamic developing economies are conspicuously absent in SSA countries (Lail and Wangwe, 1998) and particularly in the PTA region.

Under the PTA .Article and Protocol on Industrialization, the first levei of industrial development deals with co-operation for the entire spectrum of industrial activities, including joint development of industrial research, skills and acquisition of modern technology, joint development of industrial support institutions; and the establishment of a PTA centre for the promotion of industrial development. The second level of concern cails for the establishment of multinational industrial enterprises (MIES) under Article 4 of the Protocol. Within the .Article and Protocol, the establishment of such industries should fulfil a number of conditions, which, *inter alia,* should include the extension of operations to the combined markets of more than one member State; the acquisition of modem technology, managerial and marketing experience; and the generation of employment.

Their third level of concern over industrial co-operation is the dissemination and exchange of information that involves a number of activities relating to ail kinds of data and technical information; investment laws, incentives and regulations; and availability of facilities for industrial manpower development and training. But, of fundamental importance under this last level of co-operation, is for member States to adopt a common approach to the terms and conditions that govern the transfer, adaptation or innovation and development of technology

While intra-group trade has failed to bring about equitable benefits to all member States, it is, however, contended that industrial co-operation could tiilfil this objective. It has been argued that the polarization effect generated by the PTA creation would result in industrialization, increase in income and growth of employment, the overall result of which would benefit the relatively poorer countries of the group (Musonda. 1995). While this argument may be plausible, it should, however, be pointed out that the same process that generates polarization couid also induce clustering of industries towards relatively more advanced countries within the grouping. The puil of South .Africa for new industrial investments in the SADC and Kenya, in the former EAC testify to this. The expenence in Africa has had very little positive effects with facilitating technological spill-over and rapid diffusion of knowledge and ideas. But what has been the expenence of promoting industrial deveiopment in the PTA sub-region?

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The theory of customs union addresses not oniy the question of efficiency in resource allocation but incorporates factor mobility as well. Such factors include the tree mobility of factors of production that integrate economies out of separate national economic entities. This implies the co-ordination at regional level of the legai instruments in the key policy areas (Robson. 1988). The dynamic effects such as the rate of growth of investment, and growth rate of national income, which accompany market enlargement and which is of major importance in economic integration can oniy be realized within the context of a co-ordinated policy framework. Indeed, the creation of larger markets makes the region a more attractive investment location (Blomstrom and Kokko, 1997) and rests on the need to increase the opportunities for profitable domestic and foreign investments.

The need to mobilize unempioyed resources by rationalizing the emergent structure of production, and synchronizing the structure of production with that demand, underpins the import-substitution strategy that has not yielded the expected results (Robson, op. cit). Empirical evidence from the various regional groupings has confirmed this. In UDE AC, instead of using pnces to guide industrial location, political considerations became the basis for the distribution of new industries, which allocated Gabon petroleum industries and Central African Republic textile industries. The industries allocated could not create links among the industrial sectors either at national or sub-regionai level, since 80 per cent of their products were destined tor export outside the UDEAC area.

In the PTA sub-region, the location of MIES is based on the decision of the member States. The implementation of Article 4 of the Protocol on co-operation in the field of Industrial Development, which provided the first test as to the political and economic commitment of the member States of PTA to the promotion and equitable distribution of enterprises indicates that not much had been achieved. In the ECOWAS region, there has been very little commitment to the implementation of joint or multinational projects, due to economic difficulties at national level, political instability and difficulties in sharing of costs and benefits of multinational projects The countries of the ECOWAS region subsequently demonstrated a general retreat from sub-regional approach to industrialization (Ochola. 1991).

Joint industrialization has therefore remained far behind its goal of enhancing output, diversifying production patterns, and implementing equal distribution of costs and benefits, despite the fact that Article 2(2) (c) of the ECOWAS Treaty provides that industrial co-operation should ensure that all member-States gradually derive the greatest benefit and economic advantage from co-operation in industrial development.

In the case of the former EAC, the problem was probably caused by the fact that inter-industry specialization within the common market far exceeded intra-industry specialization (Haziewood, 1975a, b). In UDEAC where intra-industry specialization nad some impact on the inter-State trade expansion (Langhammer, 1976), the roie of the Taxe Unique, by promotmg the importation of raw materials and intermediate inputs rather than encouraging the utilization of local inputs, had enabled the TNCs to restructure the UDEAC market for their own gains. The extent of fragmentation of

the UDEAC market by the TNCs had therefore reached a level which rendered the existence of UDEAC itseif to be irrelevant in enhancing co-operation m industrial production.

The industrial sector is therefore characterized by rierce competitive high-cost production that hardly permits the economic restructuring of the member S t a t e s a s proposed in Article 99 (c) of the PT A/COMES A Treaty. Instead of enhancing equal distribution of industries and enhancing balanced industrial development the domination of the industrial sector by foreign firms, tended to concentrate industrial activities in the reianveiv more developed countries within the various groupings, thus making these integration schemes to cluster benefits to those countries that act as "'growth poies" or 'backwash" while penalizing those considered as "backwaters'[0]. The schemes have therefore tended to accentuate economic disparities among the countries within a regional grouping. While industrial development is linked with multinational corporations and intra-firm trade, the detrimental effects resulting from their business conduct are likely to be far reaching.

Indeed, the ISI currently underway offers very limited opportunities for relieving technological underdevelopment as it is dominated by light industries which operate on the basis of imported factor inputs and depend on a skewed national pattern of income distribunon favouring the existence of small markets even within the context of the enlarged market created as a result of regional co-operation. The ISI therefore fails to trigger the multiplier effect, due to the absence of backwards and forwards linkages. The polarization effect which is emerging in the SADC indicates that only low value

added parts of the production chain will be located outside the Republic of South Africa, while high value added parts of production will be in the Republic - a type of regional division of labour in which most SADC countries will not be able to move up the industrial ladder (O'Brien, 1997).

The enlarged market thus turns out to be a mere extension of physical space and not an improvement in purchasing power. The average per capita income for the PTA region had remained at US5448 in 1996 just above the US$400 deemed as minimum by UN classification, and so low as not to permit increases in consumption or savings which are the necessary ingredients for the stimulation of industrial activities. In fact, most countries of the PTA region have actually experienced negative growth rates. Under the structural adjustment regime most of the would be manufacturing enterprises were being transformed into trading houses. In other words, the formation of regional integration schemes does not seem to have resulted in the acceleraUon of the industrialization process.

2.6 Transfer of Technology

While .Article 99(c) of the PTA Treaty on cooperation in Industrial Development advocates the expansion of intra-regionai trade in manufactures as a means of fostering structural transformation and overail socio-economic development of the PTA member States. Article 103 (2) refers to the terms and conditions governing the transfer or adaptation and development of technology with Article 104 addressing the issue of the exchange of industrial and technological informanon.

For the purpose of this Study, the transfer of technology will be viewed in the context of the PTA in terms of capital goods manufactured products, and raw material imports and exports amongst member States. Conceptually, regional integration should give rise to economies of scale, product differentiation, planning, restructuring of economy and increased opportunity for investments which constitute an important phenomenon of intra-industry trade and inter- industry specialization (Robson. 1988 and Asante, 1980). Therefore, theoretically the transfer of technology through the exchange of these goods or factor inputs within the PTA region would most likely result in a number of economic impacts.

Firstly, it would offer the exporting countries opportunities to acquire new skills and techniques in the production of capital goods manufactured products, and raw material inputs and. thus, accelerate the learning process. Secondly, the exportation of these goods would indicate that a high degree of growth was being achieved and that the countries were beginning to master the necessary technological skills for production, rhirdly, by engaging lll che production of this category of goods, it would indicate that the countries were now on the threshold of making a technological breakthrough for the diversification of their economies. Lastly, increased intra-PTA trade in these factor inputs and products wouid imply that a more sustainable industrial base was being established as the value added to the raw materials would be progressively increased with the acquisition of new skills. The process wouid ensure more dynamic and competitive economies.

In other words, the production and exchange of these goods would result in increased specialization, greater exploitation of economies of scale, maximum utilization of resources, and higher levei of intra-PTA trade. The fulfilment of these conditions would be deemed as measures of reducing dependence and enhancing the development of technological capabilities within the region. However, Table 2.6 which indicates the share of MVA in GDP and is considered as an indicator of production and diversification show low levels of industrial production.

The theory of technological capabilities suggests that individual countries have very different abilities, depending on the cumulative stock of knowledge which they have built up (Lail and Wangwe. 1998). It is argued that technological differences are central to competitive advantage, and that differences in national economic structures, values, culture, institutions and history contribute to this competitiveness (Porter. 1990). The standard theory of trade posits that since nations are endowed with a different stock of factors, nations will only export those goods which make intensive use of the factors with which they are relatively better endowed (Dornbusch *et.al.* 1977), and import those in which they have comparative factor disadvantage (Jones and Kenen. 1984).

The stock of these factors, which comprise: human and physical resources, as well as resources in knowledge, capital infrastructure and advanced factors of production, as weil as resources at any particular time is less important than the rate at which they are created, upgraded and made more specialized to a particular industry (Porter, op.cit).

Tabie 1.6: Share oc Manufacturing sector :n GDP (in percentage)

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3n6outi	5.2	1.2	1.2	1.2	1.2	0.1	3.1	3.1	3.1	).1	3.1	0.1	3.1
lUnoma	5.1	5.0	5.4	55	9.5	13	JO	9.0	5.J	5.4		• ?	5.2
CiiTva		!3 3	'.42	I.i	.5.0	.3.0	.19	.6.0	;3.7	a.0	:6.3	5.7	:5.3
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.nnaa	1.4	17	3.1	3.4-	3.4	13		• <	IS	3.1	3.2	3.4	-.0
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Source: Comtsuea ±om ECA Scansncai Figures

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Porter farther states that, advanced factors are the most critical for enhancing competitive advantage and yet they are the most scarce since their development requires a larger and a more sustained investment in both human and physical capital. The absence of advance factors in terms of intangible assets in SSA countries can be gauged by the participation of this group of countries in technological activity and patents. In as much as patents are not considered as industrial tools, they are nonetheless used as measures of technological capability at the frontier of knowledge (WSR 1998).

Table 2.7 reveals that China and Latin America have made spectacular progress in the share of patents registered under the European and US patents. The share made by China stands at (+53% and 18%) while that of Latin America stands at (104% and 22% respectively). For Japan and NICs the snare stands at (-13% and +8%) respectively For India and Central Asia it stood at (+3% and 60%) respectively, while for SSA the figures were (-4% and -22%) respectively. It is clear from the Table that SSA countries are the most disadvantaged and are totally outside the orbit of technological development.

When technological development is considered in terms of the R+D institutions established in .Africa, it can be seen that those which are still managed by the public sector, suffer from poor technical quality, whiie their operational utility became biurred as institutions proliferated, and their research findings are neither commercialized nor put to any direct use (WSR op.cit).

Table 2.7: Technological Output Measured in Patents. 1990-1995

World Share	European Patents		US Patents	
	1995(%)	**1995(base 1990=100)**	**1995(%)**	**1995(base 1990=100)**
Western Europe	47.4	91	19.9	78
Central and Eastern Europe (CEE)	0.4	101	0.1	43
Commonwealth Independent States **(CIS)**	0.4	113	0.1	59 -
North America	33.4	125	51.5	108
Latin America	0.2	204	0.2	122
Arab States	0.0	101	0.0	135
Sub-Saharan Afiica	0.2	96	0.1	78
Japan and **NICs**	16.6	87	27.3	108
China	0.1	152	0.2	118
India and Central Asia	0.0	103	0.0	160
South East Asia	0.0	165	0.0	126
Oceania	1.3	163	0.6	84
World Total	100.0	100	100.0	100

Source: Adopted from Tabie 3 of Worid Science Report (WSR) 1998

On the other hand, the private sector **R+D** in SSA is nearly non-existent because of: a considerable shortfall in production knowledge; the enterprises which are subsidiaries of TNCs carry out their **R+D** outside .Africa: engage generally in a low level of manufacturing or "foot-loose"' type of manufacturing activities; the output infrastructure for **R+D** is extremeiv poor: and highly qualified and trained personnel are in short supply (Thisen. 1993).

Table 2.8 on Science Enrolment, R+D Personnel and Industry in the East and Southern .African sub-region paints a more gloomy picture The technical enrolment in schools range from 27 4% in the Congo Democratic Republic to 0.5% in Ethiopia in 1988-91. The other poor performing countries include Swaziland and Comoros (1.4% each), Kenya (1.6%), Zimbabwe (1.7%), Namibia (1.9%), Malawi (2.4%), Uganda (2.5%) and Zambia (2.8%).

These figures are well below comparative figures from other developing regions, which displayed a much better performance. Even when estimated in terms of tertiary students per 10,000 population, the figure is 381 for Republic of Korea. 218 for Singapore as compared to a range of between two for Tanzania, three for Malawi and Uganda, 36 for Kenya and 38 for Zimbabwe. The highest number is recorded in South .Africa, with 80 per 10,000. From the foregoing analysis of the three Tables, a clear picture is painted as to the level of technological development in the PTA/COMESA region. The data reveal the real dilemma facing the PTA countries in terms of promoting industrial development in the region. It would appear that the governments still have a much bigger role to play if technological development is to be rescued from its present doldrums.

The previous Tables, especially Table 2.5 on Intra-PTA trade by SITC groups is still characterized by heavy dependence on the export of primary commodities and the disproportionate importation of capital goods and other manufactured inputs.

Table 2.8: Science Enrolment, R+D Personnel and Industry in COMESA Countries

Country	Secondary Technical Enrolment as % of totai secondary (1988-1991) '	Ternary Natural and appiied science enrolment (as % of total ternary) 1992	Tertiary studies abroad (as % of those at hand) (1985-92)	R+D scienust and techno paper 1000 popuiauon 1988-92
Angola	5.9	30	38.5	.
Burundi	12.8	32	17.4	0.1
Comoros	1.4	29	.	.
Congo (DR)	27.4	.	9.9	.
Ethiopia	0.5	43	20.4	.
, Kenya	1.6	22	20.3	1.3
Lesotho	3.6	16	5.5	.
Madagascar	5	23	8.8	0.1
Malawi	2.4	36	12.8	.
Mozambique	6	39	34.3	
Namibia	1.9	3	.	
Rwanda	.	21	35.6	
Sudan	4.1	16	13.3	
Swaziland	1.4	43	10.3	
Tanzania	.	.	42.3	
Uganda	2.5	15	6.9	
Zambia	2.8	25	9.5	
Zimbabwe	1.7	25	3.7	.

Sources: African Development Bank. African Development Report. 1994; UNDP. Human Development Report. 1996.

Even though the concentration of PTA exports in category 6,7 and 8 (SITC) might signify a tendency towards diversification and that some new non-traditional exports are perhaps finding markets in the PTA region (Musonda. 1995), judging by the fact that imports into the PTA region from category 6,7 and 8 SITC still occupy a higher percentage of this trade, the above tendency could perhaps be explained in terms of the re-export of imported goods and the formalization of previously unrecorded trade.

Intra-PTA trade in machinery, and transport equipment still constitutes a negligible share of total intra-PT A trade as most countries industries are still at a very low level of value added production and are finding it difficult to move up the industrial ladder due to the lack of advanced factors of production. This underlines the fact that ISI is at a very rudimentary level as the capacity to upgrade them to manufacture these important factor inputs is lacking. The marked absence of capacity to produce capital and intermediate goods indicates that no real value can be added to production, an indication of the low level of technological development. The dearth of local engineering and design capabilities literally means that the countries have to rely on the consumption of products from industrialized countries or those produced by foreign multinational corporauons. While the presence of large firms in an industry appears to have improved the export performance in Kenya (LalL, *et ai,* 1987), it has neither led to the transfer of technology nor to the acquisition of technological knowledge. Unless policies are adopted that put maximum emphasis on the development of local technological manpower, it will take the PTA countries much longer to produce and trade in capital and intermediate goods. In other words, manufacture and not merely assembly of manufactured parts should be the policy.

FOOTNOTES

The nine were: Comoros. Djibouti. Ethiopia. Malawi. Mauritius. Kenya, Somalia. Uganda and Zambia

ECA, Proposals for Strengthening Economic Integration in West Africa. Undated.

BOAD. Etude sur rHarmonisation des Plan de Developpement des Pays de 1'UMAO et Programme Commune d'Action, Juin 1988

CHAPTER THREE

REVIEW OF LITERATURE

3.1 Theoretical Literature

The extensive economic literature on the impact of customs unions and/or free trade areas on trade expansion couid conveniently be reviewed under three different schools, namely: the classical, neo-classical and contemporary. Whatever the modifications introduced by any of the subsequent schools, the basic justification on a world-wide scaie for sanctioning the discrimination inherent in economic integration schemes, or even asking sovereign States to accept the constraints of a common organization, is that they generate enough economic dynamism among the participating members as to benefit the exports of non-member countries as weil fWeintraub. 1987 and McMillan. 1993). This is the *raison d'etre* behind the proliferation of customs unions and free trade areas, especially in the developing countries which need to accelerate the pace of growth and economic development.

3.1.1 Classical (Orthodox) School

This school analyses the effects of customs unions on resource allocation in terms of trade creation and trade diversion that could occur. Trade creation leads to a switch of imports from a high-cost source to a iower-cost source, while trade diversion occurs when imports shift from a low-cost external source to a high-cost internal source

("Robson. 1987) Robson (op.cit) argues that trade creation results in production and consumption effects, while trade diversion results in the increase in cost of goods and in the loss of consumers' welfare. The merits or demerits of customs union are, therefore, evaluated in terms of the magnitude of trade creation and diversion. This conforms to Viner's (1961) general theorem which states that a trade-creating customs union is welfare improving, while a trade diverting customs union is welfare worsening (Viner, op. cit). In other words, the theory postulates that when the trade created is greater than the trade diverted, then regional integration can be viewed as beneficial and successful.

It has, however, been observed that Viner's underlying basic assumption that trade creation is welfare improving while trade diversion is welfare worsening need not hold unless it operates within the context of a two-good model with constant unit costs and a zero price-eiasticity of demand (Bhagwati, 1971). The results. Michaeiy (1976) maintains, cannot be derived without this assumption. The argument is essentially that the concepts of trade creation and trade diversion are in themselves inadequate for ascertaining the desirability of establishing a customs union. The conditions for achieving greater trade creation over trade diversion depend on the initial higher levels of trade among the participating countries in relation to their trade with the countries outside the grouping, a condition that assumes a certain degree of complementarity of production among the participaung members and the existence of minimal differences among the groups in terms of resource endowment and levels of economic development. Robson (1980) posits five conditions which have to exist if the establishment of regional groupings have to be successful. These include: the

precondition that potential partners should have a significant proportion of their trade with one another prior to the formation of such an arrangement; their economies should at least be potentially complementary; each prospective partner's extra-regional trade as a percentage of GNP should be relatively low; the size of the potential union should be large and the individual country tanff rates prior to the formation of the union should be high in comparison to the common external tanff (CET). Hazlewood (1987) has also identified factors which are likely to make integration schemes to be welfare improving to include an extensive overlap in activities protected by the tariff, and wide differences between member States in the cost of producing the commodities subject to protection. The conditions that favour trade creation appear to be the exact opposite of those that prevail in the developing countries. The developing countries' existing external trade is usually large in relation to the domestic production, while the ntra-group trade constitutes only a small portion of their total trade. The extra-regionai trade as a ratio to their GNP is generally quite high and in the PTA region, the ratio was 0.37 in 1996 compared to 0.07 for industnai countries. Besides, this group of countries relies heavily on the exportation of primary commodities that are freely traded in the international market. In the SSA countries' context these products are composed of one or two commodities at most, while the imports consist mainly of capital goods, intermediate products and manufactured goods. In this context, integration is unlikely to affect the volume of resources allocated to the production of such products. Therefore, in terms of the orthodox theory, the formation of such schemes among developing countries may appear, at best, to be irrelevant and harmful What, then, is the rationale for the adoption of the moaei by the developing countries?

The acceptance of the model by the countries of Latin .America. Africa and .Asia was partly stimulated by the EEC model, as pomted out before, and partly by the different economic arguments formulated by Lipsev (1960), Cooper and Massell (1965), among others. They identified a number of ways in which economic integration could affect the welfare of the participating member States, to include, *inter alia* specialization in production; economies of scale; changes in the terms of trade; forced changes in efficiency stimulated by foreign competition; and changes in the rates for economic growth.

The argument is that, while economies of scale are easily realizable in larger countries which can therefore afford to adopt a strategy of import-substitution and specialization (Syrquin and Chenery, 1989), smaller countries can only achieve these through the creation of larger markets. The smaller countries in SSA will oniy be able to reduce the cost of industrialization by exploiting economies of scale through regional integration arrangements (Lyakurwa *et ai.,* 1997). The likely opportunities that the creation of regional markets will generate in terms of resources mobilization, both internal and external, as Robson (1987) observed, is based mainly on the prospective gains from rationalizing the emergent structures of production. In other words, the synchronization of the structure of production with the structure of demand, will stimulate the maximum utilization of domestic resources and promote industrial activities.

This school has. on the other hand, put more emphasis on specialization in production as a means of increasing the inter-State flow of resources (Balassa. 1961 and 1965).

The specialization in production argument is based on the principle that a country will benefit more from trade by producing commodities that use more of its relatively abundant resources and importing those that use more of its relatively scarce resources, unless the domestic market is biased towards commodities using domestic factors (Chenerv, 1965). But the economies of specialization are bound to be exhausted at a relatively low level of economic integration (Baiassa, 1961 and 1965). As the process of specialization results in the reduction of costs and increased competition and technical changes necessary to exploit created opportunities and capacity utilization (Rodrik, 1988), a pattern of specialization therefore emerges in which high cost industries within the union will tend to be replaced by low-cost competitive industries from within the union (Hazlewood, 1967).

These, in turn, cause a reduction in the total costs of production which, subsequently, result in the reduction of the total unit costs of production of existing industries or new industries to be established that wouid otherwise be non-viable under conditions of smaller domestic markets. The efficiency argument rests on the assumption that the establishment of a larger market will induce greater competition among the domestic firms, thus, helping in the lowering of the unit cost of production; providing goods and services at a more affordable level; and assisting the local producers to gam access in the worid market; this is the training theory argument. The argument is based on the assumption that trade expansion will lead to increased returns to scale as a few firms begin to operate at a higher level of output and productivity (Rodrik op.cit). The assumption has. however, a poor empirical basis in most developing countries (Pack. 1986. Bhagwati, 1988). The training theory hypothesis (Inotai. 1991) on the other

hand postulates that in the initial phase of industrialization, the regional market will provide protection for the infant industries by establishing a common external tariff, besides creating a wider market. The realization of efficiency through economies of scale, technical development and specialization on the basis of comparative advantage, provides regional integration schemes with a bridge to participate in the international division of labour.

The terms of trade argument, in support of economic integration among developing countries, is based on the detrimental effects of the protectionist policies of the developed countries against the primary commodities exporting countries. By increasing trade among themselves, it is assumed that the developing countries would be able to improve their terms of trade with the rest of the world. The assumption is that regional trade arrangement will lead to the substitution of consumer goods from non-members of the union by those from union members, thereby effecting the creation of positive terms of trade and the widening of the export base with respect to both regional and extra-regional trade (Fernandez, 1997; Musonda, 1995). Thus, by broadening and buiiding areas of comparative advantage, the regional grouping creates the capacity to address declining terms of trade of its members main exports (Ndulu and Elbadawi, 1994). By generating economic and industrial activities, regional groupings would create greater dynamism in the economies which would lead to changes in the rates of economic growth.

The main criticisms directed against the orthodox theory of a customs union is that it relies on economic assumptions that are iargely absent in developing countries. It also

evaluates the desirability of a customs union from a static perspective and not from a dynamic viewpoint. The aim of regional integration which is to bring about the structural transformation of the economies requires a stable political environment (Kisanga. 1991), which, in the context of SSA, appears to be very volatile and unstable and thus undermines regional schemes. The resolution of political disputes through regional agreements would reduce tension between co-operating partners and boost trade and investment.

3.1.2 Neo-classical School

This school however, posits that the deepening of the specialization process in production can only be attained at a higher level of economic integration and cooperation In this regard, the school recognizes five leveis of economic integration defined by : degree of removal of tariff and other quantitative restrictions: creation of a common external tariff; flow of factors of production; harmonization of fiscal, monetary and other instruments of economic policies: and unification of policies and political institutions. Table 3 .1, captures this information by indicating that a Free Trade .Area is the lowest form of economic integration, with only one of the characteristics applicable, while economic integration is the highest form of integration with all five characteristics applicable.

Table 3.1: Levels and Forms of Economic Integration

Types of Economic Integrauon and :o-operauon	Absence' of Tanff barriers and other quanutauve restriction	Common External Tariff	Free mobility of factors of producuon	Harmonization of fiscal monetary and instruments policv	Unificauon of policies and political institutions
Free trade area	X				
Customs Union	X	X		...	
Common Market	X	X	X		...
Economic Union	X	X	X	X	
Economic Integrauon	X	X	X	X	X

Source: Joseph S. Nye. "Comparative Regional Integrauon: Concept and Measurement," Intemanonai

NB: X = oharactensnc appiicaole;. . . . . := charactensnc non-applicable

According to this school, economic integration constitutes a means of expanding economic opportunities through specialization on the basis of comparative advantage and economies of scale. The theory posits the free mobility of labour, capital and goods and services between member States. The free mobility of labour and capital would resuit in welfare gains and changes in the distribution of income for the participating countries. A further assumption is that this movement would conunue until the returns to capital between the countries becomes equalized, as long as it is equally assumed that, capital controls vis-a-vis the rest of the world are maintained. The other aspect is that there are likely to be dynamic gains to be derived from the free mobility of factors of production. This free movement of capital would tend to lead to economic convergence within the integration scheme. The core of the argument is that 50 far as there are possibilities for specialization between countries, according to comparative advantage, industrialization aimed at a wider regional market will be more

efficient than one confined to a domestic market (Hazlewood, 1975a. b). Increased specialization within a common market would allow efficient firms and industries to expand production, while at the same time exposing other firms to increased competition, leading to the improvement in efficiency and cost reduction and trigger much needed strategic complementarity and investment that would enhance the development of modern manufacturing industries (Ndulu and Elbadawi, 1994).

The neo-classical theory views economic integration as a gradual process evolving through the five stages shown in Table 3.1. .Assuming that the neo-classical theoretical premise of economic integration is accepted, and supposing that total integration were achieved, member States would still remain different in terms of size and technical capabilities. In this regard, they will demonstrate dissimilar abilities to take advantage of specialization, economies of scale, augmentation of factor inputs and improvement of market structures (Guy, 1989). Under these circumstances, economic integration would tend to yield unequal benefits.

The main criticism that has been leveled against this school is its'reliance on a number of assumptions, such as tull employment, perfect competition and internal mobility of factors production, constant returns to scale, and equality of private and social costs. These assumptions do not even hold for the developed countries, much less for developing ones. The other criticism that has been advanced against this school is its emphasis that economic integration among developing countries should place greater stress on dynamic effects, while setting its analysis within a purely static framework. Asante (1980) has argued that, while there couid not be sufficient justification for the

creation of a West .African Customs Union, on a "purely static analysis basis", the contrary is the case on dynamic grounds. Others have averred that Euro-based theories on integration schemes have proved to be inadequate bases for the construction of integration schemes in .Africa (Rothschild and Curry, 1978).

The neo-ciassicai theory assertion that free mobility of capital will tend to lead to economic convergence has drawn the most criticism. It has been suggested that no such convergence occurs but that, instead, the free mobility of capital will tend to exacerbate national and regional differences in reai income and welfare, thereby making the affluent to benefit at the expense of the poor. This takes place through a 'polarization" effect and "cumulative" causation (Myrdal. 1957). In other words the inflow of capitai into areas where its marginal productivity is greatest, sets in motion dynamic processes and reinforces the attractiveness of those areas, while siphoning capital from the poor areas, making them even poorer. The free mobility of labour wouid also result in a similar effect.

This phenomenon has been witnessed in the former EAC where investments tended to be attracted to Kenya, at the expense of Uganda and Tanzania. Indeed the establishment of various compensatory schemes within the different economic groups such as CEAO. ECOWAS, UDEAC and the PTA confirms the existence of unequal distribution of benefits within the different integration schemes. It has, however, been observed that capital mobility in poor economies attracts new capitai from developed countnes. both for augmenting the capitai stock and, more significantly, for effecting a technology transfer. It is within this context that mtra-regionai capitai movement, by

facilitating investment from the outside worid. can be an effective instrument in stimulating growth, assuming that investment from outside may be responsible for the mtra-regional mobility of capital.

However, the dynamic effects arising from economies of scale or investments cannot be realized, due to the low level of technological development which blocks the full exploitation of the potential complementarities between the economies which is likely to generate the production of a wide range of manufactured products. The exchange of such products wouid result in economic growth and reduce dependence on the export of commodities faced with weak global demand (Killick. 1992). The technological revolution and capital accumulation have had the tendency of concentrating benefits into the hands of those who command these assets (Kitamura. 1971, Rao. 1997), while penalizing those who do not. by extending the technological gap and differences in income levels (Brown. 1974). The control of the technological knowledge by the TNCs makes it more difficult for the poor host countries to share in the acquisition of technological information even when certain production capacities may be located within their own countries

Indeed, even when the presence of TNCs permitted the growth of industries within these developing countries, the fact that the loci of technological development remain outside these countnes virtually guarantee that the acquisition of knowledge about such industnes will remain out of reach of the host countnes (Grieco. 1982). Besides, the new technological information has shifted developing countnes' comparative advantage away from the traditional factor endowment and low labour cost, and more

towards the capacity to utilize and exploit effectively, efficiently and speedily, the new •.nformation technology (Blumenthal, 1988) It is only advance factors (Porter, op. cit) which now enable a country to cope with technological advances such as microelectronic, informatics, biotechnology and new material technology, which have pervaded production systems and changed the nature and scope of industrial competitiveness. The new paradigm of production involves not only new technologies, but also new management and organizational techniques (Lall and Wangwe, op. cit). Yet the paucity of technological skills and capabilities render the acquisition of technology for industrialization much more difficult for **SSA** countries. In fact this phenomenon is already sowing the seed of **SSA** countries' isolation from the mainstream of global economic development.

3.1.3 Contemporary (Structuralist) School

This school on the other hand views economic integration as an alternative development strategy. Hence, the theoretical justification for economic integration in the iess developed countries is to be found within the context of the economic development theory and the strategy for economic development (Renninger, 1978 and Axline, 1977).

Recent studies earned out under the auspices of the Worid Bank, have upneid economic -integration and co-operation as an important strategy for the reduction of long-term obstacles to development by widening the range of options available to poor countries and by enabling growth that would otherwise prove difficult in the absence of

such co-operation (World Bank. 1981). The contemporary school considers economic integration as a •paradigm for industrialization" fMytelka, 1973).

More recent theoretical literature (Puga and Venables, 1998) asserts that the formation of trade arrangements between developing countries will trigger industrialization through trade diversion by enhancing trade in manufactures. Instead of importing manufactured products from the developed countries, the developing countries will boost production of manufacture by shifting trade to the regional market. While de Melo *et al.* (1993) argue that the preferential trade arrangement and the consequent trade diversion . may reduce weifare if they create regional import substitution, the basic underlying weakness of this line of argument is that it starts the analysis by assuming a pattern of comparative advantage and that regional integration schemes wouid only promote mdustnaiization in developing countries by working against their assumed comparative advantage. The experience of newiy industrialized countries of East .\sian countries negates this assumption.

