SHORT TERM EFFECTS OF INTEGRATION: A CASE STUDY OF KENYA IN THE PREFERENTIAL TRADE AREA FOR EASTERN AND SOUTHERN AFRICA

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

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This Research Paper has been submitted for examination with our approval as University of Nairobi Supervisors.

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ABSTRACT

Kenya's external trade is significant in its economic and political development. From its exports, Kenya gets the foreign exchange required to import the goods necessary for its development, but which it has not been able to produce with its present level of technological and other resource endowments. The activities from which its export goods and services come generate employment opportunities for its fast growing population. By trading with the outside world, Kenya is able to have mutual relations with its trading partners, the results of which have enabled it to procure aid in the form of loans, grants and technical assistance from friendly countries like the United Kingdom, West Germany, Japan and the USA an the donor agencies. The donor agencies include the IMF and the World Bank. These have been important for its development. It was a party to the Lome I, II, III, and IV of 1975, 1979, 1984 and 1989 respectively and the Arusha Agreement of 1975 by which its exports receive preferential treatment in the EEC market. On various occasions, it has had bilateral trade agreements with foreign countries in an effort to raise the level of commercial intercourse with these countries, but more so to accelerate its export flows to these countries. Yet not its trade with all countries have been impressive. Its imports from the developed west have over the years continued to outweigh its exports to these countries. In spite of this, much of Kenya's trade is still directed to these countries. Its trade as a percentage of its GDP has been less than 30% since 1964. This has not been able to save it from the scarcity of foreign exchange.

Its adoption of the Import Substitution development strategy in the late 1960s and in the 1970s made some contribution in saving foreign exchange and generating employment opportunities in the country. However, the strategy had a limit beyond which it could not be pushed. The production of consumer goods as a first stage of this strategy was quite a success but because of a limited market, the production of intermediate goods and capital goods could not be carried on with ease. This strategy could not live upto its expectations because of the market constraint. Another complementary strategy was therefore necessary to enable Kenya

to earn and save foreign exchange, raise its level of capacity utilization and alleviate the unemployment situation. Cooperation or integration in the Eastern and Southern African subregion was readily available. Kenya did not hesitate to join this scheme with high hopes.

It was the intention of this study to establish what has accrued to Kenya from the PTA over the short span of time during which it has been a member of this scheme. Both the approaches used established that PTA has, at best, had erosive effects on Kenya's trade flows. This is possibly because the PTA is still at its early stage of integration. In addition to this, the protectionist practices by the PTA countries and the harsh political environments in some neighbouring countries, may account for this phenomenon. Little Gross Trade Creation was evident. The External Trade Creation reflected by both approaches indicate that the PTA has not redirected Kenya's trade flows. The study however underscores the essence of expediting trade liberalization and market information campaign within the subregion to facilitate increased intra-PTA trade.

CHAPTER ONE

INTRODUCTION

Kenya has usually tried to cooperate with its neighbours. In 1917, it entered a customs cooperation agreement with Uganda, from 1923 to 1967, it was a member of the East African Common Market, in 1967, it signed the treaty for East African Community (Stein 1979). Inheriting problems from the East African Common Market, the community was plagued with crises and eventually collapsed in 1977. The establishment of the Preferential Trade Area (PTA) for Eastern and Southern African States in 1981 marked a structural break in the integration system for Kenya.

Economic indicators of the East African countries pointed to the losses that these countries could have circumvented had the Community not collapsed.[1] The current 18 PTA member countries expect PTA to yield static and dynamic effects that they will experience in different magnitudes in their micro- and macro-economic parameters.[2]

Kenya has overtime recorded reasonable rates of investments that could be made better. For example, though its gross fixed capital formation fell at a rate of 1% between 1978 and 1981, this reversed between 1982 and 1987 when it rose at an annual compound rate of 10.5%. Kenya also has a good growth in industrial output,[3] a reasonable income elasticity of employment,[4] and high rates of employment creation (at a compound annual rate of 5% between 1966 and 1976, 3% between 1977 and 1980 and 3.9% between 1981 and 1987).[5] To do better, Kenya always seeks solutions to its economic problems using various development strategies at its disposal. Its membership in the PTA from 1981 testifies to this. It had greater aspirations and had to consider the possible gains from the scheme. Kenya has enabling economic and political environment that should enable it to benefit from PTA. It will have access to the wider market in the area that will enable it to solve its small market constraint that accounts for some excess capacity in its economy. With such a wider market and with its relatively well developed industrial sector, it would produce goods that are competitive both in

quality and price for the region as its capacity utilization level improves.

This study analyses Kenyan trade flows from 1964 to 1987. It also discusses static effects of PTA integration on Kenya's trade flows from 1971, namely Trade Creation (TC), Trade Diversion (TD), Trade Erosion (TE), Gross Trade Erosion (GTE), and External Trade Creation (ETC).

1.1: Integration: Meaning

Regional economic integration refers to measures taken to remove trade restrictions between independent countries. At some more developed stage of integration, it is a complete merger of national identities of countries within a sub-region. In the Marxist opinion, integration accomplishes internationalization of economic life leading to the formation of international intricacies. It also leads to a gradual fusion of national economies (Kunz 1986). It is a "process" and a "state of affairs" (Balassa 1961, Mathews 1984). It is a process if it involves measures to abolish all forms of discriminations between different economic units in different countries and it is a state of affairs if it connotes absence of all forms of discrimination between economies. The processes could be gradual, comprehensive or rapid as may be suggested in the treaty on which the scheme in question is based. These definitions have one thing in common- unhindered flow of trade between economic units in a region.

The literature of International Economics also distinguishes between regional economic integration and regional economic cooperation. These terms have been used to imply that the two are synonymous. They however differ in qualitative and quantitative aspects. Integrated regions or countries by necessity cooperate. Cooperating regions or countries do not necessarily integrate. As mentioned above, economic integration involves calculated suppression of trade barriers between economic units in different independent states. On the other hand, regional economic cooperation involves measures that lessen discrimination between countries. For example, countries can cooperate to develop road networks across their borders, or develop

some hydro-electric projects. They can also make agreements on trade flows between them. These can be done without integration. However, it is possible to have project integration, sectoral integration, or even policy integration.[6]

Regional integrations are of various stages, namely a Preferential Trade Area, a Free Trade Area, a Customs Union, a Common Market, Economic Community, and a Complete Economic Integration. These reflect the levels of trade liberalization and further economic integration already accomplished. A brief explanation of these would suffice.

In a Preferential Trade Area, the countries involved agree on goods to be accorded preferential treatment in intra-area trade. They also agree on the schedule of trade liberalization for the area. The treaty of this form of integration specifies conditions under which goods to be traded qualify to be included in the common list. It may also state the duration over which the common list may be revised. The current Preferential Trade Area for Eastern and Southern Africa is an example of this.

In a Free Trade Area, the countries involved remove tariff and non-tariff restrictions to trade. But each member state retains its own external tariff on imports from third countries.[7] Examples of this form of integration are the Latin American Free Area (LAFTA) and European Free Trade Area (EFTA). The latter weakened following withdrawal of Britain and Denmark in 1973 to join the EEC (Ojo 1975).

In a customs union, the countries in the region levy a uniform external tariff on all goods from third countries and allow free mobility of goods traded between them .

In a Common Market, the countries involved allow free mobility of both products and factors and also charge a common external tariff.

An Economic Community combines features of a Common Market with some national policy harmonization in monetary and fiscal matters. The present European Economic Community is an example of this form of integration although it really is still more a Customs Union than an Economic Community.

A Complete Economic Integration requires unification of fiscal and monetary policy matters. It also requires unification of social and counter-cyclical policy matters in the region. This form of regional economic integration also requires setting of a supra-national authority whose decisions bind all member countries. It has been the aspiration of the EEC to attain this level of integration, but the resistance of the British Government has been a setback.[8]

In theory, the growth of the economic integration from Preferential Trade Area to the Complete Economic Union should be systematic and unidirectional. The practical evidence however shows that depending on the readiness of the countries involved, any higher stage can be organized from which a higher stage can be worked for.

1.2: Emergence of Regional Groupings

Since the end of World War Two, many regional groupings have sprung up in various parts of the world. These have taken various forms and have diverse objectives. For developing countries, it is their unheeded call on the developed world to reverse the International Economic Order in their favour that is the major reason for which they have formed regional groupings. For most integrations the ultimate goal is to accelerate growth in the region. Most developing countries join integratrion schemes to restructure their production patterns away from primary production to industrial production.

In Western Europe, the creation of the European Economic Community in May 1957 set a landmark in the European cooperation. It made substantial progress in its early periods from 1959 to the first quarter of 1970s. Its activities declined between 1973 and 1974 (Kunz 1986). With its initial six members,[9] the region registered a substantial rise in the share of its intra-area trade from one-third in 1959 to one-half in 1971 while its extra-area imports growth rate rose from 8.3% per annum between 1953 and 1959 to 8.9% between 1959 and 1970. By 1992 when all trade restrictions shall have been eliminated, the regional output is projected to grow from 2.5% to 6.5% annually.[10]

In Eastern Europe, the Council of Mutual Economic Assistance (CMEA) was formed in 1949. Its initial members included the USSR, Bulgaria, Czechoslovakia, Hungary, Poland and Rumania. It also grew in size when soon after its establishment, Albania and the German Democratic Republic (GDR) became members. Thereafter, Albania withdrew while Mongolia and Cuba added to its size. The CMEA was formed specifically to provide a framework for economic cooperation for the Eastern European Countries. The Scheme was to coordinate the long range plans and bilateral trade agreements between these countries. By its 1959 charter, it was to speed up technical progress among the member countries, raise the levels of industrialization in less developed countries and coordinate the long range plans and bilateral trade agreements among the member countries. Though much is said to have been achieved by the scheme, the rate of expansion in intra-CMEA trade has declined since the charter was signed. Its share of intra-area imports in its total trade declined from 10.7% in the 1953-1959 period to 8.5% in the 1959-1971 period. The total share of the region's trade in GDP fell from 71% in 1959 to 63% in 1971. The extra-area imports outweighed intra-area imports over the period.[11] These prove that the CMEA has not done as it should. It has not used its trade potential to raise the intra-area trade. This can be attributed to the centralised planning policy which, though was to reduce uncertainty in the area, failed to create inter-industrial forward and backward linkages.

Other regional groupings include Southern African Development Coordination Conference (SADCC),[12] the Latin American Free Trade Area (LAFTA),[13] the Central African Customs and Economic Union (Union Douaniere et Economique de l' Afrique Centrale-UDEAC),[14] the West African Economic Community (Communaute Economique de l'Afrique de l'Ouest-CEAO),[15] the Economic Community for West African States (ECOWAS),[16] the Central American Common Market (CACM),[17] the Association of South East Asian Nations (ASEAN) and the Andean Common Market (ACM).[18] Others are the Caribbean Community,[19] the Arab Common market, the Magreb, and the Regional

Cooperation for Developing Countries of Iran, Pakistan and Turkey. While some of these regional groupings have had success and others periods of crisis, some of them like the ASEAN and those of the Arab Countries have not started the programs they have proposed. Others like the EAC collapsed. Others like SADCC have remained cooperations rather than integrations. Overtime, these regional groupings may grow or decline in size.

1.3: Effects of Integration

Regional Economic Integration can generate both long term (dynamic) and short term (static) effects. The static effects of integration traditionally discussed include Trade Creation, Trade Diversion, Gross Trade Erosion, Trade Erosion, External Trade Creation and terms of trade effects. The meanings of some of these are given below. Others not explained here are explained elsewhere in this paper.

(a) Trade Creation. In the process of integration, it becomes necessary for the countries involved to adjust to facilitate free trade within the region. Such adjustments may include reduction or raising of national tariff rates, and other measures agreed upon by the countries involved. Such adjustments may lead to replacement of inefficient production units within a member country by a more efficient production and imports from another member country. This is Trade Creation. With more outputs from more efficient plants within the region, the prices of goods will fall given the level of demand. This will be true if there is no control of product prices and if consumer demand responds accordingly. The fall in the product prices will induce more consumption, hence the consumption effect attributed to integration. Using an econometric approach, a shift (an increase) in income elasticity of export supply from pre- to post-integration functions in the intra-trade flows constitutes Gross Trade Creation (GTC) while an increase in income elasticity of exports to all countries constitutes Trade Creation (TC). By residual market share analysis and on annual basis, an increase in Kenya's trade with

a PTA member state i.e. d(X+M) as a percentage of Kenya's GDP is Gross Trade Creation while an increase in this index in Kenya's extra- and intra-area trade is Trade Creation.

(b) Trade Diversion. An integration should not be expected to be all-beneficial. The discrimination against imports from third countries in favour of the products from within the integration may confer damages on the economies in the region. No theory exists to explain how such damages are distributed among the integrated states. The third country products discriminated against after integration, may be cheaper than the products preferred from within the region. When integration obliges the consumers to shift their sources of supply from the cheap foreign sources to the more expensive regional sources, Trade Diversion occurs. Trade Diversion can be seen as a fall in extra-area trade following integration. The computation of this depends on the model used. Trade Diversion here refers to a fall in Kenya's trade {d(X+M)} with the non-PTA member countries expressed as a percentage of Kenya's GDP in the corresponding years. In econometric analysis, this is a fall in the extra-area income elasticity of exports in the post-integration functions.

(c) Terms of Trade Effects. By discriminating against the third country products, a regional economic integration causes exports to third countries to fall and exports to within the region to rise. This may improve the terms of trade for the exporting countries in the region. The extent of this depends on:

i) the size of Trade Diversion relative to the total trade outside the region. This should be large if integration produces improved terms of trade effects.

ii) the income elasticity of import demand within the integrated area. There should be high import demand elasticities in the intra-area trade and a lower one for the extra-area trade if

the terms of trade of the exporting country improves after integration.

iii) the export supply elasticity within the member countries. With low export -supply elasticity in the integrating countries, the Trade Diversion will be insignificant and vice versa. If insignificant, the Trade Diversion is unlikely to depress the third countries' prices significantly. If the elasticity of supply is large, it is expected that the Trade Diversion effects of integration will be large depressing the prices of third countries significantly. Given high elasticities of supply and unchanged demand, an increase in supply will lower the prices within the region. This will be beneficial to consumers within the region.

1.4: Review of PTA Treaty

On 21st December 1981, the PTA Treaty was signed in Lusaka, Zambia by nine out of the fourteen countries that attended the summit. This established the Preferential Trade Area for Eastern and Southern African States (PTA Treaty 1982). On 9th June 1982, the Executive Secretary of the United Nations Economic Commission for Africa (UNECA) Prof. Adedeji formalized its formation. The signing of this treaty conferred the scheme with a legal entity. This could enable it to grow and obtain the goals proposed in the 1973 OAU Heads of States and Government Summit in Addis Ababa- Ethiopia and encouraged by the Lagos Plan of Action in 1980 (OAU 1982, PTA Treaty 1982).

The treaty provides for broad objectives for the scheme. One of these is to promote cooperation and development among all member states in all fields to raise the standards of living of the people in the sub-region. The ultimate goal is to achieve a Common Market status and eventually an Economic Community by the year 2000. This was in compliance with the Lagos Plan of Action (OAU 1982) which proposed that an Economic Community for Africa be obtained by the year 2000.[20] It focuses on trade, cooperation, development, economic independence and self reliance in the subregion.

To promote intra-area trade, the treaty provides for gradual trade liberalization (Annex 1 of the Treaty), preferential treatment of goods in the Common List that satisfy the Rules of Origin (Annex III of the Treaty) and a complete mobility of goods, services and factors by the year 2000. It also provides for the establishment of a common external tariff when appropriate (Article 14 of the Treaty).

For its administration, the Treaty provides for the Authority, the Council of Ministers, the Secretariat, the Tribunal, the Commission and the Committees of Experts. All Heads of States of the member countries, one of whom is the Chairman, compose the Authority. The office of Chairmanship rotates on yearly basis at the annual summit of the Heads of States and Governments. The final decisions of the Authority taken by consensus bind all member states. Below the Authority is the Council of Ministers of Trade and Finance (Article 7 Chapter 3 of the Treaty) whose function is to assist the Authority in broad fields. It reviews and ensures proper functioning of the scheme in accordance with the PTA Treaty. It also advises the authority in matters of policy that enhance efficient operation of PTA. The Council meets twice yearly unless an Extra-Ordinary council summit is necessary. Its operations are provided for in Article 7 Chapter 3 of the Treaty. Responsible to either the Authority or the Council of Ministers is the Secretariat under a Secretary General. The Scope of the operations of the Secretary General of the PTA is provided for in Article 9 Paragraph 7 chapter 3 of the Treaty.

The Treaty also provides for the establishment of an inter-governmental Commission of Experts and Committees. The Committees included are: Agricultural Cooperation Committee; Industrial Cooperation Committee; Transport and Communications Committee; Customs and Trade Committee; Clearance and Payments Committee and a Committee on Botswana, Lesotho and Swaziland (BLS) States. These submit their reports on the implementation of the PTA Treaty provisions to either the Commission or the Council of Ministers. To arbitrate over matters of differences and conflicts on the application and

explication of the PTA Treaty provisions, the treaty provides for a PTA Tribunal. The Tribunal ensures authentic interpretation and application of the PTA Treaty Provisions.[21]

The treaty however does not provide for the joint operation of commercial services like the airways, railways, postal services, etc but in Annex VII article 2, it provides for an evolution of coordinated and complementary transport and communication systems and policies for smooth flow of trade and information that the scheme requires. It also does not provide for a Legislative Assembly or a body of equivalent powers to deliberate on the matters of the PTA and pass the Bills. These duties are at present vested with the Council of Ministers which at its meeting preceeding that of the Authority, discusses agendas to be presented to the Authority for endorsement.

It is less explicit on how the existing diverse fiscal and monetary policies and the changes in these policies likely to be implemented by any member country in the subregion will be harmonized. It however refers to the agreement by member states to abstain from all acts that would frustrate the scheme (Article 4 of the Treaty).

