AN EMPERICAL MODEL OF SADCC INTRA-REGIONAL TRADE

By

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1. The Characteristics of SADCC Intra-Regional Trade

This study makes use of 1982 data for analysis not only because complete data for all factors of interest exists but also because the year's situation contains contemporary developments in the area of trade.

In 1982 the total exports from the nine SADCC countries stood at about 5500 million US$ and total imports amounted to approximately 7200 million US$. Of these amounts the intra-regional trade between the countries of the region accounted for only around 300 million US$ representing 5 percent of the total exports and 4.5 percent of total imports. At the same time there was a significant volume of unrecorded trade across the borders of the relevant countries. The exact value of this unrecorded transborder trade (UTT) is not quite known although it is believed that its value may level or even exceed that for the official trade which goes through the customs. It is also claimed that there is a relatively significant amount of the UTT between the nine SADCC countries and the neighbouring states of Kenya, Uganda, Zaire and the Republic of South Africa, (Southern African Economist, December 88/January 89). The volume and contents of the UTT, it has been observed, is determined by among other things, trade policies that are pursued and maintained by the various countries of the region and differences between nominal and real exchange rates within the various countries of the region.

Although six of the SADCC countries are also members of the Preferential Trade Area for Eastern and Southern African States (PTA), total trade between the SADCC countries and the other countries in the PTA is insignificant amounting to less than one percent (SADCC, 1986). In 1982 total exports from the region to PTA amounted to 47 million US$ and during the same year imports from PTA amounted to about 24 million US$. Moreover, statistics indicate that the level of this trade had remained almost constant during this decade. Of the countries in the SADCC region only Mozambique, Tanzania and Zambia appear to have scored significant levels of trade with other PTA countries outside the SADCC region. The main trading partner within the PTA and SADCC countries is Kenya. The minor partners are Uganda, Rwanda and Burundi. Of the other SADCC countries Zimbabwe does export some manufactured commodities to some PTA countries to a relatively small proportion. Botswana, Lesotho and Swaziland which are members of the Southern African Customs Union (SACU) and at the same time non-PTA members have had so far no significant trade with PTA countries.

Table 1 presents the direction of the SADCC countries' external trade which is intra-SADCC and exchanged with other PTA countries, or with the Republic of South Africa. The table shows that South Africa constitutes the main trading partner for the majority of the SADCC countries. Trade with the Republic of South Africa (RSA) accounts for about 7 percent of the region's total exports and around 39 percent of the region's total imports. In summary, the nearer the country is to the RSA the higher is its proportion of external trade with that country. Thus the RSA forms the vital export market for Lesotho and Swaziland. Botswana, Malawi and Zimbabwe exports to the RSA, though not so much, nevertheless, constitute significant amounts. As far as imports are concerned however, the RSA represents the major source for Botswana, Lesotho, Swaziland, Malawi, Zimbabwe,

Zambia and Mozambique. The proportion varying somehow considerably from one country to another.

The question at hand is what has brought about this situation. The main reasons that have been advanced are based on the relative underdevelopment of the economies of the SADCC countries (Douglas, 1983). With the exception of Zimbabwe, the other SADCC countries had no industrial base and manufacturing was non-existing at the time of independence. These countries were used by the colonial powers as reservoirs to create labour for the RSA mining and industrial sectors. Balkanization of the region has also contributed to the insignificant complementarity between the economies of the countries under consideration.

The nature of the commodities that the countries of the SADCC region had to offer to the world market was a result of underdevelopment. Agricultural products (cotton, coffee, sisal, etc) and raw mineral products constitute the major exports of the SADCC countries. These commodities apparently, have little demand within the region given the absence of processing and manufacturing industries.

The major imports of these countries include capital goods, other manufactured products, mineral fuels and food. These, currently, are not produced at any extent within the region.

Table 1
Direction of Trade for the 9 SADCC Countries, 1982.