The alternative approach is to assume that countries have few fundamental differences that generate immutable patterns of comparative advantage, and that cumulative causation has created concentrations of industrial activities in particular locations while leaving other areas more dependent on primary activities (Puga and Venabies op. cit.). However, the apparently changing comparative advantage of the newiy industrialized countries suggests the need for a more flexible approach to comparative advantage. By changing the attractiveness of the countries as a base for manufacturing production, they can potentially trigger industrial development.

Indeed, by using building blocks from the new trade theory which focuses on the location of firms using technologies with increasing returns and operating in imperfectly competitive environments, and from the oid development economies which emphasizes on the need for forward and backward linkages between firms. The combination of these linkages with imperfect competition would create pecuniary externalities between firms (Puga and Venables, op. cit.). This would provide the mechanism for cumulative causation. Pecuniary external economies come about where investment in one industry or group of industries become profitable because of their dependence on prior investment in other industries. It is these theoretical justifications that underpin the assertions that the formation of trade arrangements can shape the form of economic development and industrialization of the developing countries.

Since industrialization is viewed by developing countries, as a panacea for economic growth and development, regional integration is therefore a *'sine qua non* for the process of economic transformation" (Nyongo', 1993). The World Bank Long-Term Perspective Study ("World Bank, 1989) also underscores the importance of regional integration and co-operation by stating that, if Africa takes the correct measures towards integration and co-operation and develops the right institutions politically and economically, the continent could make progress in its economic development. This, the Study states, is a crucial objective and worthy of pursuit if the benefits of economies of scale in the industrialization process are to be realized.

In other words, regional integration creates an attractive investment area by increasing opportunities tor intra-regionai investments rather than fragmented individual national markets (BlomstrOm and Kokko, 1997). The assumption is that internalization of firm-specific, intangible assets rather than the avoidance of trade barriers is the key motive for foreign direct investment (FDI). The argument is that firms invest abroad in order to expioit the monopoly they possess over-rent yielding advantages, such as economies of scale and superior product and process technologies (Balasubramanvam and Greenwav, 1992). The elimination of trade barriers within the region leads to the promotion of a substantial relocation of production resources in line with the patterns of regional comparative advantages, and in such a way that production capacity in different activities could become more concentrated in those areas where each activity is most efficiently earned out (BlomstrOm and Kokko, op.cit). In the context of developing countries, foreign direct investment may be an essential cataiyst for the realization of the dynamic benefits through the improvement of economic efficiency associated with increased specialization, exploitation of scale economies, greater geographical concentration of individual economic activities, competitive pressure, and stimulation of technological transfer and difiiision both directly and through spillovers to local firms.

The structuralist school, which uses an economic geography model (Krugman, 1991) predicts that market integration will lead to greater geographical concentration due to the reduction of transaction costs as a result of the elimination of internal tariffs. The existence of core-periphery within a larger geographical area will permit manufacturing activity and populauon to be concentrated at the core, while encouraging a lower levei

of manufacturing activity and lesser population density at the periphery The advantages of concentration derive from the ability to exploit economies of scaie, existence of demand externalities, and concentration of production, constituting increased local demand (Lyakurwa *et al.*, 1997). The assumption is that concentration will only occur as long as economies of scale can be exploited in a situation of oligopolistic competition (Schweickert. 1996). But the increased competition will push the average cost curve to its minimum - to a point at which average costs equal marginal costs and at which point economies of scale cease to exist. The concentration for manufacturing activities will take place, depending on the balance of different factors, either as a result of availability of natural resources or large economies of scale.

The problem faced by developing countries is that their markets are too small in terms of population and effective demand to effectively exploit economies of scale. Even the expected spill-over as a means of realizing growth effects is not feasible due to the absence of intangible assets which can stimulate new investments The exploitation of the dynamic potential of regional integration needs a leading economy, which in the context of the PTA is lacking, since even the stronger partners. Kenya and Zimbabwe, belong to the low-income group of developing countries which cannot provide adequate size markets for regional integration to produce reasonable dynamic gains.

The Contemporary School considers economic integration as a mechanism for reducing external vulnerability by enhancing the bargaining power of the less developed countries, (UNCTAD. 1971) and as a means of enhancing an export

promotion strategy (Mansoor and Inotai, 1991), as well as "'a tool to combat and reduce economic dependence - a grand strategy for solving the problems of underdevelopment" (Asante, 1985). It is for this reason that it has been argued that although in the past, regional trade arrangements (Vamvakidis. 1998) did not result in faster growth, during the 1990s and beyond, regional integration groupings will have greater impact on growth since they are now considered as part of a broader liberalization scheme. Economic cooperation in this respect is expected to lead to the break up of the traditional dependence pattern by strengthening self-reliance and improving the collective terms of trade vis-a-vis the developed countries. However, the collective markets of the SSA countries are so small as to exert no meaningful pressure at the bargaining table.

The Contemporary School defines regional economic integration in terms of institutional political dimensions. It has been argued that it wouid be futile to ask sovereign States to submit to the restraints of a common organization, unless it promised greater benefits than wouid otherwise be feasible if each country decided to act alone (Thisen. 1989). It is now accepted that the objectives of regional integration go beyond trade in goods, services and factors of production and that any regional arrangement worth its name, must entail common rules of conduct to ensure the success of such an undertaking. Hirschman has argued that there are both costs and benefits tor surrendering autonomy to supranational organizations (Hirschman, 1971). Yet the question of a country surrendering part of its sovereignty for the greater effectiveness of these schemes has remained one of the thorny issues in regional integration. The main pre-occupation is still with the preservation of sovereignty and

national interests to the detriment of supranational and community interests (Hazlewood, 1975a.b). But that sovereignty is currently threatened by a new form of coioniaiism which is being constructed on .Africa's economic weaknesses (Ramphal, 1985).

In SSA. another institutional problem has to do with the multiple of membership in many of the organizations which have been created. It is also argued that the existence of such organizations might perhaps reflect more the dissatisfaction with the few gains achieved through regional integration than the pure desire to create such institutions for the institutions' sake. The multiple membership in these organizations have however, cast doubts as to member countries" political commitment to such undertakings besides creating conflicting loyalties, not to mention the costly duplication and dissipation of scarce resources. These notwithstanding, the importance of an institutional framework for the effective operation and implementation of regional integrauon schemes remains important.

More recently, a thorough review of the effects of regional institutions on the outcome of regional integration has been undertaken by de Melo, Panaganya and Rodrik (1992). They have pmpointed three areas in which the institutional framework can alter the economic outcome of regional integration schemes to include the effects of preference dilution, preference asymmetry, and institutions- design. The creation of regional institutions is likely to widen the scope in the choice of certain institutional dimension that may not be feasible within the domestic context, thus, enhancing flexibility and efficiency.

Indeed, as Julius Nyerere (1987) so aptly stated, "*arrangements or institutions for cooperation can only be effective if they are founded on a recognmon of the need for and the responsibility involved m united activity"* There is now a prevailing view that regional integration should be based on the realization of collective self-reliance. It has, however, proved difficult to measure the benefits to be derived from economic integration schemes. Despite this, the current thinking is heavily weighted towards considering regional integration to be a strategy in the promotion of socio-economic development. If this is the assumed goal, then there seems to be little alternative than the strengthening of regional integration efforts in Africa. At least, it is hoped that political support has been given at the .African level by the signing of the Abuja Treaty

3.2 Empirical Literature

The cmpiricai studies carried out thus far, have sought to measure economic integration basically for three main reasons, namely to: assess the impact of regional integration on a particular grouping; quantify the effects of regional integration on intra-group trade and other variables that influence the well being of the group; estimate the effects of integration on the distribution of resources and benefits among the participating countries (Robson. 1987). Robson recognizes three groups of studies that have attempted to accomplish this task. The first group has tried to estimate the effects of regional integration by relying directly on a specific analytical model using standard staustical techniques. The analytical model employs both *exanie* and *ex-post*

evaluation methods. The severe limitations of data have however rendered its application less than uselui.

The second groups of studies has sought to assess the effects of integration indirectly through residual imputation procedures The *Residual models* seek to estimate the effects of integration by reference to a variety of explanatory factors, that is, what would have happened had the integration scheme not been created? This is a hypothetical situation *(ann-monde)* for which it is difficult to test the validity of the hypothesis. The impact of regional integration is taken to be the unexplained residual obtained by subtracting the projections arrived at for the past period from the actually recorded magnitudes for the same period. While this method can be used for *ex-post* studies it can oniy however, be tested against actuai experience after regional integrauon has been established.

The third group of studies use the *survey method* which is based on the views of the entrepreneurs, enterprises and other experts obtained through interviews. The interviews could deal with the conditions of particular industries or sectors and the extent to which they expect the changes brought about as a result of regional integration to affect their performances, or what effects these changes might have on the sale of their products, employment, and on their production and productivity While the method could yield data on which analytical work could be earned out, its weaknesses lie on the partial nature of its coverage which is limited to a cross section of entrepreneurs and the lack of adequate information on the markets.

Studies of this kind have been principally undertaken for the EEC now EU and the European Free Trade Area (EFT A). The empirical work on the effects of integration has focused on trade flows. But the buik of the empirical studies has dealt with two of Lipsey's (1960) main sources of change, the specialization in production, according to comparative advantage and changes in terms of trade. For the economic groupings of the developing countries where intra-bloc trade is of much less importance in terms of total global trade, the method of analysis is of very limited value. This is because in the context of developing countries; trade flows only reflect the opportunities that remain to be exploited, but shed very little light on the effects of integration since they fail to reveal the extent to which trade flows have been affected by the integration arrangements.

Most of the empirical studies on the trade effects of the EC have relied on the residual method to estimate the effects of integration, by analyzing changes in the share of import markets tor different commodity groups that had taken place over a given period. Calculations of this kind are usenil because they show trade flows that did occur but they do not, however, make allowance for the changes that would have occurred independently of the formation of regional integration. The assumption is that the past trends will continue without knowing the exact narure of that relationship in addition to assuming that many of the determining variables such as GDP, apparent consumption and so on wouid not change in the *ann-monde* from their actual observed values. But, since these variables are expected to be affected by economic integration, the assumption cannot be vaiid. Since the import share could neither discriminate

between trade creation nor trade diversion, a method that could correct some of these shortcomings becomes necessary

The analysis of import shares cannot distinguish between trade creation and trade diversion simply because it cannot establish the size and direction of the effect of domestic production, which is the basis of trade creation. This difficulty is overcome by anaiyzing;the share of expenditure in apparent consumption (C). This is defined as gross domestic production (V), less exports (B), plus imports from partners (Mp), and imports from non-partners (Mw). Symbolically, this can be written as:

$$C = V - B + Mp \quad M \qquad (1)$$

The following three basic shares, namely domestic share (D,) share of imports from partners (P,) and share of imports and the rest of the worid non-partner (W,) can be computed from above apparent consumption equation.

$$\text{Ds (domestic)} \qquad \frac{V - B}{C} \qquad (2)$$

$$\text{Ps (partner)} \qquad \frac{Mo}{C} \qquad (3)$$

$$\text{Ws (non-partner)} \qquad \frac{M_w}{C} \qquad (4)$$

Since, in any year, the sum of these three shares must equai unity, and the sum of the changes in the share between any two years must be zero, then aD, < 0 indicates gross

trade creation, iPs> 0 indicates net trade creation, and ^Ws < 0 indicates trade diversion.

Using hypothetical numerical figures in Table 3.2, a number of calculations can be carried out. .Assuming the relocation of the total production of commodity X following the formation of customs union, the home country would reduce its relatively inefficient production from US$400 million to US$300 million. This would represent trade creation and is equivalent to the increase in total imports (partner and the rest of the worid) from 66V3 per cent to 75 per cent of apparent consumption. This is partly offset by the reduction of imports from non-partner sources from S500 million to S300 million, which results from the discrimination against non-partner sources. This is the trade diversion effect and is equivalent to the decline in external imports from 41^2A per cent to 25 per cent of apparent consumption. The expansion of imports from partner countries is the sum totai of the two effects. Thus, the ciiange in the total import consumption ratio, measures trade creation, while the change in the ratio of mports from non-partner countries to consumption measures trade diversion, each being applied to the final figure of consumption.

The basic assumption of the model is that the three shares Ds, Ps and Ws would have remained unchanged in the absence of tariff changes that accompanied the creation of the EEC. But. even in the aosence of integrauon. the three shares would have undergone change. Ds wouid have declined, while Ps and Ws would have been expected to increase due to intra-industry specialization or from other factors.

Table 3.2: Hypothetical Numerical figures for Estimating Effects of Integration

	Pre-integrauon S million	% share	Post-integrauon Smillion	% share	Changes Smillion	%share
Imports from non members	500	4F/3	300	25 diversion	-200	-16²/, =4 W, Trade
Imports from . partners	300	25	600	50	+300	+25 = a P, Gross Trade Creation
Domestic production	400	33 V3	300	25	-100	-8¹/3 -A Ds Net Trade Creation
Domestic exports	0	0	0	0	0	0
Apparent consumption	1 1200	100	1200	100	0	0

Source: Adapted from P. Robson Hypothetical Table 2.1 appeanng in The Economics of International Integration. London, George .Allen and Unwin Ltd, 1987.

Statistical difficulties stiil rendered the results achieved less satisfactory, in spite of allowing for changes in income, capacity utilization and other factors.

Further refinements in the methodology have been introduced by using the concept of *ex-post* income elasticity of demand, which is defined as the ratio for the average annual rate of change of imports to that of GNP at constant prices. It is assumed that if elasticities of import demand remain unchanged in the absence of integration, then a rise in the income elasticity of demand for intra-group import would demonstrate gross :rade creation, while an mcrease in the income elasncity of demand for import from all sources would imply trade creation proper Conversely, a decline in the income

elasticity of demand for extra-group imports wouid represent a trade diversion effect on the union. Bin since gross trade creation refers to an increased intra-group trade and does not discriminate as to whether such increases were due to trade creation or trade diversion, the method simply considers trends in shares over a period of time rather than trade share at the start and end of the period. Using n and rz respectively, for the average annual rate of change of imports before and alter integration and R_t and R2 respectively for average rate of change of GNP before and after integration. Balassa (1967) derived conditions for trade diversion/creation. If in total trade (rj/RO < (r2/R.2) then there is trade creation. If in intra-group trade (ri/Ri) < (r_2/"R_2) there is gross trade creation. Finally, if in intra-group trade (nRi) > (T2/R2), there is trade diversion.

Using GNP as the income variable, Mayes (1978) calculated the elasticities for the aggregated demand of ail commodities and for the union commodity groups in each case. This methodology is obviously an improvement over the first one in that it requires no direct information on domestic product, thus accounting for an important source of changes in shares of imports that would be expected to operate independently of integration. The only weakness with this methodology is its failure to distinguish between trade creation and trade diversion in intra-group trade.

The Balassa <op. cit) approach is also questioned on the grounds that it will be biased unless certain assumptions are made, since income elasticities vary widely over both the pre-and post-integration periods. The choice of periods of comparison is therefore crucial, as elasticity will vary with the pressure of demand.

In evaluating the potential gains to be derived from the creation of a single **Eu** market by **1992,** Cecchini **(1988),** adopted two approaches to obtain this objec namely: price convergence approach and welfare gain approach. The price convergence approach assumed that the removal of trade barriers would greatly reduce the substantial price differences often observed for a given product traded between **EC** countries. As trade barriers are dismantled between countries, prices would converge and intensive competition wouid develop, resulting in the general lowering of **EC** prices towards an **EC** average. The assumption is that output would remain constant, and that the savings obtained through a reduction in prices would form a certain percentage of the **EC**'s **GDP** This method, Fieleka **(1989)** argues, would tend to underestimate the gams to be derived, because it would not take into account the increases in output that wouid be accompanied by increases in demand stimulated by price reductions.

The welfare approach proceeded by quantifying the effects of removing trade barriers in the customs union, and by examining the effects of such measures on customs formalities, in public procurement and in financial sources. The macro-economic potential gains from such measures were to be reflected in the major components of the GDP The removal of trade barriers was estimated to result in the growth rate of GDP of between 4 .5 to 7 per cent, while also generating about 1.8 jobs. In addition, consumers would aiso benefit from an estimated 6.1 per cent of price decrease. This approach would provide higher estimates than those under the price convergence approach.

Indeed, while economic theory on integration suggests that proportionately larger gains would accrue to the relatively lesser developed countries, evidence, however, shows that such countries are likely to suffer loses until the Arms and workers in those countries have adopted new techniques or acquired new skills to face tierce competition. Winters (1992) on the other hand points out that even though the creation of single EC market would stimulate growth, it was not evident from the various analytical approaches that the formulation of a single market is a necessary prerequisite for the reaping of benefits of comparative advantage and economies of scale. Given the reasonable openness elsewhere, those benefits wouid accrue to any economy that remains open to world trade.

The most used model in quantifying the effects of integration on trade flows within the EC has been the gravity equation method, because it provides an empirically tractable general equilibrium framework for monitoring the bilateral trade flow It has a sound theoretical base, flexibility and usefulness in a variety of applications. In its basic form the equation is written as:

$$\log Xq = A + a_i \log Yi + \alpha_2 \log Yj + a_3 \log Nj + c_u \log N,$$
$$+ a_5 \log Djj + \log ejj \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (1)$$

Where Xy = value of exports from country i to country j.

A = constant

Yj.Yj = income in the exporting and importing countries

N,,N, = population in the exporting and importing countries

Dij = distance between countries i and j

= lognormai error term

A sample of six groupings, namely: EC, EFTA LAFTA, .Andean Group, CACM and CMEA (Brada and Mendez. 1985) and a cross section of 54 low income countries, including the 19 SSA countries (Foroutan, 1992) were used respectively to test the eifect of economic integration on intra-group trade. It was expected that a_t and 0C2 would be positive while a-, would be negative. The results suggest that larger countries have a more diversified production and satisfy domestic demand, while smaller countries tend to specialize and are more dependent on trade.

The size of the population of the importing country shouid have a positive effect on the volume of trade because it allows for greater diversity in production, division of labour, and healthy competition between imported and domestic goods. Besides, the iarger markets, due to their externalities, do compensate exporters for the cost of acquiring information and establishing distribution network. Thus, cu should be positive. The type of bias arising out of differences between countries used in the sample is offset by the log-linear specification of equation (1). The distance variable represents resistance to trade. This resistance has its economic elements in :ransportation and information costs; structural elements reflected by differences in consumption habits and resource endowment; and a policy element on the effects of integration. Since structural factors are ambiguous, focus is made on the two factors, distance and policy

Whenever two members of a preferential arrangement trade with each other, the dummy is equal to 2; but when trade is conducted with non-members the dummy equals 1. The larger the value of the coefficient of the dummy variable, the greater the volume of inter-member trade in relation to non-preferential trade, the more effective is the integration arrangement

An alternative approach is to select a pre-integration period on the basis of which equation (1) is estimated. The parameter estimates are then employed to project expected inter-member trade in the post-integration period. The excess of actual intra-member trade over the expected trade is attributed to the effects of integration, on the assumption that the integration schemes are composed of countries at similar leveis of development, size and with similar economic systems. The modei, however, breaks down when applied to groupings made up of heterogeneous sample of countries.

The three variables in the modei are: the environment; the economic system ana policy. For example, countries ciose to each other should, ail things being equai, experience greater post-integration trade, than countries that are not ciose - the natural partner tendency (Krugman. 1992). This tendency cannot be obtained in African countries due to the pattern of production and demand. The economic literature suggests that planned economies will trade less, *ceteris paribus,* than comparable market economies (economic system). Braaa (1992) observes that the CMEA was not a particularly effective customs union because a good deal of its gross trade creation was the result of trade diversion fuelled by differences in resource endowment, leveis of development, and the parceling of areas of production specialization with complete

disregard to basic competence and competitive advantage .Assuming that a homogenous group of countries is being dealt with, and that the environmental factors do not change radically over time between the integration schemes, then the differences between expected and actual post-integration trade can be attributed to the policy variable. For a more heterogeneous sample, the effect of integration will be adversely affected by the differences in the system and environment.

The introduction of two environmental variables used in the model, namely the distance between the integrating countries, and the level of development was made to overcome difficulties and to take into account the two variables. Using distance as a trade resistance variable, it can be estimated whether distance piays a negative or a positive role in trade. The level of development should also have either a positive or a negative impact on integration. The less developed countries have a structural bias against trade, ana. thus, derive fewer benefits from integration. Their production is concentrated in subsistence agriculture and in services, which do not enter into international trade. The developed countries production on the other hand, concentrates on manufacture which permits both complementary trade, as well as intra-industry exchanges.

To measure these environmental influences on trade flows, equation (1) is re-written as follows:

log Xjj = **A+ailogYi** + $a_2$logYj + **a**?logNi - **aJogNj** +

<i;logD;j + PlogQ.j - T iPijlog (Yj/Nj)

(Yj/Nj)..(2)

Where Qi, =2 and

Pi =1

when countries i and j belong to the same preferential arrangements, and 1 and 0 respectively, when countries belong to different groups or have no preferential trade arrangements.

The coefficient Y| measures the effect of per capita income on the effectiveness of integration. If the coefficient is positive, the effect of integration on ultra-group trade increases with the level of development of the integrating countnes reflecting a higher proportion of tradables in their output. Coefficient Yj measures the effect of distance on the trade creating capacity of an integration scheme. The greater the distance among members, the smaller is the augmentation of their trade with each other.

The empincal outcome obtained from the estimated parameters of equation (2) revealed interesting results and confirmed the expected effects of integration (Brada and Mendes, 1985). First, it was found that when 0 is positive then integration among high per capita income countnes causes greater increases in trade than it does among low income countries. When $\mathbf{Y_2}$ is negative, it indicates that the effects of integration on trade are diminished as distance between integrating members is increased.

The ratio of post to pre-integration trade is given by:

2exp (p + Y, (YVN*) 2 + Y_2D*).....(3)

where Y* and N* are the average income and population of the integrating countries and D* the average distance between them as in equation 1 and 2 above. This equation shows the effect of policy on integration if the customs union is among countnes of a given level of per capita income ana distance between members. Assuming that the policies adopted to promote integration among the various economic integration schemes were of similar effectiveness, the ratio of actual trade to expected pre-integration trade for the i* integration scheme could be expressed as:

$$23© = \frac{\text{actual post-integration trade}}{\text{expected pre-integration trade}} \quad (4)$$

$$\mathbf{P\ C)} = \mathbf{(P} + Tl(i)) + Y,(Y^*/N^*)^2 + Y_2D^* \quad (5)$$

The equation r|(i) measures the difference between the effectiveness of the I[th] integration schemes, policies and the effectiveness of the average integration policy (de Melo *etal.,* 1992). The conclusions drawn from the above equation, indicated imponant differences in integration policies. .Among the five integration schemes in the sample: EC, LAFTA EFT A, Andean Pact and CACM, there were important differences in policies. For the EC, LAFTA and the Andean Pact, the r\(i)s were negative, indicating that integration policies were of less than average effectiveness. On the other hand. CACM and EFT A appear to have implemented policies of above average effectiveness, with those of CACM appeanng to be more effective than those of EFT A While the policies in Latin Amencan countries were generally as effective as those of the EC. the differences in trade creation between the EC and the two Latin

.American schemes were largely due to environmental factors. The conclusion is that effective integration is possible for both developed and developing countries.

For Foroutan (1992), the results showed the mean trade share to be practically identical to the actual share, while for the three integration groupings, CEAO, ECOWAS and UDEAC, only CEAO had a positive and statistically significant impact on intra-group trade. However^ to conclude on the basis of the current pattern of production and demand that the countries of SSA are not natural trading partners, is to overlook the long-term objectives of establishing these groupings, which is the restructuring of the existing pattern of production and the creation of new ones (Brada, 1992).

The most recent attempt to investigate the determinants of international trade in the COMESA region, as well as to determine the effects of trade-resistance factors to trade flows, and the necessary conditions for an optimum economic integration arrangement in the region, using a gravity equation method, has been carried out by Hoohlo (1997). Using Thomas (1991) presentation of the world's production and consumption of all the commodities, he presents the gravity equation in its normal standard form, but introduces two dummy variables, adjacency in terms of border sharing to explain a trade facilitating factor; and multilateral economic arrangements. *i.e.* SADC to explain the effect of membership in a different organization. The data used in the model are itemized under two categories: quantifiable variables, which refer to dependent variables to include, imports, GDP of importing country, GDP per capita of exporting country, exchange rate, distance between major trading centres.

and the population of the importing country Unguantifiable variables referred to as objective (OUV) and subjective (SUV) variables, which are not readily amenable to statistical analysis, but which, in this context, are identified as the two dummy variables in the equation as already stated. Thomas (1991) thus presents his gravity equation as:

$$1\,nZij = po + p,1\,nY;+ p_2N_;+ p_3yj+ f3,Di+ p_6d\,1 + p,d2+ u$$

Where Z ij = Value of imports from country i to country j

Yi = importer's GDP

y = exporters' per capita GDP

Ni = importers' population

Ei = importers exchange rate (used to proxy the rate at which importers country exchanges with the exporter).

Dij = distance between country i and j

dl = dummy variable for adjacency

d2 = dummy variable for multilateral economic arrangement

u. = white noise.

Econometric results obtained by testing dependent variables show that the importing country experiences bottlenecks in the smooth flow of trade with respect to the six commodity group (SITC), with exception of only SITC 03. For the exports, out of the 13 commodity groups, except for the two commodity groups, the existence of bottlenecks to the flow of trade was experienced. Exchange rates were found to constitute a significant factor in trade flow. Distance was revealed to be unsuitable in estimating the cost of transportation, while the population variable showed that the

countries of the region were attempting to develop a domestic market as a basis for sharing in the foreign market. The adjacency dummy variable confirmed that sharing of a border facilitated trade, while membership in SADC did not. Indeed, it wouid be very difficult to gauge this, as only two of the SADC members do not belong to the PTA/COMESA. The model could not determine the most optimal form of economic integration. In terms of the trade flow within COMES A, the econometric results have not yielded what could not be obtained by analysing the trade figures.

This had to be expected because two studies Ogonda (1986) and Irandu (1995) which tried to use the gravity model to estimate trade commodity flows between the various regions in Kenya had to exclude it due to its poor performance, occasioned by the type of commodities that go into trade between regions in Kenya; the absence of commodities that couid be exchanged between regions; and resistance to transport flows and border restrictions, including the paucity of adequate and reliable data.

Jaime de Melo ***ei ai.*** (1992) have tempted to evaluate the impact of regional integration in terms of their trade and growth effects. While the orthodox theory emphasizes efficiency, terms of trade, and market accessibility to be important determinants of the success of an integration arrangement, the method that they have employed uses the traditional simple evaluation of examining the patterns of intra-regional and extra-regional trade. The evaluations have considered the static effects. It has examined the openness of the economies as measured by the trade/ GDP ratio over time, and intra-regionai exports in total exports (share of regional integration in total world exports) over the same period. These shares were estimated on the basis of

tour economic groupings from developed countries and six from developing countries. The results obtained are given in Table 3 .3 Figures in parenthesis indicate the evolution of each group's share in world trade, which is a rough measure of the group's influence in world trade.

Compared with developing countries the data in Table. 3.3 shows that developed countries, that were involved in regional integration were "natural" trading partners at the time of integration, implying that the countries would have traded with one another anyway in the absence of any integration arrangements. Developed groupings experienced sustained growth in intra-regional trade, while the developing groups did not. suggesting the temporary nature of the tariff reductions. The ASEAN group was the oniy exception to the rule, as the countries not only sustained the increases in their intra-regional trade, but also actually increased their share in worid exports. One of the goals of regional integration, that of industrialization through increased intra-regional trade, couid not be achieved due to the implementation failure.

In testing for the growth effects of belonging to a regional integration scheme, de Melo, Panagariya and Rodrik (1992) fitted a simple growth equation to a cross-section of 108 countries, 34 developed and 74 developing. The model was estimated over the 1960-85 period and results were obtained. The explanatory variables used in the model included, investment, initial per capita mcome, and education levels. The effects of regional integration were tested by including dummy variables for EC and EFTA among the developed countries.

Table 3.3: Regional Integration Schemes: Openness (OP) and Intra-Regional (IR) Exports

	Founded[a]	1960		1970		1975		1980		1985		1990	
		OP[b]	IR[c]	OP	IR	OP	IR	OP	IR	OP	IR	OP	IR
ANZCERTA	1993	30.3	5.7 (2.4)	27.8	6.1 (2.1)	26.4	6.2 (1.7)	32.1	6.4 (1.4)	33.0	7.0 (1.6)	29.7 (1.5)	7.6 (1.5)
EC	1957	31.3	34.5 (24.9)	41.0	51.0 (39.0)	48.0	50.0 (35.9)	55.0	54.0 (34.9)	51.7	54.5 (35.6)	46.5	60.5 (41.4)
EFTA	1960	37.3	21.1		28.0	48.3	35.2	57.4	32.6	59.0	31.2	52.6	28.2
Canada-US-FTA	1989	8.8	26.5 (21.9)		32.8 (20.5)	16.1	30.6 (16.8)	20.8	26.5 (15.1)	17.4	38.0 (16.7)	19.5	34.0 (15.8)
ASEAN	1967	36.6	4.4 (2.6)		20.7 (2.1)	58.2	15.9 (2.6)	73.6	16.9 (3.7)	64.0	18.4 (3.9)	97.5	18.6 (4.3)
ANDEAN PACT	1969	37.7	0.7 (2.9)		2.0 (1.6)	40.5	3.7 (1.6)	40.5	3.8 (1.6)	29.4	3.4 (1.2)	32.5	4.6 (0.9)
CACM	1961	21.0	7.0 (0.4)		25.7 (0.4)	55.0	23.3 (0.3)	53.7	24.1 (0.2)	32.5	14.7 (0.2)	43.2	14.8 (0.1)
LAFTA/LAIA	1960/80	21.0	7.9 (6.0)		9.9 (4.4)	20.8	13.6 (3.5)	21.9	13.7 (3.2)	22.1	8.3 (4.7)	19.4	10.6 (3.4)
ECOWAS	1975	N/A	N/A		3.0 (1.0)	42.3	4.2 (1.4)	44.4	3.5 (1.7)	32.2	5.3 (1.1)	52.6	6.0 (0.6)
PTA	1981	N/A	N/A		8.4 (1.1)	51.7	9.4 (0.5)	47.8	8.9 (0.4)	37.9	7.0 (0.3)	50.2	8.5 (0.2)

For definition of RI schemes, see Appendix table AI

a. Year the arrangements went into effect if different from year of foundation. Ratios refer to number of members in year calculation (e.g. EC (6) in 1970, EC (9) in 1975).

b. Openness measured by the trade/GDP ratio.

c. Intra-regional trade measured by share of intra-regional exports in total (share of RI scheme in total world exports in parenthesis).

Source: Adapted from Table I in de Melo *et al.*, Regional Integration: An Analytical and Empirical Overview, World Bank and CEPR Conference on New Dimensions in Regional Integration, Washington DC, April2-3, 1992.

The testing of the effects of regional integration revealed three important results. Firstly, the results showed that, belonging to an integration scheme has no apparent effect on the long-term growth, even for developed countries. Secondly, the splitting of the sample into developed and developmg groupings revealed a more interesting asymmetry in the role of investment and primary education in explaining growth. Investment was found to be significant within the groupings of developed countries, and education in the groupings in developing countries. The reversal of roles is interesting for several reasons. As underlined in "new" growth literature, human capital is a contributing factor to growth for poor countries (Lall, 1989 and Reneit. 1991). The positive benefits from institution building and jomt training appear promising - an aspect of integration largely negiected in the first phase of regional integration.