The Treaty provides for transient exemption in the application of certain provisions of the Treaty to Botswana, Lesotho and Swaziland (BLS), as well as Comoros and Djibouti[22] because of their unique economic situations. The question is, to what extent will the benefits of PTA be distributed to all members equitably? The Treaty does not provide for compensatory funds for a member disadvantaged in the course of the execution of the provisions. However, by the Charter of the PTA Trade and Development Bank, and the Bank's location in Bujumbura in Burundi, the less developed areas of the subregion will derive some level of equity.[23] This Bank should attract extra funds to the area from outside and use these to provide technical and financial assistance to less developed economies in the subregion.

The Treaty should provide the scheme with a catalytic force from the spread effects[24] to enable the industrial and agricultural sectors of the sub-region operating below their full capacity (Mahretu 1973) to produce goods of competitive standards. It however is not possible

to rule out the backwash effects of industrial and developmental agglomeration that may come about because of more enabling environment in specific countries. This may be so in spite of the provision of Article 4 of chapter 2 urging all member states to abstain from acts likely to frustrate the progress of PTA.

The implementation of the provisions of this Treaty are quite behind schedule[25] and it is very unlikely that the target dates will be met. In 1992, all tariff trade barriers were expected to have been removed and by the year 2000, all forms of trade barriers including non-tariff barriers were expected to have been removed and the Economic Community evolved. These may not be accomplished in time.

The Treaty is however an impressive document that demonstrates the dedication of the mentors of the scheme- the OAU and the UNECA. To some observers, the PTA for which this Treaty provides legal entity , is an over-ambitious relationship that may be an exercise of no economic substance (Anglin 1983, Mathews 1984). Such observations are clear challenges to the political leaders in the sub-region to steer the scheme well to frustrate the cynics.

1.5: Objectives of PTA

The formation of the Preferential Trade Area for Eastern and Southern African States was in accord with the suggestion of the UNCTAD (1977) which urged the Less Developed Countries to develop a strategy of development that promotes collective self reliance. If successful, it will enable the countries involved to establish a common position to increase their bargaining position vis-a-avis the industrialised nations. This strategy was to accelerate intra-area trade, foster increased investment and technological cooperation among the countries involved. It will also enable the countries involved to loosen their dependence on the industrialized nations and give them (LDCs) more independence in following their own development policies.

Formed in 1981, the PTA was to promote cooperation and development among the

member countries in all fields of economic activities and contribute to the progress and development of the African Continent. It was also to raise the level of standards of living of the people in the subregion and foster closer relations among its member states. To obtain these objectives, a number of measures were necessary to be taken. These included the elimination of tariff and non tariff barriers to trade among PTA member states by the year 2000. It was also necessary to harmonize customs procedures and regulations for smooth trade flow within the region and for the Rules of Origin to be applied to circumvent "trade deflection"[26] in the area. The Clearance House established in February 1984 in Harare, was to promote trade by facilitating clearance and settlement of legitimate transactions among the member countries on a multilateral basis. At the Kampala Summit in December 1987, it was observed that some member countries had not complied with the treaty to use PTA Clearance House. This was one of the provisions that would accelerate intra-area trade. The Intra-area trade was slow and below expectation. Uganda, for example, had not used the Clearance House adequately. Among the problems associated with the non-compliance with the provisions of the treaty was lack of clarity of the contents of the Treaty to some of the member states. Though PTA officials asserted that regional trade accelerated much, it actually declined. The region's poorly developed transport and communication system, partly a legacy of colonialism, hampers trade. Thus member states need to cooperate and develop coordinated policies and systems for transport and communication that cover rehabilitation and harmonization of existing road, rail, water, airline and telephone networks, and construction of additional ones where necessary and feasible.

The member countries should also cooperate to develop a self-sustaining industrialization and agriculture with high-quality tradable products. These measures must be taken in compliance with the PTA treaty (1982) to enable PTA countries to develop to be self reliant.

1.6: PTA Since its Formation

In 1977, the East African Community collapsed, having existed for ten years since its establishment in 1967. From then, the leaders of the East African region expressed their desire to institute another basis of cooperation in spite of the problems that beset and led to the downfall of the East African Community. PTA was an outcome of a determined effort of the Executive Secretaries of the United Nations Economic Commission for Africa (UNECA) to institute a pace of cooperation among the African states in trade, transport and industry. In may 1973, the Heads of States and Governments of the Organization of African Unity, at their Tenth Summit in Addis Ababa, Ethiopia, adopted a Declaration on Cooperation, Development and Economic Independence. The formation of PTA was in accord with this Declaration and is a breakthrough for a wider regional cooperation in a sub-region where most countries obtained their "political independence" not in the far distant past.[27]

In Lusaka in March 1978, at an extra-ordinary conference of Ministers of Trade, Finance and Planning, 12 states adopted a Declaration of Intent and Commitment to form a Preferential Trade Area in Eastern and Southern African region. This was a first step towards the creation of a Common Market and eventually an Economic Community later to be integrated with other African regional groupings to form larger Economic Community of Africa (ITC/UNCTAD 1986). Thereafter followed a series of meetings to prepare the Draft Treaty contemplated to be ready by 1980. This could not be fulfilled in time.

The Addis Ababa Conference of Ministers agreed in October 1981 to set up the Preferential Trade Area. In December of the same year, the Heads of States held a conference in Lusaka, Zambia. The outcome of this was the signing of the PTA Treaty by nine out of the fourteen countries that attended the conference.[28] From then, the PTA was to grow in size and strength to an Economic Community envisaged in the Treaty (PTA Treaty 1982). Its expanse as given by Economic Commission for Africa and defined by the Treaty for membership legibility covers all the eighteen countries in Eastern and Southern African region. However,

the Treaty in its Articles 2 and 46 provided for countries in the immediate surroundings to be members of the scheme should they show interest. This provided an opportunity for Rwanda, Burundi, Sudan and possibly Zaire to be members. Sudan and Zaire have not shown interest to join. Rwanda and Burundi however did not take long to accede to the Treaty. In March 1982, the Kingdom of Lesotho and the Kingdom of Swaziland acceded to the treaty, having obtained a conditional consent from Pretoria that their other arrangements with other regional groupings should not conflict with the South African Customs Union (SACU) and the Rand Monetary Area (RMA). Both are SACU members by virtue of their geographical positions. Botswana withdrew from the RMA in 1974 (Mathews 1984). Their entry into PTA scheme increased the number of PTA member states to eleven. Zimbabwe, having shared the scepticism of Tanzania over the PTA for long enough, became the twelfth member in June 1982. Its entry into this arrangement demonstrated the triumph of economic over political factors when it comes to making decisions of this kind. Tanzania acceded to the treaty in March 1985 having all along been sceptical. In April 1987, Mozambique acceded to the PTA. In 1989 at the Authority meeting in Nairobi, Angola became an additional member. ventually the PTA should have 20 signatories.[29]

1.7: Activities Since 1982

By 15th October 1982, seven PTA member states had endorsed the treaty making it operational. In July 1984, the operational phase of the PTA scheme was launched. Though nothing was actually operational till 1985, the Scheme has grown in size from 15 members in 1988 to 18 members in 1989. Following the PTA Trade Fairs in 1986 in Nairobi and in 1988 in Lusaka, the PTA officials have stated that the volume of trade within the subregion has increased considerably.[30] Many necessary institutions for the scheme have been established to facilitate its growth to the ultimate goal of being an Economic Community. For example, the launching of the Clearance House on 1st February, 1984 set a landmark in the PTA history.

Within three weeks of its establishment, the first transactions valued at UAPTA 1.7 million was recorded. The Clearing House should enable the member countries to save foreign exchange since they will use national currencies in inter-state trade and settle net balances between them in United States Dollar through the Federal Reserve Board (FRB). In the first transaction referred to above, a sum of UAPTA 1.3 million net balance was settled in US Dollar. In the next transaction, the settlement balance rose to UAPTA 5.4 million. These are unfavourable for the member countries in foreign exchange lost over the short span. These show the magnitude of dependence of the member states of the region on the third country currency for settlements of their intra-area transactions. This situation should decline as the activities of the scheme are enlivened.

The scheme however has not shown an impressive trade record if the trend of imports and exports over the years are anything to go by. For example, between 1980 and 1986, the total intra-PTA trade declined at an annual compound rate of 4.3%[31] contrary to what the PTA officials have asserted.

1.8: Kenya and PTA

Since its establishment in 1981, the PTA has continued to receive ample support from Kenya in various forms. This is in spite of the slow progress it has made (PTA News Dec.1987/Jan. 1988). Kenya had its own reservations on some of the provisions of the Treaty particularly on the Rules of Origin. If this was implemented as initially provided in the Treaty, it could have disqualified the foreign firms that dominate Kenya's manufacturing and commercial sectors to benefit from the PTA. The rule was relaxed from 70% to 30% local ownership of firms to participate in the PTA sub-region until 1991 when it will be lifted. This however did not prevent Kenya from fulfilling its obligation to the scheme. To show its backing for the scheme, Kenya has taken a variety of measures.

It has for example published an additional common list of goods and tariff rates under 3-tier

system in respect of all goods included in the common list,[32] and observes Standstill Provision with respect to tariff and non-tariff barriers. It also observes the basic trade provisions for determination of PTA tariff rates and has relaxed the non-tariff restrictions to trade as was approved by the PTA Council in its sixth meeting. In addition to these measures, it has transposed the common list of goods to be accorded preferential treatment from the Common Customs Council Nomenclature (CCCN) version to Harmonized Commodity Description System (HCDS). It has also collected data on intra-area trade and effectively participated in the PTA trade fairs in Nairobi in 1986 and in Lusaka in 1987. This is in addition to its efforts to rehabilitate and upgrade its infrastructure to facilitate smooth trade flow to its neighbours in the subregion.

In spite of all the support Kenya has given to the PTA, its exports to the sub-region have from 1983 increased only by a small margin. It rose from K£133 million in 1983 to K£157 million in 1987. This was at an annual compound rate of only 3.4% compared with its imports from the region that grew at an annual compound rate of 20% over the same period.

1.9: Statement of the Problem.

Kenya's pattern and structure of external trade is typical of that of a Less Developed Country. It relies on the export of few primary commodities namely coffee, tea, petroleum products and pyrethrum extracts. These have very low demand in the third world countries and therefore are destined mostly for Western European markets in which their demand is quite inelastic. Kenya's trade in these markets has not been favourable for years. (see Appendix 4 and 5). The consequence of this pattern and structure of trade with high commodity and geographical market concentration is the persistent balance of Payments problem (Tables 1A and 1B). Table 1A shows the various Balance of Payments Accounts for Kenya from 1973 to 1978. This period covers the 1973/74 oil crisis, the 1975 world recession,and 1976/77 coffee boom.[33]

Table 1A: Kenya's Balance of Payments Accounts (K£M). 1973-1978

Account	1973	1974	1975	1976	1977	1978
Current	46.8	-122.0	-80.6	-51.9	11.0	-252.5
Capital A/c	42.2	116.2	82.9	53.0	-10.3	171.0
Errors & Om.	4.6	-4.2	-2.3	-1.1	-1.1	3.9

Source: Statistical Abstracts 1977 and 1979.

From the table it is observable that, except for 1977 when the country benefited from the transitory 1976/77 coffee boom (Economic survey 1979), the balance of payments problem has been persistent and is likely to continue unless a solution is found in the country's external trade policy. It has required an enormous net inflow of capital. This shows the extent to which the economy can be left vulnerable to external economic forces if it is over-dependent on capital inflows. The problem requires restructuring of the country's external trade policy to reverse it. In the 1980s, the country's balance of payments deficits showed a declining trend upto 1986. The years thereafter show that the problem may worsen (Table 1B)

Table 1B: Kenya's Balance of Payments Accounts (K£M) 1982-1988

Accounts	1982	1983	1984	1985	1986	1987	1988
Current	-260.6	-88.9	-81.7	-79.4	-31.2	-409.4	-403.0
Capital	153.0	158.6	122.3	-4.6	102.3	310.9	326.1
Errors & Om.	2.8	51.7	-8.7	10.2	1.9	-10.9	9.2
Overall Bal.	-104.8	71.5	32.0	-73.8	73.0	-111.4	-67.7
Financing	104.8	-71.5	-32.0	73.8	-73.0	111.4	67.7

Sources: Extracted from the CBK Annual Financial Reports 1984 and 1989.

It can be postulated that this problem arises from the structure and pattern of Kenya's external trade. Coffee, tea and petroleum products dominate its export commodities in that order of importance. Table 1C shows the proportions of the total values of Kenya's principle domestic exports for some selected years. These illustrate the degree of concentration in its commodity exports.

Table 1C: Domestic Exports of Principle Commodities 1980-1987 (% of Total Value)

	1980	1981	1982	1983	1984	1985	1986	1987
Coffee (unroasted)	22.2	21.3	26.5	25.3	27.0	29.7	40.6	25.8
Tea	11.9	11.9	14.2	19.5	25.1	24.7	18.0	21.7
Petroleum Products	31.1	30.7	26.0	19.5	17.4	14.0	10.3	12.6
Pineapples (tinned)	1.8	2.3	2.7	3.3	3.4	3.1	2.5	3.4
Pyrethrum Extracts	1.9	1.2	1.8	1.4	1.3	1.2	1.2	1.3
Cement(Building)	2.1	2.8	3.6	3.4	2.5	2.0	1.4	1.3
Sisal fibre & Tow	1.8	1.7	2.0	1.9	1.7	1.9	1.1	1.3
Other	27.2	27.1	23.0	25.7	21.6	23.4	27.4	32.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source : Statistical Abstracts 1987 and 1988, Economic survey 1989.

The world elasticities of demand for the primary products as those in table 1C are very low.

The table 1D shows the types of goods and their respective shares that Kenya Imports.

Table 1D: Percentage Shares of Kenyan Imports by Commodity Category 1979-1987

Goods	1979	1980	1981	1982	1983	1984	1985	1986	1987
Food & beverages	5.3	4.3	4.7	5.9	9.1	11.6	9.1	8.7	6.9
Industrial Supplies (nonfood)	29.0	27.2	25.8	23.0	27.7	26.4	29.5	30.5	32.8
Fuels & Lubricants	23.7	33.6	36.9	36.9	36.6	30.3	31.5	17.8	19.7
Machinery & Other Capital equipments	20.2	16.1	17.7	17.7	15.5	16.9	15.1	19.0	22.4
Transport Equip.	15.3	12.7	9.5	9.5	7.0	10.3	10.2	19.4	13.3
Consumer Goods Not elsewhere specified	6.4	4.0	5.1	4.9	4.1	4.3	4.4	4.5	4.9
Goods not elsewhere specified	0.1	-	0.3	0.1	-	0.2	0.1	0.1	-

Source: Economic Surveys 1983 and 1984, Statistical Abstracts 1987 and 1989.

Unlike theforeign elasticities of its exports which have remained low, its imports have high domestic elasticity of demand and absorb more foreign exchange than generated from export. This accounts for the unfavourable trade balances Kenya has continued to experience over time.

Kenya's other exports except cement are primary commodities. These are quite susceptible to cyclical economic factors in the developed world. As a result, the country's export revenue from these are quite erratic. For example, using the expression:

$U_i = \{Sum@I(X_t - X_{t-1})I/X_t\}/N$ for export instability index

where X is export,

t is time

N is number of observations,

and II indicates absolute numbers,

Kenya's export instability index for the period 1963 to 1987 is 16.99%.[34] This is an erratic average which requires commodity and geographical market diversification to reduce it. Apart from specializing in a small range of primary goods for its export revenue, Kenya has for historical reasons directed a substantial percentage of these exports to the Western developed countries, principally Britain and West Germany in the EEC. The EEC absorbs between 35% and 45% of total exports from Kenya and Africa comes second with declining share (table 1E). For example, in 1983, only 30% of the Kenya's total exports went to African countries. This share declined to 17% in 1987.

Table 1E: Percentage Share of Kenya's Exports by Destination 1983-1987

	1983	1984	1985	1986	198
EEC	39.1	44.8	42.3	44.6	42.4
Africa	30.0	26.1	25.5	21.4	16.6
Middle East	3.0	3.2	3.3	2.7	3.8
Far East & Australia	10.0	10.3	10.2	10.0	10.1
Others[35]	17.9	15.6	18.7	11.3	27.1
Total	100.0	100.0	100.0	100.0	100.0

Source Computed from Economic Survey 1984 and 1988.

This verifies that Kenya has a geographical market concentration which may explain a substantial proportion of the unfavourable trade balances in its accounts and the erratic export revenue that accrues to her.

Its import pattern and structure shows that over 30% of its imports come from the EEC region, over 19% from the Far East and Australia, over 17% from Middle East, and only about 3% comes from the African continent (Table 1F).

Table 1F: Percentage Share of Kenya's Imports by Origin

	1983	1984	1985	1986	1987
EEC	32.1	36.3	34.2	48.4	43.5
USA	6.3	4.7	5.5	4.9	7.1
Africa	2.5	2.0	2.3	2.8	3.0
Middle East	31.4	28.1	30.4	17.0	19.6
Far East & Australia	19.7	23.6	20.6	19.9	19.6
Others[36]	8.0	6.0	7.0	9.0	7.2
Total	100.0	100.0	100.0	100.0	100.0

Source: Computed from *Economic Surveys* 1984 and 1988

Despite unfavourable trade balances it records with the rest of the world, Kenya continues to export to and import from the rest of the world, higher percentages than in its trade relations with the African states. Over the years, the EEC has been the leading region of its import sources and export destinations (Economic Survey 1988). As tables 1E and 1F show, the whole of the African continent comes only second to the EEC region as Kenya's major trading partner regions in exports and sixth among its import sources.