	Percentage Distribution of:					
	Exports to:			Imports from:		
	SADCC	PTA-nes*	RSA	SADCC	PTA-nes*	RSA
Angola	0.1	-	-	0.8	0.0	-
Botswana	11.9	0.1	11.3	6.3	0.1	85.1
Lesotho	0.1	0.0	41.3	0.1	0.0	97.1
Malawi	9.7	1.1	5.7	9.6	0.4	34.0
Mozambique	11.6	7.8	1.8	3.0	0.2	8.1
Swaziland	2.7	1.1	36.9	0.7	0.1	82.9
Tanzania	0.8	2.9	-	4.2	1.8	-
Zambia	3.5	0.2	0.3	6.3	0.4	14.5
Zimbabwe	11.5	0.7	17.1	7.6	0.0	22.1
SADCC-Total	5.0	0.9	7.0	4.4	0.3	30.2
SADCC-Total (in mill. USD	276	47	382	316	24	2161

*PTA-nes signifies the non-SADCC PTA countries, including the 2 potential members (Madagascar and Seychelles).

Source: SADCC Intra-Regional Trade Study, 1986.

2. Specification of the Intra-SADCC Trade Model

Besides lack of complementarity between the economies of the SADCC region which impedes trade and the low level of industriliazation, there is the problem of inadequate transport network. There are several train networks which are not standardized. The Tanzania-Zambia Railway network for example operates on a different gauge system from that of the Southern African Railways system. The road network is also inadequate, and in recent years its infrastructure in some countries became completely disintergrated. Air transport is still in its infant stage of development. The recent economic crisis due to the fall in the prices of agricultural

products on the world market has also decelerated the growth in SADCC intra-regional trade. The region contains some of the most badly affected countries in the world. Moreover, the Sub-Saharan region as a whole recorded the lowest growth rates among all the regions in the world. Most of the countries within the Sub-Saharan region have been experiencing deficient balance of payments due to significant decreases in foreign earnings due to deteriorating terms of trade. A good number of countries within the region have instituted Structural Adjustment Programmes whose fruits are as yet to be realized.

There is also a problem of civil wars and sabotage activities which have been going on within some of SADCC countries and which have significantly affected production, transport and trade within these countries. Both sabotage as well as war activities have been directed at the trasnport infrastructures such as bridges, railways and road transport vehicles. These activities have disrupted trade and continue to do so.

Trade between SADCC countries is also retarded by trade-related factors such as risk, high cost, lack of credit, small market and the strengths of the already established trading partners (SADCC, Industry Vol. III, 1983, Maseru). Botswana, Lesotho and Swaziland for example, belong to the Southern African Custom's Union and consequently operate a free trade system between themselves and the RSA. This includes a common external tariff system. There is also the PTA to which Botswana, Lesotho and Swaziland (BLS countries) do not belong. Two of the BLS countries are also members of the Rand Monetary Area (RMA).

The foregoing gives, in brief, the background environment which characterizes SADCC intra-regional trade. In what follows we describe the variables of our proposed model in the light of what is narrated in the

preceding two sections.

2.1 The Variables of the SADCC Intra-Regional Export Trade Function

(i) The Level of Industrialization

As already mentioned, most of the commodities exported by the SADCC countries are made up of raw agricultural, cash and mineral products. Evidence elsewhere indicates that the degree and the level of any intra-regional trade depend on the level of industrialization of that particular region. Unfortunately, the region under consideration is compelled to import a high proportion of its industrial inputs whose amounts are limited by insufficient foreign exchange. This implies that intra-regional trade is bound to grow very slowly due to the slow growth in the process of industrialization within the region

Expansion of manufactured exports is one of the most important prescriptions for fast development (Moran, 1988). Through such a trade a country can avail itself of the critical production inputs necessary for development, enabling specialization to take root and increasing productivity. Moreover, experiences gained by several countries which link industrialization with development, indirect benefits of industrial expansion, industrial management, technology acquisition, marketing and product design and development, all suggesting that manufactured exports play a prominent role in a country's development process. Apparently, manufactured exports have continued gaining prominency in world trade, as they are characterized by higher income elasticity of demand than primary products. Additionally, there has been a structural transformation as a result of increases in per capita incomes. In the period 1965-85 manufactured exports from all World Bank member countries grew at a rate of 7.4 percent per annum in

volume. During the same period, the manufactured exports from developing countries in general increased at a relatively faster rate of 12.2 percent per annum. The consequence of this growth was an increase in the share of manufactured trade of about 10 percent for the developing countries. It has also been reported that in 1986, and for the first time, developing countries earned more foreign exchange from manufactured exports than from exports of agricultural or mining products (GATT, 1987).