Thirdly, the evaluation examined the convergence in growth rates among the countries in regional integration groupings. Evidence of convergence may not provide an indication of the success of regional integranon, but, in so far as it speeds up the acquisition of new technologies and increases factors of mobility, it could be expected that the more open economies to have greater rates of convergence. By plotting the time series of the vanance of per capita incomes within a number of regional schemes, several patterns emerge. First, there is a pattern of convergence among developed countries engaged in regional integration arrangements, suggesting that the countries follow a similar path. Second, no pattern of convergence was discernible among developing countries, whether or not they beionged to an integration scheme,

suggesting that regional integration groupings fell far too short of their ininal expectations.

While empirical application of the customs theory has concentrated on estimating the effects of trade creation and trade diversion, the difficulties in translating these into welfare benefits and costs have imposed problems. In trying to overcome some of the limitations, Mendez (1986), adopted the total trade effects in evaluating the integration process regardless of whether these came about as a result of trade creation or diversion, external trade creation, trade reorientation or trade suppression. .Assuming that integration effects mainiv derive from trade, then the use of a foreign trade multiplier, with export growth as the main comDonent of autonomous demand would be the most useiiil method of measurement. The balance-of-pavments constrained growth model framework was therefore used to estimate the impact of EU economic growth (Mendez. op.cit). Since the baiance-of-payment sets the limit to growth of demand to which supply can adapt, the long-term growth rate can be estimated by a foreign trade multiplier. The model is usetiil in that it uses total trade effects to estimate changes in output; accommodates the import side through changes in the ncome elasticity of demand for imports; disregards the occurrence of net-positive rade creation effects; and accounts for trade effects, terms of trade changes and factor nobility. The main conclusions drawn from the analysis were that the scheme had 'iayed a major role in the economic growth, but that the mam gams had not been qually shared. This is not to imply that EC had increased inequality among the lember States.

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The traditional models in general suffer from a number of shortcomings, when applied to developing countries, because measures of trade barriers, neither include the effects of quantitative restrictions, nor provide a good estimation of cost structures. More importantly, the models do not take into consideration the dynamic effects that would generally be reflected in higher growth rates. Inotai (op.cit) has argued that the failure of a traditional approach to integration could be traced to the incorrect theoretical assumptions of the models or the shortcoming in the implementation of agreed goals. In SSA countries, the legai framework establishing regionai groupings are loosely formulated proposals whose realm of implementation is still at the level of rhetoric and countless resolutions.

The conditions prevailing within developing economies make the evaluation of the success of these groupings inappropriate in terms of the growing share of intra-regional trade in totai trade The approach overlooks the basic production structures and other infrastrutural links that generally precede the growth in trade volumes. In SSA groupings, the temptation to continue with extra-regional trade is great especially relating to preferential trade arrangements within the context of ACP - EG countries.

In order to test whether intra-SSA trade creation is less than expected, two approaches were adopted to estimate the volume of trade. The first approach not only includes all the SSA countries in the sample, but also included two dummy variables to test for differences in the determination of intra-SSA trade creation. The first dummy variable is eauai to 1. if the reporting country is in SSA. and zero when it is not. This dummy variable tests the hypotheses that trade barriers are higher in SSA countries than the

average in other countries in the sampie. The second dummy variable is one where both the reporting and the partner countries are in SSA and zero if otherwise. The results showed the coefficient of the first dummy variable to be negative but statistically significant, while that of the second to be positive but not significant. Even though SSA countries' trade with the world is, on average, too little, their bilateral trade flows do not fail below the one predicted in the model.

The PTA Secretariat on the other hand estimated the potential intra-PTA trade increase by the matching of products which some PTA member States import from third countries, while others export to third countries On the basis of this methodology, the Secretariat estimated that intra-PTA trade wouid have increased from USS1.65 billion in 1992 to US$2.15 billion by the year 2000. This estimate assumed an increase in the share of intra-PTA trade from 5.5 per cent to about 25 percent of the totai PTA trade between 1992 and 2000. The assumption that exports show availability of supply in member States, while imports show availability of demand overlook a number of constraints, the major among them include: lack of intra and inter-industnal specialization; non-competitive nature of products in terms of price and quality; production bottlenecks; transport and communication problems; existence of non-tariff barriers, shortage of hard currency and, perhaps, terms and conditions for the importation of such products. Taking ail these factors into account, the estimate appeared to be over- optimistic.

A survey method earned out by a Study Team (Manundu ***et ai.,*** 1993) in Kenya covered a sample of 42 firms which were doing business in the PTA area, 27 of which

were in Nairobi while 15 were in Mombasa. A total of 25 of the firms surveyed responded satisfactorily to the questionnaires, 16 from Nairobi and 9 from Mombasa. The 52 per cent of the firms that responded were those with 51 per cent of local ownership, as per Rule 2(1) (a) of the Protocol on the rules of Origins which require the products to qualify for preferential trade treatment within the PTA sub-region. The survey revealed that out of the 20 firms in the sample that were then exporting to the PTA region, only 35 percent had increased their exports to the region as a result of the tariff reductions. The export increases ranged between 16 and 100 per cent. The survey further revealed that 55 per cent of all the firms in the sample had not increased their exports to the PTA region even after the tariff reductions, due to reasons aiready discussed above

The survey showed that substantial trade creation had been realized because of the country's access to the PTA market, especially with respect to its manufactured products which would have otherwise proved non-competitive in most of the non-PTA markets. The conclusion drawn from the survey was that tariff reductions had had some positive impact by enabling Kenya to expand its intra-PTA trade.

Indeed, the impact of intra-PTA trade expansion on industrialization effects could be estimated by calculating a trade complementarity index (C*) which the Worid Bank (1995) defined as:

Qj = 1 - (21 moc-Xjj!) -s- 2

Where X;j is the share of goods , in total exports of country j and m* is the share of goods* in total imports of country

The index is zero when no goods exported by one country are imported by another country, and one when one country's imports correspond exactly to those of the other exports. Michaeiy (1976) suggested that the higher the index, the more likely the proposed regional grouping wouid stimulate trade between its members. The results obtained indicated that the index values for EC (six countnes) averaged 0.53 while the index value between USA and Canada (FTA) was about 0.64. For NAFTA the index was 0.56 while for LAFTA, Andean Group, Asia-Pacific and Sub-Saharan Africa the indices were 0.22, 0.07, 0.35 and 0.09, respectively. It is evident from the results that the higher the index, the greater the level of complementarity, implying highly diversified and more industrialized economies, while the lower the index, the lower the level of complementarity, suggesting less diversified and less developed industrial structures of the economies, and therefore a low-level in intra-group trade.

3.3 Overview of Literature

The extensive theoretical literature on the impact of customs union has been organized under three schools, namely: the classical, neoclassical and contemporary. Whatever the modification introduced by subsequent schools, the basic justification for establishing these integration schemes is that they generate enough economic activities as to propel the process of economic growth and development among the participating member States. The classical school which is based on Viner's general theorem of customs union argues that trade creation leads to improvement in welfare, while trade diversion would worsen welfare. The theory postulates that if trade creation is greater

than trade diversion, then economic integration schemes would be deemed to be beneficial, as trade creation would result in production and consumption effects, while the opposite would obtain for trade diversion. The positive effects of trade creation could only be achieved under certain basic assumptions identified by Robson (op.cit.). The developing countries agreed to adopt the model because of the likely opportunities that it would create by stimulating specialization in production; economies of scale, changes in terms of trade; efficiency and changes in the rates of economic growth.

The neo-classical school on the other hand asserts that the dynamic processes could only be achieved at a higher levei of economic integration under certain basic assumptions, such as free mobility of labour and capital; existence of possibilities for specialization, according to comparative advantage; and industnal production based on a regional market. Further assumptions that the school makes are full employment, perfect compeution. constant returns to scale and perfect internal mobility of factors of production including equality of private and social costs. While these assumptions could hardly be applicable to developed economies, the rationale for pursuing the goals of economic integranon by the developing countries is based on the premise of its dynamic effects.

The contemporary or structuralist school views economic integration as an alternative paradigm for development and industrialization, a strategy for reducing dependence through trade liberalization and enhancing collective self-reiiance. The school defines regional integration in terms of institutional political dimension. The justification for incurring costs for surrendering sovereignty, is to be found in the economic

development these integration schemes are likely to generate by widening the scope in the choice of a certain institutional dimension that would not be feasible within the domestic context, thus allowing for flexibility and efficiency While it remains difficult to quantify the benefits to be derived from integration schemes, it is still a held view that regional integration shouid be perceived as a strategy for promoting economic development. It is this objective that make developmg countries in general and .African countries in particular to take political decisions and enter into agreements establishing regional economic cooperation arrangements.

The bulk of empirical work carried out thus far has concerned itself with estimation of gams from trade liberalization, expansion and changes in the terms of trade. While the models have estimated the effects of economic integration on trade (*ex-post*) because the effects are supposed to be the residual between what actuailv occurred and the trade predicted to continue on the basis of the previous economic relations; the analytical framework provides a direct economic explanation of the value of trade flows alter integration *(exante).*

The residual models have sought to quantify a hypothetical situation (*anti-monde*) of what would have happened had the scheme not been established. This makes it difficult to test the validity other than to reiy on the plausibility of the results and the behaviour of how the model responds to the different situations. In other instances, it may oniy be possible to make a critical analysis of the hypotheses pureiv on the basis of economic theory and experience without any consideration of the numerical value of their results.

The models have concentrated on analyzing the demand for imports; shares in apparent consumption; and changes in the income elasticity of demand for imports. The tendency to concentrate on explanatory variables drawn from the importing country alone has been preferred because it is simpie in terms of data collection. The question that remains unanswered is whether the gams from this analytical framework outweigh the losses in accuracy. These limitations will be explored later on. In the meantime, it wouid be desirable to first examine the empirical findings of these measurements on the two groups of economies.

The results obtained from various empirical studies iMendez, 1986; Mayes, 1978 and Winters. 1992) prior to EC-enlargement indicate that integration within the EC has had a phenomenal effect on economic growth, which mainly arose from the growth of exports. The two major economies (Germany and France) that suffered apparent major loss from integration, did so because then- gams were offset by their propensity to import-which far outweighed benefits generated from trade creation that they had experienced. These results underscore the argument that it. may be misleading to rely on estimates of trade creation alone in assessing who gains from integration.

Post-EC enlargement empirical studies also confirm that the effects on integration continue to be quite significant. The only country that apparently lost from integration was Denmark. This was mainly due to the fact that it did not experience a substantial amount of trade creation. France, on the other hand, performed weil in both absolute and relative terms, with over half of its actual growth rate accounted for by integration

effects. The most important driving force for this robust performance was the growth of exports. On the other hand, factor mobility has had little impact on the growth rate. It wouid therefore appear that the effects of integration have not led to the unequal distribution of gains within the EC.

The results from some of the empirical studies (Winters. 1992) on the EC tend to suggest that economic growth would have occurred independently of the formation or creation of regional economic groupings. While it was expected that the creation of the EC wouid have stimulated economic growth, it was not apparent from the various analytical approaches used to assess those effects, in addition to the fact that the formation of the schemes was a pre-requisite for the realization of the benefits of comparative advantage or economies of scale. It has even been argued that the EC only achieved moderate growth when compared with its principal comparator countries (Mendez, 1986; Winters, op.cit).

The natural question to pose is whether the formation of such schemes help or hinder economic performance. While no clear cut answer can be given to the above question, it is evident that factors other than the creation of regional integration schemes are of crucial importance to economic growth and development. Such factors might well include the level of technological development, mfrastructural facilities, and the level of investment from the developed countries.

The results of empincai studies from the developing economies on the other hand, indicate a mixed outcome. Except for the ASEAN countries, the results obtained from

evaluating the trade and growth effects of integration show that even when tariff reductions have been effected within the various economic groupings, the results of such reductions could not be sustained, as other quantitative trade restrictions were immediately imposed and, due to lack of implementation (UNCTAD. 1990 and Oyejide, op. cit). Furthermore, tariff reductions had only had a minimal impact on trade creation. In the PTA, it has been observed that the imposition of non-tariff trade barriers is one of the major reasons why intra-PTA trade had remained low, and even declined from 8.4 percent in 1980 to 6.6 percent in 1989 In ECOWAS, all kinds of non-tanff trade barriers were introduced in order to avoid the implementation of a trade liberalization scheme. Between 1982 and 1983, over 51 such restrictive measures were undertaken by the ECOWAS member States (UNCTAD. op. cit). Other results revealed that belonging to an economic grouping had not resulted in the realization of growth. Indeed, .African regional economic arrangements have not significantly yielded an increase in intra-regionai trade (Oyejide *et al*., 1996).

The evaluation methods adopted in carrying out an empirical analysis have displayed certain shortcomings and weaknesses. First, there is widespread disagreement amongst the investigators as to the most appropriate method of analysis that should be employed in estimating the effects on trade when countries reduce, eliminate or abandon trade barriers in favour of free trade within an economic grouping. The second problem relates to the fact that the estimates beiong to different periods and are recorded in different units of measurements. This makes the comparison between results less meaningful, in addition to being difficult. Thirdly, the lack of an agreed yardstick against which to measure the accuracy of any results further compounds the

difficulties. Yeats (1988) has asserted that lack of appropriate and reliable empirical procedures for evaluation has hampered the assessment of the influence of regional trade arrangements.

It should be noted that attempts to limit empirical measurements to trade creation and trade diversion tend to obscure severai sources of impact of growth as a result of the formation of the integration scheme. The empirical applications of the theory have concentrated on measuring the two effects to the exclusion of other causes of trade expansion on a number of grounds. First, the use of models to estimate trade creation and diversion effects, then converting these into welfare benefits and costs which have their own shortcomings. The welfare estimate cannot truly be interpreted to be equivalent in reai income or to cover most of the important effects of integration. Second, the estimation of trade creation and diversion overlooks the dynamic effects of integration. This partial approach at quantifying the impact of integration therefore misses important sources of growth. Third, the methods employed are. at best, crude in nature, and cannot provide accurate calcinations. In addition, the number of assumptions within the models would not allow for a more realistic analysis. For example, the Cecchini (1988) model underestimates the gains to be derived from regional integration and fails to take into account increases in output which is one of the key objectives of regional integration in developing countries. By focussing empirical work on the effects of trade flows it might be possible to overlook more tiindamental factors that the impact of integration is likely to generate.

CHAPTER FOUR

METHODOLOGY

4.1 Empirical Models

This research intends to make a departure from previous ones, in that, while past studies have tended to assess the impact of regionai integration in terms of trade creation and trade diversion; equal distribution of costs and benefits; the effects of elimination of tariff and non-tariff trade barriers; trade commodity flows: and economic growth and development, the present Study will attempt to assess the impact of regionai integration in terms of its contribution to trade effects, industrialization, and the transfer of technology and, thus, economic growth.

A number of empirical studies have indicated that economic growth and development could be achieved independently of the formation of economic integration schemes (Winters, op. cit.). Other studies have argued that regional integration among developing countries should be discouraged because of past failures (de Meio and Panagariva, 1992), still others have asserted that regionai integration now holds out promise within the context of trade liberalization (Puga and Venables. 1998 and Foroutan. 1993). Despite these conflicting views, no systematic evaluation has been made either on the effects of intra-PTA trade expansion or on its impact on industnal development. Nor has the transfer of technology been adequately established. In the first place, the analysis of some of these factors is likely to shed more light on the

impact of economic integration on economic growth or even reveal obstacles to economic development. Secondly, the analysis might establish the level of development necessary before the countnes of the PTA could derive maximum benefits from the formation of an economic integration scheme. Thirdly, it could indicate new areas where emphasis is necessary. For example, in the building of new areas of comparative advantage which are likely to enhance the scope for industrial development (Collier and Gunning, 1993). Lastly, the results obtained could be used in the formulation of appropnate policy guidelines.

Perhaps an approach which may be more relevant and appropnate. is one that would analyze the changes which have occurred in the impon markets for the different groups of commodities over a specified penod. The assumption is that if such changes take piace then this can be interpreted to mean that the PTA countnes were in the process of diversifying production and manufacturing. The effective market enlargement caused by reducing intra-PTA barriers will drive industrialization by triggering high local demand and forward linkages from imports (Puga and Venables, op. cit.). The implication is that this information couid indirectly be used to estimate, the process of industrialization and the transfer of technology.

The various models that have been reviewed have displayed certain limitations that may not be germane to economic integration. Indeed, in the African context, as in many others, the non-availability of data make it very uniikeiy that the relative importance of the vanous effects couid be quantified empirically (Lyakurwa ***et. al.*** op. cit). For example, the Cecchini (op.cit) modei. as pointed out already, underestimated

the gains to be derived from regionai integration and did not take into account the dvnamic arguments for the formation of regionai integration schemes in developing countries. While the gravity equation model (Mendez and Brada, 1985) provides an empirically tractable, general equilibrium framework to monitor bilateral trade flows, and to account for factors that affect industrial development, product diversification and enhance comparative advantage, it breaks down however, when applied to economies which are at different levels of development. A similar shortcoming was also identified in Hoohlo's (1997) study when he used the same method. Ogonda (1986) and Irandu (1995) found that the performance of that particular model as an approach to modeling of commodity trade flows was not suitable. The reasons advanced for its poor performance include, among others; the type of commodities that go into intra-regional trade, the very low levei of intra-countrv trade, the very limited time frame which curtails the degree of freedom, and the serious gaps and discrepancies in the recording of trade between exporting and importing countries. These add difficulties in the application of the modei. The welfare approach on the other hand, cannot conclusively demonstrate whether a singie market is a prerequisite for achieving economies of scale in production. The Balassa's (op.cit) methodology, while an improvement over the one by Robson (op. cit) to the extent that it requires no direct information on domestic production in order to account for changes in the share of imports, its inability to distinguish between trade creation and trade diversion which are the real variables that need to be identified, make it a less suitable model.

The difficulties in obtaining reliable data would lend support to, adopting models that come closer to using data which are reasonably accurate and employ a standard

statistical technique Given the limitations of the other models discussed in Chapter Three, the methods employed by Robson (1987) and Balassa (1967), namely the residual model, which uses *ex-ante* and *ex-post,* and the gravity model used by Hoohlo (1997), Brada and Mendez (1985) and Bergstrand (1985) were adopted to assess the :mpact of intra-PTA trade on the four variables to be tested in this Study

4.2 **Methodological Issues**

The variety of models used in analysing the effect of economic, integration indicates that there is no single satisfactory method of estimating the impact of integration on economic development in general. Indeed, ail attempts to isolate the various effects of regional integration are influenced by the specific assumptions employed; the choice of period; the methodologies used; and the structural changes which cannot be easily attributed to the formation of such schemes. For example, trade liberalization and changes in competitiveness. These, therefore, suggest that no single method of estimate should be given too much weight.

It is against this background that a combination of methods will be employed in this Study, namely: the residual model used by both Robson (op. cit) and Balassa (op. cit), and which will be supplemented by strong analytical and graphical analysis will also be used to augment the model. Other proxies, such as the relative comparative advantage (RCA) measure; the ratio of investment to GDP as measure of investment in manufacturing, and the ratio of manufacture value added to GDP as an indication of diversification of production (Shafeaddin, 1995) will all be used as appropriate.

The anaiyticai techniques and the sources of data used in this Study will be presented under this section. The equation to be used is written as follows:

$$C = V - B + M_{,,} + M_w \quad \text{.....(i)}$$

where C = expenditure on apparent consumption

V = gross domestic product

B = exports

Mp= imports from partners

M_w= imports from non-partners

The difficulty of distinguishing between trade creation and trade diversion in the import share analysis is overcome by analyzing the snare of expenditure in apparent consumption (C), which is defined as gross domestic production minus exports, pius imports from partner and non-partner States. This helps to determine the size and direction of the effects of domestic production. By computing the three basic shares, namely domestic share ***CDs),*** share of imports from partners (Ps) and share of imports from non-partners (Ws) from the apparent consumption equation:

$$\text{Ds (domestic)} = \frac{V\text{-}B\text{^}}{C} \quad \text{(ii)}$$

$$\text{Ps (partner)} = \frac{Jvlp}{C} \quad \text{(iii)}$$

$$\text{Ws (non-partner)} = \frac{Mw}{C} \quad \text{(iv)}$$

it can be shown that in any one year, the sum of these three shares must equal umtv and the sum of the changes in the share between two years must be zero, then.

ADs < 0	indicates gross trade creation
APs > 0	indicates net trade creation
AWs < 0	indicates trade diversion

It can then be shown that if changes in the share of domestic production minus exports is less than zero, there is an indication that gross trade creation has occurred. If changes in the share of imports from partners is greater than zero, net trade creation has been realized, and if the changes in the share of imports from third countries is less than zero, then trade diversion will have taken place.

The basic assumption of the modei that the three shares Ds, Ps and Ws wouid have undergone changes in the absence of integration makes the model more attractive for the analytical purposes of this Study. The changes which would have been expected to occur, would be as a result of inter- and intra-industry specialization which can be estimated by the increase in the trade of non-traditional goods, and/or as a result of other factors

Firstly, the implications which can be drawn from the results of the two variables, is that, if changes in the share of imports from partners register increase, while the share of imports from third countries register decrease, then it can be assumed that the

formation of the PTA has created a potential for trade to be diverted from third countries to PTA countries. Secondly, if trade diversion is accompanied by a substantial increase in the mtra-PTA trade flow, then it can be assumed that the potential for the PTA industries to increase their exports would have occurred.

A further assumption is that, given the fact that African countries depend to a very large extent on the importation of machinery and other manufactured products which constitute about 70 percent of the total .African countries imports, any trade diversion likely to be experienced as a result of the formation of regional integration schemes can only be assumed to have taken place within this particular group of products.

The third assumption is that if the share of domestic production, less exports, show a sign which is less than zero, then gross trade creation, achieved as a result of the creation of PTA would be deemed to lead to the exploitation of dynamic comparative advantages by the countries of the PTA region. This will be assumed to result in the increased production within the manufacturing sector. This assumption is consistent with the basic theoretical justification for the establishment of the-PTA as a strategy fc[r] industrial development. It has been argued that the establishment of the PTA was to provide opportunities for producers to realize economies of scale, especially those which as a result of this exposure, can raise the level of capacity utilization of their enterprises, thus leading to increased exports, including the non-traditional ones < Musonda. 1995). The last assumption is that, if an increase is registered in the exportation of commodities in category 6,7 and 8 (SITC), then a strong tendency

towards diversification of production and trade will have taken place and non-traditional exports are finding their way into the PTA market.

Balassa (1967), using the *ex-post* approach to estimate the integration-induced trade flows, employed the concept of the *ex-post* income elasticity of import demand, which he defined as the ratio of the average annual rate of change of imports to that of gross national product at constant prices. The assumption is that a rise in the income elasticity of demand for intra-area imports would indicate gross trade creation, while an increase in the income elasticity of demand for imports from all other sources would imply trade creation proper, and a fall in the income elasticity of demand for extra-area imports would provide evidence for the trade diverting effects of the scheme. A rurther assumption is that gross trade creation refers to an increase in intra-area trade, either as a result of trade creation or trade diversion. The method considers trends in shares over a period of time rather than trade share at the beginning and end of the period.

Using the following definitions:

> Fi and T_2 = average annual rate of change of imports before and after integration respectively
> Ri and R_2 = average annual rate of change of gross national product before and other integration respectively, then,

If in total trade	$\frac{r,}{Ri} < \frac{r_2}{R_2}$	there is net trade creation
If in intra-area	$\frac{r_2}{R,} < \frac{r_2}{R_2}$	there is gross trade creation

If in intra-area trade $\frac{r_1}{R_1} < \frac{r_2}{R_2}$ there is trade diversion

If in trade with non-members $\frac{r_t}{R_i} < \frac{r_2}{R_2}$ there is trade diversion

It is important to note that Balassa's estimates are assumed to refer to the gams arising from increased specialization from within particular industries. The residual model will then be used to estimate the impact of the PTA at individual country level by disaggregating data which arise with respect to a particular country's imports from the rest of the group. The disaggregated data will also show the export expansion that a country enjoys as a result of its share of the trade creation or diversion experienced by its partners resulting from this trade. In order to estimate the impact of PTA creation on the four variables to be tested, the total trade effect or gross trade creation will be used to indirectly estimate changes in output (Mendez. 1986). The total trade effects which is used in evaluating, integration process regardless of whether these came about as a result of trade creation or diversion. Using the PTA Secretariat estimate (PT A/COMES A 1994) which show that if intra-PTA trade could increase from US$1.65 billion in 1992 to US$2.15 billion by the year 2000, that is from 5.5% to about 25% over the same period, then the impact creation of the PTA wouid have begun to have an impact. This implies that the magnitude in the changes in the share of the total trade or gross trade creation can be estimated on the basis of the information provided. Using 25% to calculate what changes would result in the share

of imports from a PTA partner, a mean of 3 .8 is arrived at, and APs is said to be APs > 3 8

The estimate appears reasonable when examined in the context of other regional groupings. The 25% increase in intra-group trade was only achieved by CACM in 1975. The East African Community which was one of the most advanced integration in SSA only achieved 14%, while LAFTA and UDEAC achieved 10% and 7%, respectively, (Robson op.cit).

With the exception of Balassa's (1967) study of trade creation and diversion in the EEC, the common approach to quantifying the effects of integration on trade flows has been the utilization of the gravity equation, which is present by Linnemann (1966) as:

$$Zij = Yjp'Nip^{2}yjp^{3}Eip^{4}Dip^{5}i; \qquad (0$$

Where [Zij] = [Pij^Xij^

in its basic form the model is written as:

$$\log Zij = (3o + PilnYi + p_2lnNi + p_3lnyi + (UnEi + p_5lnDij + p_6dl + 3id2 + n. \qquad 00$$

where Zij = value of imports from country i to j

Yi = importers' GDP

Yi = exporters' per capita GDP

Ni = importer's population

Ei = importer's exchange rate

Dij = distance between country i and j

dl = dummy variable for adjacency

d2 = dummy variable for belonging to another economic grouping

ji = white noise

For the purpose of this Study, data used to fit the gravity model are modified and written as:

$$Zij = 3o + pilnYi + fclnNi + p_3lnyi + (34lnEi + (3_5lnDij \quad \text{(iii)}$$

The log is then calculated for a sample of 11 different groups of imports (i) and exports (j) for the vaiues of Zij, Yi, yi, Ni, Ei and Dij. The various variables are used to capture the importance of GDP of importer's capacity to import. It provides the trade potential of the economy. Ni, which represents the popuiauon. is used to determine the market size, endowment and tastes for both domestic and foreign market. The higher the importer's population, the bigger the market size and assuming economies of scale, the more diversified the production from which the country can meet the minimum market requirement for efficient production. The yi, exporter's per capita GDP, explains the significance of the size of the trading partner or its absorptive capacity. Ei, which is the exchange rate, has a significant effect on trade flows. The use of the ratio of the exchange rate of the importer to that of the exporter, would capture the exchange rate differentials, thus bringing about more variety and minimizing the possibility of dependence between individual estimation equations. Indeed, the appreciation of js currency should increase the trade flow from i to j, while depreciation would decrease trade flow. Dij which represents road distance between

country i and country j of the major trading centres are taken to be constant on the assumption that as proxy for transport cost, this has been taken care of with the freight on board (fob) context. Zij, which is the value of imports from country i to country j and reflects the value of commodities in US dollars, is restricted to a sample of 11 countries.

By carrying out regression analysis, the results tor the various coefficients of the gravity model for the various variables are obtained. It s shown that when R^2, which measure the correlation between variables, is greater than 0.5, the result is significant. Furthermore, when the standard two-tailed t-test is carried out, t-values > 2.4 are significant at the 95% confidence level. The assumption of the t-test is that the independence vanables are not linearly correlated and may not indicate the exact trend of the gravity model because of the small sample size and the limited degree of freedom. These observations having been made, some informed conclusions can still be derived from the various tests earned out by applying the gravity model.

The selection of models rests on the argument that it will permit a wide range of assessment of development impact in terms of effects on trade, growth and industrialization to be carried out. First, the methods will enable the analysis of some of the key basic elements in an economic integration schemes, such as the process of industrialization, hence the transfer of technology. In the case of developed economies, trade in differentiated products gives rise to competitive cost structures which are reflected by ratio of trade creation to trade diversion brought about as a resuit of intra-industry specialization. In developing economies, on the other hand, the

opposite is a likely trend not only because of large differences in the cost structures, but also because of a low level of industrial development, high transport costs and poor intrastrucrural facilities, and the extremely low level of per capita incomes. In this respect, the methodology is suited to analyze most of the aspects of economic integration as a strategy for economic development.

The second reason for selecting the models lies in their flexibility to overcome the limitations caused by incomplete and crude statistical data. By reiying on import data it is easy to assume that figures will be constant over time, and, thus, easier to trace changes that also occur over time. But, more fundamentally, the import figures are the only data which are fairly reliable, and easy to collect. In other words, by using the import data in the analysis the difficulties caused by the poor data can be avoided. Despite these weaknesses, the analysis can still establish even in a preliminary manner, whether intra-PTA trade expansion can contribute to economic development.

The third reason for the selection of these methodologies is that it renders the estimation of the impact of intra-PTA trade on economic "growth a lot easier. .Although these methodologies may not account for cyclical changes or distinguish sources of trade creation, it can be assumed that it will retain its linear relation with other variables as in the pre-integration period.

Lastly, since the form of analysis is partly analytical, it might therefore provide some economic explanations for the changes that may occur during the post-integration period. Indeed, since imports are a function of some measures of income or economic

activity, and reflect the relative prices of imported and domestic products, the trade creation or trade diversion that occur can be predicted on the basis of changes in income leveis or prices. While there is limitation in attributing all changes that occur to growth effects and industrialization effects to the formation of an integration scheme, there is merit in examining other economic factors that might well be at work. Furthermore, the static nature of the residual model denies it the possibilities of taking into account the dynamic changes that occur. This is partially compensated for by carrying out analysis through the gravity model. It is within this context that the model will at best provide some approximation or estimate of the key factors which may be crucial to economic development.

4.3 Hypotheses

A number of hypotheses and conceptual assumptions have been made in this Study. Since one of the goals of economic integration is to accelerate the process of industrializatioa any trade effects that lead to the achievement of this will be assumed to be an important measure for the success of economic integration. Theoretically, it has been argued that the opportunities for industrialization are limited by the small size of the domestic market. The smaller the national market, the greater the restriction and the higher the cost of establishing industries. The size of the domestic market aiso limits the extent to which specialization in production can proceed, while the sheltering of the domestic market under high protective tariff walls reduces competition and lessens the incentive for technological improvements.

The first hypothesis is to test whether the formation of economic integration will lead to industrial development. The assumption is that the enlargement of markets will result in increased exports, especially those of the manufactured products. The theoretical argument is that, as trade barriers are reduced or eliminated, the effects of trade creation will cause the replacement of inefficient domestic industries in one member State by a relatively more efficient industry in another member State. The induced competition and enhanced efficiency generated will be as a result of increased specialization and more efficient utilization of resources. If the formation of the PTA can stimulate trade in products not previously exported, and increase the export base with respect to both intra-PTA and extra-regional trade, then the positive changes that occur m the shares of gross trade creation can be assumed to lead to industrialization. The test of the industrialization process will be determined by the magnitude of the changes in the two shares APs and AWs, whether they are positive or negative or whether they are greater or lesser than the 3.8 estimate. The Regionai Trade Model for Southern .Africa (RTMSA) (Holmes and Evans, 1997) confirms that trade increases are registered in most products where the countnes concerned appear to have a genuine comparative advantage. At the same time, trade with the rest of the world CROW) should be increased, implying that the change in trade flows could be estimated in total trade creation.