An effort to restructure its trade to the African regions, an opportunity offered by PTA, would be an optimal policy that can enable it to come out of the balance of payments situation. This must be based on proven benefits that Kenya has derived or can derive in future, from PTA. The efforts to capture the markets in the Middle East as shown by the rising share of its exports to that region are other expected ways of market diversification.

In addition to the balance-of-payments problem, the country also faces other problems. These include high population growth rate, high rate of unemployment,[37] under-utilized industrial capacity (Republic of Kenya 1988), a high debt service charge[38] and slow economic growth rate. These hamper its development programmes. Though it is among the industrialized free African Countries south of Sahara, Kenya's manufactured goods export performance has not been impressive (KAM 1989). Its manufacturing sector has remained inward looking and

not competitive enough. The Kenya Association of Manufacturers attribute this to anti-export incentives incorporated in various commercial policies of the country that have limited its degree of openness. In the light of these problems, it is important to investigate how significantly PTA has affected Kenya's trade flows. These have a bearing on the extent to which some of the country's economic problems can be alleviated. Findings of this investigation will assist in regional trade policy formulation not only based on a priori judgement of trade flows, but also on estimations of trade flow functions. This study is an additional dimension to studies on integration in Eastern and Southern Africa which in the past have been mostly based on a priori judgement and observations of trends of trade flows.

1.10: Objectives of the Study

The purposes of this study are to:

(a) assign Trade Creation, Trade Diversion, Gross Trade Erosion, and External Trade Creation due to PTA on Kenya trade flows,

(b) estimate Kenya's regional export functions for the periods 1971-1987, and examine shifts in domestic income elasticity of export supply and foreign income elasticity of Kenya's export demand.

(c) give a general descriptive evaluation of trade creation and diversion due to PTA on Kenya, considering also, other potential benefits from PTA that may accrue to Kenya in future.

1.11: Research Methodology

This study involves an ex-post residual market share and econometric analysis of Kenya's trade flows with the other PTA and non-PTA member states. The dynamic econometric model used is to establish the significance of regional integration. A chart showing

the trend of Kenya's trade from 1964 to 1987 is provided to show the direction of Kenya's trade (Appendix 7).

Out of the 18 PTA member countries and 36 non-PTA member countries, 5 of each group are selected for a detailed analysis in this study. The criteria for selection is their prominence in Kenya's import and export trade over the duration under consideration and data availability. These countries also show substantial dissimilarities among themselves and with Kenya in their GNP and population figures.

The ten countries are assumed to represent the world in which Kenya trades.

Time series data on the variables considered relevant in the literature of regional integration were collected, arranged, manipulated and analysed in chapter 4 of this study. Data collection required research assistants as the period covered (1964-1987) obliged me to consult diverse sources. The nature of the function obliged me to use the computer for regression and analysis.

1.12: Significance of the Study

Kenya has great desires to industrialize and maximize its economic gains from the economic development strategies at its disposal. It should reduce its balance of payment deficits levels and have a higher rate of development. Kenya should also raise its capacity utilization to reduce the widespread unemployment that exists and be self-sufficient in food. To justify supporting regional integration within the PTA area, Kenya must gain from it. These shall provide the motivation for precise policy formulation and implementation in matters of regional trade that are in its utmost socio-economic and political interests. The residual market share model gives the short term effects of PTA integration. The results of that analysis are corroborated by an additional econometric analysis. Apart from examining Kenya's trade performance within PTA and providing grounds for policy formulation for regional trade, this study also provides a basis for further studies.

Notes

1. For example, between 1976 and 1984, the Tanzanian GDP fell while its rate of inflation rose from 11% in 1976 to 36% in 1984. During the same period, Tanzani's balance of payments deficits and unemployment levels worsened. The capacity utilization in the Tanzanian Economy during the period fell to less than a third (PTA News Dec 1987/Jan 1988).

2. By 1988, the Following countries were registered PTA members: Kenya, Uganda, Tanzania, Zambia, Zimbabwe, Ethiopia, Somalia, Burundi, Rwanda, Malawi, Mauritius, Swaziland, Comoros, Djibouti, and Lesotho. By the end of 1989, the only countries in the subregion which had not acceded to the PTA treaty were Seychelles and Botswana.

3. Also see manufacturing output indices for Kenya for 1979 to 1986 in the CBK quarterly and Annual Financial Reports 1988.

4. This is in comparison with those of the other PTA states for the duration under the study. See their respective statistics on GDP and employment in the UN Statistical Yearbook 1988. For Kenya, the income elasticity of employment calculated with an assumption of linear relationship between income and employment between 1980 and 1981 was 0.295 and between 1985 and 1986, it was 0.27. The income used here was GDP at the 1982 prices.

5. computed from Statistical Abstracts 1966-1988.

6. Machlup, F. ed. (1986), *Economic Integration, Worldwide, Regional, Sectoral*. New York: Stockton.

7. In integration, third countries refer to all countries other than those in the scheme in question. For example, all countries other than the EEC member countries are third countries in the EEC trade.

8. *The Economist*, April 21, 1990.

9. Initially, the EEC member countries included Belgium, France, West Germany, Luxembourg, and Netherlands. In 1973, the United Kingdom, Denmark and Ireland joined the EEC. The former two withdrew from the EFTA. In the same year, the EEC concluded a trade cooperation agreement with the remaining EFTA members. This weakened EFTA (Ojo 1975). Currrently, the EEC is made up of 12 countries including Greece and Spain.

10. *The Economist*, 21st April, 1990.

11. The share of Less Developed Countries in CMEA imports was 3.6% in 1953, 7.4% in 1959 and 8.7% in 1971

12. The Southern African Development Coordination Conference (SADCC) was formed in 1979 by five Frontline States namely Mozambique, Zambia, Tanzania, Botswana and Angola. Others invited to join and did join were Lesotho, Swaziland, Zimbabwe, Malawi and Namibia after its independence (Mathews 1984).

13. Formed in 1960, LAFTA was made up of Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Mexico, Paraguay, Peru, Uruguay and Venezuela.

14. UDEAC was formed in 1964 by Cameroon, Central African Republic, Congo Brazaville, and Gabon.

15. CEAO was formed by Ivory Coast, Mali, Mauritania, Niger, Senegal and Upper Volta.

16. ECOWAS was formed in 1975. Its members includes Benin, Burkina Faso, Cote d'Ivore, Mali, Mauritania, Niger, Senegal, Guinea, Liberia, Siera Loene, Cape Verde, Gambia, Ghana, Nigeria and Togo. (Source: World Development Report 1989)

17. CACM was formed in 1960. Its members included Costa Rica, El Salvador, Guatemala, Honduras, and Nicaragua.

18. ACM was formed in 1969. its members included Bolivia, Chile, Colombia, Ecuador, Peru and Venezuela.

19. The Caribbean Community formerly known as Caribean Free Trade Area was formed in 1968. Its members were Antigua, Barbados, Belize, Dominica, Grenada, Guyana, Jamaica, Montserrat, St. Kitts-Nevis-Anguilla, St. Lucia, St. Vincent, Trinidad and Tobago.

20. See OAU (1982) for the details of all the suggestions to alleviate the African economic problems identified. Among these is the formation of African regional cooperations of which the PTA, ECOWAS and SADCC are living testimonies.

21. See *PTA News* December 3-4, 1987 for the argument advanced by Uganda for having not optimally used the PTA Clearance House. For the years 1985, 1986 and 1987, Uganda's total exports to the subregion amounted to US$ 11,000 and her total imports from the area that passed through the Clearance House amounted to only US$ 3.2 million. This was far below what it ought to have been.

22. The BLS states are also members of the South African Customs Union (SACU) and the Rand Monetary Union (RMU). They therefore hold some allegiance to South Africa in respect of all economic arrangements they may enter into that may clash with her interest. Djibouti and Comoros on the other hand are generally considered poor. These temporary exemptions to them are provided for equity.

23. Burundi is among the relatively poor countries of the subregion. By the Charter of this Bank, priority is given to financing development projects in the relatively underdeveloped areas of the region to raise their levels of development.

24. The effects on a country's exports caused by variations in other country's national income levels are the spread effects (Robson 1968).

25. See *PTA Business* October, 1987

26. Trade deflection occurs where it is possible for imports from outside the scheme to bypass the discrimination in the region by entry into the region through a low tariff country (Balassa 1961).

27. Most of the countries in the sub-region obtained their independence after 1960.

28. The first signatories to the Treaty at the heads of states conference in Lusaka, Zambia, in December 1981 were Kenya, Uganda, Comoros, Djibouti, Malawi, Somalia, Ethiopia, Mauritius and the host country Zambia.In 1982, Lesotho and Swaziland signed the Treaty. Rwanda and Burundi also followed subsequently.

29. These include Angola, Botswana, Comoros, Djibouti, Ethiopia, Kenya, Lesotho, Madagascar, malawi, Mauritius, Mozambique, Seychelles, Somalia, Swaziland, Tanzania, Uganda, Zambia, Zimbabwe, Rwanda and Burundi. Only Botswana and Seychelles have not acceded to the Treaty

30. See PTA News March/April 1988 Vol. 10 No. 1.

31. See *PTA Business* October 1987 for the trend of intra-PTA trade trend excluding Lesotho and Swaziland.

32. See *Kenya Gazette* No. 30, 1988 for the details of the list of common goods published by Kenya. For other details, see the Import Schedule (1988) for goods accorded preferential treatment in intra-PTA trade.

33. At most, a one year lag would be more appropriate for all these periods for correct reflections of the effect of these shocks. The table reflects these quite well.

34. This was based on my computation from export figures taken from CBK Annual Financial Reports of various years. See Coppock (1962) for the expression to compute the export instability index.

35. Others here include other Western Europe, Eastern Europe, the USA, Canada, and any others.

36. Others here include Canada,Other Western European Countries, Eastern European countries, and all other countries.

37. A one week reference of the unemployed (defined conventionally as those willing and able to work at the going wage rate, actively looking for but are unable to procure an income generating work) revealed unemployment rate of 14.8% for Kenya in 1986 (Republic of Kenya 1988). This is reasonably high.

38. In 1987, Kenya's total debt stood at US$ 5.95 million. As a ratio of its export in that year, this was 342:1. On the face of it, this may not be considered a very bad position if its ratio is compared with those of other PTA countries that were above this ratio. For details, See Killick and Martin (1989)

CHAPTER TWO

LITERATURE REVIEW

Little literature exists on the Preferential Trade Area for Eastern and Southern Africa for an adequate evaluation of trade creation and diversion effects of integration. The study by Hall (1987) examined the PTA, its strategy, progress and problems but with little attempt to estimate its static effects[1]. She observed that the relatively more developed countries of the region like Kenya and Zimbabwe have higher prospects in the integration and may benefit more from the PTA scheme. She derives her evidence for the prospects for Kenya's benefit in the PTA from the surplus trade that Kenya has had in the sub-region from 1981. Olwa (1984) concurs with Hall and recognizes that the PTA has potential benefits to Kenya. The work by Kibua (1984), a synthesis of seminar presentations on regional cooperation and development, observed that chances of increased trade between Kenya and other countries in the East African region are high with integration. None of the above estimated the static effects of PTA on Kenya.

The first attempt in East Africa to estimate the effects of integration was by Brown (1961) followed by Ghai (1965) and a comment on both of these by Newlyn (1965). These were studies in times of crisis of the East African Common Market. The focus of the attention in these studies were the benefits the East African Countries would gain at the collapse of the Common Market. These are of little relevance to this study since the attention here is on what benefits a country obtains from its membership into a scheme.

Economists have theorized on the impact of regional economic integration on the economic activities of integrated countries. Authorities in regional integration recognize that economic integration is not an end in itself (Vaistos 1973) nor is it a panacea to all the economic ills a developing country may be facing at any time. The developing countries consider it as a solution to their worsening trading relations with the rest of the world, particularly with the developed Western Countries. This is more so as they hope that through integration, their

terms of trade can improve. They also note that its outcomes are not value free. They require some sacrifice by the integrating states without which very little benefits would be derived. Integration has different policy implications and outcomes that must be justified on the basis of socio-economic and political interests it serves.

Viner (1950), Meade (1953), Makower and Morton (1953), Balassa (1961) and Tinbergen (1962), provide sound theoretical foundations and framework on which studies on the effects of integration are based. All of them agree that integration may have positive and negative effects on the participating as well as the non-participating countries. Balassa (1961) for example, considers regional economic integration as an effort to counteract the undesirable trade diverting effects of other more developed regions. The success to do this is in the interest of the participating countries. He continues to argue that if economic integration causes a fall in the quantities of goods bought by people in a region, then its allocative effects lowers people's welfare. He identifies various benefits that a country may reap from integration. These include mitigating undesirable fluctuations in growth transmitted through foreign trade relations, increased economic growth through dynamic factors like reaping the benefits of economies of scale in a wider market, lessening uncertainties in intra-trade, efficient production and resource allocation, technological diffusion, improved capacity utilization, and a general improvement in people's welfare. Integrated states may also improve their bargaining position in international trade and have mutual social relations among themselves. He discusses the allocative effects of integration that uses tariffs to discriminate against foreign goods and consequently obliges the consumers to shift their purchases from cheap foreign sources of supply to more expensive local sources of supply. He concludes that such diverting effects of integration have adverse effects on consumption and consequently on production. Many authorities on integration concur with Balassa over these.

Meade (1953) argues that the distribution of real income component of economic welfare derived from integration implies both static and dynamic economic efficiency in

production and exchange. He recommends that the observations be made of the trend of savings ratio (S/Y) to reflect the dynamic effects of integration. This is an oversimplified index which assumes that the change in the trend of this index is solely due to integration. There can be other factors like the domestic rate of inflation or a tax on interest income that can significantly influence the levels of savings in an economy over time. He also points to the significance of the increased bargaining power integrating countries would derive in their trade relations with the outside countries. He attributes this to the concerted efforts that no single developing country can acquire alone. At least for the Developing Countries whose attempts to convince the developed countries to change the Present International Economic Order have met with unbridled resistance, integration to acquire bargaining powers is most fitting. Viner's analysis of welfare gains and losses from trade creation and trade diversion effects of a customs union, formed the foundation on which later works by Meade (1953), Makower and Morton (1953) Lipsey (1960) and Johnson (1962) were based. Corado and de Melo (1983) however, argue that Vinerian Approach to evaluation of trade creation and trade diversion effects of integration, ignores effects of integration on exports. This is a lope sided argument which does not consider imports of a country as an export of the other country.

In his inquiry into whether an integration (A customs Union) leads to free trade or greater protection, Viner (1950) developed fundamental theoretical concepts of trade creation and trade diversion. Using Ricardian model of production that focuses on welfare effects of integration as it affects production, he showed that integration has two contrasting forces. These are trade creation arising from elimination of protection of domestic producers from their counterparts in the partner states, and trade diversion that arises from increased protection granted to domestic producers against third country producers through the extension of their protected market to the partner country. He concluded in his analysis that integration has net trade creating effects on the integrated states. His concepts however still remain difficult to understand and measure precisely.

Viner (1950), Meade (1953), and Tinbergen (1959) concur that larger regional integration yields positive benefits to the member states. Meade argues, unlike Bye. (1953) and Kindleberger (1951), that integration fosters competition and loosens monopolistic and oligopolistic market structures likely to develop in a highly protected small market. By removing trade barriers, integration lessens fear of retaliation among businessmen and permits free exchange of market information necessary for increased cross trade among the businessmen. Similar views were expressed in favour of a wider integration of Africa in the 1965 Nairobi Conference (Austin 1967). The assumption behind this opinion is that no member country will resort to unilateral protectionist practices that will harm its partner-states. Duncan (1950), Hawtrey (1944) and Ropke (1958) hold a contrary view. Young (1928) however considers that the size of integration be measured by the volume of production and that a region should be such that its transport costs do not create natural resistance to intra-regional trade. He adds that the population within a region should have a relatively uniform taste and preference to facilitate standardization of goods produced and exchanged within the area.

Though much effort has been put into estimating only two components of static effects of integration namely Trade Creation and Trade Diversion (Corado and de Melo 1983, Pelzman 1973, Truman 1969, Kreinin 1969 and Balassa 1967), at the exclusion of the effects of integration on the third component of the static effects of integration, namely the terms of trade effects, still much needs to be done to measure the dynamic effects of integration.

UNCTAD (1972) used the compound growth rates in trade within certain regions (table 2A) to illustrate the trade creation effects of regional economic integration.

Table 2A: Compound Annual Growth Rate in Intra-trade Effects of Integration Between 1960 and 1968

Region	Growth Rate
Latin American Free Trade Area	7.3%
Central American Common Market	28.8%
Central African Customs and Economic Union	23.2%
East African Common Market	7.9%

Source: UNCTAD 1972.

Similar drastic intra-trade creations were also observed in the Caribbean Free Trade Area (CFTA) soon after all duties were removed on certain goods from a number of countries in 1967. These growth rates do not adequately indicate the trade creation effects of an integration. This is because they give no estimate of the percentage in growth attributed to integration apart from that which is due to natural growth in trade or other factors other than integration. However, they serve as evidence on which Balassa (1961) dismissed Kindleberger's pessimistic views. Kindleberger's static assumption, did not foresee the possibilities of exploitation of idle industrial capacity that integration may facilitate. Again care needs to be taken since these UNCTAD figures do not present pre-integration trends for comparison nor do they give estimates of growth in trade that would be wholly ascribed to integration.

Pazos (1973) showed that more of the total CACM intra-trade between 1960 and 1968 was made up of 74% of the goods classified as manufactures whose trade grew at an annual rate of 38%. This was a further proof that through integration, idle industrial capacity can be exploited. Except for transport constraints, both LAFTA and CACM showed great potential gains that the integrated countries would derive from internal economies of scale in the production of automobiles, machinery, and chemicals (Balassa 1961). While it is not easy to precisely measure the trade creation and trade diversion effects of an integration, Diaz-Alejandro (1970) argues that development through integration necessarily involves trade diversion. This obliges consumers to shift from low cost foreign sources to high cost inefficient local sources of supply. Pazos (1973) found that the imports for the CACM for the period 1958

and 1968 increased as follows:

Table 2B: CACM Import Growth 1958-1968

Source of Import	growth Rate Per Annum
From the area	8.8%
From outside the area	1.8%
Total imports	2.8%

Source: Based on data from **Instituto Para La Intagracio America Latina** (1972), adapted by Pazos 1973.