For the countries of SADCC region, earnings from agricultural and mining products still surpass, by far, those from manufactured exports due to the low level of industrialization and the inadequacy of foreign exchange with which to purchase industrial inputs. The existing industries operate at significantly low capacities. Whilst maintanance of the equipment is inadequate in some of these countries, replacement due to wear and tear, can not be carried out due to unavailability of spare parts.

The foregoing suggests that factor "the level of industrialization", is indeed explanatory of intra-regional trade in general and in particular for the case at hand.

(ii) The Absence of Peace

The Southern and Eastern Africa regions have been and continue to experience periods characterized by conflict and wars. Of late however, there appears to emerge a ray of hope within the SADCC region awith the attainment of independence in Namibia. There is hope for peace in Angola. But there are no signs as yet for ending the civil war in Mozambique. The situation in the RSA grows more and more explosive each passing day. The overall effect of this state of affairs has been and continues to be adverse to trade among the countries of the SADCC region. Production and free movement of goods across borders become restricted. The presence or

absence of war, therefore constitutes one explanatory variable that affects intra-regional exports and trade.

(iii) Trade Policies

The theory of international trade stipulates that factor, exports, is determined by, among other things, the exchange rate regime maintained by a particular country. The volume and the direction of the trade apparentlydepends on and is determined by the trade policies of a country. The UTT which is a result of bad trade policies is rapidly growing in many countries of the Sub-Saharan Africa. One consequence of the existence of this type of trade is that it complicates analysis of actual external trade, thus distorting the true picture. The distortion is basically due to the absence of accurate statistics relating to UTT magnitudes. It has been observed that the role of promotional trade institutions within the countries affected is diminishing as traders operating along many of the SADCC country borders establish their own unofficial means to achieve the relative trade liberalization (Southern African Economist, December 88/January 89). The types of goods exchanged through this unofficial channel of intra-country trade, it is observed, are mostly consumer goods as well as household domestic supplies that have been drastically affected by various governments policies and for which there is a short supply due to the weakness of the local manufacturing industry. The policies behind the growth of the UTT include the protection of domestic industries, government subsidies and tariffs and the exchange rate policies.

The foregoing conditions confirm the fact that the SADCC intra-regional trade is significantly affected by the type of policies persued by the various countries of the region. Factor, "trade policies", is therefore a determining variable in this regard.

(iv) The Characteristics of the Dependent Variable

Table 2 shows summary figures for SADCC intra-regional exports and imports. The statistics indicate that export trade grew from about 150 million US$ in 1979 to about 300 million US$ in 1981, representing an increase of 46 percent per annum. Between 1981 and 1982 SADCC intra-regional trade increased by two percent only. After 1982 the relevant trade began slumping following the world depression and a fall in world prices of agricultural products. In terms of percentage growth rates the data indicate that the relevant trade grew by about 23 percent between 1984 and 1980. Comparing 1984 and 1981 however, statistics show that there was approximately a fall of about 7 percent per annum as far as intra-trade exports are concerned with values measured in US Dollars. At the same time, there was a reduction of about 50 percent in the value of the regional currencies measured against the US$. Thus looked at from the trades value in national currencies, the SADCC intra-regional exports increased at a rate of six percent per annum between 1981 and 1984. Taking inflation into account it can be seen that there was a relatively insignificant increase in the growth of the SADCC intra-regional exports during the relevant period.

Table 2 indicates also that the relevant export trade is unevenly distributed among the SADCC member countries. The distribution is further and more clearly examplified in Table 3 which presents the overall intra-SADCC trade for the period between 1982 and 1984. The Table shows that about half of the SADCC intra-trade (exports) originate in Zimbabwe. Botswana, Malawi, Mozambique and Zambia contribute individually significant amounts to the relevant export trade; but Angola, Lesotho and Swaziland individual shares of the intra-SADCC exports are small and insignificant.