Secondly, one of the main objectives of an integrauon scheme is to generate higher rates of growth. Theoretically, trade integration is argued to bring a number of dynamic effects into play, by creating greater possibilities for the exploitation of economies of scaie; increased competition and efficiency ; elimination of barriers to

diffusion, technology transfer, and externalities from export growth; and improve the terms of trade. The realization of these will have a positive effect on growth. Essentially, the case for regional integration, rests on its potential contribution to development. This arises mainly from the potential impact which regional integration makes on income and growth and its impact on creating scope for investment opportunities rationalising the emergent structures of industrial production. McMillan (1993) argues that the straight-forward and simple test of whether regional integration is welfare-improving is to examine what happens to exports and imports of the group as a whole vis-a-vis the rest of the world. If in each commodity category the volume of imports and exports register increase after the formation of a regional scheme, then the scheme is assumed to be welfare-improving relative to the pre-integration situation. For the PTA, the use of total trade effects or gross trade creation can be used to estimate changes in output, and will be interpreted as measures of economic growth. Even though the available data may not be detailed enough to reveal the types of sectoral changes that occur, as a result of changes in the structure of production, the net positive trade creation effects will be used to test the hypothesis that intra-PTA trade will lead to economic growth. The test is that, if the share of recorded intra-PTA exports in total exports is greater than 4 percent (de Melo and Panagariya op. cit) in any one year, then the PTA will have created positive effect on trade. This assumption will enable an estimate to be made of the growth effects of the PTA creation.

.Assuming that economic growth in terms of GDP is positively affected by the growth in exports, then growth in the export share of GDP could also be used as a crude measure of economic growth. It is now that there appears a strong positive

relationship between export expansion and overall economic growth, and that countries which export more of manufactured products tend to derive most benefit from trade (Sprout and Weaver, 1993).

Lastly, the underpinning argument for the formation of a regional grouping is that it facilitates the development of a pool of skilled labour and entrepreneurs. The assumption is based on the "learning ground' theory of economic integration. By enhancing the creation of a larger market, the specialization engendered through import-substitution industrialization, will result in a reduction of costs, which will lead to increased competition. The competitiveness is influenced by the ability to use ana develop technology and enterpreunerial innovations. As import-substitution firms build up various capabilities at the domestic market level they are able to acquire competitive advantage to move into the next stage. The Mauritian Export Processing Zone (EPZ) was built on capabilities that had been accumulated during the import-substitution phase in order to break into the international market. It is in this respect that import-substitution and export-orientation are said to be fully complementary in some cases in the African context (Lall and Wangwe, op.cit). If Balassa's (1984) approach is accepted, the comparative advantage argument that export performance changes as countries become more industrialized, then the assumption that the export of manufactured products generated as a result of the formation of economic mtegranon scheme can be used as a crude measure for the transfer of technology. It has also been postulated that the composition of the export sector plays a crucial role in economic growth process (Baiassa 1978, and Stokes and Jaffee, 1982). Countries

do revert to export at different levels of industrial development in order to ensure continued expansion of their manufacturing industries.

The postulate according to the New Trade theory is that if the countries export more capital intensive products to their partners, the transfer of technology, would be assumed to have taken place (Deardorff, 1987). The hypothesis of transfer of technology in the PTA context can be tested by looking at the pattern of trade in the 6,7 and 8 SITC category that existed before the formation of the PTA (pre-PTA) and the one that emerged after the creation of the PTA (post-PTA). If the increase in trade of these groups of commodities exceed above 5 percent in any one year, then the transfer of the learning process embodied in the export of these particular products will have taken place. Finally, the realization of trade effects, industrialization effects and transfer of technology, will be assumed to have contributed to economic growth and development.

4.4 Data Sources and Type

For the estimation in this Study, use was made of a number of sources. These include: the United Nations Commodity Trade Data Base (COMTRADE) which provides a source for generating the Regional Statistical data base, such as Intra-African and Related Foreign Trade Statistics; the United Nations Industrial Development Organization International Yearbook of Industrial Statistics. 1998; the United Nations -African Statistical yearbook, Part 3 for Eastern and Southern Africa, 1986; the United Nations Educational, Scientific and Cultural Organization World Science Report 1998

(UNESCO-WSR); World Bank World Development Indicators, 1997; .African Development Bank (ADB), African Development Report, 1993 and the International Monetary Fund (IMF), Direction of Trade Statistics, June 1998. The other sources are United Nations Conference on Trade and Development World Investment Report fWTR) 1996; UNDP various issues of Human Development Reports, 1996 and 1997; United Nations Demographic Yearbook; UN National Account Statistics; PT A/COMES A Statistical Division; COMES A Selected Indicators, March, 1998; EC A Statistical Division; Economic and Social Survey of Africa, 1995-1996, and national sources. The use of these many sources posed many problems in trying to reconcile the conflicting data. Comparisons were made of the various data presented in the different publications, but preference was given to the use of UN based data, since these have been compiled on the basis the of submissions made by the member States and then adjusted and consolidated at either constant or current prices. The data compiled by COMTRADE reflect the real data submitted by member States. The GDP, is for example, calculated as the sum of value added of individual sectors, while data given for individual sectors may not sum up to an amount different from data given for total GDP The sources of this discrepancy are specific to each country and are rarely documented. This is to underline the inaccuracies of the data submitted by member States to the UN COMTRADE database.

The data on the shares of MVA to GDP for .African countries were difficult to compile as the data made by UNDDO in its 1998 publication were limited to a sample of a few countries, and covered selected periods up to 1995. Due to the incompleteness of the data and wide discrepancies with the data collected previously, it was decided that the

analysis to be carried out in the Study would cover up to 1993. The difficulties of obtaining up to date data, coupled with the non-existence of data in most cases, make it very unlikely that more accurate result will be obtained.

Even in trade statistics where data are assumed to be more complete and reliable, in the .African context, discrepancies in the recording of exports and imports between countries are so wide that the use of intra-African trade data casts doubt on the usefulness of this kind of statistics for analysing the level and direction of trade. In certain instances, the volume or value of intra-PTA trade is so insignificant that it can hardly be captured in the trade figures. This was particularly relevant with respect to intra-PTA trade by SITC commodity groups, and even made it much more difficult to evaluate the industrialization impact of intra-PTA within these sectors.

For the purpose of this study, pre-PTA formation is considered to be before 1983, while post-PTA penod is taken to be from 1983 onwards. The year 1983 is considered as a cut-off point, and is deemed as the year when the PTA became officially operational after the signing of the Treaty in December 1981. The analysis of the intra-PTA trade is further complicated by the fact that only nine countries signed the Treaty in 1981, while the rest joined at later dates, with Egypt joining in June 1998, as the latest member. Furthermore, the political instability that has affected most countries in the region has interfered with the flow of intra-PTA trade. Most of the data can at best be only a crude estimate of what the real picture should be.

4.5. Limitation of Data and Method

In interpreting the findings of the present Study, the inherent characteristics and limitations of the approach used and the data employed will have to be taken into consideration. Some of the limitations associated with data have already been highlighted, but others are mentioned once again in order to provide greater understanding.

The first difficulty is that the measures used in estimating intra-PTA trade in terms of shares of imports from partners and non-partners are static in nature, but that these measures have been used to estimate the pre-integration period and the post-integration period of these changes. The weakness is that these measures cannot capture the changes that are likely to occur during the intervening period, that is, between 1982 and 1996. There are therefore the difficulties in accounting for the factors that may bring about the changes. In order to overcome this difficulty and to account for the trade flow, the average between the two periods has been compiled in order to give an indication of normal average annual changes.

The second problem is that, since the recording of products may not be consistent in ail PTA countries, and the existence of many discrepancies and inaccuracies in the intra-PTA trade data, the value of results obtained by using these type of data, should be interpreted with much caution. The other factor is that the data used for estimating the impact of the PTA creation on the variables, become rather doubtful, especially when the results are based not on actual but rather on crude estimates. Lastly, given that the value of measures is a direct function of the vaiue of intra-PTA trade, a very low levei

of measure is likely to result. This notwithstanding, some indication as to the impact of PTA creation is still possible.

From the aforegoing, it is still expected that these limitations will not invalidate any conclusions to be reached in the analysis. The most important caveat is that these limitations should be taken into account in the application of policy prescriptions, provided in the Study.

CHAPTER FIVE

ANALYSIS OF EMPIRICAL RESULTS

5.1 Trade Effects

Using data from Tables on the GDP, exports, imports, and intra-PTA imports. Table 5.1 was constructed for estimating the effects of integration on the economies of the PTA member States. Using a similar method, estimations were made with respect to the PTA individual countries, results for which have been tabulated in Table 5.2.

Table 5.1 Estimation Results of Aggregate Effects of Regional Integration on Economies of PTA Member States

	Pre-mtegration period		Post-integrauon period		Changes	
	1981/83		1984/86			
	S million	%share	^million	r<>share	S million	%share
Imports from non-PTA Members	12,284	18.2	10,999	17.4	1.285	0.8
Lntra PTA Imports	1,432	2.1	1,254	2.0	184	0.1
Domestic Production	44.960	66.6	41.808	66.2	3,152	0.4
Domestic Exports	8,873	13.1	9,070	14.4	+ 197	+1.3
Gross Domestic Product	67.555	100	63,161	100		
ADs =0.4 APs =0.1 AWs =0.8						

Source: Constructed from Tables I, A, B and C in Appendices 2 and 3 of this Study.

The results show that there was not a gross trade creation nor a weak net trade creation. In fact, trade continued to be conducted with third countries. Perhaps the period for evaluating the impact of PTA since its establishment was too short to allow for changes to have occurred.

In other words, the trade effect on the formation of the PTA remained ambiguous. It is therefore imperative to carry out an evaluation based on a 14 year interval that is 1982 and 1996. The results of this evaluation is given in Table 5.2.

Table 5.2: **Estimation Results of Aggregate Impact of PTA Integration Between** 1982 **and 1996**

	Pre-Integrauon Period - 1982		Post-Integrauon Period-1996		Changes		Average changes 1982-1996
	S million	% share	S million	% share	S million	% share	Average of share
imports from non-members	11732	17.4	18134	20.6			
Intra-PTA Imports	544	0_8	1115.03	1.3			
Domestic production	47385	70.1	52875	60.1			
Domestic Exports	7894	11.7	15822	18.0			
Gross Domestic Product	67555	100	87946	100			

ADs =10.0 Av. ADs = 0.67 APs =+0.5 Av AP_S = 0 03 4Ws =+3.1 1JI A Ws = 0.21

Source: Computed from Table 1 and Table C in Appendix 3 of this study

The analysis of the long-trend results confirms that the establishment of the PTA remains unclear in that, while net trade creation was registered, the gross trade creation remains extremely weak, and trade with third countries appears to have been intensified at the expense of intra-PTA trade. Perhaps the apparent net trade creation that seems to have arisen might be attributed to the weakening of the production capacities of the countries of the group causing a decline in value terms alter the formation of the economic integration scheme. Increases in intra-PTA imports have been extremely modest, as can be seen in the change of percentage share which increased from 0.8 in 1982, to 1.3 in 1996, an increase of 0.5 per cent between the period.

The inconclusiveness of the results further necessitate the disaggregation of the data by examining the impact of the PTA on a country - by - country basis. In this respect, a similar calculation has been made to obtain results of changes in the percentage share of imports from non-PTA partners, intra-PTA imports and domestic production which are tabulated in Table 5.3.

The analysis of the country data indicates that for Kenya, the establishment of the PTA led to net trade creation, even though the imports from other PTA member States remained weak. Domestic production registered an increase over the period, while exports only realized modest gains.

Table 5.3: Estimation Results of Percentage Share changes Between Pre-integration (1982) and Post-Integration 1996 Periods

Country	Net Trade creation domestic production		Gross Trade creation imports from PTA		Trade diversion Imports Third Countries	
	ADs	Ave. ADs	APs	Ave. APs	AWs	Ave.AWs
Angola	....	....	....	....		....
Burundi	+12.1	+0.81	-2.0	-0.13	-5.5	-0.37
Comoros	....	....		....	....	....
Djibouti	....	.•••	....	....	....	,,,,
Ethiopia	-0.9	-.006	+0.6	+0.04	+1.9	+0.13
Kenva	-22 2	-1.48	+0.2	+0.013	+13.8	-0.92
Lesotho	+10.7	+1.07	+0.1	+0.01	+2.5	+0.25
Madagascar	-9.8	-0.65	+1.2	+0.08	+2.7	+0.18
Maiawi	-40.5	-2.7	-6.6	+0.44	+18.4	+1.23
Mauritius	-10.9	-0.73	+0.1	+0.007	+8.1	+0.54
Mozambique	33.0	-2.5	+23.9	+1.71	+13.9	+0.99
Namibia	13.0	-0.87	+1.0	+0.07	+4.7	+0.31
Rwanda	14.3	-0.95	+4.1	+0.27	+4.8	+0.32
Seychelles	53.3	-3.54	-3.6	-0.24	+3.9	-0.26 LI
Somalia	i 21.3	+2.37	+1.3	0.14	-19.6	2.18 J M
Sudan	1 16.2	-1.08	+0.7	0.05	+12.2	+0.81 ^ H
Swaziland	24.0	+1.6	-0.1	-0.007	-1.2	-0.08 H
Tanzania	35.4	+2.36	+4.9	+0.33	+18.7	1.25 J
I Uganda	20.5	+1.37	-2.7	-0.18	-5.6	
Zambia	8.3	+0.55	+1.4	+0.09	-8.7	- 0 . 5 » H
Zimbabwe	-21.9	-1.46	0	0	+6.7	- 0 . 4 5 ^ 1 1

Source: computed from Table 2.1 and Table C in Appendix 3 of this study
NB: .... implies that the results from the countries indicated are negligible
Data for Somali and Lesotho covers the period 1982 + 1990, and 1982 to 1992.

The country continued to increase its imports from third States, confirming the fact that the formation of the PTA had not led to the trade diversion, but rather to trade creation. For Uganda on the other hand, the creation of the PTA resulted in net trade diversion as the country tended to trade more with its PTA partners than its non-partners. Domestic exports declined in value terms over the period, perhaps

due to lack of diversification of the economy

While Mauritius recorded a net trade creation due to the formation of the PTA, it continued to strengthen its trade relations with non-PTA partners. The country did not switch its trade from third countries and the pattern of trade continued as before. In other words, the PTA did not generate trade diversion with respect to Mauritius. Mauritius had, in fact, recorded a very robust increase in its domestic export activities, while its imports from the PTA countries only registered an extremely modest increase.

The same resuits also obtained with respect to Zimbabwe, which registered a very strong net trade creation. This could be partly explained by the fact that for some years before independence in 1980, the country's economy was not open to trade with neighbouring States. The creation of the PTA, therefore, naturally led to a very significant increase in the country's trade with its immediate neighbours of the PTA In-spite of this, the country continues to trade more with third countries, and the formation of the PTA has not led to trade diversion Imports from the PTA member States have increased only modestly, while exports have made strong gains within the PTA market.

The results in the Table 5.3 reflect that the APS for Tanzania remains weak, due to the dramatic decline in domestic production which weakened the gross trade

creation. Since the country continues to trade with third countries there has been no trade diversion due to the establishment of the PTA. Equally, Ethiopia has experienced neither gross nor net trade creation and the countrv has not shifted trade from third countries to PTA partners. Zambia, on the other hand, has shifted trade from third countries to the PTA ones (AWS = -8.7), thus, the country experienced both trade diversion and net trade creation. The result of this development can perhaps be explained by the fact that, like Uganda, its domestic

production had declined dramatically while its imports from the countries of the PTA region have nearly doubled during the period under review, 1982-1996. Malawi, while realizing both gross and net trade creation, has not diverted trade from non-partners to PTA partners. In fact he country has intensified its trade with third countries, as reflected by the change in the share of imports which was equal to AWS = + 18 .4, slightly below that of Tanzania which was AWS =+18.7.

For Mozambique, while the country continues to trade with non-partners, it has nonetheless experienced net and gross trade creation as a result of belonging to the PTA see net trade creation of ADS= -35.0 and gross trade creation APS = +23.9. This can partly be explained by the dramatic decline in its domestic production, as well as its domestic exports. These factors eroded its import capacity. Hence, as a result of preferential arrangements within the PTA structure, it has increasingly relied on imports from the PTA region. In the case of Rwanda, the country registered weak gross and net trade creation, largely because of a modest increase

in its domestic production. However, the country, continued to trade more with its traditional partners Burundi, on the other hand, realized neither gross nor net trade creation as a result of the formation of PTA. The same has also been true for Swaziland, except for the fact that Swaziland has slightly increased its trade with neighbouring countries, especially within the context of the SACU.

Madagascar continues to trade with non-PTA member States, but has also increased its trade with the PTA countries as well. The formation of the PTA has resulted in net trade creation because the country has increasingly relied on intra-PTA imports as a result of a decline in its domestic production. The data for Somalia shows that it did not register net trade creation but gross trade creation implying an increase in its imports from PTA partners, which conforms to the fact that the country also experienced trade diversion as a result of shifting trade from third countnes as reflected by the fact that AWS = -19.6 .

The data for Namibia reveal that the country has realised net trade creation, as well as trade diversion, but not gross trade creation. In terms of the formation of the PTA it would appear that the impact has been positive with respect to the Seychelles, in that the country has intensified its imports from third countries, while, at the same, time registering a positive net trade creation (ADS = -53.3) with the PTA countnes.

Sudan is the only country in which the picture is not very clear, since the estimate of the impact of the PTA has been carried out over a very short time frame, 1982 to 1985, because of incomplete data on GDP for certain years. This, notwithstanding, the short-term trend shows that its membership in the PTA has neither led to the net creation of trade nor gross trade creation, but to trade diversion.

To summarize the results of the estimation of trade effects in view of the establishment of the PTA, it would appear thai out of the 21 countries, 12 registered A positive percentage change, while 5 recorded A negative percentage change with respect to trade diversion (AWS). For four countries there was no data. This implies that 12 countries increased importation from non-PTA member States, while 5 increased importation from PTA partners. In other words, no trade diversion from third countries to partners has really taken place. With respect to net trade creation (ADS), 12 countries had not, with the value of the ADS ranged between -53.3 and - 10.9. This indicates that, on the average, a very small net trade creation has resulted from the formation of the PTA. This same result is consistent with the data for gross trade creation (APS), where 11 countries had recorded gross trade creation, while seven had registered negative gross trade creation. Data from the majority of regional economic groupings in SSA confirms :hat their impact has either been negligible, or non-existent.

The test results for the coefficients of the gravity model obtained by regression analysis as presented in Table 5.4 indicate that t-values were important with respect to Yi, Ni and Ei in terms of trade between Kenya and Ethiopia. The coefficients were also found to be positive with respect to Yi, Ni and negative with respect to Ei which also supports the significance of exchange rate in trade. The same results were obtained with respect to Kenya's trade with Tanzania and Sudan, Malawi's trade with Zimbabwe, and Zambia's with Congo (DR).

In other words, the importers income, population and exchange rate had positive effect on Kenya's trade with Tanzania, Ethiopia and Sudan. The trade between Malawi and Zimbabwe was positively affected by population and exchange rate The trade between Zambia and Congo (DR) was affected positively by the population, per capita income and exchange rate.

The t-vaiues between Kenya and Uganda were found to be significant. This was also found to be true between Kenya/Zimbabwe, Kenya/Rwanda, Zambia/Zimbabwe and Zimbabwe/Zambia. Out of the 10 samples in Table 5 .4, income, population and exchange rate of the importing countries were found to be significant for 5 countries, while in 5 others, they were not significant. Indeed, since income and population represents the trading countries' endowments, tastes and productive capacity. Pi and are expected to be positive and these have been confirmed by the results of the five group of countries in which trade has been found to be significant.

Table 5.4: Test Results for the Coefficients of the Gravity Model Obtained by Regression Analysis

1) j: Exporter = Kenya
i: Importer = Ethiopia

Zij = 3.78 + 0.281nYi + 0.0541nNi - 0.021nyi - 0.6011nEi

S.e.ofCoefiL	0.28(7)	0.0134(6)	0.01(6)	0.053(6)
t-values:	10.32*	4.02»	2.00	11.66*
R^2	0.71	0.72	0.52	0.95

2) j: Exporter = Kenya
i: Importer = Tanzania

Zij = 3.46 + 0.0891nYi + 0.0571nNi - 0.0251nyi + 0.0931nEi

S.e. of Coeff.:	0.02(7)	0.008(6)	0.008(6)	0.0927(6)
t-values:	4.45*	7.125*	3.125*	1.003
R^2	0.86	0.89	0.63	0.90

3) j: Exporter = Malawi
i: Importer - Zimbabwe

Zij = 2.89 + 0.141nYi + 0.116lnNi - 0.0321nyi - 1.4451nEi

S.e. ofCoell:	0.08(6)	0.044(6)	0.0472(6)	0.388(6)
t-values:	1.75	2.636*	0.68	3.724*
R^2	0.33	0.69	0.54	0.07

4) j: Exporter = Zimbabwe
i: Importer = Zambia

Zij = 3.39 - 0.01 InYi +• 0.20371nNi - 0.1271nyi - 5.71321nEi

S.e. of CoefE.:	0.03(6)	0.0901(6)	0.0938(6)	2.574(6)
t-values:	0.33	2.261	1.35	2.219
R^2	0.0 1	0.46	0.23	0.45

5) j: Exporter = Kenya
i: Importer = Uganda

Zij = 3.64 +• 0.14691nYi +• 0.07421nNi - 0.01381nyi - 0.22161nEi

S.e. of CoefE:	0.088(6)	0.048(6)	0.0189(6)	0.5955(6)
t-values:	1.669	1.546	0.73	0.372
R^2	0.31	0.28	0.08	0.02

6) j: Exporter = Kenya
i: Importer = Sudan

Zij = 3.947 + 0.24lnYi + 0.0825lnNi - 0.0211nvi + 3.1441nEi

S.e. of Coeff.:	0.075(6)	0.028(6)	0.0077(6)	1.411(6)
t-values:	3.428*	2.946*	2.625*	2.23
R^2	0.67	0.59	0.14	0.45

7) j: Exporter = Zimbabwe
i: Importer = Kenya

Zij = 3.93 + 0.041nYi + 0.05541nNi - 0.0431nyi - 0.3311nEi

S.e. of Coeff:	0.021(6)	0.027(6)	0.022(6)	0.189(6)
t-values:	1.905	2.052	1.955	1.751
R^2 .	0.41	0.42	0.4	0.34

8) j: Exporter = Kenya
i: Importer = Rwanda

Zij = 3.194 - 0.081nYi - 0.041nNi + O.Ollnvi - 0.0571nEi

S.e. of Coeff.:	0.075(6)	0.028(6)	0.0077(6)	1.411(6)
t-values:	1.067	1.429	1.429	0.040
R^2	0.29	0.16	0.02	0.01

9) j: Exporter = Zambia
i: Importer = Congo (DR)

Zij = 3.91 - 0.1471nYi + 0.0691nNi - 0.0591nyi - 6.1651nEi

S.e. of Coeff:	0.071(6)	0.027(6)	0.024(6)	1.485(6)
t-values:	2.070	2.556*	2.458*	4.155*
R^2	0.42	0.52	0.5	0.78

10) j: Exporter = Zambia
i: Importer = Zimbabwe

Zij = 3.93 + 0.0431nYi + 0.0551nNi - 0.0431nyi - 0.3311nEi

S.e. of Coeff:	0.021(6)	0.028(6)	0.022(6)	0.189(6)
t-values:	2.048	1.964	1.955	1.751
R^2	0.41	0.42	0.4	0.34

Note: * - indicates that the values are significant at 95% confidence ievei.
R^2 is the measure of correlation between variables.
Numbers in brackets refer to the degree of freedom

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Dcarcc of freedom t. 025®
8 2.306
7 2.365
6 2.447

Source: Table constructed from UN Monthly Bulletin of Statistics. 1980-1997. and COMES A Selected Indicators. March 1998.

The other conclusion derived from the results of the t-values, is that the presence of preferential trade arrangement should not be assumed to lead to trade flows between the countries This conclusion remains ambiguous with respect to the results obtained by the gravity model. However, it can be inferred from the results obtained that the low level of economic development have negative impact on the generation of intra-area trade which the formation of the PTA is supposed to promote.

On balance, however, it would appear that the formation of the PTA has not generated greater trade expansion, as a number of countries contmue to trade with other third countries. No trade diversion has reaily taken place that would lead to significant economic activities. The countries with a relatively stronger economic base tend to trade more with third countries than with partner States. Those that depend on trade with the PTA partner States have tended to have weak and less diversified economies. This means that the manufacturing activities that could generate the process of industrialization remain extremely weak. This will become clearer when export commodity composition is examined in greater detail.

Several interpretations accrue from the above empirical evidence on the trade effects which came with the establishment of the PTA. First, the estimate of the potential of the PTA in creating trade remains far from conclusive. It is difficult to

decide one way or the other that the creation of the PTA has ied to trade diversion or trade creation. What is dear from the analysis is that certain countries have benefited more than others from the establishment of the PTA integration scheme. The countries that have been able to exploit the potential of the market created as a result of the formation of the PTA are the same countries that trade more with non-PTA member States, nameiy the so called third countries. This implies that the economies of such countries are more diversified which enables them to benefit from a regional market as well. On the other hand, the countries that are unable to derive benefits from the creation of the PTA are also those countries that are unable to export more diversified products to third countries. Such countries still reiy to a great extent on a very few commodities as their sources of foreign exchange earnings. Hence, the establishment of the PTA has not made any quantitative difference to the expansion of their trade within the grouping. It would, therefore, appear that only countries that have reached a certain level of economic development in terms of diversification of export products can benefit from the creation of economic integration schemes.

Secondly, the evidence can be interpreted to show that the creation of an integration scheme is not a pre-condition for trade creation, but rather a vehicle through which a country with the necessary infrastructure would be able to maximize benefits arising out of an enlarged market.

Thirdly, the evidence demonstrates that proximity plays a role in trade relations as adjoining countries tend to trade more with their immediate neighbours, such as Ethiopia with Somalia, Kenya and Djibouti; or Malawi with Mozambique, Tanzania, Zambia and Zimbabwe. However, the main factor remains the level or degree of diversification of the country's exports. Diversification is directly related to the structure of the economy and how it changes as development proceeds. The two aspects of diversification have relevance to this process. Vertical diversification enables a country to create additional uses for existing and new commodities through value-added activities, such as processing and marketing; and horizontal diversification enables a country to make adjustments in the export mix in order to hedge off price instability or a decline in prices. It is therefore evident that countries like Kenya, Mauritius and Zimbabwe with a more diversified export base are the likely ones to reap the benefits of market expansion through the creation of the PTA. Reference to Table 2.6 in Chapter Two on the Share of the Manufacturing Sector in GDP would reveal further the argument under this section. The PTA countries are still basically agricultural and have therefore limited capacity to generate growth through the expansion of intra-group trade as most of the raw materials which they produce largely find their way to the developed market economies, while intra-PTA exports in manufactured products remain extremeiv small.

The trade flow before the establishment of the PTA was greater than the one

which existed after its formation. The PTA creation has, therefore, not necessarily generated greater trade'. The creation of a regional integration scheme, it would appear, is not a prerequisite for increased trade expansion. However, it should be noted that increased trade registered before the creation of the PTA was partly due to a number of bilateral trade arrangements that had been entered into by the countries of the PTA region, especially after the collapse of the EAC' It has also been argued elsewhere that the trade flows among African countries do not respond so much to the conditions in African countries, but more to the global system to which they have been integrated and to the regional strategies which have been adopted by the transnational corporations that are considered to be the major beneficiaries of intra-African trade expansion (ECA, 1992).

Consequent upon the above observations, the tendency is to conclude that, irrespective of the existence of regional groupings, countries with relatively better infrastructural facilities, manufacturing base, support services, trained manpower, and a large domestic market, will continue to trade and are the same ones which wiii derive benefits from the formation of a regional grouping. If the increase of intra-PTA trade is used to estimate the impact of economic growth, then it can be concluded that the establishment of the PTA has been less than successful in fulfilling the first basic postulate of establishing a regional economic grouping.

5.2 Effects on Industrialization

The theoretical justification of regional economic integration is that it will not only spur the process of industrialization and growth by creating pre-conditions for economies of scale, efficiency and specialization; but it will also promote exports of manufactured goods which are often subject to discrimination in the developed markets. The regional groupings, by facilitating the elimination of barriers to exports on the part of partner countries, allow for increased trade in manufactures which result in higher productivity, and, thus, economic growth thereby raising the incentive to invest in research and development (R & D). This permits firms to spread a fixed cost of innovation over a larger market, and to contribute to accelerated innovauon and technical progress. However, the low-level of trade complementanty, which portrays wide differences in the structure of developing countries' exports and imports, suggests that regional integration efforts in this group of countries especially in the SSA, hold very little promise in accelerating the process of industrialization and growth.

Using Michaely's (1994) formula to calculate the trade complementarity indices between Kenya and Zambia, in terms of their total global trade and intra-PTA total trade, results for 1994 were obtained as follows:

Table 5.5: **Trade Complementarity Indices Between Kenya and Zambia**

Countrv	Total Trade with world Index	Intra-PTA Trade Index
Cjk (Zambia)	0.09	0.35
Cjk (Kenya)	0.33	0.52

Source: Computed from Foreign Trade Statistics of Kenya and Zambia, 1994 data, using the formula
C_{jk}= Kljmik-Xijl) 42.

When the trade complementarity index is calculated between Kenya and Zambia in the context of global trade it can be seen that Zambia has a lower index than Kenya and there is wider divergence between the two indices. But when the complementarity index is calculated within the context of the PTA there is a slight improvement for Zambia and a much better index picture for Kenya. The results imply that, at global level, there is very little trade between the two countries. whereas within the PTA the two countries appear to have a good trade relationship. The results also indicate that the economy of Kenya is much more

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diversified in its production structure than that of Zambia. The conclusion that can be derived from the results is that the production structure of the domestic economy plays an important role in determining the country's level of trade.

.As indicated in the Study, one of the main problems which has faced the PTA was the difficulty in matching export interest and import interest amongst the PTA

member States. The problem assumed such proportions that the countnes imported from outside the PTA region the same products which other PTA countries exported to third countries. Besides, the wide variation in the low levei of industrial development among the countnes. coupled with the weak consumption structure of manufactured goods in most of the PTA countnes, undermined the production of even relatively simple manufactured products. It is against this backdrop that intra-PTA trade data have reflected a low level of diversification and a low proportion of manufactured products in exports. It is for the same reason that the hypothesis proved elusive (Inotai, 1992) that international competitiveness for developing countries could be gradually improved by relying on the regional markets during the first phase of industrialization. Expenence of Newly Industrialized Countries (NICs) was that they had become exporters of manufactured products not as a result of protected regional markets, but by their direct entry into the competitive world market.