These showed that intra-area imports increased more than the extra-area imports after the integration, possibly due to integration. The disaggregated figures by commodity imports also showed that except for durable consumer goods, all other imports from outside the area declined proportionately. Pazos concluded that the integration of the area intensified competition among the Central American States and as a result, may have improved intra-industrial specialization. Viner (1950) says that in cases where trade creation outweighs trade diversion, the beneficial effects predominate. He however did not pay attention to other possible short term integration effects like External Trade Creation, External Trade Erosion or Gross Trade Erosion that may predominate in an integration.

On the effects of integration on people's costs of living, Pazos (1973) found only mild increases in consumer prices in Central American countries from 1960 to 1968. He however doesn't give the pre-integration consumer price trends or estimates of the marginal effects of integration on price levels. This makes it difficult to ascribe the whole of the mild price increases in the region over the time to the effects of integration.

The literature reviewed above proves that integration must not be expected to produce only beneficial effects on participating countries. The effects of Trade Diversion on the whole, lower people's welfare. This study deviates from such general observations and crude estimates of trade flows. It goes further and estimates the static effects of integration. Unlike many studies that use single models, it has used two models as explained in chapters 3 and 4.

Several models of ex-ante and ex-post types have been suggested and used in evaluation

of the static effects of integration in various regions of the world. These models have their respective strengths and weaknesses based on their assumptions.

Corado and de Melo (1983), used static and dynamic structural ex-ante models to analyze the resource and welfare implications of Portugal's entry into the European Economic Community. They identified that the entry of Portugal into the EEC would have different effects in different sectors in the country. The model was:

$$X_{pd}^{s} = D\{P_d, P_m, (P_{me}, P_{mr})\} + E_e(P_{we}) + E_r(P_{wr})$$

where X_{pd}^{s} = domestic export supply,

P_d = domestic price of the domestically produced good,

P_m = domestic currency prices of all imports,

P_{me} = domestic currency prices of imports from partner country e.

P_{mr} = domestic currency prices of the non-partner country that trades with the country in question,

P_{wr} = foreign currency prices of exports to non-partner country r

P_{we} = foreign currency prices of exports to the partner country e

e = the partner country in the EEC,

r = the non-partner country that trades with country in question,

E_e = the country's exports to the partner country,

E_r = the country's exports to non-partner country r,

They calculated the elasticity of substitution between imports and domestic goods (s_1) from the following equations:

$$dD/D = s_1\{(dP/P)-(dP_d/P_d)\}-e^{d}dP/ \quad (1)$$

hence

$$s_1 = \{(dD/D)+(e^{d}dP/P)\}/\{(dP/P)-(dP_d/P_d)\} \quad (2)$$

and $$dM/M = s_1\{(dP/P)-(dP_m/P_m)\}-e^{d}dP/P \quad (3)$$

hence

$$s_1 = \{(dM/M) + (e^d dP/P)\}/\{(dP/P - dP_m/P_m)\} \quad (4)$$

and the elasticity of substitution between imports from partner country (e) and from the non-partner country r, (s_2) from the following equations:

$$dM_e/M_e = s_2\{(dP_m/P_m) - (dP_{me}/P_{me})\} + dM/M \quad (5)$$

hence

$$s_2 = \{(dM_e/M_e) - (dM/M)\}/\{(dP_m/P_m) - (dP_{me}/P_{me})\} \quad (6)$$

and $$dM_r/M_r = s_2\{(dP_m/P_m) - (dP_{mr}/P_{mr})\} + dM/M \quad (7)$$

hence

$$s_2 = \{(dM_r/M_r) - (dM/M)\}/\{(dP_m/P_m) - (dP_{mr}/P_{mr})\} \quad (8)$$

From these elasticities of import substitutions, they observed that the accession of Portugal into the EEC had different effects in different sectors in the country's economy. (Appendix 1, table 1: Corado and de Melo, 1983)

In addition they estimated the price and income elasticities from the following log-linear function:

$$\text{Log}(M/D) = b_0 + b_1\log(P_d) + b_2\log(P_m) + b_3\log(Y) + u$$

this being the function from which the extent of substitution of import with domestic production is analysed and

$$\log(M_e/M_r) = c_0 + c_1\log(P_{mr}) + c_2\log(P_{me}) + c_3\log(Y) + v$$

being the function from which the extent of import substitution from different sources is

analysed. In these equations, u and v are well behaved error terms.

They proceeded to test if the domestic price elasticity of demand for domestically produced goods (b_1) and the import price elasticity of demand (b_2) are equal but with different signs The same test was done for c_1 and c_2. In many cases they were not able to reject the null hypothesis (appendix 2, Table 2 from Corado and de Melo 1969).

The accuracy of such an ex-ante model depends on the reliability of the price elasticities (b_1, b_2, C_1 and c_2) used. Given that these elasticities are correct, businessmen who normally consider that the tariff changes are irreversible, adjust their operations accordingly in anticipation of such changes in the course of integration.

Verdoorn (1956) estimated the domestic import elasticity of substitution[2] as -0.5 and an elasticity of substitution between different countries exports in Europe as -0.2. He showed that of the $68.8 million gain from gross or crude European trade creation effects of integration, $68 million was lost due to trade diversion, leaving a net effect of only $0.8 million. The values of elasticity of import substitution measure the degree of adaptability and reallocative capacity of the importing country as measures to restrict imports are raised. In theory, if the income elasticity of demand for the importables in the importing country is high, the exporting country stands to gain from the export trade, given that it confines its growth possibilities in the export sector. The exporting country will have its terms of trade (P_x/P_m) improved depending on the growth of the importing country as the trend of its income growth may show.

Kreinin (1969) used a non-dynamic import demand function of ex-post type, with real GNP and price relatives as explanatory variables to analyse the effects of European integration (the EEC and EFTA). His model was:

$$\ln M = a_0 + a_1 \ln GNP + a_2 \ln P'$$

where M is import volume index

GNP is real GNP

P' is the ratio of the import price index to the domestic wholesale price index.

Using aggregated import figures, he estimated import functions for each country in the EEC and those from the non-EEC members. The estimates were then fitted to the annual figures of 1953-1961 and 1953-1962 and extrapolated for the periods 1962-1965 and 1963-65 respectively. The second estimation was done to check the existence of a stable relationships in the function. His results revealed that for all EEC countries, except Italy, the income elasticity of demand for imports for the 1953-1961 figures, was positive and statistically significant. The index was also higher than those of imports from non-EEC member countries. The relative price elasticity of demand for imports into the EEC was either insignificant statistically or had a wrong sign (+) except for Belgium. Simulation of import-demand functions for the period 1953-1961 showed that the trade creation was more than trade diversion in the EEC. As is expected in theory, the Trade Creation effects should be increasing yearly with no reversals. This was not confirmed by Kreinin's study of the EEC. His earlier use of the same model for the US economy however established that the relative price elasticity of imports was statistically significant (Kreinin 1967). He attributed the unsatisfactory outcome of the EEC study to the inclusion of non-manufactured goods and the use of annual rather than quarterly figures. It may not have been valid to subject the elasticities of these two economies to some comparison as the forces that explain the differences in these elasticities are different. In the EEC, the integration effects were operational while such forces were non-existent in the US. His study also found that the static effects of the integration were extremely small. For EFTA, he found that the price coefficient had either a wrong sign (+) or was statistically insignificant, at least in the cases of Portugal and United Kingdom. For the periods that he studied, TC and TD for EFTA were $5.4 million and $3.3 million respectively. These were considered inconsequential by any standard. His use of real GNP and price relative as explanatory variables at the exclusion of other factors that in theory are considered as determinants of import demand in a country, are not clearly justified. This model is over-simplified and it is likely that

if other factors like population size of importing and exporting countries, and the economic distances between major commercial centres of the countries he studied were taken into consideration in his study, better results could have been obtained.

Pelzman (1973) also used a non-dynamic ex-post but a more comprehensive modified export gravity flow model expressed as:

$$\log X_{ij} = g_0 + g_1 \log Y_j + g_2 \log Y_i + g_3 \log N_j + g_4 \log N_i + g_5 \log D_{ij} + g_6 \log P_{ij} + \log e_{ij}$$

where log = ln

X_{ij} = value of export of country i to country j

Y_i, Y_j are the GNP of countries i and j respectively

N_i, N_j are the population sizes of the countries

D_{ij} is the geographical distance between the major commercial centres of countries i and j

P_{ij} is the preference variable that indicates membership of countries i and j in the EEC.

e_{ij} is a well behaved error term.

$g_1, g_2, \ldots g_6$ are partial elasticities of the variable used.

The model was developed by Tinbergen (1962) and Scandinavian Economists Poyhonen (1963), Pullianen (1963) and Linneman (1966). The assumption of this model is that in the absence of integration the elasticities of the explanatory variables remain unchanged. This therefore requires that the hypothetical (ante-monde) and actual trade flows be computed from the model. Pelzman used this model to analyze the trade creation and trade diversion effects of the Council for Mutual Economic Assistance (CMEA[3]). His function estimated using the aggregated commodity data for the period 1954 to 1970 revealed the following outcome:

$$\log X_{ij} = 6.72 + 0.788 \log Y_j + 0.954 \log Y_i - 0.177 \log N_j - 0.283 \log N_{>1.22 \log D_{ij}} + 2.788 \log P_{ij}$$

S.E (0.03) (0.03) (0.03) (0.04) (0.03) (0.1)

$R^2 = 58\%$.

Leaving out the preference variable, he also estimated the function for the period 1954 to 1964

and obtained the following outcome:

$$\log X_{ij} = 8.574 + 0.58\log Y_j + 0.91\log Y_i + 0.111\log N_j - 0.178\log N_i - 1.509\log D_{ij}$$
$$\qquad\qquad (0.08) \quad (0.08) \quad (0.08) \quad (0.08) \quad (0.05)$$
$$R^2 = 52\%$$

He found that the results of Gross Trade Creation (GTC) conformed with the theoretical expectations i.e. increasing yearly with no reversals for the total CMEA trade. His results for each individual country however produced certain inconsistencies with the theory particularly for Czechoslovakia and Rumania whose trade creation figures revealed reversals in 1968 and 1969 respectively. This possibly reflected the different internal policies that these countries developed. His disaggregated commodity data produced results that were more inconsistent with the theory. However this model doesn't have any theoretical justification in econometrics for using mileage in time series analysis of bilateral trade. It however remains ideal with few adjustments as are made in this study, for use even for the less developed countries where no massive data for more complex models are available. It provides a firm grip on trade flows than the residual market share models used by Meade (1953) and Balassa (1963, 1967). It is a more fully specified model than those by Kreinin (1974, 1969 and 1967) that are crudely specified to capture the effects of fewer variables only (income and Price relatives only). The model captures the effects of most of the significant variables that influence a country's trade flows.

Balassa (1961) used the trend of import-income ratio (M/Y), and a comparison of import growth rate (dM/M) with economic growth rate (dY/Y) to evaluate the effects of integration. He concluded that the Income elasticity of imports ((dM/dY)*(Y/M)) of a country would indicate the extent of Trade Creation and Trade Diversion effects of an integration. To isolate the effects of economic growth rates on the trade flow, Balassa (1967) used the trend of the ex-post income elasticity of demand for imports for the pre- and post-integration periods for intra- and inter-trade to evaluate the effects of the European integration. A rise in the index in the intra-area import indicated Gross Trade Creation while its increase in imports from all

sources of supply indicated Trade Creation. The fall in the index in extra-area imports indicated Trade Diversion effects. His disaggreagated commodity data showed that this integration produced Trade Creation effects on certain commodities and Trade Diversion on others. He also recommends the use of comparison between changes in trade d(X + M) expressed as a percentage of GDP in the pre- and post-integration periods as an indicator of either Trade Creation or Trade Diversion. This residual market share model used by Balassa also takes for granted that a country's growth is symmetrical to its gross trade (Exports plus imports). Such an assumption is invalid when the growth rate of a country is attributed to other factors internal to the economy other than trade or even when the growth in a country's exports and imports have nothing to do with integration. It fails to consider the effects of changes in the competitive position of a country that may affect its external trade flows as a result of variation in the exchange rate of the country relative to that of the rest of the world. He however maintains that integration would improve the terms of trade for the integrated countries if foreign elasticity of demand for domestic exports and domestic elasticity of export supply are more elastic than the domestic elasticity for foreign imports and foreign elasticity of import supply. As a residual computation approach, this model assumes that in the absence of integration, the index would not change and that it is integration that causes it to change. The model ignores the domestic trade and concentrates only on the foreign trade. To measure the effects of integration more objectively, a model that enables one to observe the changes in trade matrices of both the domestic and foreign trade is more useful (Waelbroeck 1986).

Pazos (1973) showed that with the formation of the CACM, the intra-CACM export trade increased faster such that the partner states came to depend on the intra-regional market for a large share of their total exports. He showed the import and export share of each of the partner states with marked differences of the effects of integration on the countries' balance of payments between 1966 and 1968. For example, Guatemala and El Salvador had export balances with the region while Honduras and Nicaragua had persistent import balances for the

period 1966-1968. During the same period, Costa Rica had a small export balance in 1966 and deficits in 1967 and 1968. He also noted a considerable diversification in production and trade in the region after integration.

All these models except the ex-ante model used by Corado and de Melo (1983) are non-dynamic in the sense that they all deal with trade functions using current values of the explanatory variables. How a country's total external trade in the current year depends on its current income does not lend itself to practice. Countries, for example, import goods most probably from their previous year's incomes. Import and export order placements and payments have time lags of not less than six months. It is also possible that countries export goods produced with the help of factors of production acquired from their previous year's income. This argument lends support to the lag in the countries' incomes to be used as explanatory variables in this study.

Notes

1. Static effects of integration are evident in a country's efficient resource allocation shown by an optimal production equilibrium on the country's production possibility curve. The Dynamic effects are however shown by an outward shift of a country's production possibility curve.

2. The domestic elasticity of import substitution measures the degree of responsiveness of import replacement with domestic production following the imposition of trade restriction against imports.

3. The countries that make up the Council of Mutual Economic Assistance are Bulgaria, East Germany, Hungary, Poland, Romania and the USSR.

CHAPTER THREE

MODEL SPECIFICATION, HYPOTHESIS AND ESTIMATION

3.1: Model Specification

For the assignment of the Trade Creation and Trade Diversion, a residual market share model specified as a change in Kenya's trade as a percentage of its GDP is used as explained below[1]. This model is corroborated with the Finish model and is chosen for its simplicity among other reasons. In addition, it abstracts from the influence of changes in the growth rate of a country's GNP and therefore purports to indicate the short run allocative effects of integration more than all the models reviewed in this study. At the outset, it should be noted that it does not however capture the effects of non-recurring factors, structural changes in the economies and uncertainties that may influence the trade flows within a region after integration. It also does not take into account changes in the composition of trade overtime as it deals with aggregate trade figures summed up.

For the purpose of this study, an increase in this index in the trade between Kenya and a PTA country is Gross Trade Creation (GTC) while its fall is Gross Trade Erosion (GTE) (Truman 1975). On the other hand, an increase in this index for the total trade from all sources is Trade Creation (TC) proper while a fall in the index for the extra-area trade is Trade Diversion (TD). An increase in this index in the extra-area trade is External Trade Creation (ETC). Because these indices cannot be subjected to statistical tests of significance, this model is complemented with a modified dynamic export trade gravity flow model adapted from the Finnish model by Pelzman (1977)[2]. This model was used in its general equilibrium form. In this model, the price variable is eliminated so that the market clearing quantity depends solely on the forces of supply and demand and not on the price variable. This was developed by Tinbergen (1962), Poyhonen (1963) and Pulliainen (1963) and Linnenman (1966). It takes the form of:

$$\ln X_{ij} = a_0 + a_1 \ln N_i + a_2 \ln Y_i + a_3 \ln N_j + a_4 \ln Y_j + a_5 \ln D_{ij} + a_6 \ln P_{ij} + \ln e_{ij}.$$

It was used by Pelzman (1977) in evaluation of the static effects of the CMEA. Certain other modifications are made in the model as explained below.

The Finish model to be estimated in this study is modified as follows:

$$\ln X_{ij} = a_0 + a_1 \ln N_i + a_2 \ln Y_{i(-1)} + a_3 \ln N_j + a_4 \ln Y_{j(-1)} + a_5 \ln T_{ij} + a_6 \ln P_{ij} + \ln e_{ij}$$

where a_1, a_2 ....a_6 are partial Kenyan export elasticities with respect to the parameters used, where

i = Kenya,

j = trading partner of Kenya within or without PTA

$a_0 = \ln A_0$, an intercept showing the level of export flows that would obtain in the absence of the independent variables.

$Y_{j(-1)}$ = the Gross National Products of country j lagged by one year,

X_{ij} = value of Kenya's current exports to country j

$Y_{i(-1)}$ = Kenya's Gross National Product lagged by one year,

N_i = Kenya's Population,

N_j = Population figures of country j,

T_{ij} = Economic distance (Transport costs) between Kenya and its trading partner. It is 16% of f.o.b. values of Kenya's exports to foreign destination[3].

P_{ij} = a dummy preference variable reflecting membership (1) or non-membership (0) into PTA integration of country j,

e_{ij} = assumed well behaved disturbance vector,

All the models reviewed in this study except that by Corado and de Melo (1983) were non-dynamic. For the model used in this study, one year lags are introduced in Kenya's GNP and in the GNP of the countries that trade with Kenya within the PTA and outside PTA. This is because the current trade flows should be expected to depend on these countries' previous year's income and not on their current year's income. Kenya's partners are assumed to use their

previous year's incomes to purchase Kenya's exports and not their current incomes. Kenya is also assumed to use its previous year's incomes to hire production factors to produce its current year's exports.