Table 2
Summary Figures for SADCC Intra-regional Trade, 1979-84.
(mill. USD)

Imports From SADCC Countries:

Imports to:	1979	1980	1981	1982	1983	1984
Angola	24	28	20	8	2	25
Botswana	(40)	46	50	43	54	(56)
Lesotho	(0)	0	2	0	1	0
Malawi	17	28	29	29	(25)	(23)
Mozambique	14	24	17	25	32	22
Swaziland	(4)	2	4	4	(4)	(2)
Tanzania	9	7	8	35	25	11
Zambia	11	20	63	63	(40)	(42)
Zimbabwe	(26)	49	115	108	86	64
Total	(145)	204	308	315	(269)	(245)

Exports to SADCC Countries:

Imports to:	1979	1980	1981	1982	1983	1984
Angola	1	0	0	1	0	6
Botswana	(45)	42	36	54	52	(34)
Lesotho	0	0	0	0	0	(0)
Malawi	8	23	29	23	(22)	(18)
Mozambique	7	7	29	27	5	10
Swaziland	(5)	4	8	8	(7)	(7)
Tanzania	27	20	5	4	4	5
Zambia	24	30	51	36	(33)	(35)
Zimbabwe	(41)	68	139	123	108	115
Total	(158)	194	297	276	(231)	(230)

2.2 The Variables of Intra-SADCC Import Trade Function

(i) The Level of Industrialization

Imports represent the flow of goods and services which enter one country but are products of another country. In the majority of the countries under consideration goods, account for the larger proportion of the total imports. We have earlier stated that exports from the SADCC countries constitute raw agricultural and mineral products for which there is little demand in the region on account of the region's low level of industrialization. This means that the level of industrialization which in turn determines the demand for industrial inputs is also an explanatory variable in the case of the SADCC intra-regional imports to the extent that the higher the level of manufacturing and processing the lower is the demand for imported goods, other things being equal.

Table 3
Intra-SADCC Trade, 1982-84 Average (Estimates)

Country	Imports		Exports	
	Mill. USD	%	Mill. USD	%
Angola	12	4.5	2	0.8
Botswana	51	18.5	47	19.2
Lesotho	0.3	0.1	0	0.0
Malawi	26	9.4	21	8.6
Mozambique	26	9.4	14	5.7
Swaziland	3	1.1	7	2.9
Tanzania	24	8.7	4	1.6
Zambia	48	17.4	35	14.3
Zimbabwe	86	31.2	115	46.9
Total	276	100.1	245	100.0

Source: SADCC Intra-Regional Trade Study, 1986

(ii) Real Income per Capita and Real Exchange Rate

In a normal economy factor spending operates as follow: both tradeables (agricultural and industrial products) and nontradeables (services) are produced. The relative price of tradeables to nontradeables (say P1) is the real exchange rate. The demand for both tradeables and nontradeables increases following a rise in real income associated with economic growth (Pinto, 1987). The excess demand for non-traded goods can be eliminated by the rise in their relative prices which implies a fall in P1. Excess demand for traded goods by the principle of comparative advantage, is eliminated by raising supply from countries which produce the relevant goods economically more efficiently. This means that the rise in output and therefore the increase in income is a determining variable for factor imports in general.

The foregoing paragraph also implies also that factor real exchange rate plays an important role in explaining the demand for imports.

Having dealt with the specification of the variables of the model we next describe how the data for the relevant factors is generated.

2.3 The data for the Empirical Model

This study makes use of the cross section data of SADCC intra-regional exports and imports for the year 1982 which represents the beginning of the contemporary situation. Since there are only nine observations (one per SADCC member country) and in order to conserve the number of degrees of freedom, only the most important explanatory variables will be included in each one of the two equations under consideration. In order to account for the differences in population size between member countries, exports and imports per capita figures are used to describe the relevant dependent

variables of the model. Data for the explanatory variables in respect of each equation are described below:

(i) The Export Function

(a) The Level of Industrialization (IND)

The most important component of industry in this study is manufacturing. Consequently, the proxy for the level of industrialization in this question is the contribution of manufacturing to the GDP (for 1982). That is, the proportion of the GDP that originates from the manufacturing sector.

(b) The Absence or Presence of Peace (ST1 and ST2)

We make use of the dummy variables approach to construct data for this factor by specifying that:

ST1 [1 if civil war is going on in a particular country =
[0 if civil war is absent in the particular country

ST2 [1 if there is peace within a given country =
[0 if there is no peace within a given country

(c) Trade Policies (PL1 and PL2)

The study about SADCC Intra-regional Trade conducted by the SADCC Secretariat (SADCC, 1986) established that the member countries differ considerably with regard to foreign trade situation and trade policies pursued. It nevertheless recommends a classification into two main groups - the first

group consisting of five countries; namely Botswana, Lesotho, Swaziland, Malawi and Zimbabwe. The countries in this group are said to be operating with either fully or relatively fully open general import policies and with strong economic ties to South Africa which is the main source of imports. The second group consists of countries of Angola, Mozambique, Tanzania and Zambia. It was reported that the latter group of countries had been significantly affected by the lack of foreign exchange. The countries of this group strictly ration their limited exchange reserves for imports. One of the main consequences of this situation has been a significant reduction in the relevant countries' productive capacities.