The results of R^2 which is summarized, in Table 5.4 from the regression analysis in Appendix 4 of this Study indicate that the values of R" are only significant with respect to the five groups of countries where trade had been confirmed to be important as a result of the importers' income, population and exchange rate. The R^2 value which lies between zero and unity, and which measures correlation between the variables, appears to suggest very strong correlation between the capacity to import with income, or per capita income, population and exchange

rate. R^2 was found to be greater than 0.5 between the five groups of countries where trade was significant, and less than 0.5 where trade was not significant. Between Kenya and Ethiopia, R^2 was 0.71, 0.72, 0.52 and 0 95 respectively for Yi, Ni, yi and Ei. For Kenya and Tanzania, R^2 was 0.86, 0 89, 0.63 and 0 90 respectively for similar variables. For Kenya and Sudan. R^2 was 0.67 and 0.59 for Yi and Ni respectively, but 0.14 and 0.45 for yi and Ei respectively. The R^2 for Malawi and Zimbabwe was 0.33, 0.69, 0.54 and 0.07 respectively for Yi, Ni, yi and Ei, while between Zambia and Congo (DR) the R' value was 0.42, 0.52, 0.5, 0.78 respectively for the similar variables.

For the other group of countries where trade was not significant, the R^2 values were less than 0.5. For Zimbabwe and Zambia. R' was 0.01, 0.46, 0.23 and 0.45 for the four variables, while Kenya/Uganda the R^2 value was 0.31, 0.28, 0.08 and 0.02 and for Kenya/Rwanda, R^2 was 0.29, 0.16, 0.02 and 0.01 respectively for the four variables Yi, Ni, yi and Ei. Between Zambia/ Zimbabwe R^2 was 0.41, 0.42, 0.4 and 0.34 respectively for Yi, Ni, yi and Ei. The R~ between Zambia as an importer from Zimbabwe and Zimbabwe as an importer from Zambia indicates that the Zimbabwe economy is much stronger than that of Zambia and that Zambia has a weak capacity to import from Zimbabwe. Out of the 10 samples of the groups of countries in Table 5.4, it is evident that Kenya is a major trading country within the PTA setting.

The results from the gravity model confirms that intra-PTA trade is not significant to spur other economic activities, except for a few countries like Kenya and Zimbabwe. In other words, the formation of the PTA has not led to a sufficient level of trade diversion from third countries that would lead to greater stimulation of intra-PTA trade. Theoretically, the creation of preferential trade arrangements is supposed to enhance industrialization by promoting higher levels of intra-area trade in manufactures thereby reducing the importation of such products from the industrial countries. This is supposed to be achieved through increased production of manufactures generated as a result of trade diversion (Puga and Venables, 1998). However, given that the formation of PTA has not generated sufficient trade diversion, industrialization through the mechanism of this arrangement appears to be weak since it is an arrangement between small and weak countries with extremeiv low levels of economic development. Empirical evidence suggests that countries with small markets and weak economies can benefit if such trading arrangements were concluded between them and the more developed economies, like in the case of Mexico with NAFTA (Blomstrom and Kokko, 1997).

The theoretical justification is that different PTAs offer a variety of combinations of reduction in trade barriers which have different effects on countries with varying degrees of established industries; wage rates, and markets sizes (Puga and Venables, op. cit.). By reducing tariff barriers amongst themselves, while holding import barriers from third countries constant, the effective market enlargement

caused through the reduction of barriers drives industrialization in line with the theoretical argument put forward by Krugman, (1991). The local demand generated will trigger industrialization, and the higher the demand the greater the industrialization process. But if the demand is weak as has been shown by the gravity model, in the context of PTA, the formation of this scheme will not result in stimulating industrialization.

Using various graphical presentations, a number of interpretations were also deduced as to the effect of intra-PTA trade on the industrialization process of the PTA countries. .Assuming that the process of industrialization could be measured in terms of productive processes resulting in the production of a greater output for rinai consumption, then the change in output per head of population and the contribution of manufacturing to GDP relative to other sectors could be deemed as a good indicator of that change. Since trade is directly linked with the process of industrialization, it has been observed that as industrialization progressed, most of the developmg countries have had to rely more on the importation of capital and intermediate goods.

Figures la and lb reveal a good correlation between the PTA total trade with the contribution of the manufacturing sector to the GDP It indicates that as the total of PTA trade has increased, so has the contribution of the manufacturing sector to the GDP This has been confirmed by trends in the PTA total trade and

contribution of the manufacturing sector to the GDP

As the totai of the PTA" trade trend remained constant between 1983 to 1986. a similar growth trend in the manufacturing contribution to GDP was also registered. This trend is consistent with the increased size of the market which, it is argued, ieads to greater oroaucnve efficiency for anv

Figure la: Comparison of Trends in Totai PTA Trade, Totai intra-PTA Trade and Contribution of Manufacturing to GDP. 1982-1993.

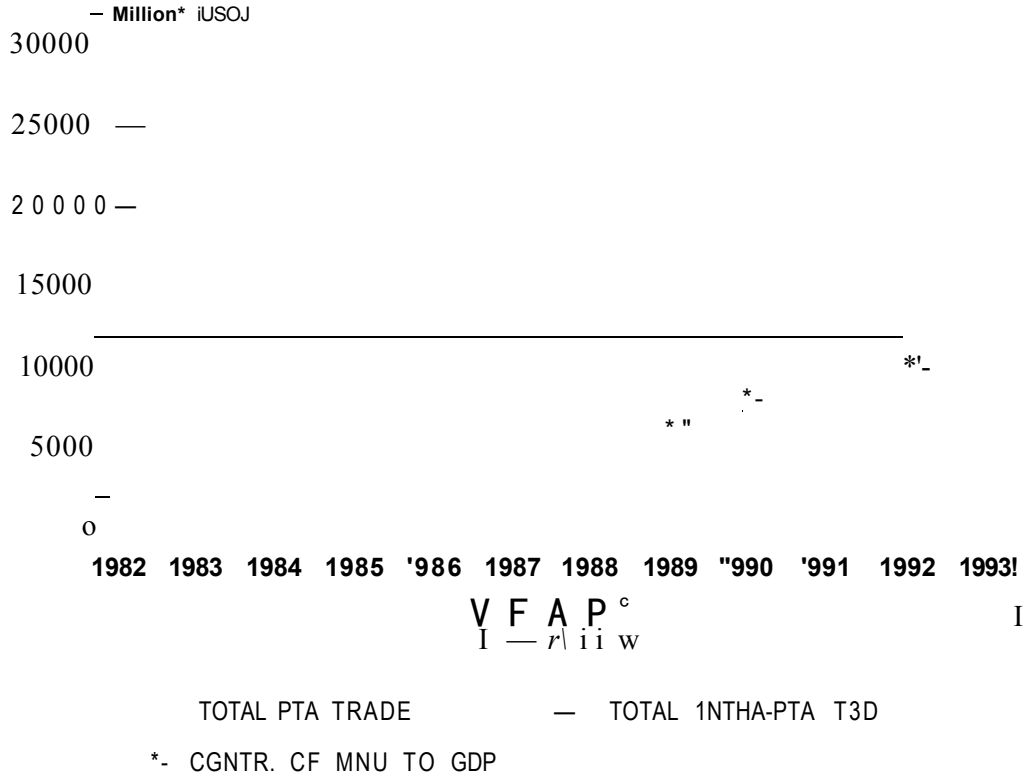
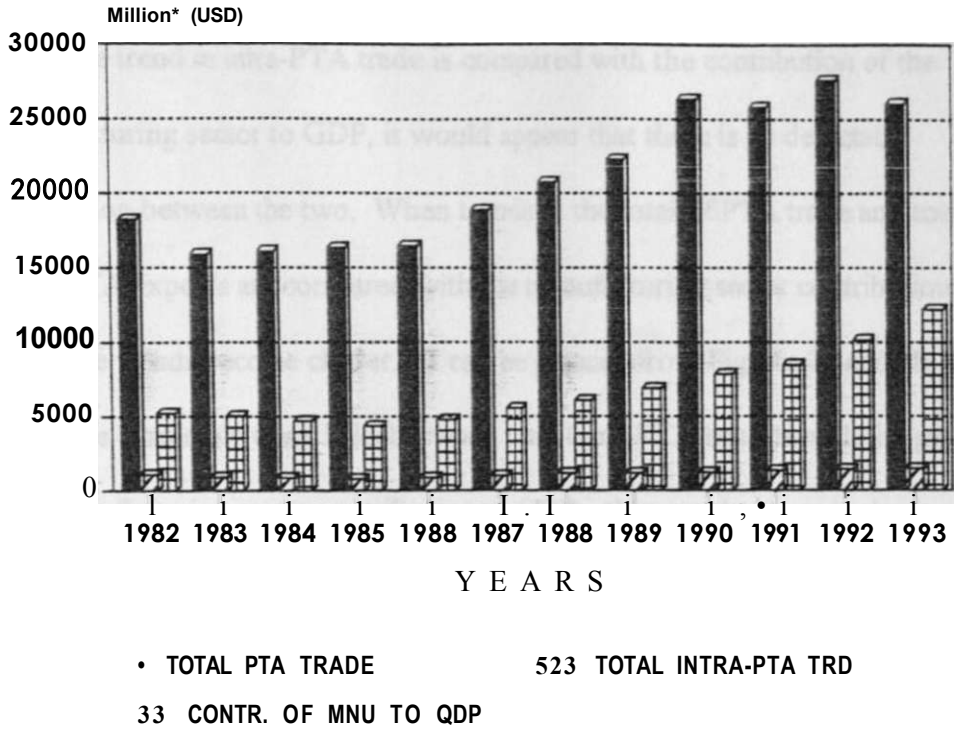


Figure 1b: **Comparison of Trends in Total PTA Trade, Total intra-PTA Trade and Contribution of Manufacturing to GDP, 1982-1993.**



industry with economies of scale (Fernandez, 1997). Indeed, the success of the EEC is linked with intra-industry trade in manufactures and the associated rationalization of production that the Treaty of Rome had made possible (Krugman, 1991).

When an upward trend of the total of PTA trade resumed between 1987 and 1992, a similar upward trend was also recorded in the manufacturing sector contribution to GDP From the trends, it can be concluded that the growth in the

manufacturing sector is a function of trade, or that an increase in the total of the PTA trade influences the manufacturing process and its contribution to GDP But, when the trend in intra-PTA trade is compared with the contribution of the manufacturing sector to GDP. it would appear that there is no detectable correlation between the two. When trends in the total of PTA trade and total intra-PTA exports are compared with the manufacturing sector contribution to GDP the trends become clearer. It can be gleaned from Figures 2a and 2b that there are extremeiv weak links between total intra-PTA exports with the growth of the manufacturing sector contribution to GDP. Conversely, there is also a very weak correlation between growth in the contribution of the manufacturing sector to the total intra-PTA exports.

Figure 2a: Trends in Total PTA Trade, Total intra-PTA Exports and Contribution of Manufacturing to GDP, 1982-1993

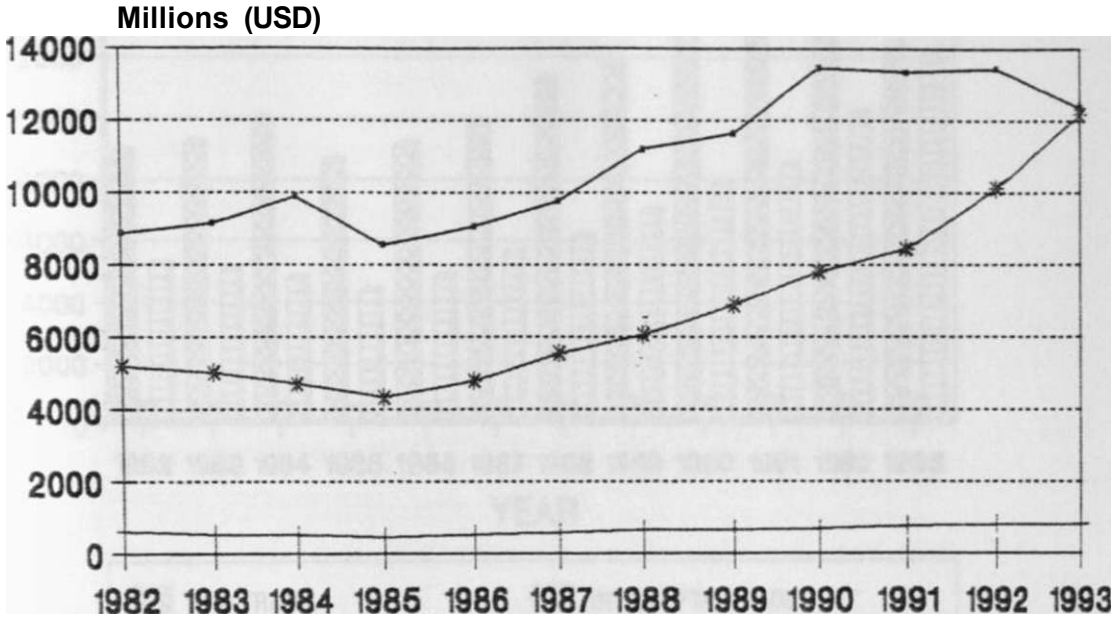
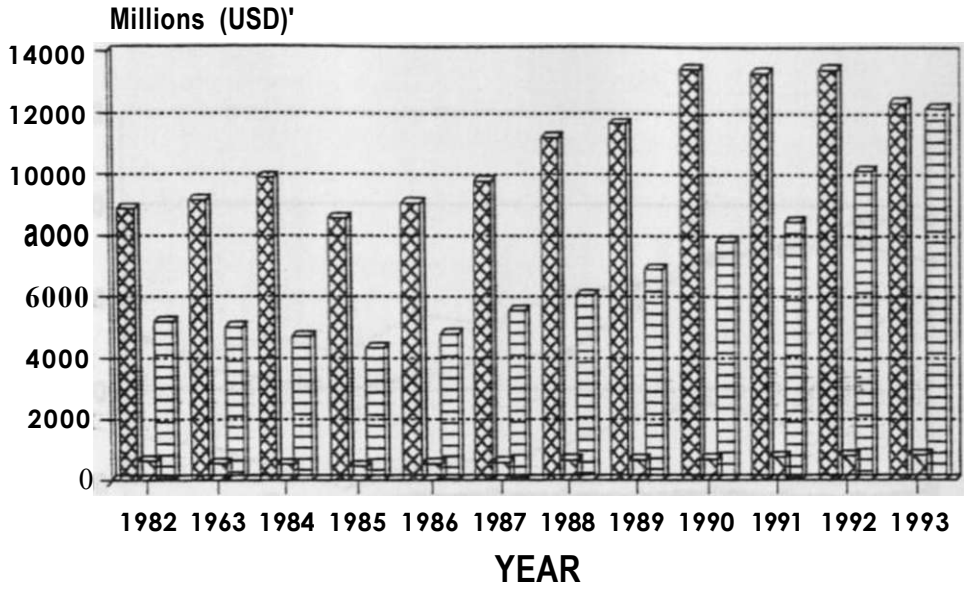


Figure 2b: Trends in Total PTA Trade, Total intra-PTA Exports and Contribution of Manufacturing to GDP, 1982-1993



A more revealing picture of results is obtained by analysing Figures 3a and 3b, which compares the three trends between Kenya and Zimbabwe. Given that the two countries control most of intra-PTA trade, it is interesting to see the correlation between the two countries' trade with the growth in the contribution of the manufacturing sector to GDP While the total trade of both countries has strong links with the growth in the contribution of manufacturing to GDP, the same relationship cannot be established with respect to the two countries' intra-PTA trade. There appears to be an extremely weak link between Kenya's growth in the manufacturing sector with that of intra-PTA trade.

Figure 3a: Comparison of Trends in Kenya and Zimbabwe in Total Trade, intra-PTA Trade and Contribution of Manufacturing to GDP, 1982-1983

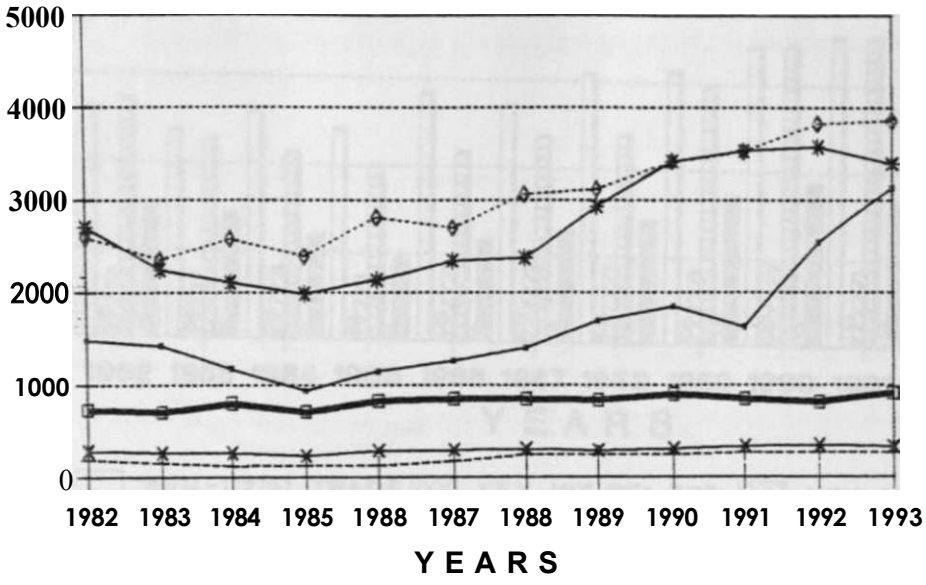


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Figure 3b: Comparison of Trends in Kenya and Zimbabwe in Totai Trade, intra-PTA Trade and Contribution of Manufacturing to GDP, 1982-1983

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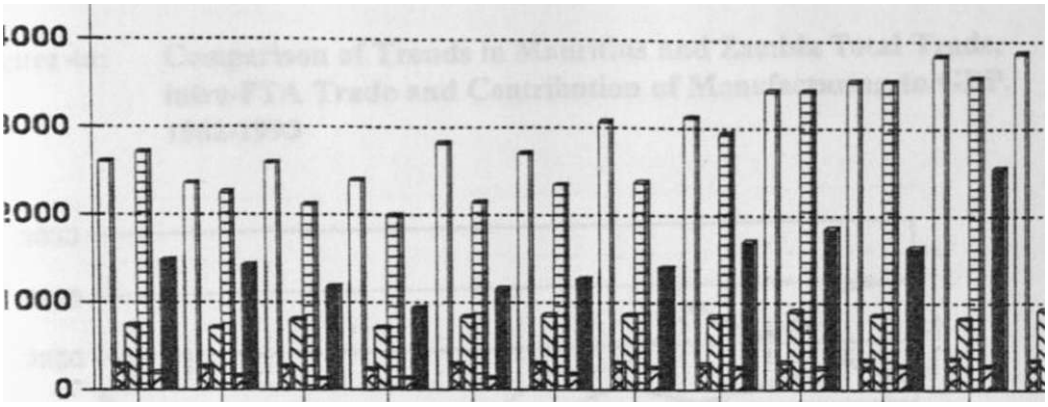

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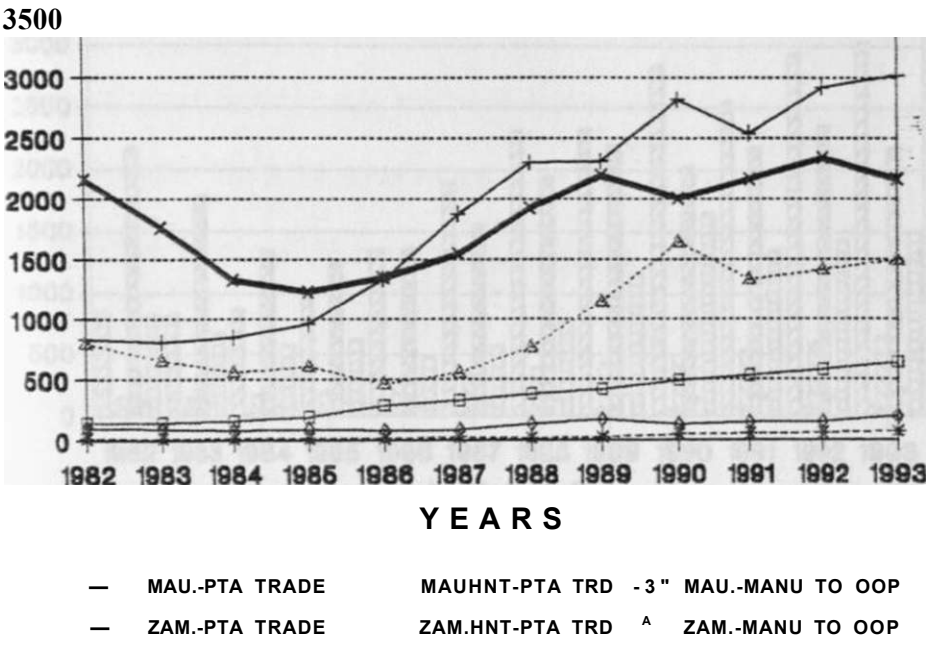
Kenya's growth in mtra-PTA trade seems to be generated as a result of its manufacturing activities and not vice-versa. The same trend obtained to some extent for Zimbabwe. Figure 4a and 4b on the other hand shows a robust relationship between Zambia's total trade with the growth in the manufacturing sector contribution to the GDP Between 1982 and 1986, when Zambia's total trade with the rest of the world declined, a similar downward trend was registered in the country's manufacturing sector contribution to the GDP. When the country's total trade with the rest of the world registered an upward trend, which reached its highest level in 1989, the same trend was recorded in the manufacturing

sector but reaching its peak a year later in 1990, due to a lag in economic activities.

Figure 4a: Comparison of Trends in Mauritius and Zambia Total Trade, intra-PTA Trade and Contribution of Manufacturing to GDP, 1982-1993



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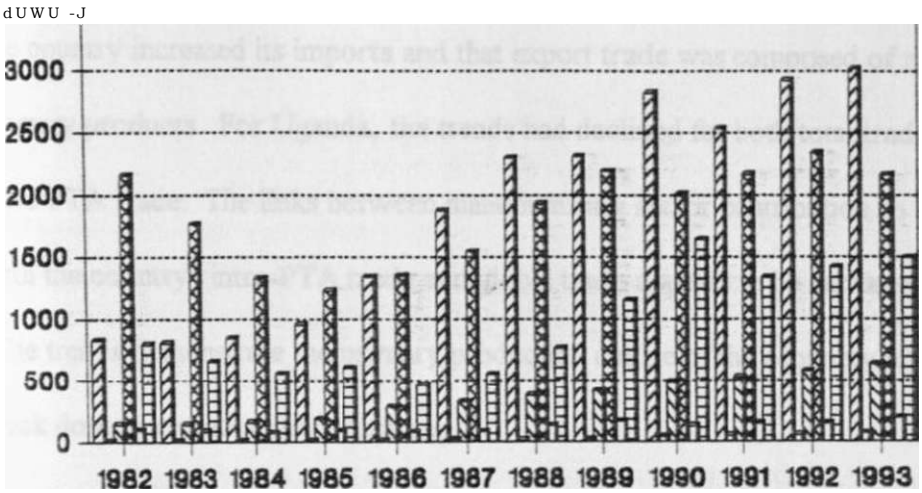
Mauritius, on the other hand, has shown a very strong growth trend in its trade with the rest of the world. The manufacturing sector contribution to the GDP has **equally** shown a steady upward trend, indicating a very strong link with the country's trend in trade. The trends in intra-PTA trade with respect to Mauritius and Zambia however show an extremely weak correlation between intra-PTA trade with the growth of the manufacturing sector contribution to GDP,

particularly in the case of Mauritius. It is apparent that Mauritius' growth in the manufacturing

Figure 4b: Comparison of Trends in Mauritius and Zambia Total Trade, intra-PTA Trade and Contribution of Manufacturing to GDP, **1982-1993**



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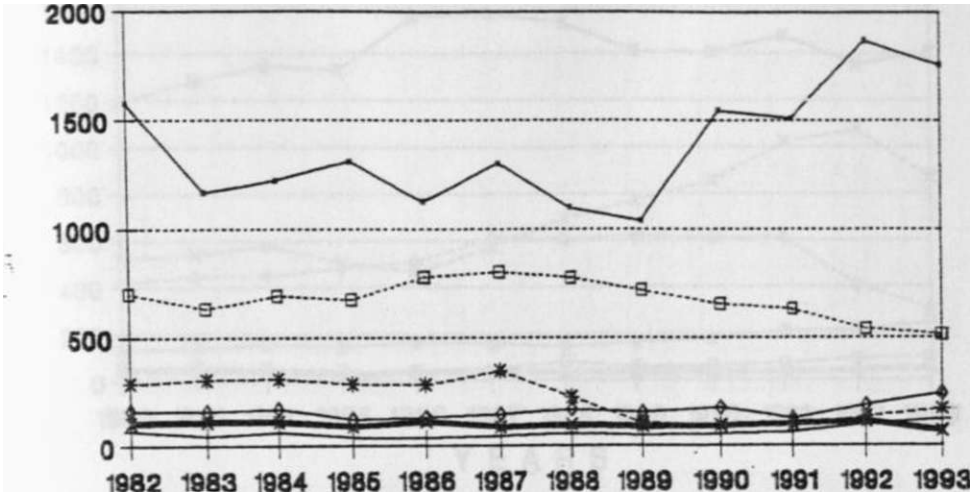
sector has been spurred as a result of its giobai trade, especially with the industrialized countries.

The graphical presentations in Figures 5, 6a and 6b for the relatively less industrialized countnes within the PTA nameiy Tanzania and Uganda, on the one hand, and Ethiopia and Malawi, on the other hand, demonstrate hardly any interrelationships between trade and the manufacturing sector. Figure 5 indicates

lack of correlation between Tanzania's trade with the manufacturing sector contribution to GDP. From Figure 5 it would appear that, when the country's total trade showed an increased trend, the manufacturing sector displayed a decline. While the manufacturing contribution to GDP for Tanzania declined between 1987 and 1992 the country's total trade registered an upward trend. This confirms that the country increased its imports and that export trade was composed of mainly primary products. For Uganda, the trends had declined for both total trade and intra-PTA trade. The links between manufacturing sector contribution to GDP with the country's intra-PTA trade and global trade appears to be extremely weak. The trends demonstrate the primary production nature of the economy and the weak domestic production structures.

Figure 5: Comparison of Trends in Tanzania and Uganda in Total Trade, intra-PTA Trade and Contribution of Manufacturing to GDP, 1982 - 1993



Y E A R S

TAN.-TOTAL TRADE - < - TAN.HNT-PTA TRD " * " TAN.HrfANU TO GDP

--•-- UQA.-TOTAL TRADE"**- UQA.-INT-PTA TRD UQA.-MANU TO QDP

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Figure 6a: Comparison of Trends in Ethiopia and Malawi Total Trade. intra-PTA Trade and Contribution of Manufacturing to GDP, 1982-1993

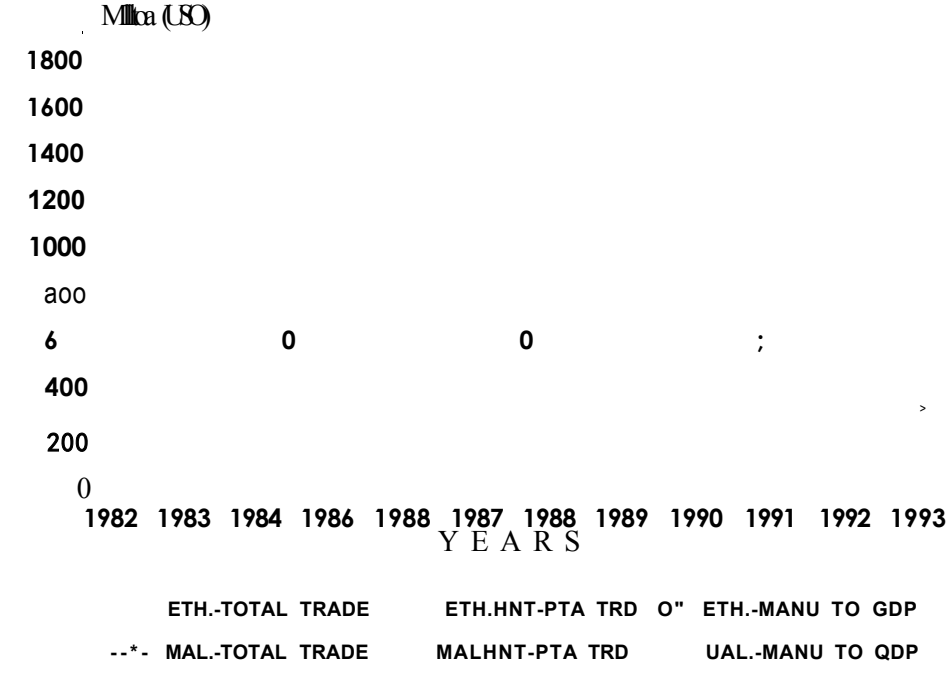

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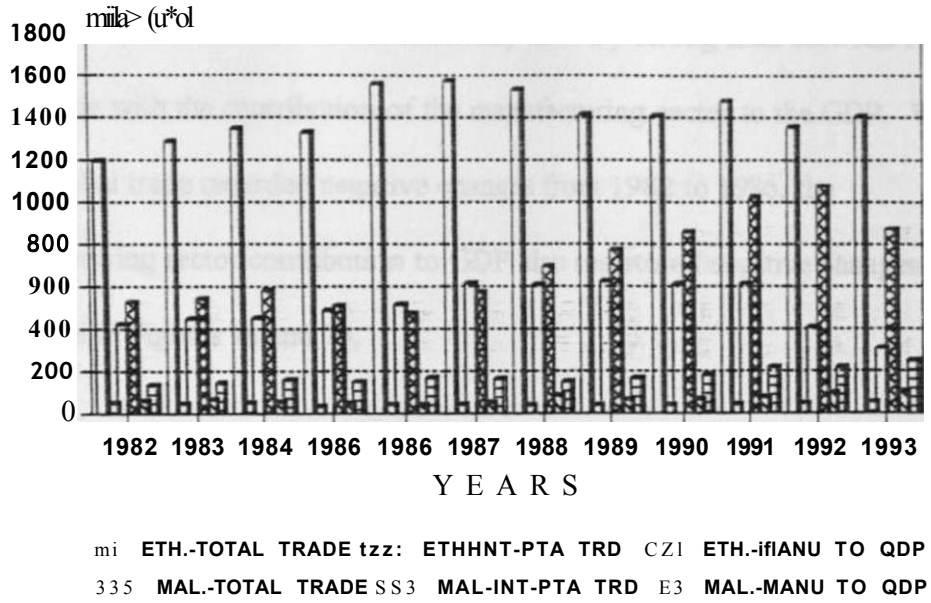
Figure 6b: Comparison of Trends in Ethiopia and Malawi Total Trade, intra-PTA Trade and Contribution of Manufacturing to GDP, 1982-1993



In Figures 6a and 6b there appear to be a correlation between Ethiopia's global trade with the manufacturing sector contribution to GDP However, there appears to be no link between the trends of manufacturing contribution to GDP with that of intra-FTA trade. For Malawi there appear to be links between the growth in total trade with the growth of the manufacturing sector contribution to GDP, but an extremeiv weak link between the manufacturing sector and intra-PTA trade. What is apparent is that the growth in the manufacturing sector seemed to be accompanied by a small increase in the country's trade within the PTA. In other words, the modest increase in the level of processing has ied to the country's

increased trade within the PTA. Figures 7a and 7b which show changes in terms of increase or decrease in trends of total PTA trade. intra-PTA trade and contribution of manufacturing sector to GDP between 1982 and 1983 using 1982 as the base year, demonstrates dramatically the very strong links between PTA total trade with the contribution of the manufacturing sector to the GDP. When PTA global trade recorded negative changes from 1982 to 1986, the manufacturing sector contribution to GDP also registered negative changes as indicated in Figures 7a and 7b.