Comparison of income elasticities of exports is done to establish if Kenya benefits by exporting to the PTA countries or to outside PTA. Ordinary Least Squares estimation technique is used. For Kenya's export to each of the 5 countries within and 5 outside PTA and to the assumed world, 22 separate export functions are estimated for the duration 1971 to 1987 with and without preference variable.

Tests of significance of the co-efficients estimated from these equations will assist to evaluate performance of Kenya's Export trade with the selected samples of PTA and non-PTA members. High standard errors and t-values for some coefficients in the test point to the source of multicollinearity among the explanatory variables.[4] The study drops the culprit variable as a solution.

3.2: Hypothesis

Tinbergen (1959) examined the Netherlands Economic Institute studies and came to a conclusion that the most important determinants of trade flows are the sizes of trading nations, geographic distance between them, their population sizes, and the preferential treatments they accord to each other. These are discussed below.

(i) The sizes of the trading nations

This is an area of controversy since what constitutes the size of a nation or a subregion seems not to have been settled among economists. For some like Kuznets (1959) the size of a market is measured by the population. Others consider it to be the land area covered by the country or region. This may not be useful in a bilateral trade analysis. This study adopts a suggestion by Young (1928) and measure it by GNP although arguments as to whether to use

the population size or geographical area covered has not been settled among some economists.

The size of the GNP of the country importing Kenya's Exports has double roles, namely indicating the country's demand for Kenya's exports and the degree of its production diversification. A more diversified trading partner has a lower propensity to buy Kenya's exports. In this study therefore, it is expected tha a positive relationship between Kenya's exports and its trading partners' GNP will be found to reflect their liberalized import trade policies. It however would not be strange if the relationship is negative as it would simply indicate the degree of their protectionism or possibly their high levels of production diversification.

The size of the GNP of the exporting country shows its export supply potential. The bigger the size of its GNP, the greater is its potential to supply exports. This is as I expect yet an inverse relationship between these if found, should indicate a strong domestic demand pressure on the goods it produces that it ought also to export.

(ii) The Geographic distance between the trading nations

To transport goods from supply sources to market destinations involves costs. The longer this separation between trading nations, the more costly is the transport cost and hence the more natural trade resistance between the nations. In this study, the geographic distance is replaced with the economic distance or transport costs of exports. The ratio arrived at by the Kenyan Government for import transport cost was 13.8% of c.i.f. value of imports (Economic Survey 1987), and using the suggestion by Beckerman (1956), the costs of transporting Kenyan exports is therefore 13.8%/86.2% of its f.o.b. value[5]. In this study, it is postulated that a higher transport costs for Kenyan exports have a negative impact on Kenyan exports. From the approach used to arrive at these transport costs, it is possible that as independent variables, the export transport costs may be a source of collinearity in the functions.

(iii) The population sizes of the trading nations

Much controversy surrounds the roles that the populations of the exporting and that of the importing countries play in the trade flow functions. The Rybcznski Theorem explains that on the assumption of linear production function that is homogeneous to degree one, the effects of the increasing factor (which in this case is labour) in the exporting country, depends on the sector in which the factor is used intensively (Rybcznski 1955). If the increasing labour is used intensively in the export sector, the volume of exportables increase. This is more so if the trading countries have homogeneous tastes and preferences. Given economies of scale and homogeneous tastes and preferences among the trading countries, a high population of the countries importing Kenya's exports creates high market potential for Kenya's exports. On the other hand, a high population of Kenya may create high potential for production and also importation for domestic use and hence less exports. In this study, it is postulated that a high population of Kenya has a negative impact on its export volume since much of the production goes into local consumption. It is also expected that the higher the population sizes of its trading partners, the higher is the volume of its exports to these countries to fill their local production deficits. It should however not be strange if the population elasticity of export obtains the sign not postulated since it would merely reflect non-homogeneous tastes and preferences or luck of consumer information among the trading nations.

(iv) Preferential treatments

Where countries accord each other some preferential treatments by charging the Most Favoured Nation (MFN) tariff in bilateral trade, the objective is to accelerate the commercial intercourse between them possibly at the exclusion of trade with other countries. It is expected that a positive preference elasticity should be obtained in Kenyan export functions in its bilateral trade with the PTA countries. The integration effects are expected to be positive and increasing in the Kenyan intra-area export functions to reflect the Gross Trade Creation but

to decline in its extra-PTA export functions to indicate the Trade Diversion effects of PTA.

3.3: Estimation

For the assignment of Trade Creation and trade Diversion using the residual market share model, the following steps are taken:

(a) for Kenya's year to year bilateral extra-PTA trade, the change in Kenya's trade as a percentage of Kenya's GDP for the period 1980 to 1987 is computed. Taking the figures from 1981 and assuming that the index had not changed from the 1980 index except for integration, a fall in this index is the Trade Diversion (TD) and its rise is External Trade Creation (ETC^6) that Kenya had with non-PTA member countries over the period. i.e. a change in trade as a percentage of GDP $= d(X+M)/GDP$ where d is change in Kenya's extra-area trade or

$TD = \{(X+M)-(X+M)(-1)\}/GDP$ if < the 1980 index,

and ETC if > the 1980 index.

(b) an increase in Kenya's trade calculated as a percentage of its GDP, with each of the PTA member states for the period 1981 to 1987 gives the Crude Trade Creation (CTC) Kenya had in its trade relations with the PTA Member states during the period. This is equivalent to Gross Trade Creation (GTC). A fall in this index is Gross Trade Erosion (GTE). The assumption here again is that no factor other than PTA integration caused a change in the index and that before 1981, the index had not varied significantly.

GTC = change in Kenya's trade as a percentage of GDP = $d(X+M)/GDP$.

or $GTC = \{(X+M)-(X+M)(-1)\}/GDP$ if > the 1980 index and

GTE if less than the 1980 index. $X+M$ is Kenya's gross trade with one trading partner within PTA.

(c) to get Kenya's net Trade Gains or Trade Creation (TC), an increase in Kenya's Gross

Trade as a percentage of its GDP with all its trading partners, is computed as follows:

$TC = \{(X+M)-(X+M)(-1)\}/GDP$ if > the 1980 index and

TE if it is less than the 1980 index. X + M is the gross Kenyan trade with all its trading partners for any given year.

In econometric analysis, an increase in Kenya's income elasticity of exports in the intra-PTA trade indicates Gross Trade Creation and its decline indicates Gross Trade Erosion. A fall in this statistic in extra-PTA trade indicates Trade Diversion while its increase indicates External Trade Creation. The increase in Kenya's income elasticity of export supply in total trade (extra- and intra-PTA trade) indicates Trade Creation proper while a fall in the statistic indicates Trade Erosion.

In both analysis above, the definitions by Balassa (1961) of the concepts of short term effects of integration in addition to the Truman cases (Appendix 2)are adopted.

3.4: Data Types and Sources

The data used in this study is time series secondary data from various government publications (Statistical Abstracts, Economic surveys, Sessional papers, the Central Bank of Kenya Quarterly and Annual Financial Reports, etc.), World Bank, IMF Publications, United Nations Statistical Yearbooks etc. No attempt was made to disaggregate the export data by commodities in this analysis. This is because the aggregate figures used are considered reasonably reliable enough for the purpose of the study and any bias is treated as tolerable and not misleading.

Notes

1. Trade here refers to the absolute sum of exports and imports. The concept can apply in a country's total trade (extra- and intra-area trade) as well as in bilateral extra-area and intra-area trade separately.

2. The Finish model was not dynamized and neither has any study used it in its dynamic form as has been done in this study.

3. These percentages are based on the computation by the Kenyan government (See *Economic survey* 1987) and the Beckerman rationale (Beckerman 1956)

4. Further tests of multicollinearity are rules of thumb that must be taken with caution. These are when $r <$ or $= R$ or if $r <$ or $= 0.8$ to indicate that the existing multicollinearity is not harmful (Farrar and Glauber 1967). r here is the sample correlation coefficient between any pair of explanatory variables in the function while R is the population correlation coefficient or the square root of Coefficient of Determination (R^2).

5. Beckerman (1956) suggests the use of a mark-up in the computation of the Transport costs of a country's exports to foreign destinations once a ratio of c.i.f. value of imports is known. This is suitable since obtaining the rates which commercial shipping and transporting agents apply is not possible. For reasons of competition, such agents consider their formulae as classified.

6. External Trade Creation (ETC) in the Kenyan case indicates that Kenya continued to trade more with the third countries than with the PTA member states after the integration.

CHAPTER FOUR

RESULTS AND INTERPRETATIONS

4.1: INTRODUCTION

In this study, five countries were selected from the PTA subregion and five from outside the subregion for the assignment of trade creation and trade diversion effects of PTA on Kenyan trade flows. Two models are used, namely the Residual Market share model and the Finish gravity flow econometric model. The econometric method is useful in the analysis of the shift of Kenya's income elasticities of export supply to reflect the short term integration effects of PTA.

The countries selected from the sub-region include Uganda, Rwanda, Burundi, Malawi and Zambia. These were selected on the basis of the data availability. They also have relatively significant and consistent trade with Kenya in the subregion. Those from outside the subregion include France, Italy, West Germany and the United Kingdom in the EEC and the USA. The criteria for their selection included their prominent position in Kenya's trade.

For each of these countries, time series data was collected on Kenya's exports to and imports from them, their respective population figures, and their respective GNPs at market prices. The export transport costs were computed based on Beckerman's reasoning i.e. 16% of f.o.b. value of Kenya's exports.[1] Also collected were data on Kenyan GDP, GNP both at market prices, population, its total exports and total imports and its gross trade (exports plus imports). The exports and imports as understood in this study comply with the definitions and recommendations of the United Nations International Standard Trade Classification (UN statistical Yearbook 1988). The exports comprise all outbound goods either wholly produced in Kenya or foreign goods neither transformed in Kenya nor declared for domestic use but are moving out of Customs storage, or naturalized goods that are outbound.[2] Imports comprise both goods that enter Kenya directly for domestic use and goods that enter into customs storage recorded at the first time of their arrival under the general trade systems. Since the

focus of the study is on the short term effects of PTA on Kenyan trade flows, a dummy preference variable was necessary for the PTA countries selected. 1980 was taken as the bench-mark from which the effects of PTA on Kenyan trade flows would be gauged. The formation of PTA in the year following must have had some announcement effects from 1981, which this study has lumped into its short term effects. The data collected was organized for both residual market share and econometric analysis.

4.2: Residual Market Share Analysis

Using the definitions of Gross Trade Creation as an increase in Kenyan trade in the PTA as a percentage of GDP, Trade Diversion as a fall in Kenyan trade with the third countries as a percentage of its GDP, and Trade Creation as an increase in Kenya's trade with all countries as a percentage of its GDP, the following formulas are used:

$GTC = \{(X+M)-(X+M)(-1)\}/GDP$ in the Kenya-intra-PTA trade,

$TC = \{(X+M)-(X+M)(-1)\}/GDP$ in the Kenyan Intra and extra-PTA trade, and

$TD = \{(X+M)-(X+M)(-1)\}/GDP$ in the Kenyan Extra-area trade.

The outcomes of these are given in tables 4A, 4B and 4C.

4.3: Kenya's Intra-PTA Trade

Table 4A: Change of Kenya's Intra-PTA Trade as a Percentage of GDP 1980 TO 1987

Year	Malawi	Uganda	Burundi	Zambia	Rwanda
1980	0.01	0.96	0.07	-0.01	0.24
1981	0.01	-0.30	0.19	-0.01	0.32
1982	-0.002	0.24	5.54	-0.01	-0.04
1983	-0.01	0.29	-4.9	-0.02	0.12
1984	-0.002	-0.03	0.02	0.002	0.02
1985	-0.001	0.09	-0.11	0.01	0.06
1986	0.0001	0.02	0.02	0.01	0.02
1987	-0.001	-0.14	0.04	0.02	-0.02

It was assumed that the post-1980 percentages would not have changed from the 1980 index in the absence of PTA integration and that no other factor other than PTA integration was operational to cause any important switches in these. The outcomes are analysed below.

In the Kenya-Malawi trade, the fall in the percentage after 1980 is indicative of Gross Trade Erosion. This phenomenon continued all the years but with inconsequential improvements in 1984, 1985 and 1986, only to worsen again in 1987. It shows that integration of Kenya with Malawi in the PTA is less important to Kenyan-Malawi trade. It was evident that Kenya was loosing hold of Malawi's market after 1980. The long distance over which Kenyan-Malawian trade transverses could be a force to explain this shift in the index.

In the Kenya-Uganda trade, the percentage falls by a substantial margin and never gains to come close to the 1980 index. In spite of Uganda having remained the principle market for Kenyan exports and source of its imports on the African continent for long, it appeared that its integration with Kenya in the PTA did not contribute to Gross Trade Creation for Kenya. Kenya continued to record surplus trade balances with Uganda just as it was in the pre-PTA integration period.

Burundi, among the PTA countries is among the poorest countries. The distance that its trade with Kenya covers goes through Uganda and to a limited extent through Tanzania. The rise in the percentage in 1981 and 1982 showed Gross Trade Creation. This declined in

1983 and remained so with very marginal improvements in 1984, 1986 and 1987. The observation is that Kenya gained in its integration with Burundi in the PTA in the formative years of the scheme.

The Kenya-Zambia trade has recorded mixed balances- surpluses in 1981, 1982 and 1983 but deficits after 1983 to 1987. This explicates the changing competitive positions of the two countries over time. The index in the Kenya-Zambia bilateral trade fell in 1981, indicative of the Gross Trade Erosion (GTE) or Gross Trade Dilution (GTD) that Kenya realized in its integration with Zambia. The recovery of this index from 1984 though negligible, indicated possible substantial Gross Trade Creation that Kenya will realize in its integration with Zambia if the political and economic environments in these countries remain attractive.

Rwanda is another of the poorest countries in the PTA subregion. Its bilateral trade with Kenya started to pick up from 1975 from whence Kenya's surplus trade balance with the country increased substantially. The Gross Trade Creation Kenya realized in its trade with this country in 1981 was quite small. The percentages in all other years upto 1987 was below the 1980 index though some improvements were recorded from 1983 to 1986.

These results show that the PTA integration did not contribute much to the realization of Gross Trade Creation in Kenya. It is however not possible to rule out any substantial benefits of this type overtime as the scheme matures.

4.4: Kenya's Extra-PTA Trade

The countries selected for this analysis include France, Italy, West Germany, the United Kingdom and the USA. Of these countries, only the USA is not a member of the EEC, the traditional market destination and source of Kenyan exports and imports respectively. Very characteristic of all these countries is that they are among the industrialized West. The outcome of the study is given in table 4B and analysed thereafter.

Table 4B: Change of Kenya's Extra-PTA Trade as a Percentage of GDP 1980-1987

Year	France	Italy	Germ.	U.K.	USA
1980	0.59	0.52	-1.75	0.79	0.21
1981	-0.04	-0.53	1.66	-0.13	-0.18
1982	-0.09	-0.21	0.07	-0.27	0.15
1983	0.42	-0.20	0.43	0.29	0.20
1984	0.39	0.57	0.99	1.70	-0.13
1985	0.04	-0.09	-0.13	0.09	0.62
1986	1.69	0.31	1.60	0.89	0.51
1987	-0.82	-0.06	-1.33	0.36	-0.10

In the Kenyan-French trade, the fall in the percentage in 1981 from the 1980 percentage showed Trade Diversion that could be attributed to the effects of the PTA integration. This meant that Kenyan trade with France declined. This index in fact remained below the 1980 index from 1981 to 1985. External Trade Creation (ETC) in the Kenyan-French trade was recorded in 1986.[3] This showed that in spite of PTA integration, Kenya's trade with France increased in 1986. There was Trade Diversion however in the Kenyan-French trade in 1987.

In the Kenyan Italian trade, there was Trade Diversion from 1981 to 1983 and from 1985 to 1987. In 1984, there was External Trade Creation shown by the increase in the percentage in that year above the 1980 index. This proved that the integration of Kenya in the PTA has had the diversion effects on the Kenyan-Italian trade and is likely to continue over the years as the scheme grows.

In the Kenyan-West German trade, the index rose above the 1980 figure from 1981 to 1987. This demonstrated that in spite of the PTA integration, Kenyan trade with Germany still continued to rise. Because of this External Trade Creation in this bilateral trade, then it is possible to postulate that over the period under study, the PTA had not usurped powers enough to divert Kenya's trade from West Germany. It is also possible that the nature of goods these countries trade like Wattle Bark exports from Kenya to West Germany and machineries Kenya imports from West Germany have obliged their bilateral trade to continue to rise.[4]

In the Kenyan-United Kingdom bilateral trade, the index calculated indicated Trade Diversion from 1981 to 1983, 1985 and 1987 and an External Trade Creation in 1984 and in 1986. If it is true that the PTA integration is to yield Trade diversion effects in the Kenyan-UK bilateral trade, its influence from 1981 to 1983 had to be upheld.

In the Kenyan-US bilateral trade, the Trade diversion was substantial from 1981 to 1987 apparently because some of the goods of interest to Kenya from USA were available within the PTA and that Kenya could also find a ready market for what it used to export to the USA in the PTA subregion.

4.5: Kenya's Total Trade Flows

Table 4C shows the effects of PTA on the total Kenyan external trade from 1981 to 1987 with 1980 as the base from which other years are gauged.

Table 4C:Change in Kenyan Total External Trade as a Percentage of GDP 1980 TO 1987

Year	Percentage
1980	16.79
1981	-0.56
1982	0.49
1983	2.26
1984	7.54
1986	5.38
1987	-1.45

The results from this table indicate that the formation of PTA in 1981 has not created any trade for Kenya and instead, Kenya had experienced trade erosion. This shows that PTA is still at its infancy to produce desirable short term integration effects and that some adequate time is required before such effects can be established.