To generate data for factor trade policies we also adopt the dummy variable approach as follows:

PL1 [1 if the country belongs to group 1 =
[0 if the country does not belong to group 1

PL2 [1 if the country belongs to group 2 =
[0 if the country does not belong to group 2

(d) The Real Exchange Rate (P.FX)

This is taken to be the number of US dollars per individual national currency (1982) (FX) multiplied by the GDP deflator index (P) for that year, with 1979 as the base year.

(ii) The Import Function

The data for those variables in the import function which are not described under the export function is describes in the following two paragraphs.

(a) The Real Income Per Capita (GDP)

This is the GDP per capita in US$ in constant prices using 1979 as base.

(b) Real Exchange Rate (PM/P.FX)

In case of factor imports this is calculated by the following relation:

Real exchange rate= PM/(P) (FX)

where (P) (FX) is as defined above under exports and PM is unit value index on imports (UNCTAD, 1976).

3. The Mathematical Form of the Model

This is a two-equation (structural) model which is free from simultaneous equation bias and in which the disturbance variables in both equations are assumed to satisfy all the assumptions of the general linear model. The model is free from the simlutaneous equation bias because the specification of the model does not postulate any one of the endogenous variable to be a determining factor of the other endogenous variable. We endeavour to obtain elasticities which are useful in policy formulation. We therefore assume each one of the equations under consideration to be linear in logarithms. In view of the absence of simultaneous equation bias and taking into consideration the assumption of linearity in logarithms we apply the Ordinary Least Squares (OLS) method of estimation to the log-

transformed data for both the endogenous variable and the predetermined variables for each of the two equations being analysed. Thus the functions under consideration are described as:

(i) **The export function**

This function is specified as:

$$PX = F(P.FX, IND, ST1, ST2, PL1, PL2, U1)$$

where PX represents SADCC intra-regional exports per capita, P.FX represents the real exchange rate, IND stands for the level of industrial development, ST1 and ST2 are the two dummy variables representing factor "the presence or absence of peace in a particular country, PL1 and PL2 stand for the two dummy variables representing factor "trade policies" for the particular country and U1 stands for the disturbance variable which is assumed to satisfy all the assumptions of the classical linear model and which at the same time is assumed to be distributed independently of the disturbance variable of the import function.

(ii) The import function

This function is defined as:

$$MG = F(GDP, IND, PM/P.FX, U2)$$

where MG stands for SADCC intra-regional imports, GDP represents the GDP per capita in constant prices in US$, IND stands for the level of industrial development, PM/P.FX represents the real exchange rate and U2 stands for the function's disturbance variable assumed to satisfy all the assumptions of the general linear model and to be distributed independ-

ently of U1 specified previously.

In what follows we describe the results of the model fittings and subsequently endeavour to formulate recommendations based on the empirical findings.

4. The Results of Model Fittings

(i) The Export Function of SADCC Intra-Regional Trade

The fitted equation which includes all the explanatory variables of the export function gives poor results due to, among other things, the presence of significant multicollinearity. The existence of extreme multicollinearity between the relevant explanatory variables is confirmed by Table 4 which presents the correlation matrix of the variables under discussion.

Table 4
The Correlation Matrix of the Explanatory Variables of the SADCC Intra-Regional Export Function

	PXF	IND	ST1	ST2	PL1	PL2
PFX	1.0000	-0.2819	-0.9071	-0.9098	0.9032	0.899
IND	-0.2819	1.0000	0.4193	0.4184	-0.4348	-0.4371
ST1	-0.9071	0.4193	1.0000	0.9999	-0.9998	-0.9997
ST2	-0.9098	0.4184	0.9999	1.0000	0.9997	0.9996
PL1	0.9032	-0.4348	-0.9998	0.9997	1.0000	0.9999
PL2	0.8999	-0.4371	-0.9997	0.9996	0.9999	1.0000

The standard errors of these variables in the above mentioned regression are adversely affected by the presence of extreme multicollinearity rendering the estimated coefficients to be not statistically significant at the normally accepted levels of significance (5 percent or 1 percent). There are,

apparently, two explanatory variables which, as a group, do not exhibit extreme multicollineary, namely, factors PFX and IND. A regression including only these two explanatory variables gave the best results which are presented in Table 5.