But when PTA global trade showed increased changes from 1986 to 1993 a similar increased change in the in the manufacturing sector's contribution to GDP was recorded. Between 1982 and 1993 there were extremely weak links between the trends of intra-PTA trade and the changes in the contribution of the manufacturing sector to GDP What is implicit in Figure 4b is that intra-PTA trade cannot be relied upon to play a role in the industrialization process of the economies of the region. It is the industrialization process that appears to have some detectable pull on intra-PTA trade. The conclusion to be drawn from the results of the research is that a different strategy will be needed if the PTA as a regional integration framework is to bring about industrialization, economic growth and trade expansion.

Figure 7a: Change in Trends for Total Trade, intra-PTA Trade and Contribution of Manufacturing to GDP, 1982-1993, using 1982 as Base Year

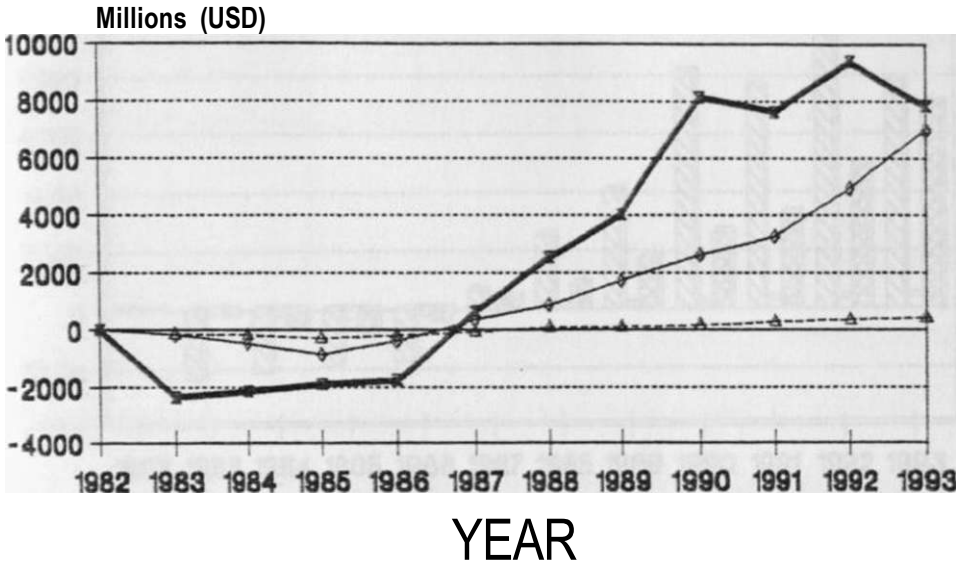
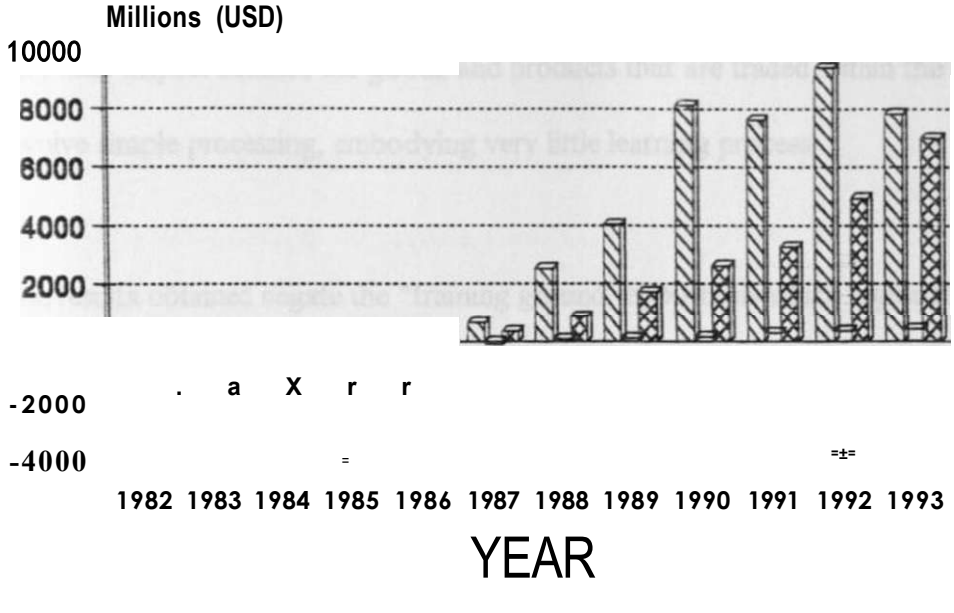


Figure 7b: Change in Trends for Total Trade, intra-PTA Trade and Contribution of Manufacturing to GDP. 1982-1993. using 1982 as Base Year



From the analysis of Figures 1 to 7, it would appear that while, there was very weak correlation between the growth in the manufacturing sector with that of iiitra-PTA trade, whereas there was a robust relationship between the PTA's global trade with growth in the manufacturing sector. The interpretation that emerges from the graphs is that. intra-PTA trade, in its present structure, cannot be relied upon exclusively as a mechanism for accelerating the process of industrialization of the economies of the PTA region. In other words, it is implicit from the above

interpretation that the process of industrial development for the PTA countries could be better supported through the region's increased trade with the rest of the world. From the analysis, it would appear that global trade carries a greater 'impact in stimulating the process of industrialization, while intra-PTA trade has very little impact because the goods and products that are traded within the region involve simple processing, embodying very little learning process.

The results obtained negate the "training ground" hypothesis which regional groupings are supposed to confer. The analysis of intra-PTA trade by commodity composition, indicates a total absence of engineering products, capital and intermediate goods, which are the products that embody high technology and the learning process. .Another result which appears to support the above conclusion is that, the growth in intra-PTA trade has been linked with the growth in the manufacturing sector's contribution to GDP The strong performance in the manufacturing sector has led to increased intra-PTA trade, especially for those countries that have more diversified production structures. The countries with a weak manufacturing base have not been able to increase their intra-PTA trade. The other conclusion to be drawn is that the level of industrial development determines either positively or negatively a country's share in the expansion of intra-PTA trade and the gains to be derived from regional integration. While countries like Kenya, Mauritius and Zimbabwe have relatively more diversified manufacturing structures and have registered increased intra-PTA trade, countries

with weak industrial structures, such as Tanzania or Uganda, have experienced a decline in their intra-PTA trade. This, however, is not to argue against the need for increased trade within the PTA region, but to argue on the need to strengthen the domestic production base before increased uitra-PTA trade can be achieved.

Indeed, while the Structuralist School has underscored the importance of regional cooperation as a paradigm for industrialization, it would appear, even from preliminary and incomplete results of the Study that there is no conclusive evidence to support the hypothesis. The preliminary results appear to suggest that intra-PTA trade cannot be used as a strategy for industrialization at this stage of the member countnes' level of industrial development. A number of policy implications are likely to arise and this will be discussed in Chapter Six.

5.3 **Effects on Transfer of Technology**

Using data from Table 5.6, it will be observed that the potential exports of primary commodities still accounted for the bulk of intra-PTA trade, which constituted 34.3 per cent in 1990 and 33.8 per cent in 1992. Data in the same Table reveals that the potential trade in manufactured products, classified chiefly by materials, showed that the exports of manufactured goods declined from 38 .8 per cent in 1990 to 31.0 per cent in 1992.

Table 5.6. Estimate of Potential Expansion in Intra-PTA Trade by kind of Commodity Groups (SITC) (in thousands of US Dollars and in Percentage)

SITC [	Imports (thousands USD)			Exports (thousands USD)		
	1990	1991	1992	1990	1991	1992
Food and live animals (Secuon 0)	337.011 (5.7)	355.009 (7.2)	596.088 (11.3)	2.575.50 7 (34.3)	2.066.91 5 (33.5)	1.978.080 (33.8)
Beverages & Tobacco (Section 1)	85.967 (1-5)	72,402 (15)	120,473 (2.3)	472.319 (6-3)	623,850 (10.1)	553.318 (9.5)
Crude materials (Section 2)	120.917 (2.1)	132.806 (2-7)	159,034 (3.0)	619,297 (8.2)	486.329 (7.9)	411,471 (7.0)
Minerals fuels, lubricants & related materials (Secuon 3)	10.312 (0.2)	4,941 (0.1)	5.663 (0.1)	30.940 (0.4)	36,575 (0.6)	26,620 (0.4)
Animals & vegetable oils, fats & waxes (Section 4)	2,318 (0.04)	2.379 (0.1)	3.264 (0.1)	26.361 0.4)	13.492 (0.2)	7.263 (0.1)
Chemicals & related products (Secuon 5)	516,061 (8.8)	423.478 (8.6)	453.526 (8.6)	37.861 (0.5)	42,134 (0.7)	41.765 (0.7)
Manufactured goods classified by materials (Secnon 6)	1124375 (19.1)	983.884 (20.1)	990.657 (18.7)	2917129 (38.8)	2186355 (35.4)	1812036 31.0)
Machinery & Transport Equipment (Sccaon 7)	2987154 (50.7)	2297830 (46.9)	223031 0 (42.2)	19.787 (0.3)	18.495 (0.3)	28.028 (0.5)
Misc. manufactured articles 1 Section 8)	702.203 (11.9)	627.121 (12.8)	726.861 (13.7)	814,288 (10.8)	701.221 (11.3)	992.589 (17.0)
Total	5886323	4900850	528587 6	7513489	6175366	5851170

Source: Table is constructed from data on Estimate of Potential Expansion in Intra-COMESA Trade based on the making of products that are imported by some COMESA member States from Third countries and at the same tune exported by other member States to Third countries. COMESA Secretariat. Lusaka May 1995:

MB: Figures in brackets denote percentage.

Even though the percentage might look reasonable, every precaution should be exercised in the interpretation of the data. First the export of manufactured products has been confined to only a few members of the PTA, namely: Kenya, Mauritius, Zambia and Zimbabwe. Second, most of the goods covered under section 6 of SITC include a number of products in which at least some countries of the sub-region had a comparative advantage, such as textiles, copper, iron, steel and cordage. Third, the degree of processing some of these commodities was still at a very low level, although qualifying under the general rubric of manufactures. Lastly, the processing involved contains very limited learning.

Under Section 7, machinery and transport equipment which involves engineering activities and a higher degree of the iearning process, the potential market expansion in terms of exports of the products indicates that hardly any trade took place in these groups of products. In fact, the available data showed that the PTA countnes depended to a very large extent on the importation of this category of products. In the category of miscellaneous manufactured goods (Section 8), the picture remained more or less stagnant, in that the export potential remained below that of imports, except in 1992 when it accounted for 17 per cent compared to 13.7 per cent of imports in the same year.

Furthermore, since the manufactured exports tend to be dominated by processed agricultural primary products (food, canned fruits, tobacco, leather, textiles, yarn,

fabric and garments), the products embodying modern skill and the latest technology were virtually non-existent in the PTA exports. It is, therefore, evident that intra-PTA trade in terms of its present potential expansion is unlikely to lead to the learning process, upgrading of skills, and hence, the transfer of technology, as denned under Section 2.6 in Chapter Two.

The deviation from the expected norm that trade would be the vehicle of economic growth in terms of facilitating the transfer of technology through upgrading of production techniques and exerting competitive pressure in terms of the acquisition of technology within the context of the PTA countries has been adversely affected by a very rudimentary level and lack of human capabilities in manufacturing, in particular, and in other supporting areas, in general. From the aforegoing analysis, it would appear that, while it remains desirable to intensify mtra-PTA trade, at the same time it would seem advisable that this should not be done at the expense of other trade relationships, since the learning process involved at the PTA level that would facilitate the transfer of technology was extremeiv small.

Indeed, the statisncal results of empirical work earned out for Kenya ana Tanzania indicate determinant factors in the in the export of manufactures and show that Kenya exported relatively more capital-intensive products to the north, especially to the Organization for Economic Co-operation and Development (OECD) countries, than to other .African countries. This was mainly due to the fact that

such exports were connected with the activities of the TNCs which control production in the manufacturing export sector. Since the TNCs use technology which is already packaged from the parent companies, the transfer of technological skills and technology become extremely limited.

5.4 Economic Growth Effects

While trade has been credited with economic growth, the direction of causality between trade and growth remains uncertain (Sprout *et al.,* 1993). Examination of Table 5.7 on Gross Domestic Investment as a percentage of GDP indicate that this percentage is very low and only attained its peak of 17.6 per cent in 1988, and thereafter started to decline, reaching 14.9 per cent in 1991. This percentage is too low to allow economic growth to take piace. Equally an analysis of Table 2.2 in Chapter Two on PTA External Trade Indicators showed that percentage changes in exports of intra-PTA growth was too small to contribute to economic growth. Intra-PTA exports changed as a percentage of total PTA export and registered a negative growth of -0.36 between 1982 and 1993. Other indicators like intra-PTA imports as a percentage share of total PTA imports also confirm that the share of percentage changed from 1982 to 1993 and also recorded a negative growth of -0.19. In terms of intra-PTA trade as a total of PTA trade with third countries, the percentage share change declined by -0.25 between 1982 and 1993, but in terms of total PTA trade as a percentage of total world trade it

declined by -0.22 between the same period. While theory supports the thesis that growing exports contribute to greater economic growth, the data from Table 5.6 do not lend credence to this hypothesis with respect to the PTA as a region Only a few countries might have benefited. In this regard, when data on intra-PTA trade direction for 1993 are examined, very interesting results emerge as summarized in Table 5.7.

The results obtained from the gravity model as presented in Table 5.4 under section 5.1 of this chapter confirm that intra-PTA trade is not robust enough to lead to faster economic growth. The main reasons as revealed by the regression analysis is that the economies involved in the PTA arrangements are small in terms of GDP, per capita income, population, or in terms of effective market and are still at a very low level of economic development.

The results confirm empirical evidence which show that regional groupings among developing countries during the 1970s and 1980s had not let to faster growth (Vamvakidis, 1998).

Table 5.7 Gross Domestic Investment as Percentage of GDP (In Percentage)

COUNTRY	•1983	1984	1985	1986	1987	1988	1989	1990	1991
ANGOLA	17.6	17.3	17.1	17.1	19.9	16.8	15.9	15.6	17.5
BURUNDI	22.8	18.4	13.9	11.6	22.7	15.0	16.7	19.3	16.6
|COMOROS	29.0	45.8	29.6	23.6	23.3	16.0	13.9	13.5	12.3
DIIBOUTI	13.0	12.0	10.0	14.0	11.0	9.0	11.0	11.2	10.4
ETHIOPIA	12.7	16.0	15.5	14.3	15.8	15.8	13.4	12.2	11.1
KENYA	20.8	20.8	25.6	21.8	24.3	25.0	24.5	23.8	20.7
LESOTHO	33.6	41.6	49.4	46.1	45.4	49.3	64.4	77.3	77.3
MADAGASCAR	8.4	8.6	8.5	9.0	10.1	13.3	13.4	17.0	8.2
MALAWI	22.8	12.9	18.6	12.3	15.4	18.7	20.2	19.1	20.0
MAURITIUS	17.5	22.0	23.5	21.9	25.3	30.6	30.7	30.4	29.5
MOZAMBIQUE	10.0	10.6	6.9	9.7	24.0	33.4	35.5	37.1	16.1
NAMIBIA	17.4	16.9	13.7	12.5	15.5	19.8	17.0	17.9	13.7
RWANDA	13.5	15.8	17.3	15.9	15.7	15.7	15.1	12.8	13.8 i
SEYCHELLES	21.4	21.7	22.7	24.5	19.8	25.5	27.1	24.3	24.3
SOMALLA.	22.4	24.2	29.8	25 1	33.3	23.9	30.3	15.5	13.6
SUDAN	16.0	13.8	4.5	12.8	10.3	10.0	9.1	9.3	9.4
SWAZILAND	35.0	31.6	29.6	22.2	15.3	16.6	25.4	25.4	25.0
TANZANIA	13.6	15.3	15.7 -	19.5	30.2	30.6	27.2	28.0	20.4 i
;UGANDA	8.0	7.9	8.9	10.8	10.7	8.5	8.9	11.5	13.6
ZAMBIA	13.8	14.7	14.9	23.8	13.9	11.4	9.9	14.3	13.5
j ZIMBABWE	15.9	190	19.8	18.4	18.5	16.9	18.2	21.0	19.6
PTA AS A WHOLE	15.6	16.0	14.6	15.7	17.2	17.6	17.1	16.5	14.9

Source: COMESA Statistical Division

Table 5.8 which gives comparisons between SSA regional integration groupings with other regional integration schemes suggests that the generally poor performance of intra-Afiican trade expansion in relation to other economic groupings could be better understood in terms of other macro-economic variables. Whereas other regional integration schemes such as NAFTA. ASEAN and EEC have consistently recorded growth, those of SSA registered very low rates of growth and sometimes even negative growth rates. The three criteria used to test the effectiveness of the impact on the three variables, have led to the conclusion that the formation of these integration schemes has not led to industrialization, transfer of technology and economic growth. Unlike the other necessary ingredients for instance complementarity, a sound manufacturing base, technological 'know-how" and "know-why", and the general culture of inquisitiveness and commitment are not evident.

I nMo 5.R: (..'ompnrison between some Clininctciislirs of SSA (Grouping jiihI some other Uegionnl (Groupings in (lie World

Name of grouping	Average Inlrn-(jioiip Trade Imbalance Index		C»NP per capita in PRO US$			Sltaic ofManurin GNP in I9R9			Sliare of Inlta-gioup Expoil l inde In 1 mile expoil				
	I9R0	1090	Min	Max	Min :<; % of Mnx	Min	Max	Min :is %or Mux	1970	1975	1980	I9R5	1990
SSA groupings													
EC'CVWA S	52	54	180	790	2.1	3	20	15	2 9	4.0	3 5	5 .1	5.7
CEAO	66	68	290	790	.17	5	20	20	6 3	12.7	8 9	8 7	10.5
MRU	too	26	.200	4.10	46	1	6	50	0 2	0.4	0.5	0 1	0.1
UDEAC	99	92	190	2770	7	0	16	0	4 R	2.7	1 6	1 9	3 0
CF.POEL	11	IR	220	.110	67	10	IS	66	0.4	0.3	0 1	0 R	0.2
PTA	59	47	80	1950	4	4	25	16	8 0	9.3	7.6	5 5	5 9
SADCU	.11	57	80	1600	5	1	24	17	2 6	3.7	2 1	3.9	4 R
SACU	n.a	n a. „	470	2470	19	4	24	17	n a	n.a.	Il a	n n	ii n
Otlict groupings													
	16	17	600	2620	21	16	35	46	10 1	13 4	13 0	8.0	10 6
LAP I A/I.	21	20	250	1790	M	14	27	62	26 2	23 4	25 4	15 5	14 2
AtA	6	5	1990	21100	9	13	17	76	36 3	35.0	33.6	39 7	41 5
(.'ACM													
NAFTA	11	21	490	10450	5	17	26	65	14 8	11 2	18 3	18 4	18 5
	6	R	4100	70800	20	IR	17	56	51 7	'>2 5	55 7	54 7	66 6
ASEAN													
EEC													

IMP Direction of trade; World bank: WDU, Woild Alias; UN COM Trade database

Indeed Table 5.8 indicates that SSA regional integration groups have the worst average in the ultra-group trade imbalance index. The higher the index the worse the trade imbalance. The share of manufacturing in GNP demonstrates a very low levei of manufacturing share to GNP for SSA groups, as compared against such groupings as NAFTA, CACM, ASEAN and EEC. The share of intra-group export trade in trade export is also low for SSA groupings but high in EEC, NAFTA and ASEAN. The data in Table 5.9 confirm that only five countries have trade relations with more than seven countries, namely: Kenya, Mauritius, Tanzania, Zambia and Zimbabwe in descending order. The same countries registered higher levels of exports in value terms. What is clear is that the five countries that have registered trade with no less than seven countries and exported more in value terms, are the countries with a more diversified production and export more processed products. In-spite of the introduction of other various measures such as Simplification and Harmonization of Customs Procedures; adoption of the Convention on the Harmonized Commodity Description and Coding System; the Road Customs Transit Declaration Document; the PTA Customs Bond Guarantee Svstem; Automated System of Customs Data (ASYCUDA), the PTA-wide Trade Information Network (TINET); Trade Fairs, intra-PTA trade as a percentage of total trade has registered a declining trend which is confirmed by data over the past ten years. The volume of intra-PTA trade remains insignificant, while the composition of that trade is still overwhelmingly natural primary products. Since manufactured goods also account for a very smail portion of that trade, no real

economic growth can be achieved as economies of scale cannot be realized either To the extent that intra-PTA trade is confined to a few trading partners and because of this the scope for trade expansion becomes curtailed. This is not to argue that during the 1990s and beyond, PTA will not become an effective regional grouping that will lead to greater economic growth and development, especially in the context of a broader liberalization which may link these groupings with those of the North.

Table 5.9 Direction of Intra-PTA Trade. 1994

Country	No. of countries	Total FOB/Export (million US$)
Angola	None	4.00
Burundi	4	29.00
Comoros	None	900
Ethiopia & Eritrea	None	33.00
Kenya	14	43.00
Lesotho	None	3.00
Madagascar	3	19.45
Malawi	5	57.91
Mauritius	8	31.73
Mozambique	7	87.00
Namibia	2	6.00
Rwanda	1	68.00
Sudan	None	34.00
Swaziland	1	2.00
Tanzania	8	126.00
Uganda	1	135.00
Zaire	3	51.55
Zambia	8	67.00
Zimbabwe	15	47.00

Source: Constructed from COMESA Trade Figures

'l'able 5.8: Comparison between some Characteristics of SSA Grouping and some other Regional Groupings in the World

	Average lnlra-Group Trade Imbalance Index		ONP pel capita in 1989 US$			Sliare of Manttf in GNP in 1989			Share ol luira-group Export Trade in Trade export				
Name ui grouping	1980	1990	Mm	Max	Min as % of Max	Min	Max	Mm as % of Max'	1970	1975	1980	1985	1990
SSA groupings													
ECOWAS	52	54	180	790	23	3	20	15	2.9	4 0	3.5	5.3	5.7
CEAO	66	68	290	790	37	5	20	20	6.3	12 7	8.9	8.7	10.5
MRU	100	26	200	430	46	3	6	50	0.2	0 4	0 5	0 4	0.1
UDEAC	99	92	190	2770	7	0	16	0	4 8	2.7	1.6	1.9	3.0
CEPGEL	33	18	220	310	67	10	15	66	0 4	0.3	0.1	0 8	0.2
PTA	59	47	80	1950	4	4	25	16	8 0	9.3	7 6	5.5	5 9
SADCU	31	57	80	1600	5	4	24	17	2 6	3.7	2.1	3 9	4 8
SACU	a a.	n.a.	470	2470	19	4	24	17	n a	n a	n a.	n a	n.a
()lhcr groupings													
LAFTA/LAIA	16	17	600	2620	23	16	35	46	10 1	13 4	13 0	8 0	106
CACM	21	20	250	1790	14	14	27	62	26.2	23 4	25 4	15 5	14 2
NAFTA	6	5	1990	21100	9	13	17	76	36 3	35.0	33.6	39 7	415
ASEAN	13	23	490	10450	5	17	26	65	**14 8**	11.2	18.3	**18 4**	18 5
EEC	6	8	4300	20800	20	18	32	56	53 2	52.5	55.7	54.7	66 6

IMF: Direction oftrade; World bank: WDR, World Atlas; UN. COM Trade database

FootNotes

Personal Interview with the Ministries of Commerce, Industnes of the countries of Eastern and Southern .Africa.

CHAPTER SIX

SUMMARY OF RESEARCH FINDINGS AND POLICY IMPLICATIONS AND AREAS FOR FURTHER RESEARCH

6.1 Research Findings

Empirical evidence shows that the existence of regional integration schemes in Sub-Saharan Africa have had no tangible trade impact on the economies of the participating member States, as measured by the level of intra-area trade which has remained consistently low as a percentage of total trade in most of the regional groupings. The resuits obtainec in this Study indicate that the existence of the PTA has not contributed to the generation of intra-group trade amongst the economies of member States. Even though the picture is mixed and inconclusive, the general conclusion that can be derived from the research results is that the establishment of the PTA is not necessarily a precondition for trade creation. A caveat should, however, be made to the effect that there have been a few isolated pockets of limited trade sains by a very small number of countries, but tnat the majority of countries have not benefited from the PTA formarioa

In analvsing the resuits obtained by testing the impact of the PTA creation on: trade, industrialization, transfer of technology, and economic growth, a number of inferences were made. The examination of research results and findings on the trade effects of the PTA

allowed the following conclusions to be drawn. First the Study has shown that trade flows among member States were greater prior to rather than after the formation of PTA, due to bilateral trade and payment agreements into which the countries had entered. In tact two-thirds of the PTA member States had bilateral payment arrangements with one or more members. Secondly, and linked to the above, proximity seems to have played an important role in intra PTA trade expansion since neighbours tended to trade more with one another than with tar away partners. This finding is in line with "natural" trading partners hypothesis, which avers that countries would have traded with one another even in the absence of special arrangements. However, to draw conclusions on the basis of the present patterns of production and demand that PTA countries are not natural trading partners would be to overlook the long-term objective of establishing the PTA which is to restructure the existing pattern of production and the creation of new ones. Thirdly, the results indicate an uneven gain from PTA creation. The gross trade creation experienced by some of the PTA countries such as Madagascar and Uganda were as a result of trade diversion fuelled by differences in levels of economic development and production specialization, that disregard basic competence and competitive advantage. While a handful of countries had registered increased intra-PTA trade, the majority of member States had not. The benefits to be derived as a result of the PTA, had therefore remained ambiguous. What had come to pass was that trade with third countries had been intensified at the expense of intra-PTA trade expansion. A number of explanations could be prorfered as to why the expected results had not been forthcoming since the creanon of PTA It would appear from the above results that countries which had gained from trade creation as a result of the formation of PTA were those that had more diversified production structures

and had reached a certain level of industrial development. The countnes which did not derive benelits foliowmg the establishment of the PTA were those with a weak domestic production base. In other words, good infrastructurai facilities, support services, trained and skilled manpower and a vibrant domestic market appear to be the necessary ingredients in permitting a country to benefit from the creation of regional integration schemes.

The research findings on the creation of the PTA on the effects of industrialization reveai very strong links between its total global trade with the growth of the manufacturing sector contribution to GDP. or industrial development. The results indicate that as the level of total trade increased so did the level of the manufacturing sector contnbution to the GDP The results, however, confirmed very weak iinks between intra-PTA trade and industnai development. In fact it would appear that the trends in intra-PTA trade were influenced much more bv the trend in the level of industnai development in the country. Indeed, there is a great deal of compiementantv and inter-dependence between increased intra-PTA trade and industnai deveioDmem of the member States. The countnes that had weak and less diversified oroduction structures such as Malawi. Somalia. Tanzania and Uganda railed to increase their share of intra-PTA trade, while countries such as Kenya Mauntius and Zimbabwe, which are relatively more industrialized, increased their share of intra-PTA trade.

The results demonstrate that most of the PTA countnes traded mainly with third countries, and that this trade had a higher export concentration on traditional products such as coffee, tea copper, iron ore. as weil as other primary commodities. Intra-PTA trade, on the other hand,

consisted of light manufactured products and remained extremely low at about 5 per cent of 'iie total PTA trade The results further revealed that the lower the level of the manufacturing sector contribution to GDP. the lower the levei of intra-PTA trade (see Figure 4b, in particular). A number of conclusions can be drawn from the research tinciings. First, it is implicit from the graphical presentations that import-subsutuoon polic.es at the domestic levei determined from the outset limited scope for regional trade expansion since the policies had not been formuiated to take the regionai aspect of the market into account. Secondly, due to the very weak nature of the industrial base of member States economies. intra-PTA trade couid not be reiied upon to spur the process of industrialization within the region. Lastly, and deriving from the above, it wouid appear that greater emphasis will have to be placed on increased trade with third countnes especially the developed economies as a wav of generating more foreign exchange for industnai development. This last conclusion became clear when the results obtained on the transfer of technology were analysed.

vVhile the question of industnalizanon is linked and cannot be divorced from that of the transfer of technology, for the purposes of this analysis, it has oeen found necessary to delineate the two separaieiv in order to highlight the role which the PTA had played in the transfer of technology. The results from the research findings indicate that due to the low level of :echnoi02icai development, the export of manufactured products within the PTA was confined to a very limited number of countries, nearly one-tifth of the PTA membership, and to a narrow range of products. Secondly, most of the manutactured products that were traded within the PTA were basically those that belonged to Section 6 of SITC. and involved products in which

some countries had comparative advantage, but which had a low level of processing. In the absence of intra-PTA trade in section 7 of SITC, which embodies engineering skills and higher learning process, it was most uniikely that intra-PTA couid. in its present form, lead to the transfer of technology. Thirdly, since the level of industrial development determined the levei of intra-PTA trade, it is evident that intra-PTA trade cannot be used to promote the :naustnaiization process within the region. The trade diversion generated as a result of the establishment of the PTA had not been significant to spur industrialization according to theory

Lastly, in view of the fact that manufacturing activities and processing were still under the tight control of foreign transnauonais. the ieaming process was curtailed because these group of enterprises prefer to use aireadv packaged technology in recipient countnes. thereby making it difficult to incorporate, assimilate or adapt such technologies, within the local context, which is characterized by paucity of skilled and qualified manpower. Indeed, many studies do emphasize that the greatest constraint in the transfer of tecnnoiogy to the least developed countries such as those in the PTA region, is the limited number of skilled and qualified personnel. .Another caveat that should be noted with respect to the transfer of technology is that the advent of aew technologies, such as those in microprocessors and laser beams are shitting stanc comparative advantage back towards developed countnes (Howard Pack, October 1988).

The conclusion to be drawn is that intra-PTA trade lacks the necessary ingredients that wouid allow it to be used as a strategy for enhancing the transfer of technology. For ail practical

purposes, the countries of the PTA region will have to reiv on trade with the more industrialized countries, in order to facilitate the transfer of technology The countries of the region will have to create the necessary basic human capacity to create the skills that would permit the transfer of technology to take piace ana a dear industnalizauon policy will have to be constructed within the context of PTA regional grouping.

The research resuits on the effect of the PTA on economic growth indicate that the level of :ntra-PTA trade was so low that causality between trade and growth could not be established. Indeed, the links between the manufacturing sector's contnbuuon to GDP and intra-PTA trade remained uncertain. What could be concluded was that the growth of intra-PTA trade depended on the performance of the manufacturing sector The resuits conrLrm that intra-PTA trade could not be used as a vehicle for growth, a conclusion which is in sharp contradiction to the received theory.

6.2 Polio Implications

From the studv there appear no clear-cut answers which can be made since only a few countries shared in the gains that accrued from trade creation while the majority of the countries had not shared in the gains. This, notwithstanding the overwhelming evidence tends ;o suggest that the PTA has not yielded the expected resuits. In fact, the PTA has neither played a role in stimulating economic growth nor has it led to industrialization or the transfer of technology in the economies of member States. It is instructive to point out that the few

countries that have benefited from the formation of the PTA were those that had relatively more diversified production structures. In the light of the results obtained, and assuming that everything else is likely to remain constant, a number of policy options could be proposed.