Since a study based on one model may yield biased conclusions, this study has corroborated the outcomes of the market share analysis above with an econometric analysis to establish the short term effects of PTA integration on Kenya's trade flow.

4.6: Econometric Analysis

Kenya's export flows are analysed from 1971 to 1987 with a dummy preference variable. The focus is on the shift of income elasticity of Export supply from the pre-integration (ante-Monde) position to integration position.[5] For the PTA countries selected for this study, the modified Finish Model is estimated for the period 1971 to 1987 with no preference variable and then with a preference variable. For the non-PTA member states selected for this study, an anti-Monde (pre-integration) function is estimated for the period 1971 to 1987. The preference variable for integration of Zambia with Kenya is incorporated in the function to see if Zambian integration with Kenya in the PTA affects the Trade flow between Kenya and any of these Countries. Because of the high collinearity between export transport costs and export values, and also between current GNP and lagged GNP, the study assumed that the coefficients of export transport costs and current GNP are each equal to zero, i.e.

$\{(d\ln X_{ij}/d\ln T_{ij}) = (d\ln X_{ij}/d\ln Y_i) = (d\ln X_{ij}/d\ln Y_j) = 0\}$[6].

The outcomes are presented in the next section.

4.7: Kenyan Intra-PTA Trade

Tables 4D and 4E respectively present the pre-and post-integration estimated export functions of intra-PTA Kenyan trade.

Table 4D: Estimated Elasticities of Kenya,s Ante-monde Export Functions to PTA Countries 1971-1987

Par	Uganda	Rwanda	Burundi	Zambia	Malawi
C	19.501 (0.987)	-4.705 (-1.009)	-6.493 (-2.712)**	12.735 (6.069)	-1.576 (-.001)
N_i	13.8702 (1.5326)*	-3.7939 (-1.3083)	-1.8553 (-0.8535)	-2.2146 -0.8728	-2.7411 -0.7707
$Y_{i(-1)}$	3.393 (1.0578)	1.3539 (1.7464)*	5.4586 (7.9760)***	0.4305 (0.6248)	-0.3340 (-0.4661)
N_j	-23.703 (-1.076)	4.5662 (1.4675)*	-15.125 (-4.0421)***	-0.5617 (-0.3031)	5.7802 (0.8748)
$Y_{j(-1)}$	-2.6369 (-1.6608)*	-0.0288 (-0.0443)	-1.1457 (-2.5224)**	-1.07984 (-2.5220)**	0.0622 (0.2858)
R^2	0.42	0.93	0.97	0.85	0.21
F-Stat.	1.947	34 64	95.95	15.6	0.72

Notes: (1) In parenthesis are t-ratios, (2) level of significance: * = 10%, ** = 5%, *** = 1%, (3) df = 11, (4) F^* = 3.36.

The Kenyan population elasticity is positive and statistically significant in its exports to Uganda but negative and insignificant statistically in its exports to the rest of the PTA countries. This indicates the non-uniformity of tastes and preferences for Kenyan goods in these other PTA countries.

The Kenyan lagged GNP has a positive impact on its exports to all the PTA countries studied except Malawi. It is elastic in its export to Zambia and Malawi and statistically significant only in its exports to Rwanda and Burundi. The sign and size of this coefficient show the extent of domestic demand pressure on Kenya's exports. The negative statistically insignificant and inelastic coefficient in its exports to Malawi demonstrates that the same types of goods Kenya produces to export to Malawi are also in demand in Kenya. The local demand pressure is however inconsequential on Kenyan exports.

The population coefficient of its trading partners in the PTA sub-region are all elastic except in its export to Zambia and are only positive in its exports to Rwanda and Malawi but negative in its exports to the rest of the countries. This coefficient is however statistically significant in its exports to only Rwanda and Burundi. The negative population coefficient of

its trading partners in the PTA sub-region is indicative of lack of tastes and preferences for Kenyan exports among the citizens of Uganda, Burundi and Zambia[7]. This can be attributed to lack of information in these countries on Kenyan goods. This however may be questioned in the case of Uganda which has been a major Kenyan export market in Africa.

The lagged GNPs of Kenyan Trading partners in the PTA have all negative impact on Kenyan exports except to Malawi. This merely shows the extent to which these countries were closed to Kenyan exports before integration. The low explanatory powers of Kenya's export function to Malawi and Uganda show that some important explanatory variables are omitted from the functions. These could possibly be political factors in the case of Uganda and the long distance transversed by Kenyan exports in the case of Malawi. The low F-ratios for functions for these two countries testify to the joint insignificance of the explanatory variables used. For the other countries in the sub-region, the coefficient of determination and F-ratios are high.

The analysis given above is indicative of the situation as it would be in the absence of integration (an ante-Monde situation). Table 4E presents the results of the regression of

Kenya's export functions for some selected countries in PTA sub-region.

Table 4E: Estimated Elasticities Of Kenya's Export Functions 1971-1987 (with Preference Variable)

Par	Uganda	Rwanda	Burundi	Zambia	Malawi
C	19.035 (0.911)	-4.7198 (-1.016)	-7.001 (-2.687)**	6.971 (2.110)**	2.2174 (1.354)
N_i	12.775 (1.11)	-3.1480 (-1.066)	-0.3151 (-0.093)	-0.7611 (0.335)	-2.6124 (-1.005)
$Y_{i(-1)}$	3.1768 (0.883)	1.7970 (2.038)**	5.7553 (6.701)***	0.0645 (0.107)	0.0938 (0.1739)
N_j	-21.9169 (-0.8623)	1.9255 (0.4808)	-19 151 (-2.480)**	0.0905 (0.056)	1.7556 (0.3523)
$Y_{j(-1)}$	-2.5741 (-1.510)*	-2.2161 (0.3215)	-1.1419 (-2.440)**	-0.5255 (-1.1835)	-0.0158 (-0.0983)
P_{ij}	0.1851 (0.1675)	0.47 (1.0413)	-0.3992 (-0.6049)	-0.8608 (-2.223)**	0.6947 (3.2575)***
R^2	0.42	0.93	0.97	0.90	0.62
F-Stat.	1.425	28.14	72.41	17.94	3.2

Notes: (1) In parenthesis are t-ratios, (2) df = 10, (3) $F^* = 3.33$

As shown above, Kenyan population coefficient is only positive in its exports to Uganda and negative to the rest of the countries studied. The absolute sizes of the coefficient had however fallen and none of them is statistically significant in its exports to any of these countries.

The Coefficients of Kenyan lagged GNP is all positive except in its export to Zambia. All increased in size but were only elastic for its exports to Uganda, Rwanda and Burundi. This shows that the integration has enabled Kenya to diversify its production in goods whose markets are readily available in the subregion including Malawi. These goods are not affected by the domestic demand pressure. This increase in the size of this coefficient indicated the Gross Trade Creation effects of PTA integration. As was before integration, the coefficient was only statistically significant in Kenya's exports to Rwanda and Burundi.

The population coefficient of Kenya's trading partners in the subregion are all statistically insignificant except for Burundi. It was negative for Uganda and Burundi to

apparently reflect lack of tastes and preferences for Kenyan goods. This may be due to consumer ignorance in these countries of Kenyan goods[8].

The lagged GNP of its trading partners in the PTA subregion were all negative even for Malawi. Evidently, integration had not opened up the sub-regional markets for Kenyan goods. This may be due to the slow progress of the scheme from the start[9] and reluctance of member countries to implement the PTA Treaty Provisions in schedule.[10]

The preference variable coefficients were positive only for its exports to Uganda, Rwanda and Malawi but inelastic in its exports to all the countries in the subregion. This was another evidence that the PTA had been inconsequential on Kenya's export trade to the subregion as can also be testified to by the statistically insignificant coefficients in its exports to all the countries selected except Zambia and Malawi.

The inclusion of the preference variable in the functions has not improved the explanatory powers of the Kenya export functions for Uganda, Rwanda, and Burundi. Those for Zambia and Malawi were however improved.

4.8: Kenya's Extra-PTA Trade

The table 4F gives the estimated ante-Monde function of Kenyan export trade flows from 1971 to 1987.

Table 4F: Estimated Elasticities of Kenya's Ante-monde Extra-PTA Export Functions 1971-1987

	France	Italy	W. Ger.	UK	USA
C	106.083	-111.024	490.698	137.288	-10.348
	(0.5281)	(-1.829)**	(1.782)*	(1.416)*	(-3.960)***
N_i	2.4381	-2.6556	-2.412	1.595	-2.885
	(0.7183)	(-1.315)	(0.516)	(0.8004)	(-0.934)
$Y_{i(-1)}$	0.6723	1.852	-2.1925	0.7521	0.388
	(0.625)	(2.0523)**	(-1.065)	(1.1919)	(0.7356)
N_j	-32.456	28.859	-122.153	-35.6295	-0.0373
	(0.5893)	(1.889)**	(-1.821)**	(1.4565)*	(-0.262)
$Y_{j(-1)}$	1.0693	-0.813	3.1659	0.0135	1.345
	(0.944)	(-1.250)	(1.6376)*	(0.0311)	(2.1306)***
R^2	0.896	0.90	0.63	0.88	0.9
F-Stat.	23.81	25.66	4.698	20.63	24.89

Notes: (1) In parenthesis are t-ratios, (2) df = 11, (3) $F^* = 3.36$.

This was the ante-Monde position before the integration of Zambia with Kenya was introduced in each of these functions to establish its effects on export trade flows to these countries. The elasticities here are compared with those in table 4G. In these, the integration of Zambia with Kenya in the PTA has been incorporated in the export functions of Kenya in its bilateral trade with each of the 5 countries chosen for this study.

Kenyan population was statistically insignificant even at 10% level in its exports to all countries outside PTA subregion considered. Its lagged income had a statistically significant coefficient in its exports to Italy yet in its export trade with the others, the income coefficient was not different from zero. The coefficient was inelastic in its export to the USA, UK and France and was negative in its exports to West Germany. This negative coefficient of the lagged GNP of Kenya in its export trade with West Germany indicates the domestic demand pressure on the same commodities it produces to export to West Germany. But as expected in theory, the coefficient of GNP in Kenyan exports are positive in its exports to UK, Italy and USA.

The coefficient of the population of its trading partners are all elastic and negative in

its exports to all these non-PTA countries studied except Italy. It was statistically significant in its export trade to Italy, West Germany, and United Kingdom.

The lagged GNP of its trading partners outside PTA have statistically significant coefficients for its exports to only West Germany and USA and negative but insignificant statistically in its exports to Italy. The negative coefficient here indicates the degree of Italy's restriction on Kenyan exports. Of all these non-PTA countries chosen for the study, France, West Germany and the USA were open to Kenyan exports as indicated by the positive and elastic coefficients of their lagged GNP in Kenyan export functions.

The explanatory powers of the functions estimated here are reasonable. The high levels of F-Statistic indicates the joint significance of the variables used in the regressions. When the Zambian preference variable was introduced into Kenyan export functions for each of these countries, the outcome of the estimates in table 4G were obtained.

Table 4G: Estimated Elasticities of Kenya's Extra-PTA Export Functions 1971 -1987 (with Preference Variable)

Par	UK	W. Ger.	France	Italy	USA
C	119.47 (1.115)	775.71 (2.569)**	18.829 (0.1053)	-99.73 (-1.449)*	-12.05 (-3.225)***
N_i	1.8609 (0.8700	-7.7225 -1.463)*	3.3129 (1.1152)	-2.7527 (-1.31)	-2.8634 (-0.9023)
$Y_{i(-1)}$	0.6825 (1.018)	-1.9328 (-1.018)	-0.4348 (-.4084)	1.8646 (1.9933)**	0.3698 (0.6813)
N_j	-31.425 (-1.171)	-188.053 (-2.595)**	-11.191 (-0.230)	25.6201 (1.4939)*	-0.0324 (-0.222)
$Y_{j(-1)}$	0.0750 (0.1597)	3.0485 (1.7135)*	1.7956 (1.7200)*	-0.6401 (-0.8418)	1.4788 (2.1756)**
PZA	-0.1583 (-0.480)	1.3651 (1.7342)*	-0.8302 (-2.153)**	-0.1856 (-0.491)	-0.2048 (-0.655)
R^2	0.88	0.72	0.93	.91	0.90
F-Stat.	15.436	5.046	26.266	19.161	18.96

Notes: (1) In parenthesis are t-ratios, (2) df = 10, (3) $F^* = 3.33$

When the Zambian preference variable was introduced in each of Kenya's export functions to these non-PTA countries, Kenyan population coefficient was statistically significant only in its export to West Germany and to none else. The sizes of Kenyan population coefficients increased in absolute sizes in its exports to all these countries except USA. The integration of Zambia with Kenya however did not affect the signs of the coefficients.

Kenyan lagged GNP coefficient was statistically significant in its export only to Italy and to none else. The coefficient however declined in its export to UK indicating the Trade Diversion effects of the PTA on the Kenyan export trade flows to UK. Considering the absolute value changes in the coefficients, the decline in this coefficient in its export to West Germany, France and the USA also demonstrates the Trade Diversion Effects of the PTA integration. That to Italy however rose showing the External Trade Creation Effects that occurred in Kenya's export to Italy in spite of the formation of PTA in 1981.

The trading partners population coefficients in Kenya's exports to these countries were only statistically significant in its exports to West Germany and Italy. The coefficient was elastic in its exports to all countries considered except USA and was positive and statistically significant only in its exports to Italy. The negative coefficients of this variable for other countries simply reflect the non-uniformity of tastes and preferences among citizens of these countries for Kenyan exports.

The lagged GNP of Kenya's trading partners outside PTA were all positive, but were elastic for its exports only to West Germany and the USA. The coefficient was significant statistically in Kenya's export to West Germany, France and the USA. This elasticity indicates the degree of openness or otherwise of these countries to Kenyan exports. The UK and Italy were less open to Kenyan exports. But since Kenya was a party to the Arusha convention of 1975, and the Lome I, II, III and IV of 1975, 1979, 1984 and 1989 respectively by which its exports receive preferential treatments in the EEC market, this outcome may require further scrutiny[11].

The preference variable incorporated in these functions were only statistically significant in Kenya's exports to West Germany and France and to none else of the countries considered outside PTA. It however shows that the PTA integration had negative impact on Kenya's trade to UK, France, Italy and the USA. This reflects the more competitive influence that the PTA will have on Kenya's exports to these countries.

The explanatory powers of the functions used are quite high ranging from 72% in Kenya's exports to West Germany to 93% in its exports to France. This was a slight improvement over the ante-Monde functions. The high F-statistics indicate the joint significance of all the variables used. No serial correlation was detected.

4.9: Kenya's Total Export Trade

Table 4H presents the estimated elasticities of Kenyan total export functions without

and with Zambian preference variable incorporated.

Table 4H: Elasticities of Kenyan Total Export Supply 1971-1987 (with and without preference variable)

Par.	Pre-integration	Post-integration
C	-4.0905 (-1.4058)***	-6.148 (-1.5448)***
N_i	-0.9594 (-0.4957	-0.9909 (-0.5025)
$Y_{i(-1)}$	0.5691 (1.3605)	0.4853 (1.1038)
N_j	0.0502 (0.3514)	0.0542 (0.3722)
$Y_{j(-1)}$	0.5193 (0.9507)	0.7163 (1.1709)
PZA		-0.1789 (0.7748)
R^2	0.92	0.92
F-stat.	31.48	24.39

Notes: (1) In parenthesis are the t-ratios, (2) i is Kenya and j is the world represented by UK,France, West Germany, Italy and USA outside PTA, and Uganda, Rwanda, Burundi, Malawi and Zambia in the PTA sub-region, (3) df = 10, (4) $F^* = 3.33$

The negative coefficients of Kenyan population variable before and after the Zambian preference variable was introduced in the function indicate that the domestic demand pressure on Kenyan exports is persistent.

The coefficient of Kenyan lagged GNP declined after the preference variable was introduced in the functions. This is indicative of the Trade Erosion effects of PTA on Kenyan exports to the whole world against the expected Trade Creation. The coefficient however remains statistically insignificant both before and after the introduction of the preference variable in the function.

The coefficients of the assumed world GNP[12] lagged, remained statistically

insignificant both before and after the preference variable was inserted in the function.

The Kenyan exports though positively responsive to world population variations, is inelastic and statistically insignificant in Kenyan exports.

Against the expectation, the Zambian preference variable has negative effects on Kenyan exports to the rest of the world. This demonstrates that PTA integration has not facilitated increased Kenyan export trade with the rest of the world and that PTA integration over the duration it has existed, has been erosive on Kenyan export trade.

4.10: Summary

In this chapter were shown the short term effects of PTA integration using the market share analysis and an econometric method. The summary of the assignment of integration effects are given in tables 4I, 4J, 4K, 4L and 4M.

Table 4I: PTA Effects on Kenya's Extra-PTA Trade Flows 1980-1987: Market Share Analysis

Year	UK	France	Italy	West Ger.	USA
1980	0.79%	0.59%	0.53%	-1.8%	21.9%
1981	TD	TD	TD	ETC	TD
1982	TD	TD	TD	ETC	TD
1983	TD	TD	TD	ETC	TD
1984	ETC	TD	ETC	ETC	TD
1985	TD	TD	TD	ETC	TD
1986	ETC	ETC	TD	ETC	TD
1987	TD	TD	TD	ETC	TD

From these, it was evident that Trade Diversion predominated. This implied that the shift in Kenyan exports from outside PTA to the PTA region was more costly. This was indicative of the misallocative effects of the PTA integration. Apart from lowering the world welfare, this trade diversion shows that the PTA diverts Kenya's trade from the cheaper sources of supply abroad to the more expensive sources within the subregion.