Table 5
The Results of SADCC Intra-Regional Exports Function Model Fitting
The Estimates of Standard "T" Durbin Watson

Explanatory Variable	Structural Coefficients	Errors	Statis-tics	"d"	statis-tics	R-2
PFX	-5.4921	2.6542	-2.0692		2.80	0.335
IND	1.0764	0.4259	2.5274			

Both the foreign exchange elasticity for SADCC intra-regional exports and the elasticity for the proxy representing industrial development are statistically significant at five percent level of significance and have the right signs. The adjusted coefficient of multiple correlation (R-2) is fairly high given the nature of the data analysed. The fitted model does not contain strong first order autocorrelation as reflected in the value the Durbin-Watson (DW) "d" statistics. The results of the model fitting can therefore safely be used for formulating policy and recommendations. The elasticities in respect of the relevant dummy variables would then be estimated using say, time series data as the cross section data in respect of these variables can not provide them due to, among other problems, mutlicollinearity and autocorrelation.

(ii) The Import Function of SADCC Intra-Regional Trade

The correlation matrix of the explanatory variables of the import function do not exhibit the presence of any serious or extreme multicollinearity. The best fit equation for the function under consideration is given in Table 6. The income elasticity of SADCC intra-regional import trade is about being statistically significant at five percent level of significance and bears the right sign. The proxy representing industrial development appears to play an insignificant role in explaining the dependent variable under consideration and has been ignored in the best fit equation given in Table 6.

Table 6
The Results of SADCC Intra-Regional Import Function Model Fitting

Explanatory Variable	Structural Coefficients	Errors	Statistics	"d"	statistics	R-2
	The Estimates of Standard "T"		Durbin-Watson			
Constant	-10.4440	5.9258	-1.7625	3.15	0.2525	
GDP	1.8721	0.9817	1.9017			
PM/P.FX	0.5895	0.9520	0.6192			

The only explanatory variable of importance in the estimated equation is factor income as defined by the GDP per capita. It is also important to note that the estimated equation is not quite free from autocorrelation and its associated effects. For all practical purposes however, the fitted equation, is good enough for further analysis and policy recommendation.

5. A Brief Account of Recommendations

(i) Recommendations From the Results of the Fitted Equation for SADCC Intra-Regional Exports

(a) The Role of foreign exchange rate

The foreign exhange rate elasticity for SADCC intra-regional exports show that a unit percentage decrease in the foreign exchange rate produces a five percent increase in the relevant trade, other things remaining equal. This means that from the point of view of intra-regional exports, devaluation of a national currency is a strong policy prescription that can bring about an increase in external trade and possibly a favourable situation in the balance of payments in the SADCC region. There are however, many issues to be considered before devaluation is undertaken. The results also imply that one other tool for the gradual economic liberation of the SADCC countries is an increase in the relevant countries' intra-trade through the operation of realistic foreign exchange regimes which have high potential for accelerating trade. This will do away with the UTT for the benefit of all the citizens of the region and remove the hardships which the people have to put up within their endeavours to subsist.

(b) Industrial development

An increase of one percent in the share of manufacturing in the GDP produces more than one percent increase in the SADCC

intra-regional exports. One other way open to the SADCC countries towards the gradual achievement economic liberation from the RSA through increased intra-regional trade is to rapidly accelerate the growth in manufacturing and processing infrastructure. Given the limited resources available to these countries the growth in manufacturing and processing is bound to remain a slow process. To accelerate the relevant growth a significant amount of capital transfer will be required from the North and the East.

(ii) Recommendations Based on the Results of the Fitted Equation for SADCC Intra-Regional Imports

(a) Disposal Income

The results of fitted equation for imports indicate that one way of reducing external dependence open to the SADCC countries is to increase their intra-regional trade through raising outputs and hence incomes. A one percent increase in the per capita income of the countries under consideration produces approximately about 2 percent increase in SADCC intra-regional imports, all other things being equal.

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