First, if nothing were done to aiter the present trend and everything left to evoive on its own, the PTA as a regional institution would end in disintegration. The countries with weak production structures, which are, incidentally, the majority of the PTA member States, would consider the scheme not useful enough to merit their continued participation. The countries that would reap most benefit from their increased share of intra-PTA trade would be accused of unfair trade practices. The issue of trade imbalances within the various integration schemes in SSA, has been at the heart of most of the disputes that have dogged these economic integration groupings. In fact, the uneven distribution of gains led to the demise of the EAC and has "reared its ugly head" in many economic groupings in SSA. It was already poisoning the negotiating atmosphere within SADC even before the signing of the protocol on trade facilitation. Hence, any policy which is not geared towards rectifying the growing intra-PTA imbalance among the member States, will have failed to address one of the main problems that is likeiy to undermine the existence of the PTA as a regional grouping. There is therefore the need to formulate a policy that addresses the underlying causes of intra-PTA trade imbalances, and, thus, the unequal distribution of benefits.

It wouid appear that the question of intra-PTA trade imbalance should not be viewed out of context of the member States" production structures and their levei of industrial development

as demonstrated in the Study While the Charter on Industrial Co-operation has already been adopted by the PTA member States, a second policy option would require that the implementation of the provisions of this Charter be accelerated But more fundamentally, this policy option wouid require that each country should strengthen its own national industrial base. A number of implications derive from this policy .As has been revealed in the Study, the mam constraint in the diversification of the national economies is the paucity of skilled and qualified manpower. The creation of the necessary manpower capabilities required for industrial development is one of the prerequisites in the creation of an industrial capacity base. In this regard, the sharing of existing training facilities wrthin the sub-region, while seeking training opportunities abroad, especially in other developing countries, within the context of South-South cooperation in areas where no such institunons exist should also be pursued. Overcoming technological backwardness should constitute a pnority area in building up the capabilities for the promotion of industnal development in the region. This is an important policy option.

The other policy option which is already being implemented to a very large extent is trade with third countries which has been shown to be one of the major sources of growth. In this connection, new ways should be found to expand and to change the composition of this trade by increasing the manufactured export content of the PTA economies. What is really being advocated is an alternative policy to promote exports, mainly of manutactured and processed products. The trade complementarity indices which show the levei of diversification of the economic structure for Kenya and Zambia, indicate that Kenya which has a relatively higher

trade complementarity index, tended to trade more at the global level and also at the PTA level than was the case for Zambia. The problem which renders the PTA less effective in the promotion of growth is the inability of the individual member States to add value to raw material commodities before trading them, either at international or regional levels. The need to add valuation is another policy option that should be explored by the PTA member States if the process of industrialization and a more equitable sharing of benefits are to be achieved. This implies the strengthening of the domestic economic base, by pursuing a deliberate policy on the diversification of the economies.

The resuits of this research have demonstrated that trade with third countries has a crucial role to play in the transformation of the economies of the PTA member States by stimulating the process of industrialization. The need to acquire latest techniques in production and to make the economies of the region more competitive require that the PTA countries shouid increase their trade with both countries of the South and the mdusmaiized countries of the North. Increased trade with these groups of countries wouid not only lead to the generation of more foreign exchange that could be used in the importation of capital goods and intermediate inputs, but would also assist in the acquisition of technology. Experience in South East .Asia indicates that the groups of countries there, were able to make a technological breakthrough by pursuing aggressive outward export-oriented policies. It will be is seen that countries that are able to increase their share in intra-PTA trade are the same countries that have a more diversified economic structures and also trade more with third countries as well. The policy of

intensifying trade with third countries, in addition to pursuing an outward-oriented regional poiicy, should be given more emphasis.

Indeed, over the past ten years a number of mechanisms dealing with trade liberalization, promotion, facilitation and financing have been put in place, including the establishment of numerous institutions aimed at boosting intra-PTA trade. Unfortunately, these measures have failed to increase intra-PTA trade to a level that would generate economic growth. In other words, intra-PTA trade has failed to act as a vehicle for economic growth Other policy options should thererore be directed towards exploring alternative areas of cooperation that would provide a strong foundation for making the PTA fulfil the objectives for which it was created. These could include the promotion of joint investments in certain strategic economic sectors within the PTA in such areas as agro-industries, transport and communications, energy, mining, basic and engineering industries, and in the production and processing of intermediate xiputs. From the aforegoing analysis it would appear that there is no single policy that can be prescribed. A more realistic approach would be to have a composite policy package or opuons that would address the general problems of structural weaknesses, technological dependence and the lack of industrial manpower capabilities in their broadest sense.

In 1994 an attempt to deepen the process of economic integration in the sub-region, member States proceeded to upgrade the PTA into a Common Market for Eastern and Southern Africa (COMESA) as already indicated. The transformation of the PTA into a Common Market, while a welcome move as it advocates the totai abolition of tariff barners and other quantitative

restrictions; establishment of a common extemai tariff, and free mobility of factors of production, it would appear that, due to the absence of an implementation mechanism, as well as political commitment, the upgrading of the PTA into a common market is unlikely to make a significant impact. The implementation of the three basic features of a common market are far ffora being realized, except for the elimination of tariff barriers where some limited progress has been made. The phased timetable for the total elimination of tariff barriers which the countries had agreed upon has not been adhered to and has been revised from time to time. It was also being implemented on a piecemeal basis. On the other hand the abolition of quantitative restrictions has not been undertaken and, instead, additional restrictive barriers are being introduced. The implementation of a common external tariff and free mobility of factors of production still remain a distant goal. In the short-run, it would appear that the establishment of the common market will neither lead to increased intra-PTA trade nor address the results of the research findings and policy implications in this Study.

63 Areas for Further Research

That the results of this research have not enabled a conclusive opinion to be established as to whether the formanon of PTA as a regional grouping has led to trade creation, industrialization, transfer of technology, and economic growth or whether the formation has not achieved these objectives is because of the shortcomings of the methodology, or the model which has been used in this Study. This is because the model used could not account for the breadth and depth of the effects of the various factors and variables involved, which far

outweigh the capacity of the model to be accommodated in the analysis. This fact alone provides ample justification and scope for turther research.

In choosing the methodologies to be used in this Study, due consideration was given in using both the model and the analytical approach with the understanding that some of the variables and effects could not be adequately explained by the modei approach alone, in view of the fact that there would always be an element of unexplained residual in any model of economic behaviour Consequently, the residual imputation on the effects of economic integration would by its very nature include residuals which would be caused by other unknown influences, and which wouid always remain outside the purview of the model.

While it appears possible to estimate the impact of the PTA formation on trade creation amongst the different member States of the integration scheme, it has, however, not been easy to draw conclusions from the results obtained by the model as to why trade creation has been generated from entirely different sources within the PTA countries. It has been indicated in the Study that for Kenya Mauritius and Zimbabwe, the trade creation was generated as a result of the diversified production structures of these economies. On the other hand, for countries such as Madagascar or Mozambique and others in a similar category, the net and gross trade creation had been realized principally as a result of trade diversion and a decline in domestic producuoa as weil as exports. In other words, the model has not been able to distinguish between the different sources of trade creation or to delineate whether the trade creation has been positive or negative.

It can be seen that the model breaks down when applied to a group of heterogeneous countries and. thus, fails to differenuate sources of trade creanon. A model that would help to explain and shed light on the different sources of trade creation could be very useful to indicate in which areas emphasis should be made. Furthermore, the analysing has revealed that the more diversified the economic structures the greaier the share of that economy in intra-PTA or intra-.African trade. However, the **minimum** or the maximum level of industnal development necessary to achieve this, cannot be derived from the results obtained by using the model. The identification of models that can shed light and can explain different sources of trade, as well as the level of industrial development that need to be achieved before a country can begin to denve benefits as a result of belonging to an economic grouping, couid provide other areas for further research.

Indeed, the empirical evidence obtained from estimating growth effects created as a result of belonging to the PTA indicates no apparent efiects on the economies of the PTA member States. The goal of the PTA on industrialization effects or the transfer of technology through increased intra-PTA trade remain elusive. The graphical presentations tend to show that intra-PTA trade has had no influence on industrial development and the transfer of technology, but that the ievel of industnal development seemed to be the driving force behind intra-PTA trade expansion.

This conclusion negates the hypothesis of trade being considered as a vehicle of growth. Further research in determining the inter-reiationships between industrialization effects and :ntra-PTA trade expansion could be investigated in more detail.

It wouid therefore appear that no firm conclusions can be reached on the basis of the results obtained from the modei. It can also be concluded that the formation of the PTA is not a precondition for trade creation, industrialization, technology transfer and economic growth. However, in drawing such a conclusion it would imply that the long-term objectives of establishing these regional groupings in the context of developing countries, particularly in the PTA region would be overlooked. It is for these and other reasons that it is being argued that greater emphasis shouid be put into exploring alternative areas in which economic integration ana cooperation could yield immediate results and create greater impact. This is imperative if the momentum towards regional integration is not to be lost. It would appear that the failure of regional economic groupings to provide the momentum towards economic development is not with the strategy, but rather with the weak economic structures of the economies involved in the venture. Experience from other groupings reveal that regional cooperation ana integration have contributed positively to the stimulation of economic activities in those groupings.

Another caveat that needs to be made in analysing the impact of the PTA the on the economies of the participating member States is the time frame. It is too eariv for the benefits of economic ntegration to be realized, considering that the rationale for the creation of the PTA was to

assist the countries to restructure their economies from their embryonic stage of economic development in the first place. The time required to create the necessary prerequisites before the countries of the PTA region could reap benefits from its formanon may take longer than was originally perceived, due to the structural economic rigidities of the economies. It is therefore difficult to draw conclusive evidence on the positive impact of regional economic integration on the economies of the PTA countries. However, in view of the on-going liberalization schemes the picture could change dramatically if the countries forming these groupings take the nght policies to make them work in the long run.

Bibliography

1. Adedeji, A. and Shaw, **T.M.** (eds.) - **Economic Crisis in Africa: African Perspective on Development Problems and Potentials,** Lvnne Rienner Publishers Inc. Boulder Colorado, 1985

2. .African Development Bank (ADB) - .African Development Report (ADR), 1993, **ADB,** 1993.

3. .African Development Bank (ADB) - .African Development Report (ADR), 1996, **ADB,** 1996.

4. Article 2 of the Treaty for the Establishment of the Preferential Trade .Area for Eastern and Southern African States.

5. Asante. S.K.B. - 'Economic Integration in West Africa: Some Critical Issues," **Africa Development,** Vol.2, April 1980, pp 67-83.

6. Asante, S.K.B. - "Development and Regional Integration since 1980" in Adedeji, A. and Shaw. T.M. (eds.) - **Economic Crisis in Africa: African Perspective on Development Problems and Potentials.** Lvnne Rienner Publishers Inc. Boulder Colorado, 1985.

Axline, W. .Andrew - "'Underdevelopment, Dependence and Integration: The Politics of Regionalism in the Third World", **International Organization,** 31, Winter 1977.

S. Balassa. Bela - **The Theory** of **Economic Integration.** Homewood. Illinois, Irwin, Richard D 1961.

9. Balassa, Bela - **Economic Development and Integration,** Mexico Centre de Estudios Monetanos Latino .Americanos, 1965.

10. Balassa, Bela - "'Trade Creation and Trade Diversion in the EEC," **Economic Journal** Vol. 77, March 1967, pp 1-21.

11. Balassa. B and associates - The Structure of Protection in Developing Countries. John Hopkins University Press, Baltimore, 1971.

12. Balassa, B and A Stoutjesdijk, - "'Economic Integration Among Developing Countnes," **Journal of Common Market Statistics.** Vol. XTV No. 1, February 1975, pp 40-48.

13 Balassa, B. - "'Comparative Advantage in Manufactured Goods: A Reappraisal," **Development Research Discussion Paper.** The World Bank, Washington **D C.,** 1984.

14. Balassa. B. - Exports and Economic Growth: Further Evidence; **Journal of Development Economic,** Vol. 5, June 1978, pp 181

15. Balasubramanvam. V.N. and D. Greenway - Economic Integration and Foreign Direct Investment: Japanese Investment in the EC, **Journal** of **Common Market Studies,** Vol. XXX No. 2, June 1992.

16. Bhagwati, Jagdish - Trade Diverting Customs Union and Welfare Improvement: A Clarification, **Economical Journal.** Vol. 100, 1971.

17. Bhagwati, J.N. - Protectionism. Cambridge, MIT Press, 1988

18. Bergstrand, J.H. - The Gravity Equation in International Trade: Some Microeconomic Foundations and Empirical Evidence. **Review of Economic Statistics,** Vol. LXVH No. 3. August 1985, pp 474-81.

19. Blumenthal. W. Michael - "'The World Economy and Technological Change," Foreign Affairs. Vol. 66 No. 3, 1988

20. Blomstrom. M. and Ari Kokko - Regional Integration and Foreign Direct Investment: A Conceptual Framework and Three Cases, **Policy Research Working Paper** 1750, The World Bank. April 1997

21. BOAD - Etude Sur L'Harmonisation des Plan de Developpement des Pays ae l'UMAO et Programme Commune d'Action, Juin 1988

22. Brada. Josef C. and Jose A. Mendez - "'Economic Integration Among Developed. Developing and Centrally Planned Economies: A Comparative .Analysis," **Review of Economics** and **Statistics.** Vol. LXVC No. 4: November 1985

23. Brada. Josef C. - Regional Integration in Eastern Europe: Prospects for Integration within the Region and with the European Community, Paper No. 10, World Bank and CEPR Conference on New Dimensions in Regional Integration, Washington D C.. April 2-3, 1992.

24 Brown M B - **The Economics of Imperialism,** Penguin Books, 1974

25. Cecchini Paolo - **The European Challenge 1992.** Aldershort, Wildwood Press, 1988

26 Chenery, Hollis - "Comparative Advantage and Development Policy," **Survey of Economic Theory,** prepared for the .American Economic Association and the Royal Economic Society, St. Martins Press, New York, 1965

27 Collier, P and J Gunning - Linkages Between Trade Policy and Regional Integration, A Paper presented at an AERC Conference on Trade Liberalization and Regional Integration in SSA, Nairobi, December 1993

28. COMESA Secretariat - COMESA Free Trade Area, 2000: Objectives, Challenges and Benefits, 31 March, 1998a.

29. COMESA Secretariat - COMESA: Free Trade .Area, 2000, COM/TC/CT/111/2, April 1998b.

30. Cooper, C.A and B.F. Massell - "A New Look at Customs Union Theory," **Economic Journal,** 1965a pp 242-247.

31. Cooper and Massell - "Towards a General Theory of Customs Union for Developing Countries," **Journal of Political Economy,** Vol. 73, 1965b pp 461-476.

32. Deardorff, .Alan V. - 'The Direction of Developing Country Trade: Examples of Pure Theory," in Havryiyshyn. Oli (ed.) - **Exports of Developing Countries: How Direction Affects Performance.** The World Bank. Washington D C., 1987

33. de Melo. Jaime. A Panagariva and D Rodnk - Regional Integration: .An .Analytical and Empirical Overview. Worid Bank and CEPR Conference on New Dimensions in Regionai Integration, Washington D C., April 2-3, 1992.

34 de Melo, J. and A. Panagariva - **New Dimension in Regional Integration.** Cambridge, Great Britain, Cambridge University Press, 1993.

35 Dell Sidney - **Trade Blocs and Common Markets.** Constable, London. 1963

36. Document entitled, "Co-operation Against Poverty," submitted to the Conference of Non-Aligned States, Lusaka, Zambia, September 1970.

37. Dombusch, R. - "'The Case for Liberalization in Developing Countries," **Journal** of **Economic Perspectives.** Vol. 6 No. 1, Winter 1992, pp 69-85.

38 Dombusch, R., S. Fisher and P A. Samuelson - "Comparative Advantage. Trade and Payments in a Ricardian Model with a Continuum of Goods." **American Economic Review.** Vol. 67, December 1977, pp 823-839

39. EC A - Proposals for Strengthening Economic Integration in West Africa, Undated.

40 ECA - Report of the ECA Mission on Evaluation of UDEAC and the Feasibility of Enlarging Economic Cooperation in Central Africa, UNECA December 1992

41. ECA - Progress Report on the Implementation of the Programme for the Second IDDA: (b) Joint Secretariat Report. Economic Commission for .Africa, United Nations Industrial Development Organization and Organization of .African Unity, Doc. No. CAM1.12/5(b) Rev.l presented to the Twelfth Meeting of the Conference of .African Ministers of Industry, Gabarone. Botswana. 6-8 June 1995.

42. ECA - Economic and Social Survey of .Africa 1995-1996, United Nations, Addis Ababa, 1996.

43. ECA/MULPOC/Lusaka/78 - The Lusaka Declaration of Intent and Commitment to the Establishment of a Preferential Trade Area for Eastern and Southern States.

44. EC A/MULPOC/NLA/IGO/90/V/13, February 1991 - For a iiill listing of these organizations reference should be made to: ECA/MULPOC Directory of Intergovernmental Organizations in West .Africa.

45. Economic Commission for Latin .America (ECLA) - The Latin Amenca Common Market, E/CN. 12/53; Economic Commission for Africa, Background Paper on the Establishment of an African Common Market, E/CN. 14/STC/20; Dell Sidney, Trade Blocs and Common Markets, Constable, London, 1963.

46. Fernandez Raquei - Returns to Regionalism: .An Evaluation of Non-Traditional Gains from Regional Trade Agreements. The Worid Bank Policy Research Working Paper No. 1816. August 1997

47. Foroutan, F. - "Regionai Integration in Sub-Sahafan Africa: Past Experience and Future Prospects," World Bank and CEPR Conference on New Dimensions in Regional Integration, Washington DC., April 2-3 1992.

48. Foroutan, F. - "Regional Integration in Sub-Saharan Africa: Past Experience and Future Prospects," in de Melo, J. and A. Panagariya (eds.) - **New Dimensions in Regional Integration,** Cambridge University Press for CEPR. 1993.

49. Fieieka, Norman S. - "Europe in 1992," Economic Impact: A **Quarterly Review of World Economies,** No. 69. 1989

50. Grieco, Joseph M. - "Between Dependence and Autonomy, India's Experience with International Computer Industry," **International Organization.** Vol. 36 No. 3, summer 1982.

51 Guy, Martin - African Regional Integration: Lessons from the West and Central .African Experience Lecture Senes No 50, Nigerian Institute of International .Affairs, Lagos 1989

52. Harrod, R and D Hagne (eds.) - **International Trade Theory in a Developing World.** Proceedings of a Conference held by the International Economic Association, London, Macmillan, 1964.

53. Havrylyshyn, Oli and Martin Wolf- 'Trade .Among Developing Countries: Theory, Policy Issues and Principal Trends," World Bank. Staff Working Papers No.478, Washington DC., 1981.

54. Havrylyshyn, Oli (ed.) - **Exports of Developing Countries: How Direction AfTects Performance.** The World Bank, Washington D.C., 1987

55. Hazlewood, .Arthur - "Problems of Integration Among African States," in Haziewood (ed.) - **African Integration and Disintegration: Case Studies. Economic and Political Union,** Oxford University Press, London 1967

56. Hazlewood, .Arthur - **Economic Integration: The East African Experience.** London, Heinemann. 1975a.

57 Hazlewood, Arthur - **Economic Integration: The East African Experience.** Oxford University Press. London and Nairobi, 1975b.

58. Hazlewood, A. - "'The End of the East African Community: What are the Lessons for Regionai Integration Schemes?" in Onwuka, RI. and A Sesay (eds.) - **The Future of Regionalism in Africa,** 1987

59 Heller. H.R. - **International Trade Theory and Empirical Evidence.** Engiewood Cliff, New Jersey, Prentice Hall Inc., 1968.

60. Hen. S.T. - Success Stories in the Export Market of Agricultural Commodities, Horticultural Promotion Council Zimbabwe. 1997, Paper presented to Uruguay Round Agreements - Implication for the SADC Region, Workshop Organized by the FAO and SADC, Harare.

61. Herrera, Felipe - Economic Integration as a Prerequisite of Industrial Development: The Latin American Experience. **RIS Occasional Paper.** No. 21, 1987 '

62. Higgot, Richard - '.Africa and the New International Division of Labour," in Ravenhill. John (ed.) - Africa in Economic Crisis, Columbia University Press, New York, 1986 pp 286-306

63 Hirschman, A - A Bias for Hope. Yale University Press, New Haven and London, 1971.

64 Hoimes, Peter and David Evans - The Costs of Non-Integration in SADC Perspectives from the European Union Experience, for the European Commission DGVHI, May 1997.

65 Hoohlo, Setsomi - Trade Flow Determinants and Economic Integration, COMES A/ID RC Research Network Project on Regional Integration, A study financed by International Development Research Centre, Ottawa, Canada, 1997.

66. Inotai. Andras - Regional Integration Among Developing Countries: Revisited, The World Bank Working Paper No. 643, April 1991.

67 Inventory of Industrial Firms in Nigeria: A Report on the Implementation of Phase I of ECOWAS Industrialization Master Plan. Lagos, Nigeria, September 1990.

68 Irandu, E M. - Air Transport in Kenya: An Analysis of Domestic and International Airline Networks. Ph D Thesis. Geography Department, University of Nairobi, 1995.

69 ones. R.W. and P.B. Kenen (eds.) - Handbook of International Economics. .Amsterdam. New York. Nonh-Hoiland Company, 1984

"0. Kaunda, Kenneth D., President - Address on the Occasion of the Celebration of the 21° Anniversary of the United Nations Economic Commission for .Africa, Lusaka, Zambia, 21 April, 1979.

71. Kaunda, Kenneth D ., President - .An Address on the Occasion of the Formal Signing of the Treaty on the Establishment of the Preferential Trade .Area for Eastern and Southern African States, Lusaka, Zambia. 21 December. 1981.

72. Killick, Tony - Explaining Africa's Post-Independence Development Experience, Paper presented at the First Biennial Conference on African Economic Issues. Abidjan. June 1992.

73. Kisanga, E.J - Industrial and Trade Co-operation in Eastern and Southern Africa. Aldershot, Brookfield U.S.A., Avebury Publishers, 1991.

74. Kitamura, H. - 'Capital Accumulation and the Theory of International Trade" in Livingstone. I. (ed.) - Economic Policy for Development, Penguin Books, 1971.

Krugman, P. - Increasing returns and Economic Geography, **Journal of Political Economy,** Vol. 99 No. 3, 1991.

76. Krugman, Paul - Regionalism vs. Multilaterism: .Analytical Notes, World Bank and CEPR Conference on New Dimensions in Regional Integration, Washington D C., April 2-3, 1992.

77. Lagos Plan of Action, For the Economic Development of Africa. 1980-2000, Geneva DLS/OAU, 1981.

78. Lail, Sanjay - 'Human Resources Development and Industrialization with Special Reference to Sub-Saharan Africa," **Journal of Development Planning,** No. 19, United Nations. New York, 1989.

79. Lail, S., A Khanna and I. Alikhani - "Determinants of Manufactured Export Performance in Low Income .Africa: Kenya and Tanzania," **World Development,** Vol. 15 No. 9, 1987, pp 1219-1224.

80. Lail, S. and S. Wangwe - "Industrial Policy and Industrialization in Sub-Saharan .Africa." **Journal of African Economies,** Vol. 7 supplement 1, June 1998

31. Langnammer. RolfL. - Results and Experiences of Industrialization Policies in the Central .African Customs and Economic Union (UDEAC). Paper presented at the 4^ World Congress of International Economic Association. Akademiai, Kiado, Budapest. 1976

32. Langhammer, R - "The Developing Countries and Regionalism." **Journal of Common Market Studies.** 1992, Vol. 30, pp 211-31.

83. Leontietf, W., A.P. Carter and P. Petri - The Future of the World Economy. A United Nations Study, United Nations, New York, 1977.

84. Lewis, W. Arthur - "The Slowing Down'of the Engine of Growth," **American Economic Review.** Vol. 70 No. 4. September 1980

85 Linnemann. **H. - An Econometric Study on International Trade Flow.** .Amsterdam, North -Holland Publishing Co. 1966

86. Lipsev, R.G. - "The Theory of Customs Union: A General Survey," **Economic Journal.** Vol. LXX, Septemoer 1960

87 Lyakurwa, W M. - Trade Policy and Promotion in Sub-Saharan Africa, Special Paper 12, .African Economic Research Consortium, Nairobi, May 1991.

88 Lyakurwa, W., A. McKay, N. N'geno and W Kennes - "Regional Integration in Sub-Saharan Africa: Experiences and Issues." in Ovejide, A, I. Elbadawi and P Collier (eds.) - **Regional Integration and Trade Liberalization in Sub-Saharan Africa,** Vol. I: Framework, Issues and Methodological Perspectives, London, MacMillan Press Ltd., 1997.

89 Maasdoorp, **G.** (ed.) - **Can South Africa and Southern Africa Become Globally Competitive Economies?** London. MacMillan, 1996

90. Mansoor. A. and A Inotai - Integration Efforts in Sub-Saharan Africa: Failure. Results and Prospects- A Suggested Strategy for Achieving Efficient Integration, in Chibber. A. and S. Fischer (eds.) - **Economic Reforms in Sub-Saharan Africa.** Washington D C, World Bank, 1991.

91. Manundu, M., L.E. Ngugi, M.M. Ikiara and J.M. Musinga - The Impact of PTA on Kenya: .An Assessment of Costs and Benefits, Ministry of Planning and National Development, Republic of Kenya. 8 January, 1993.

92. Mayes, D G - "The Effects of Economic Integration on Trade," **Journal of Common Market Studies,** Vol. XVH No. 1, September 1978.

93. McMillan, J. - Does Regional Integration Foster Open Trade? Economic Theory and the GATT. .Article **XXIV** in Anderson K. and R. Blackharst (ed.) - **Regional Integration and the Global Trading System.** Hemmel Hempstead, Harvester, Wheatsheaf 1993.

94 Mendes, A.J Marques - The Contribution of the European Community to Economic Growth. **Journal of Common Market Studies.** Vol. XXIV No 4, 1986. pp 261-277.

95. Mendez. A. J.M. - "The Contribution of the European Community to Economic Growth," **Journal of Common Market Studies.** Vol. XXTV No 4. June 1986.

96 Michaelv, M. - The Assumptions of Jacob Viner's Theory of Customs Union, **Journal of International Economies,** Vol. 6, 1976

97. Mikesell. P .F . - 'The Theory of Common Markets as Applied to Regional .Arrangements .Among Developing Countries" in Harrod (ed.) - **International Trade Theory,** MacMillan. London, 1964

98. Musonda. F M. - Tanzania s Trade with PTA Countries: A Special Emphasis on Non-Traditional Products, .African Economic Research Consortium, Research Paper Thirty-one, Nairobi, April 1995.

99 Myrdai, G. - **Economic Theory and Underdeveloped Regions.** London, Duckworth 1957.

100. Mytelka, Lynn - 'The Salienne of Gains in Third World Integration System/ **World Politics.** January 1973.

101. Ndulu, B and I. Elbadawi - Economic Reforms and Development in Sub-Saharan .Africa: Challenges for the Future, Conference on Economic Reform Liberalization; Perspectives from the African Experiences, Harare. Zimbabwe, June 12-15, 1994

102. Nverere. Julius K., Mwalimu - Reflection on Africa and its Future. Lecture Series No.41, Nigerian Institute of International .Affairs, Lagos 1987

103. Nye, Joseph S. - "Comparative Regional Integration: Concept and Measurement," **International Organization** XXII 1968.

104. Nyong'o Peter Any'ang - "Regional Integration Security and Development in Africa" in Obasanjo and F.G.N. Mosha (eds.) - **Africa Rise** to **Challenge.** Al£ January 1993.

105 OAU - The African Declaration on Co-operation, Development and Economic Independence, CU/ST 12(XXI) May 1973.

106 O'Brien, P. - Industrial Policy Issues in SADC, July 1997, Study financed by GTZ and UNTDO

107 Ochola. S.A. - Sub-Regionai Industrial Projects in Africa: A Review of the West .Africa Experience. RIS **Occasional Paper.** No.33, New Delhi 1991.

108 Ogonda, R.T. - **The Development of Road Transport System in Kenya.** Ph.D. Thesis. Geography Department. University of Nairobi, 1986.

109 Onwuka, R I. and A Sesav (eds.) - **The Future** of **Regionalism in Africa,** MacMillan, London 1975.

110. Oyejide, T.A., I.A Elbadawi and S. Yeo - Introduction and Overview: Case Studies of Regional Integration, AERC, Nairobi. 1996.

111. Oyejide, Ademola - 'Trade Policy and Regional Integration in the Development Context: Emerging Patterns Issues and Lessons for Sub-Saharan Africa."' Journal of African Economies. Vol. 7 supplement 1, June 1998

112. Pack, Howard - "Industrialization and Trade" in Chenery, H. and T.N. Srimvasm. **Handbook of Development Economics.** Elsevier Science Publishers B.V, 1986.

113. Porter, E.M. - **The Competitive Advantage** of **Nations.** The Free Press, New York, 1990

114. PTA/FCCI/COMESA/1/2B, June 1994 - Intra-PTA/COMESA Trade Potential.

115. Puga, D. and A.J. Venables - "Trading .Arrangements and Industrial Development." **The World Bank Economic Review.** Vol. 12 No 2, May 1998, pp221-49.

116. Ramphal, Shridath S. - The Trampling of the Grass. The Inaugural Silver Jubilee Lecture of the Economic Commission for Africa, Addis Ababa, 29 April, 1985.

117. Rao, J.M. - Globalisation: A View from the South ILO. Employment Paper No. 8, Geneva, 1997.

118. RavenhilL John (ed.) - **Africa in Economic Crisis,** Columbia University Press, New York. 1986.

119. Reneit. David - Economic Growth: A Review of the Theoretical and Empirical Literature, The World Bank, Working Paper No. 678, May 1991.

120 Renninger. John P. - **Multinational** Co-**operation for Development in West Africa,** Pergamon, New York 1978

121. Robson, Peter - **Economic Integration in Africa,** Evanston. **HI,** Northwestern University Press, 1968.

122. Robson. P - **The Economics** of **International Integration,** George .Allen and Unwin London 1980.

123 Robson, P. - **The Economics** of **International Integration,** Unwin Hyman. London, 3rd revised edition, 1987.

124 Robson, Peter - "The Conceptual Framework of Regional Integration Analysis and Appropriate Technology", Proceedings of the Workshop on Regional Integration and Co-operation in Sub-Saharan Africa, Abidjan, September 12-16, 1988.

125. Rodrik. Dani - Closing the Productivity Gap: Does Trade Liberalization Reaily Help? A paper presented at the WIDER Conference in New Trade Theories and Industrialization in the Developing Countries, Helsinki, August 2-5, 1988.

126. Rothschild, D and R.L. Curry Jr. - **Scarcity, Choice and Public Policy in Middle Africa** Berkeley and Los Angeies, University of California Press. 1978.

127. Schweickert, R. - Regional Integration in Eastern and Southern Africa, **Africa** Insight. Vol. 26 No. 1, 1996.

128. Shafaeddin, Mehdi - The Impact of Trade Liberalization on Export and GDP Growth in Least Developed Countries. **UNCTAD Review 1995,** United Nations, New York and Geneva. 1995.