Table 4J: PTA Effects on Kenya's Intra-PTA Trade Flows 1980-1987: Market Share Analysis

Year	Malawi	Uganda	Burundi	Zambia	Rwanda
1980	0.01%	0.96%	0.07%	-0.01%	0.25%
1981	GTE	GTE	GTC	GTE	GTC
1982	GTE	GTE	GTC	GTE	GTE
1983	GTE	GTE	GTE	GTE	GTE
1984	GTE	GTE	GTE	GTC	GTE
1985	GTE	GTE	GTE	GTC	GTE
1986	GTE	GTE	GTE	GTC	GTE
1987	GTE	GTE	GTE	GTC	GTE

Notes: For the Gross Trade Creation (GTC) and for each country, the change in Kenya's trade as a percentage of GDP was greater than the 1980 indices given and for Gross Trade Erosion (GTE) for each country, the indices after 1980 are less than those of 1980.

From this table, the Gross Trade Erosion predominated to prove the possible negative influence of PTA integration on Kenya's trade flows to the subregion.

Table 4K: PTA Effects on Kenya's Total Trade Flows 1980-1987: Market Share Analysis

Year	Effects on Total External Trade
1980	16.8%
1987	Trade Erosion
1981	Trade Erosion
1982	Trade Erosion
1983	Trade Erosion
1983	Trade Erosion
1985	Trade Erosion
1986	Trade Erosion
1987	Trade Erosion

The table shows that the PTA integration had not been powerful enough to cause Trade Creation for Kenya's trade flows.

Table 4L: PTA Effects on Kenya's Extra-PTA Export Flows 1971-1987: an Econometric Analysis

Country	Integration Effects	Pre-Integration Income Elasticity	Post-Itegration Income Elasticity
UK	TD	1.545	1.22
France	TD	1.104	0.676
Italy	ETC	1.727	1.769
W. Ger.	TD	1.146	1.052
USA	TD	2.359	2.288

By comparing the ante-Monde and post-integration income elasticities, it is evident that the Trade Diversion effects of PTA predominated except for Italy where External Trade Creation (ETC) occurred after the PTA integration.

Table 4M: PTA Effects on Kenya's Intra-PTA Export Flows 1971-1987: An Econometric Analysis

Country	Integration Effects	Pre-Integration Income Elasticity	Post-Integration Income Elasticity
Malawi	GTC	-0.334	0.094
Uganda	GTE	3.393	3.177
Burundi	GTC	5.459	5.755
Zambia	GTE	0.431	0.065
Rwanda	GTC	1.354	1.797

Notes: These effects are arrived at by comparing the ante-monde and post-integration elasticities of Kenya's export functions estimated.

The table shows that except for Kenya's export to Uganda and Zambia, PTA caused Gross Trade Creation in its exports to the other countries studied in the sub-region.

The regression of Kenya's total export function showed no evidence of Trade Creation that was expected and instead revealed that PTA integration has over the time studied only produced Trade Erosion (TE). This is shown by a fall in Kenya's income elasticity of export supply from 0.57 before to 0.49 after integration variable was introduced (table 4H).

Notes

1.See Beckerman (1956) for an argument of how to arrive at these transport costs and *Economic Survey* 1987 for import transport costs.

2.Naturalized goods are foreign goods that are in Kenya and are declared for domestic use in the country but have to be reexported without being transformed.

3.External Trade Creation is an increase in the extra-area trade in spite of integration. It is the opposite of Trade Diversion.

4.Wattle bark from Kenya has had increasing demand in West Germany for years, and so have West German machineries in Kenya. It was not established in the 1986 supply and Demand survey within the PTA that Wattle bark has any demand within the PTA (See 1986 *Supply and Demand Survey* for the details of the goods with supply and demand interest within the PTA)

5.The ante-Monde position is what the trade situation would have been in the absence of integration.

6.Insertion of the Transport costs in the functions produced over-optimistic Coefficient of Determinations ($R^2 = 1$) with many insignificant coefficients. The current GNPs included in the functions produced coefficients that were all significant at 100% level. These justified their elimination from the functions used in this study.

7.See the hypothesis of this study.

8.See the hypothesis of this study.

9.For the progress of PTA at the start, see Ikiara (1985) in *Daily Nation* January 31st, 1985.

10.See *PTA News*, March-April 1988, Vol. 10 No. 1

11.See Ojo (1975), *The Courier*, March 1975, and *the Courier* January 1985.

12.The assumed world GNP was arrived at by summing up the GNPs of UK, France, Italy, West Germany, USA, Uganda, Rwanda, Burundi, Malawi and Zambia. This was then lagged by one year. The population figures of these countries were also summed up to represent the world population.

CHAPTER FIVE

CONCLUSIONS AND POLICY IMPLICATIONS

5.1: CONCLUSIONS

In this study, the focus of attention was on the short term effects of PTA on Kenya's trade flows. The objective was to establish if PTA integration has caused short term effects of integration, namely Trade Creation, Trade Diversion, Trade Erosion, Gross Trade Erosion, and External Trade Creation. Two approaches were used. These were the residual market share analysis and an econometric method. The exports and imports figures used in the market share analysis conform with the definitions of United Nations International Standard Trade Classification (UNISTC) and so are the export figures used in the econometric method. No attempts were made to disaggregate these figures by commodity although this would be an ideal area for further studies.

The choice of Kenya's trading partners was based on the significance of their trade with Kenya apart from their geographical representation and past political links with Kenya for some of these countries.

Zambian integration variable was chosen and incorporated in the Kenya's export functions to countries outside the PTA scheme to establish by econometric method its influence on Kenya's Export to these countries. Because of the problem of degrees of freedom, it was not possible to start the econometric analysis from 1981. The estimates were therefore based on data from 1971 to 1987 with and without preferential variable.

By residual market share analysis, the study established that for all the countries outside the PTA scheme studied, the Trade Diversion effects predominated except for West Germany for which Kenya's trade flows increased even after PTA formation. In the intra-PTA Kenyan trade, the study established very little Gross Trade Creation, in two years in its trade with Burundi, one year with Rwanda and four years with Zambia. Otherwise, it was all Gross Trade Erosion in its trade with other PTA countries studied. This is not against expectations

as PTA like any form of integration can only yield the desirable and expected short term effects after some reasonable time (Robson 1965).

The study established that all the PTA countries studied were still less open to Kenyan exports. This reflects the general reluctance of these countries to liberalize intra-PTA trade fast enough to facilitate substantial Trade Creation.

It also established that the rising populations of some of the countries in the sub-region were not conducive for increased Kenyan exports to the subregion. This could be due to lack of market information in these countries about what Kenya produces that they could purchase. It also shows the extent of divergent tastes and preferences for the citizens of these countries for Kenyan goods implying possibly that they produce and consume the same products that Kenya also produces but for exports.

It also found out that the integration effects have been quite marginal on Kenya's exports to all the PTA countries studied. This should not be a cause of any serious worry unless the member countries delay the growth of PTA by non-compliance with the Treaty provisions to liberalize intra-PTA trade in schedule.

The low coefficient of determination in Kenya's export function to Uganda is indicative of other important explanatory variables not included to explain the country's export to Uganda. Given that Uganda has in the past been the major market for Kenya's exports in the African continent, integration, populations and GNPs seem to be only secondary in explaining Kenya's export to the country.

In all, the PTA has not facilitated Trade Creation for Kenya's exports. This is contrary to the allegation that it has given rise to increased intra-PTA trade, and to support the claim that intra-PTA trade has declined by an annual compound rate of 4.3% from 1980 to 1986.[1]

5.2: Policy Implications

The government of Kenya recognizes that an inward looking import substitution development strategy and reliance on the country's traditional export markets do not serve its interest where foreign exchange earning and savings are required. The import substitution strategy is no longer foreign exchange saving. In stead, it is foreign exchange using. Worse still, it requires protection which does not help in additional asset creation in the country. Its traditional export markets do not guarantee it any surplus export balances. It therefore behoves the country to redirect its external trade policy to accelerate its exports to the sub-region in addition to its efforts to capture other export markets in other regions.

Foremost, measures must be taken to relieve the domestic demand pressure on exports to the sub-region where such pressures exist. This requires that the domestic production be raised to meet both local and foreign demands. Producers must be induced adequately to respond accordingly. Subsidies, export drawbacks, manufacturing in Bond, Green Channel Scheme, Export Credit Insurance, appropriate product pricing structures, maintenance of a realistic flexible market clearing exchange rate and an automatic access to credit for exporters are some of the incentives that if used wisely, will enable Kenya to produce enough both for exports and for domestic needs. Exporters must be sure that no anti-export bias exists that makes production only profitable for the highly protected domestic market.[2] The local producers must be exposed to some level of external competition to enable them to produce highly competitive goods in quality and prices.

Secondly, Kenya must spearhead the market information campaign that would enable consumers in other PTA countries to be aware of the goods it offers for sale to these countries. Such a campaign if successful, will enable the local businessmen to identify more areas of product diversification to meet local and sub-regional demands. As it is, the Supply and Demand Surveys of 1986 did not do much to create the market awareness among consumers in the subregion.[3]

Thirdly, Kenya has to encourage other PTA member countries to open up their markets for Kenyan goods.[4] This requires an example for them to follow which Kenya must be ready to offer by liberalizing its trade with other PTA member countries in conformity with the PTA Treaty.

5.3: Suggestions for Further Studies

The study exposes many areas that still require further investigations. In addition to making the above policy recommendations, it also suggests other areas for further studies. With no restrictions on the model to use, it is suggested that

(a) trade figures be disaggregated by products and destinations to enable finer conclusions and recommendations to be obtained. It would also be necessary to precisely disaggregate the components of the export and imports figures by quantity and prices to isolate the influence these may have on trade flows.

(b) more important determinants of Kenya's external trade flows be identified and included in the model. For example, It would be important to investigate if political factors in Uganda during the civil wars influenced Kenyan trade with that Country. Others that need to be investigated may include the effects of firm ownership by citizenship and the effects of transport costson trade flows.[5]

Other areas of interest worth investigating include the effects of PTA on: capacity utilization in Kenya, Kenya's terms of trade, market structures in the sub-region and the costs of living of the people in the sub-region. These have resource and welfare implications to the Kenyan economy.

Notes

1. See *PTA Business* October 1987 from which this compound annual rate of PTA intra-trade decline was computed.

2.See the findings of the Kenya Association Of Manufacturers (KAM 1989).

3. See the *Demand and Supply surveys* ITC/UNCTAD (1986) for the details of the survey.

4. As an illustration to show that the countries in the sub-region had not opened themselves up for the intra-area trade, it was reported that by January 1986, no country except Zimbabwe had started to relax its tariffs.

5.From this study, it was established that export transport cost as a proportion of export values was a source of multicollinearity. High t-values, high standard errors, and over ambitious coefficient of determination were indicative of this problem when this variable was inserted in the model. In certain cases, the inclusion of this variable produced coeeficients that were significant at 100% level. It would be important that an alternative approach be found to arrive at it to circumvent this problem.

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Appendix 1: Estimates of the Elasticities of Substitution between Imports and Domestic Production.[1/]

Estimation Sector	Model Chosen[2/]	Test	Substitution Elasticity	Income Coefficient	RBARSQ.	DW [3/]
1.Agriculture & Forestry	1	(1.844)	0.318 1.551)	1.201 * (5.545)	0.9467	1.293**
2.Livestock	2	(0.028)	1.520 * (4.493)		0.5962	2.92*
3. Fishing and Preserves	1	(0.737)	1.179 * (3.301)	1.502 * (3.541)	0.9238	2.487 *
4. Mining and Petroleum	1	(-0.859)	0.042 (0.174)	1.177 * (3.880)	0.5030	1.189 *
5. Meat and Preserves	2	(-0.739)	0.580 (1.548)		0.0970	2.761**
6. Fruits Preserves	1	(-2.83)	0.693 (0.977)	2.883 * (6.623)	0.9250	0.673
7. Other Food Products	2	(0.14)	0.454* (2.216)	0.678 * (4.065)	0.6422	1.667*
8. Beverages and Tobacco	2	(1.764)	2.302* (5.260)		0.6723	1.085**
9. Textiles	1	(-2.959)	0.726* (6.734)	0.475 * (2.956)	0.7713	1.004
10. Clothing	2	(-1.06)	0.330		-0.0679 (0.461)	0.999
11.Footwear	2	(-5.65)	2.214 (1.639)		0.1149	0.398
12. Wood and Furniture	1	(-3.40)	1.100 * (3.007)		0.3648	0.636
14. Pulp, Paper and Print.	2	(-1.978)	0.732 (1.587)		0.1047	0.469
15. Basic Chemical	1	(-0.848)	1.001* (2.616)	0.586* (3.683)	0.8370	2.22*

16. Other Chemical Products	2	(-1.392)	0.807 (1.160)		0.0259	1.3**
17. Derivatives of Petrol and Coal	1	(-0.462)	1.944* (2.421)	-2.410* (-8.226)	0.8253	1.3*
18. Glass and Other Non-Metal Minerals	1	(-1.581)	1.012 (1.703)		0.1195	0.725
19. Iron and Steel	2	(0.111)	-0.317 (0.816)	0.121 (0.435)	-0.1060	1.92*
20. Non-Ferrous metals	1	(0.011)	0.415* (2.594)		0.2903	1.2**
21. Metal Products	1	(-1.220)	0.622 * (3.711)		0.4770	2.09*
22. Non-Electrical Machine	2	(-3.095)	0.012 (0.056)		-0.0830	0.965
23. Electrical Machineryand Equipment	1	(1.105	0.423 (0.866)		-0.0182	0.669
25. Transport Equipment	2	(-0.322)	0.798* (3.065)		0.3924	1.956
26. Other Manufacturing	2	(-0.029)	0.025 (0.118)	1.670* (7.761)	0.9498	1.3**

Notes: 1/ T-statistics in parentheses. One Star denotes significance at 5% level. "Test" is a test on the null hypothesis $b_1 = b_2$.

2/ Model 1 has current prices and model 2 has lagged prices as independent variable.

3/ One star denotes significance for non-auto-correlation and two stars denotes the test is inconclusive

Source: Corado and de Melo (1983)

Appendix 2: Changes in Expenditures

Elasticities	Total Imports	Imports from Partners	Imports from Non-Partners	Truman Cases
$s_1 = s_2$	constant	constant	constant	*
$s_1 > 1$, $S_2 = 1$	+	+	+	Double trade creation
$s_1 = 1$, $s_2 < 1$	constant	-	+	*
$s_1 > 1$, $s_2 < 1$	+	-(+)	+	External Trade Creation and Internal Trade Diversion
$s_1 = 1$, $s_2 > 1$	constant	+	-	*
s_1, $s_2 > 1$	+	+	-(+)	Internal Trade Creation and External Trade Diversion.
$s_1 < 1$, $s_2 > 1$	-	+(-)	-	External Trade Diversion and External Trade Erosion.
$s_1 < 1$, $s_2 = 1$	-	-	-	Double Trade Erosion
s_1, $s_2 < 1$	-	-	+(-)	Internal Trade Diversion and Internal Trade Erosion.

Source: Corado and de Melo (1983), Table 1.

Appendix I: Population Figures for Some Selected Countries 1954-1987
(In Million)

ccs	UG	MI	BU	RW	ZA	US	UK	IT	FR	GE
1954	7.370000	3.730000	3.140000	3.020000	3.600000	162.1200	54.01000	51.12000	43.01000	50.10000
1955	7.550000	3.910000	3.210000	3.110000	3.710000	164.8900	54.13000	51.58000	43.75000	50.84000
1956	7.740000	4.030000	3.270000	3.200000	3.830000	168.9100	54.65000	51.97000	44.16000	51.43000
1957	7.930000	4.150000	3.340000	3.310000	3.950000	171.9300	54.96000	52.35000	44.55000	51.70000
1958	8.130000	4.270000	3.410000	3.390000	4.050000	174.8800	55.26000	52.75000	44.91000	52.02000
1959	8.550000	4.330000	3.550000	3.570000	4.120000	177.8300	55.53000	53.23000	45.12000	50.84000
1960	9.810000	4.440000	3.620000	3.680000	4.250000	180.6700	55.71000	53.66000	45.77000	50.71000
1961	10.130000	4.710000	3.690000	3.790000	4.390000	183.6900	55.81000	54.01000	46.25000	51.29000
1962	10.46000	4.840000	3.740000	3.900000	4.530000	186.8500	55.79000	54.41000	46.70000	51.67000
1963	10.81000	4.970000	3.800000	4.010000	4.660000	189.2400	55.81000	54.91000	47.10000	51.97000
1964	11.17000	5.110000	3.850000	4.120000	4.800000	191.8900	55.83000	55.41000	47.43000	52.04000
1965	11.55000	5.240000	3.930000	4.200000	4.920000	194.3000	55.89000	55.83000	47.70000	51.83000
1966	11.94000	5.380000	4.020000	4.290000	5.140000	196.5600	55.89000	56.12000	47.89000	51.51000
1967	12.35000	5.530000	4.140000	4.370000	5.300000	198.7100	55.85000	56.46000	48.08000	51.40000
1968	12.78000	5.670000	4.260000	4.510000	5.470000	200.7100	55.94000	56.71000	48.28000	51.31000
1969	13.22000	5.820000	4.390000	4.650000	5.650000	202.6770	55.83000	56.91000	48.49000	51.34000
1970	13.71000	5.960000	4.510000	5.160000	5.830000	205.0400	56.05000	56.43000	53.88000	51.56000
1971	13.54000	6.230000	4.220000	5.350000	5.830000	207.0400	56.05000	56.51000	54.12000	61.67000
1972	14.00000	6.410000	4.310000	5.550000	6.030000	208.8500	56.01000	56.64000	54.48000	61.64000
1973	14.47000	6.620000	4.420000	5.750000	6.240000	210.5400	56.05000	56.84000	54.70000	61.42000
1974	14.96000	6.840000	4.540000	5.970000	6.450000	211.9000	56.46000	57.00000	54.95000	61.18000
1975	15.48000	7.060000	4.720000	6.070000	6.670000	213.8500	56.62000	57.03000	55.17000	61.02000
1986	16.02000	7.280000	4.830000	6.260000	6.900000	241.6000	56.15000	57.24000	55.39000	60.91000
1987	16.63000	7.630000	4.980000	6.450000	7.200000	243.3800	56.85000	57.32000	55.61000	60.82000

Sources: United Nations Statistical Yearbooks, various issues,
World Bank Atlases, various issues,
World Development Reports, various issues.