129. Shaw, T and M. Grieve - "Africa's Future in the Global Environment," **Journal** of **Modern African Studies.** Vol. 16 No. I, 1978

130. Sprout, Ronald V and James H. Weaver - "Exports and Economic Growth in a Simultaneous Equations Model," **The Journal of Developing Areas,** 27 April, 1993, pp 289-306.

131. Stokes. Randall and David Jaifee - "Another Look at the Export of Raw Matenals and Economic Growth." **American Sociological Review.** Vol. 47, June 1982, pp 402.

132. Syrquin, Moshe and Hollis Chenery - Three Decades of Industrialization, **The World Bank Economic Review.** Vol. 3 No. 2, 1989, pp 145-181.

133 The Treatv on the Creation of African Economic Community, OAU, Addis Ababa, 1991

134 Thisen. J.K. - -.Alternative Approaches to Economic Integration in .Africa," **Africa Development.** Voi. XTV No. 1, 1989.

135. Thisen. J.K. - "The Development and Utilization of Science and Technology in Productive Sectors: Case of Deveiopmg .Africa" in **Africa Development** Vol. XVIIINo. 4, 1993 pp 5-35.

136. Thomas, H.C. - **A Study** of **Trade Among Developing Countries 1950-1981: An Appraisal** of **the Emerging Pattern,** Amsterdam, N'orth-Koiland Company, 1991.

137. UNCTAD - Trade Expansion and Economic Integration Among Developing Countnes, TD/B/F5/Tlev 1, Umted Nations. New York, 1971.

138. UNCTAD - Trade Expansion Among Developing Countries: Constraints and Measures to Overcome Them, UNCTAD TD/B/1260, 9 August. 1990.

139 UNCTAD - Trade in Manufactures and Semi-manufactures of Developing Countnes. 1980-1991. **Review United Nations.** New York, 1995

140. UNCTAD - **World Investment Report,** United Nations, New York, 1996.

141. United Nations Development Programme (UNDP) 1996 - **Human Development Report (HDR) 1996.** New York, Oxford University Press.

142. United Nations Development Programme (UNDP) **1997 - Human Development Report (HDR) 1997.** New York, Oxford University Press.

143. UNECA - Report of the ECA Mission on the Evaluation of UDEAC, Undated.

144. UNESCO - **World Science Report (WSR) 1998.** UNESCO Publishing, Elsevier, 1998.

145 UNIDO **1983 - A Statistical Review of the World Industrial Situation,** United Nations, New York, **1983** - UN Survey of Economic Conditions for Africa, **1983.**

146. UNIDO - **Industrial Development: Global Report, 1985,** United Nations, New York, **1985.**

147. UNIDO - International YearBook of Industrial Statistics 1996, United Nations Industrial Development Organization Vienna 1996, University Press Cambridge.

148. UNIDO - International YearBook of Industrial Statistics 1998, United Nations Industrial Development Organization Vienna 1998. University Press Cambridge.

149. United Nations, New York, 1982 - A Programme for the Industrial Development Decade for Africa.

150. United Nations. New York, Geneva, 1994 - **World Investment Report (WER), 1994**

151. Vamvakidis. A. - "Regional Integration and Economic Growth," **The World Bank Economic Review.** Vol. 12 No. 2, May 1998, pp 251-70.

152. Viner, Jacob - **The Customs Union Issues,** Anderson Kramer .Associates, Washington D C., 1961.

153. Weintraub. Sidney - Worid Trade Prospects. **RIS Occasional Paper,** No. 20, New Delhi and Mexico, 1987

154 Winters, .Alan - In European Community: A Case of Successful Integration? World Bank and CEPR Conference on New Dimensions in Regional Integration, Washington D.C., April 2-3, 1992.

155 Wonnacott. P. and R. Wonnacott - "Is Unilateral Tariff Reduction Preferable to Customs Union? The Curious Case of the Missing Foreign Tariffs," **The America Economic Review.** Vol. 71, 1981, pp 704-714

156. Wooton, I. - "Towards a Common Market: Factor Mobility in a Custom Union," **Canadian Journal** of **Economics,** 1988, pp 525-538.

157 Worid Bank - Accelerated Development in Sub-Saharan .Africa: .An Agenda for Action. The World Bank. Washington D C., 1981.

158. World Bank - Financing Adjustment Within Growth in Sub- Saharan .Africa 1986-90. Washington D C., 1986.

159. World Bank - Sub-Saharan Africa: From Crisis to Sustainable Growth, The World Bank. Washington D C., 1989

160. World Bank - World Development Report (WDR) 1991 New York, Oxford University Press, 1991.

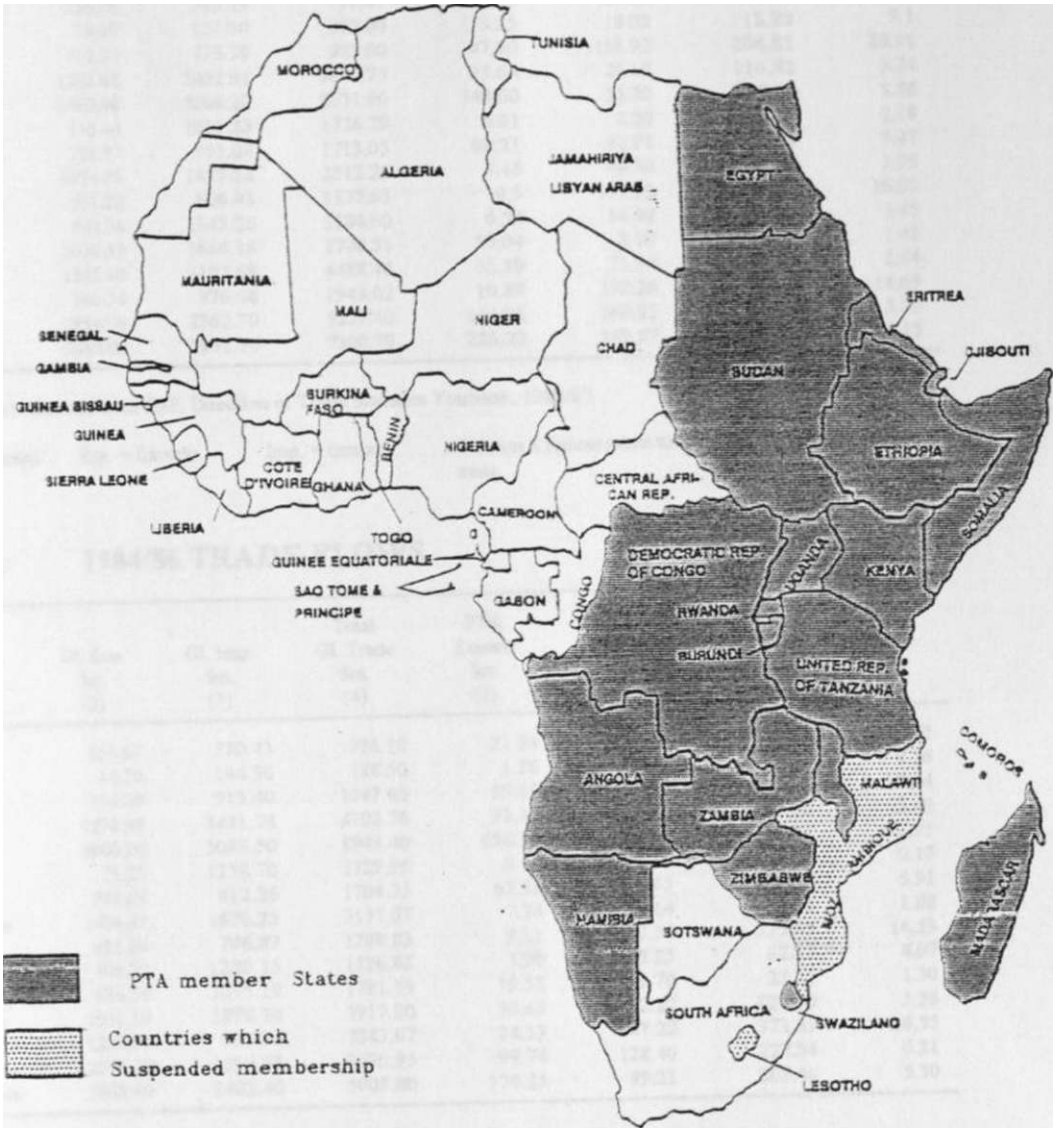
161. World Bank - World Development Report (WDR) 1992 New York. Oxford University Press, 1992.

162. World Bank - Global Economic Prospects and the Developing Countries, The Worid Bank. Washington D C, April 1995.

163. World Bank - World Development Indicators, Oxford, Oxford University Press. 1997.

164 Yeats, .Alexander J. - Does Mercosur's Trade Performance Raise Concerns about the Effects and Regional Trade .Arrangements? **The World Bank Economic** Review. Vol. 12 No.1, January 1998. pp 1-28.

PREFERENTIAL TRADE AREA (PTA) FOR EASTERN AND SOUTHERN AFRICA MEMBER STATES



The bounaries sad names on this map do not imply official endorsement or acceptance oy the United N'auons.

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APPENDIX 2

Table A: 1981/83 TRADE FLOWS

Coumr* (1)	GL Exp. Sm. (2)	GL Imp. Sm. (3)	Total GL Trade Sm. W	PTA Exports Sm. (5)	PTA Imports Sm. («)	Total PTA Trade Sm. (7)	%of Global Trade (8)
Burundi	236.08	563.39	799.47	5.06	86.00	91.06	11.4
Comoros	76.00	124.00	200.00	0.25	18.03	18.28	9.1
Djibouti	11150	876.50	989.00	47.90	158.92	206.82	20.91
Ethiopia	1201.82	2402.91	3604.73	91.64	25.18	116.82	3.24
Kenya	3465.60	5266.30	8731.90	740.60	35.20	775.80	8.88
Lesotho	115.46	1611.33	1726.79	0.01	3.20	3.21	0.18
Malawi	761.97	951.08	1713.05	69.21	92.97	162.18	9.47
Mauritius	1054.58	1457.68	2512.26	5.45	44.50	49.95	1.99
Rwanda	331.20	806.43	1137.63	4.5	177.82	182.32	16.02
Somalia	439.34	1345.26	1784.60	6.59	54.98	61.57	3.45
Swaziland	1036.35	1664.16	2700.51	30.04	8.10	38.14	1.41
Tanzania	1385.80	3102.68	4488.48	55.59	71.94	127.53	2.84
Uganda	966.34	97668	1943.02	10.89	352.26	363.15	18.69
Zambia	2894.70	2362.70	5257.40	144.93	160.21	305.14	5.80
Zimbabwe	3369.00	3931.70	T300.70	226.22	149.57	375.79	5.15

Source: Reconstructed from IMF. Direction of Trade Statistics Yearbook. 1986/87

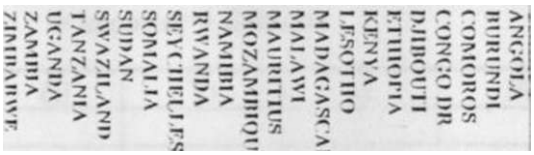
Key: Gl. = Global Exp. • Exports Imp. = imports Column 8 figures relate to members' trade, percentage of global •jade.

Table B: 1984/86 TRADE FLOWS

Country (1)	GL Exp. Sm. (2)	GL Imp. Sm. (3)	Total GL Trade Sm. (4)	PTA Exports Sm. (5)	PTA Imports Sm. (6)	Total PTA Trade Sm. (7)	*of Global Trade (8)
Burundi	356.67	570.43	936.10	21.54	49.00	70.54	7.53
Comoros	44.20	144.30	188.50	1.36	16.67	18.03	9.56
Djibouti	134.00	913.40	1047.40	50.11	139.91	190.02	18.14
Ethiopia	1270.98	3431.78	4702.76	92.41	24.75	117.16	2.49
Kenya	3900.90	5046.50	8947.40	656.98	5409	711.07	7.95
Lesotho	71.25	1258.70	1329.95	0.10	2.30	233	0.17
Malawi	$92.09	312.26	1704.35	62.25	55.65	117.90	6.91
Mauritius	1466.82	1670.25	3137.07	7.74	26.14	33.88	1.08
Rwanda	421.96	786.87	1208.83	• 8.11	167.54	175.65	14.53
>omaiia	306.72	1220.13	1526.85	3.90	58.25	• 62.15	4.07
Swaziland	686.54	1095.19	1781.73	19.55	3.70	23.25	1.30
Tanzania	1036.10	2878.10	3917.20	30.63	92.27	127.90	3.26
t'ganda	1257.97	985.70	2243.67	24.13	347.22	37135	16.55
Zambia	2076.30	1594.65	3670.95	99.74	128.40	227.84	6.21
Zimbabwe	2603.40	2402.40	5005.80	176.25	89.21	265.46	5.30

Source: Reconstructed from IMF. Direction of Trade Statistics Yearbook. 1986/87

Kev Gl. = Global Exp. » Exports Imp. • Imports Column 8 figures relate to members' trad, percentage of global trade.


ANGOLA
BURUNDI
COMOROS
CONGO DR
DJIBOUTI
ETHIOPIA
KENYA
LESOTHO
MADAGASCA
MALAWI
MAURITIUS
MOZAMBIQU
NAMIBIA
RWANDA
SEYCHELLES
SOMALIA
SUDAN
SWAZILAND
TANZANIA
UGANDA
ZAMBIA
ZIMBABWE

APPENDIX 4

DATA USED TO FIT THE GRAVITY MODEL:

$$Zij = p_0 + PilnYi + p_2lnNi + (3_3lnyi + p\text{^}JnEi + 3,lnDij$$

j= exporter = Kenya
i= importer = Ethiopia

YEAR	Zij	Yi	vi	Ni	Ei	Oij
1980			371.92	37.72	-0.48	1533
1987		7488.00	373.22	46.09	-0.48	1533
1988		7520.00	384.11	47.64	-0.48	1533
1989	6.00	7548.00	390.26	49.34	-0.48	1533
1990	9.00	7834.00	395.37	51.18	-0.48	1533
1991	10.00	7467.00	389 88	52.95	-0.48	1533
1992	11.00	7204.00	376.66	54.79	-0.34	1533
1993	29 00	8104.00	368 01	53.30	-0.20	1533
1994	37.00	8287.00	368.29	54.89	-0.18	1533
1995	43.00	8748 00	374.86	56.40	-0.16	1533
1996	50.00	9791.00	381.39	58.12	-0.16	1533
Forecast 1997		10642.00	387.71	59.23		1533

source Computed data from UN Monthly Bulletin of statistics
Computed data from COMESA Selected indicators. Mar. 1998

j= exporter = Kenya
i= importer - Sudan

YEAR	Zij	Yi	yi	Ni	Ei	Dii
1980		14653.00	371.92	18.68	0.50	2350
1987		16288.00	373.22	22.52	4,50	• 2350
1988		15567.00	384.11	23.04	4.50	2350
1989	22.00	16714.00	390.26	23.55	4.50	2350
1990	15.00	16460.00	395.37	24.06	4.50	2350
1991	20.00	16567.00	389.88	24.58	14.99	2350
1992	12.00	18439.00	376.66	25.10	135.14	2350
1993	28.00	19841.00	368.01	25.63	217.32	2350
1994	28.00	20932.00	368.29	26.16	400.00	2350
1995	43.00	22302.00	374.86	26.71	526.32	2350
1996	49 00	23645.00	381.39	27.33	1449.30	2350
Forecast 1997		25131.00	387.71	27.92		2350

source: Computed data from UN Monthly Bulletin of stausucs
Computed data from COMESA Selected mdicaiors. Mar. 1998

A Ethipia's GDP

Yi

Regression Output:

Constant	3.78
Std Err of Y Est	0 03
R Squared	0.71
No. of Observations	8.00
Degrees of Freedom	6.00
X Coefficient(s)	0.10
Std Err of Coef.	0 03

Kenya's per Capita GDP

yi

Regression Output:

Constant	
Std Err of Y Est	
R Squared	
No. of Observations	
Degrees of Freedom	
X Coefficient(s)	−0. 02
Std Err of Coef	0.01

Ethiopia's Population

N1

Regression Output:

2.61	Constant	
0.01	Std Err of Y Est	
0 52	B Squared	
8 00	No. of Observations	
6.00	Degrees of Freedom	
	X Coefficient(s)	0.053969
	Std Fir of Coef	0.013432

A Ethiopia's Exchange Rate

EI

Regression Output:

Constant	0.21625
Std Err of Y Est	0.050515
R Sguared	0.956685
No. of Observations	8
Degrees of Freedom	6
X Coefficient(s)	-0.61
Std Err of Coef.	0.052989

B Sudan's GDP

Regression Output:

Constant	3 946512
Std Err of Y Est	0 038043
n Squared	0.672678
No. of Observations	8
Degrees of Freedom	6
X Coefficient	0.24
Std Err of Co	0.07

Kenya's per Capita GDP

y'

Regression Output:

Constant	
Std Err of Y Est	
R Squared	
No of Observations	
Degrees of Freedom	
X Coefficient(s)	-0 02143
Std Err of Coef	0 021528

Sudan's Population

Ni

Regression Output:

2.61	Constant	1.29
0.01	Std Err of Y Est	0.02
0 14	R Squared	0.59
8	No. of Observations	8
6	Degrees of Freedom	6
	X Coefficient(s)	0 082542
	Std Err of Coef.	0.028295

B Ei Sudan's Exchange rate

Regression Output:

Constant	-2.44
Std Err of V Est	0.78
R Squared	0.45
No of Observations	8
Degrees of Freedom	6
X Coefficient(s)	3.143773
Std Err of Coef.	1.411375

per Capita

C Tanzania's GDP

Yi

Regression Output:

Constant	3.46
Std Err of Y Est	0 01
R Squared	0.86
No. of Observations	8 00
Degrees of Freedom	6.00
X Coefficient	0.08905
Std Err of Co	0 014926

Kenya's per Capita

y«

Regression Output:

Constant	2.626228
Std Err of Y Est	0.00769
R Squared	0.639283
No. of Observations	8
Degrees of Freedom	6
X Coefficient(s)	-0 02537
Std Err of Coef	0 00778

C Tanzania's Population

Ni

Regression Output:

Constant	1.301572
Std Err of Y Est	0 008034
R Sguared	0.890189
No. of Observations	8
Degrees of Freedom	6
X Coefficient(s)	0.056685
Std Err of Coef	0 008128

Tanzania's Exchange Rate

Ei

Regression Output:

Constant	-1.18411
Std Err of Y Est	0 091655
R Squared	0.900522
No. of Observations	8
Degrees of Freedom	6

X Coefficient(s)	-0.68338
Std Err of Coef.	0 092726

D Malawi's GDP

Yi

Regression Output:

Constant	2.888079
Std Err of Y Est	0.039335
R Squared	0.336135
No. of Observations	8
Degrees of Freedom	6
X Coefficient	0.14
Std Err of Co	0.08

Zimbabwe's per Capita GDP

yi

Regression Output:

Constant	2.843771
Std Err of Y Est	0.023461
R Squared	0.072824
No. of Observations	8
Degrees of Freedom	6
X Coefficient(s)	-0.0324
Std Err of Coef.	0.047195

D Malawi's Population

Ni

Regression Output:

Constant	0.75207
Std Err of Y Est	0.021634
R Squared	0.543216
No. of Observations	8
Degrees of Freedom	6
X Coefficient(s)	0.11625
Std Err of Coef.	0.04352

Malawi's Exchange Rate

Ei

Regression Output:

Constant	1.843402
Std Err of Y Est	0.193061
R Squared	0.697591
No. of Observations	8
Degrees of Freedom	6
X Coefficient(s)	-1.44484
Std Err of Coef.	0.388366

E Zambia's GDP

Yi

Regression Output:

Constant	3.385935
Std Err of Y Est	0.00664
R Squared IHHMHI	0.007065
No. of Observations	8
Degrees of Freedom	6

X Coefficient	−0.01
Std Err of Co	0.03

Zimbabwe's per Capita GDP

yi

Regression Output:

Constant	3.01
Std Err of Y Est	0.02
R Squared	0.23
No. of Observations	8.00
Degrees of Freedom	6.00
X Coefficient(s)	-0.12714
Std Err of Coef.	0.093794

E Zambia's Population

Ni

Regression Output:

Constant	0.65
Std Err of Y Est	0.02
R Squared	0.46
No. of Observations	8.00
Degrees of Freedom	6.00

X Coefficient(s)	0.203765
Std Err of Coef.	0.090115

Zambia's Exchange Rate

Ei

Regression Output:

Constant	7.88
Std Err of Y Est	0.59
R Squared	0.45
No. of Observations	8 00
Degrees of Freedom	6 00
X Coefficient(s)	-5.71326
Std Err of Coef	2 573991

F Uganda's GDP

Yi

Regression Output:

Constant	3.640497
Std Err of Y Est	0 056913
R Sguared	0.316983
No. of Observations	8
Degrees of Freedom	6
X Coefficient	0.14695
Std Err of Co	0.088063

Kenya's per Capita GDP

yi

Regression Output:

Constant	2.608986
Std Err of Y Est	0.012276
R Sguared	0.080629
No. of Observations	8
Degrees of Freedom	6
X Coefficient(s)	-0.01378
Std Err of Coef	0 018996

F Uganda's Population ,r

Ni

Regression Output:

Constant	1.093547
Std Err of V Est	0 031141
R Squared	0.283315
No. of Observations	8
Degrees of Freedom	6
X Coefficient(s)	0.07421
Std Err of Coef.	0.048185

Uganda's Exchange Rate

Ei

Regression Output:

Constant	-2.2831
Std Err of Y Est	0.384891
R Squared	0.022557
No. of Observations	8
Degrees of Freedom	6
X Coefficient(s)	-0.22161
Std Err of Coef	0.595547

G Congo's Population

Ni

Regression Output:

Constant		1.536261
Std Err of Y Est		0.025551
R Squared		0.516976
No. of Observations		8
Degrees of Freedom		6
X Coefficient(s)	0.068608	
Std Err of Coef	0.027074	

Congo's exchange Rate

Ei

Regression Output:

Constant	4.596234
Std Err of Y Est	1.191992
R Squared	0.775092
No. of Observations	7
Degrees of Freedom	5

X Coefficient(s)	-6.16462
Std Err of Coef	1.485068

G Congo's GDP

Yi

Regression Output:

Constant	3.910743
Std Err of Y Est	0.066872
R Squared	0.417108
No. of Observations	8
Degrees of Freedom	6
X Coefficients)	-0.14682
Std Err of Coef.	0.070857

Zambia's GDP per Capita

y'

Regression Output:

Constant	2.514478
Std Err of Y Est	0.022683
R Squared	0.500842
No of Observations	8
Degrees of Freedom	6
X Coefficient(s)	-0.05897
Std Err of Coef	0.024034

H Zimbabwe's GDP

Yi

Regression Output

Constant	3.930457
Std Err of Y Est	0 018366
R Squared	0 410545
No. of Observations	8
Degrees of Freedom	6
X Coefficient(s)	0.042896
Std Err of Coef.	0.020984

Zambia's per Capita GDP

yi

Regression Output:

Constant	2.833713
Std Err of Y Est	0 018859
R Squared	0 400888
No. of Observations	8
Degrees of Freedom	6
X Coefficient(s)	-0.04317
Std Err of Coef.	0.021547

A Zimbabwe's population

Ni

Regression Output:

Constant	1.336344
Std Err of Y Est	0.023395
R Squared	0.417205
No. of Observations	8
Degrees of Freedom	6
X Coefficient(s)	0.055397
Std Err of Coef	0 02673

Zimbabwe's Exchange Rate

Ei

Regression Output:

Constant	-1.20773
Std Err of Y Est	0.166079
R Squared	0.336507
No. of Observations	8
Degrees of Freedom	6

X Coefficient(s)	-0.33101
Std Err of Coef.	0.189754

I Rwanda's GDP

Yi

Regression Output:

Constant	3.19462
Std Err of Y Est	0.038
R Squared	0.295685
No. of Observations	8
Degrees of Freedom	6
X Coefficient(s)	-0 08
Std Err of Coef.	0.05

Kenya's per Capita GDP

y'

Regression Output

Constant	2.57
Std Err of Y Est	0 012698
R Squared	0.016087
No. of Observations	8
Degrees of Freedom	6
X Coefficient(s)	0.005259
Std Err of Coef	0.016791

I Rwanda's Population
Ni
Regression Output

Constant	0.89
Std Err of Y Est	0.028109
R Squared	0.164449
No. of Observations	8
Degrees of Freedom	6
X Coefficient(s)	-0.04039
Std Err of Coef.	0.037168

Rwanda's Exchange Rate
Ei
Regression Output'

Constant	-2.10
Std Err of Y Est	0 234316
R Squared	0 005582
No. of Observations	8
Degrees of Freedom	6
X Coefficient(s)	-0.05686
Std Err of Coef	0.309835

j= exporter = Kenya
i= imponer = Tanzania

YEAR	Zij	Yi	vi	Ni	Ei	Dij
1980			371.92	18.68	0.122	932
1987		3443.00	373.22	22.52	0.015	932
1988		3596.00	384.11	23.04	0.010	932
1989	25.00	3728.00	390.26	23.55	0.010	932
1990	22.00	3885.00	395.37	24.06	0.007	932
1991	34.00	4051.00	389.88	24.58	0.005	932
1992	44.00	4154.00	376.66	25.10	0.005	932
1993	93.00	4255.00	368.01	25.63	0.003	932
1994	178.00	4412.00	368.29	26.16	0.002	***932***
1995	137.00	4589.00	374.86	26.71	0.002	932
1996	161.00	4766.00	381.39	27.33	0.002	932
Forecast 1997		4953.00	387.71	27.92		932

source Computed data from UN Monthly Bulletin of stanshcs
Computed data from COMES A Selected indicators. Mar. 1998

j= exporter = Zimbabwe
i= importer = Malawi

YEAR	Zij	Yi	yi	Ni	Ei	Dii
1980		1052.00	630.10	6.14	-1.233	595
1987		1161.00	605.17	7.68	-0.451	595
1988		1197.00	640.09	7.95	-0.386	595
1989	38.00	1204.00	659 66	8.22	-0.361	595
1990	72.00	1310.00	631.90	8.51	-0.368	595
1991	43.00	1391.00	649.10	8.74	-0.355	595
1992	41.00	1252.00	581.03	8.99	-0.273	595
1993	43.00	1442.00	580.74	9.24	-0.227	595
1994	78.00	1256.00	601.95	9.49	-0.116	595
1995	96.00	1426.00	579.02	9.76	-0.065	595
1996	114.00	1655.00	610.70	10.01	-0.065	595
Forecast 1997		1900.00	613.61	10.29		595

source : Computed data from UN Monthly Bulletin of statisucs
Computed data from COMES A Selected indicators. Mar. 1998

j= exporter = Zimbabwe
i= importer = Zambia

YEAR	Zij	Yi	yi	Ni	Ei	Dij
1980		2155.00	630.10	7.01	-1.268	493
1987		2265.00	605.17	8.89	-0.110	493
1988		2386.00	640.09	9.18	-0.121	493
1989	59.00	2365 00	659.66	9.47	-0.072	493
1990	51.00	2372.00	631.90	9.75	-0.035	493
1991	46.00	2362.00	649.10	10.02	-0.016	493
1992	48.00	2364.00	581.03	10.28	-0.006	493
1993	67 00	2421.00	580.74	10.54	-0.002	493
1994	66.00	2382:00	601.95	10.78	-0.001	493
1995	81.00	2309 00	579.02	11.01	-0.001	493
1996	68.00	2407.00	610.70	11.21	-<1001	493
Forecast 1997		2420.00	613.61	11.46		493

source : Computed data from UN Monthly Bulletin of statistics
Computed data from COMESA Selected indicators. Mar. 1998

j= exporter = Kenya
i= importer = Uganda

YEAR	Zij	Yi	yi	Ni	Ei	Dii
1980			371.92	12.81	-0.135	662
1987		6283.00	373.22	14.84	-0.023	662
1988		6786.00	384.11	15.27	-0.009	662
1989	85.00	7217.00	390.26	15.77	-0.004	662
1990	190.00	7677.00	395.37	16.33	-0.002	662
1991	46.00	8093.00	389.88	16.89	-0.001	662
1992	72.00	8355.00	376.66	17.46	-0.001	662
1993	115.00	9053.00	368.01	18.03	-0.008	662
1994	213.00	9602.00	368.29	18.60	-0.001	662
1995	169.00	10675.00	374.86	19.17	-0.001	662
1996	119.00	10683.00	381.39	19.72	-0.001	662
Forecast 1997		12887.00	387.71	20.34		662

source : Computed data from UN Monthly Bulletin of statistics
Computed data from COMESA Selected indicators. Mar. 1998

j= exporter = Zambia
i= importer = Congo

YEAR	Zij •	Yi	yi	Ni	Ei	Dij
1980		3.814	2.575	1.432	-0.443	
1987		3.884	2.495	1.530	-2.052	
1988		3.886	2.507	1.544	-2.273	
1989	1.000	3.880	2.493	1.559	-2.583	
1990	0.903	3.851	2.484	1.573	-2.857	
1991	0.477	3.813	2.470	1.587	2.285	
1992	0.699	3.765	2.458	1.601	0.676	
1993	1.000	3.701	2.456	1.615	-0.377	
1994	1.380	3.684	2.436	1.628	; -3.172	
1995	1.362	3.682	2.410	1.642	-3.848	
1996	1.505	3.687	2.419	1.656		
Forecast 1997		3.689	2.409	1.670		

source : Computed data from UN Monthly Bulletin of statisncs
Computed data from COMESA Selected indicators. Mar. 1998

j= exporter = Zambia
i= importer = Zimbabwe

YEAR	Zij	Yi	vi	Ni	Ei	Dij
1980		3.645				
1987		3.731	2.495	0.949	-0.221	
1988		3.769	2.507	0.963	-0.256	
1989	1.342	3.796	2.493	0.976	-0.325	
1990	1.204	3.790	2.484	0.989	-0.389	
1991 1	1.643	3.813	2.470	1.001	-0.561	
1992	1.362	3.776	.2.458	1.012	-0.708	
1993	1.322	3.787	2.456	1.023	-0.812	
1994	1.279	3.812	2.436	1.033	-0.912	
1995	1.477	3.804	2.410	1.042	-0.927	
1996	1.544	3.835	2.419	1.050	-1.001	
Forecast 1997		3.847	2.409	1.060		

source : Computed data from UN Monthly Bulletin of stausucs
Computed daia from COMESA Selected indicators. Mar. 1998

j= exporter = Kenya
i= importer = Rwanda

YEAR	Zij	Yi	vi	Ni	Ei	Dij
1980		2.906	2.570	0.713	-1.968	
1987		3.053	2.572	0.809	-1.900	
1988		3.075	2.584	0.821	-1.883	
1989	1.380	3.081	2.591	0.832	-1.903	
1990	1.875	3.096	2.597	0.842	-1.908	
1991	0.954	3.118	2.591	0.854	-2.098	
1992	1.114	3.130	2.576	0.866	-2.125	
1993	1.380	3.103	2.566	0.877	-2.218	
1994	1.462	3.073	2.566	0.794	-2.302	
1995	1.531	3.057	2.574	0.806	-2.424	
1996	1.613	2.997	2.581	0.828	1 -2.488-	
Forecast 1997		2.958	2.589	0.824		

source : Computed data from UN Monthly Bulletin of statistics
Computed data from COMES A Selected indicators. Mar. 1998