Notations: N Population of
UG Uganda
MI Malawi
BU Burundi
RW Rwanda
ZA Zambia
US United States of America
UK United Kingdom
IT Italy
FR France
GE West Germany

Appendix 4: Kenya's Exports by Destinations 1964-1987
(In K£ Million)

obs	EXUG	EXWI	EXRW	EXBU	EXZA	EXUK	EXFR	EXGE	EXIT	EXUS
1964	12.58100	0.059000	0.152000	0.228000	0.182000	11.27200	1.000000	7.252000	1.147000	4.870000
1965	15.32300	0.129000	0.265000	0.340000	0.457000	11.07900	0.728000	7.297000	1.233000	3.750000
1966	15.61300	0.210000	0.947000	0.198000	1.735000	13.51100	0.764000	8.150000	1.658000	5.384000
1967	14.72600	0.126000	0.467000	0.284000	2.683000	14.72100	0.553000	4.943000	1.454000	3.628000
1968	13.25530	0.162000	0.679000	0.315000	2.913000	15.87900	1.293000	5.861000	1.293000	4.202000
1969	15.34900	0.191000	0.958000	0.329000	4.294000	15.49100	0.700000	7.967000	1.431000	5.229000
1970	16.69830	0.236000	0.901000	0.481000	4.293000	15.59500	0.558000	6.996000	1.559000	6.773000
1971	19.15000	0.238000	0.891000	0.413000	5.529000	15.47100	0.537000	7.047000	1.543000	5.625000
1972	18.50700	0.263000	1.283000	0.310000	4.976000	20.33200	0.724000	9.480000	2.393000	5.431000
1973	25.55700	0.317000	1.579000	0.513000	7.293000	20.62200	1.450000	13.57100	3.687000	7.652000
1974	23.57600	0.434000	2.479000	0.591000	10.31300	18.70000	1.363000	17.87400	4.449000	9.328000
1975	21.91000	0.310000	4.922000	0.809000	9.219000	22.69100	1.453000	19.13900	5.771000	8.409000
1976	32.16230	0.415000	4.860000	1.306000	9.018000	35.40000	3.010000	42.07000	13.87400	18.25000
1977	51.99200	0.350000	5.620000	1.730000	6.130000	35.21000	5.070000	85.80000	13.44200	25.67000
1978	31.52000	0.240000	7.390000	3.150000	5.170000	55.13000	5.620000	56.58000	19.89100	16.11000
1979	30.59000	0.260000	5.090000	4.170000	5.190000	55.93000	4.330000	60.51000	23.30400	15.73000
1980	55.62000	0.270000	12.31000	7.070000	4.640000	55.68000	6.220000	56.01700	23.73300	16.13000
1981	46.79000	0.490000	20.92000	12.74000	1.890000	57.49000	5.250000	58.37000	20.12200	18.91000
1982	55.16000	0.640000	20.96000	13.03500	1.880000	69.43000	5.371000	60.22900	15.22800	33.35000
1983	65.76000	0.500000	24.30000	14.48300	1.550000	94.36000	11.29800	81.93200	14.76000	38.69000
1984	64.25000	0.448000	26.27000	14.87000	0.820000	138.5600	11.13000	97.52000	21.28000	38.37000
1985	67.07000	0.421000	24.34000	8.700000	1.500000	131.1300	27.17000	93.35000	17.73000	51.67000
1986	58.64000	0.400000	24.42000	8.690000	1.180000	138.4600	14.01000	136.3300	20.46000	84.57000
1987	60.32000	0.370000	22.94000	11.29000	2.030000	127.2800	15.35000	75.67000	17.01000	42.22000

Sources: Economic Surveys, various issues,
Kenya Statistical Digests, various issues,
Annual Trade Reports, various issues.

Notations: KXUG Kenya's Exports to Uganda
KXWI Kenya's Exports to Malawi
KXRW Kenya's Exports to Rwanda
KXBU Kenya's Exports to Burundi
KXZA Kenya's Exports to Zambia
KXUK Kenya's Exports to United Kingdom
KXFR Kenya's Exports to France
KXGE Kenya's Exports to West Germany
KXIT Kenya's Exports to Italy
KXUS Kenya's Exports to United States of America

Appendix 5: Kenya's Imports by Sources 1964-1987 (In K£ Million)

OBS	KMUG	KMRW	KMBU	KMWI	KMZA	KMUK	KMFR	KMIT	KMGE	KMUS
1964	7.244000	0.004000	1.00D-08	0.268000	0.156000	33.55100	2.029000	1.851000	6.383000	4.837000
1965	7.104000	0.005000	1.00D-08	0.287000	0.134000	35.16400	2.436000	2.108000	6.147000	3.511000
1966	7.317000	0.026000	1.00D-08	0.009000	0.155000	27.75200	3.555000	3.612000	8.055000	11.27500
1967	10.16500	0.040000	1.00D-08	1.00D-07	0.002000	34.33500	3.350000	3.573000	10.56000	7.764000
1968	9.650000	0.066000	1.00D-08	0.161000	0.128000	35.11000	4.103000	4.541000	9.112000	7.322000
1969	[illegible]	0.093000	1.00D-08	0.023000	0.262000	35.45300	3.881000	4.336000	9.574000	8.736000
1970	10.04300	0.102000	1.00D-08	0.093000	0.133000	43.45500	5.138000	5.165000	[illegible]	11.80500
1971	9.021000	0.353000	0.001000	0.056000	0.209000	56.24300	5.771000	6.356000	16.10400	16.33100
1972	[illegible]	[illegible]	[illegible]	0.005000	0.381000	50.56000	7.122000	7.946000	16.36700	11.95400
1973	4.960000	1.00D-08	1.00D-07	0.005000	0.604000	57.10700	5.318000	9.413000	20.33000	17.25900
1974	3.343000	[illegible]	[illegible]	0.015000	1.336000	71.12000	12.34300	13.11700	39.51500	21.37600
1975	1.466000	1.00D-08	[illegible]	0.015000	0.549000	75.70700	9.308000	10.28400	33.12600	35.55600
1976	0.140000	[illegible]	[illegible]	0.006000	0.820000	[illegible]	10.62000	12.91400	41.11000	23,67000
1977	0.140000	1.260000	0.000205	0.100000	1.030000	107.0300	26.32000	22.00600	57.35000	30.46000
1978	1.980000	3.330000	7.50D-05	0.230000	1.570000	145.3800	30.63000	33.49000	87.77000	43.11000
1979	0.300000	3.290000	1.160000	0.210000	1.240000	141.3200	17.63000	23.74700	68.81000	34.93000
1980	1.200000	3.620000	0.110000	0.550000	1.510000	162.3600	31.79000	37.68200	77.66000	510.3500
1981	0.800000	3.690000	0.270000	0.580000	1.590000	156.6700	31.14000	25.17000	75.09000	63.65000
1982	0.570000	3.310000	0.183000	0.370000	1.370000	135.3600	39.03300	22.93400	75.45600	54.36000
1983	0.860000	3.390000	0.331000	0.130000	1.040000	121.5600	38.53200	15.69000	73.22100	56.64000
1984	1.150000	2.250000	0.770000	0.092000	1.840000	152.3400	56.00000	34.10000	98.06000	51.05000
1985	2.580000	6.710000	1.610000	0.061000	1.710000	164.2600	42.04000	33.29000	95.68000	66.13000
1986	2.160000	5.160000	2.640000	0.090000	2.790000	208.9400	153.7100	48.54000	146.0700	65.29000
1987	0.310000	8.300000	2.870000	0.070000	3.140000	244.1200	38.09000	48.40000	118.2300	101.1100

Sources: Economic Surveys, various issues,
Kenya Statistical Digests, various issues,
Annual Trade Reports, various issues.

Notations: KMUG Kenya's Imports from Uganda
KMWI Kenya's Imports from Malawi
KMRW Kenya's Imports from Rwanda
KMBU Kenya's Imports from Burundi
KMZA Kenya's Imports from Zambia
KMUK Kenya's Imports from United Kingdom
KMFR Kenya's Imports from France
KMIT Kenya's Imports from Italy
KMGE Kenya's Imports from West Germany
KMUS Kenya's Imports from United States of America

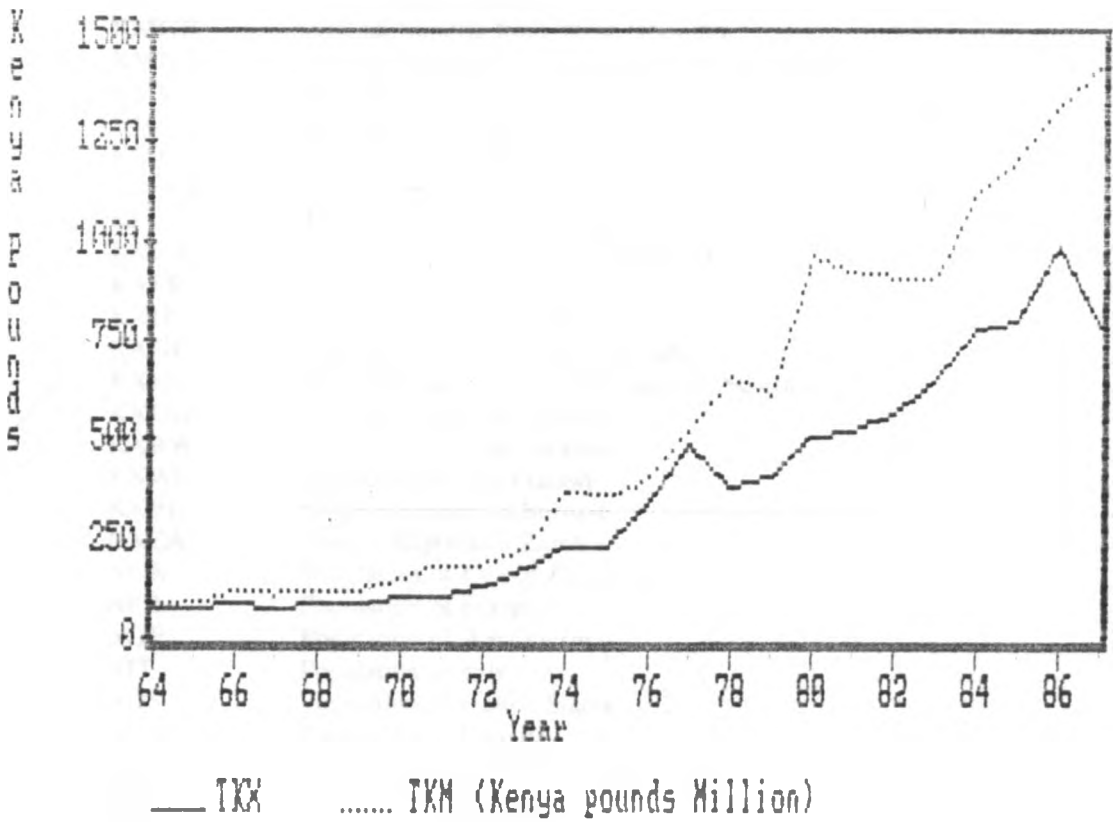
Appendix ?: Kenya's GNP, GDP, Population, Total Exports, Total Imports, Total Exports plus Imports and Share of External Trade in GDP [illegible]

obs	YK	GDPK	NK	TKX	TKM	TKXM	TXGDP	TMGDP	TXMGDP
1964	[illegible]	331.2200	9.104000	73.19000	87.33900	167.1590	0.281494	0.312926	0.594302
1965	351.3300	337.5400	9.365000	81.45900	[illegible]	192.3100	0.233229	0.350225	0.583455
1966	409.3300	[illegible]	9.640000	91.30900	122.5190	214.7???	0.221912	0.300287	0.522196
1967	[illegible]	[illegible]	9.928000	85.75900	120.0490	205.2190	0.196454	0.275014	0.471497
1968	472.9100	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.455757
1969	522.4000	[illegible]	10.54200	97.00700	[illegible]	225.[illegible]	0.197104	[illegible]	[illegible]
1970	[illegible]	451.5900	[illegible]	108.3010	[illegible]	265.3[illegible]	0.241[illegible]	[illegible]	0.590921
1971	[illegible]	740.[illegible]	[illegible]	118.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1972	590.1400	722.3500	12.06700	132.7140	197.8500	330.5660	[illegible]	0.270[illegible]	0.457626
1973	770.3200	825.3000	12.48300	160.7130	225.5510	409.2640	0.215215	[illegible]	0.489667
1974	1018.070	1017.130	12.91200	255.3910	380.2040	613.5250	0.231918	0.377468	0.609386
1975	[illegible]	[illegible]	13.32900	238.0835	362.5470	600.9305	0.199683	0.304322	0.504005
1976	1385.500	1453.600	13.84700	345.0615	406.9970	752.0585	0.237384	0.279992	0.517376
1977	1791.190	1859.390	14.33700	494.5445	[illegible]	1025.929	0.265955	0.295555	0.551510
1978	1955.490	2056.190	14.70000	394.7430	661.1550	1055.898	0.191791	[illegible]	0.513023
1979	2187.350	2275.600	15.30000	413.4480	619.2995	1032.748	0.181608	0.272028	0.453636
1980	2545.450	2632.450	15.84900	515.7040	959.0300	1474.734	0.195903	0.364311	0.560214
1981	2941.450	3023.400	16.25800	532.3505	925.3590	1457.709	0.176077	0.306066	0.482142
1982	3255.450	3410.[illegible]	16.03500	568.5850	905.8910	1474.479	0.166704	0.265597	0.432301
1983	3633.300	3820.210	18.72000	555.0680	905.6210	1560.689	0.171474	0.237061	0.408535
1984	4068.890	4389.030	19.50000	776.5720	1114.853	1891.525	0.176958	0.254009	0.430967
1985	4627.130	4914.280	20.40000	802.3430	1201.127	2003.470	0.163268	0.244416	0.407683
1986	5622.100	5831.750	21.20000	981.6975	1335.566	2317.263	0.168337	0.229016	0.397353
1987	6363.200	6614.700	21.80000	789.3925	1431.793	2221.186	0.119339	0.216456	0.335795

Sources: World Bank Atlases, various issues
CBK, Economic Reports for Financial Years Ending 30th June, various issues
Economic Surveys, various issues.
Kenya Statistical Digests, various issues.

Notations:
YK Kenya's GNP (in K£ million)
GDPK Kenya's GDP (in K£ million)
NK Kenya's Population (in million)
TKX Total Kenya's Exports (in K£ million)
TKM Total Kenya's Imports (in K£ million)
TKXM Total Kenya's Exports plus Imports (in K£ million)
TXGDP Share of Kenya's Exports in GDP
TMGDP Share of Kenya's Imports in GDP
TXMGDP Share of Kenya's Total External Trade in GDP

Appendix 7: Trend of Kenya's External Trade 1964-1987



Notations: TKX Total Kenya's Exports (in K£ million)
TKM Total Kenya's Imports (in K£ million)

Appendix 8: Lists of Abreviations

ACMS	the African Centre for Monetary Studies
ECOWAS	the EConomic Comission for West African States
CACM	the Central American Common Market
CMEA	The Council of Mutual Economic Assistance
CCCN	the Common Customs Council Nemenclature
FCCIPTA	Federation of Chambers of Commerce and Industries of Preferential Trade Area
HCDS	Harmonized Commodity Description System
ISTC	International Standard Trade Classification
ITC	the International Trade Centre
KMUK	Kenyan Imports fro United Kingdom
KMFR	Kenyan Imports from France
KMIT	Kenyan Imports from Italy
KMGE	Kenyan Imports from West Germany
KMUS	Kenyan Imports from United States of America
KMUG	Kenyan Imports from Uganda
KMWI	Kenyan Imports from Malawi
KMBU	Kenyan Imports from Burundi
KMRW	Kenyan Imports from Rwanda
KMZA	Kenyan Imports from Zambia
KXUK	Kenyan Exports to United Kingdom
KXFR	Kenyan Exports to France
KXIT	Kenyan Exports to Italy
KXGE	Kenyan Exports to West Germany
KXUS	Kenyan Exports to United States of America
KXUG	Kenyan Exports to Uganda
KXRW	Kenyan Exports to Rwanda
KXWI	Kenyan Export to Malawi
KXBU	Kenyan Exports to Burundi
KXZA	Kenyan Exports to Zambia
NUK	Population of United Kingdom
NFR	Population of France
NGE	Population of West Germany
NIT	Population of italy
NUS	Population of United States
NUG	Population of Uganda
NRW	Population of Rwanda
NWI	Population of Malawi
NBU	Population of Burundi
NZA	Population of Zambia
UAPTA	Unit of Account Preferential Trade Area
UNDP	United Nations Development Programme
UNECA	the United Nations Economic Commission for Africa
UNCTAD	United Nations Conference on Trade and Development
UNIDO	the United Nations Industrial Development Organization
YUK	Gross National Product of United Kingdom
YFR	Gross National Product of France
YIT	Gross National Income of Italy
YGE	Gross National Product of West Germany
YUS	Gross National Income of United States

YUG	Gross National Income of Uganda
YWI	Gross national Income of Malawi
YRW	Gross National Income of Rwanda
YBU	Gross National Income of Burundi
YZA	Gross National Income of Zambia
GDPK	Gross Domestic Product of Kenya
TKX	Total Kenyan Exports
TKM	Total Kenyan Imports
TKXM	Total Kenyan Exports plus Imports