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Determinants of trade patterns and comparative advantage of processed agricultural products in SADC.

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Abstract

The Southern African Development Community (SADC) countries in general are facing new challenges of realising the pre-recession economic performance. This is in addition to the normal challenges of reducing food insecurity and poverty, unemployment and to continue improving the living standards. Agriculture is at the centre of most of these activities that have high likelihood of making most contribution given the growing population, demand for food and growth in urbanisation. In addition the sector engages many people in rural areas, has many linkages with other sectors of the economy and utilises unskilled labour force. Therefore a thriving agricultural sector has a potential to have more inclusive growth than any other sector. The trade patterns of agricultural and processed products are evaluated using the Balassa revealed comparative advantage method and the augmented gravity model to determine factors that influence trade.

The results show that the share of agricultural trade in SADC is higher than the world average, and thus SADC has comparative advantage in agriculture. However, there are concerns that over time some of the SADC member countries and the have been losing comparative advantage in agriculture. Such advantage in processed and high value agriculture products is low and applicable to few countries. The contributing factors are high trade costs due to poor infrastructure, corruption perception and high administrative requirements. The situation challenges and limits the sector's potential to contribute further towards the economic growth and development. This also implies that potential gains from trade may not be fully realised.

1. Introduction

The South African Development Community (SADC) members have identified agriculture as an important sector for development, economic growth and poverty reduction. This is despite the fact that in many countries agriculture's contribution is dominated by other sectors such as minerals and mining, fisheries and tourism. The role of agriculture is however further recognised in its involvement in relation to the livelihoods of many communities as well as

an input in the very same sectors that are making larger contributions to the gross domestic product (GDP). At a continent wide level, the agricultural vision under the auspices of comprehensive African agricultural development programme (CAADP), set agricultural investment target equivalent to 10% of national budgets and productivity improvement of 6% per annum (NEPAD Planning and Coordinating Agency, 2011:1). The role of the sector is acknowledged beyond just the African continent, but in both developing and developed world.

In the past decade the SADC embarked on the implementation of the free trade area (FTA) that sought to liberalise trade in all goods. In 2008, the SADC FTA was launched, freeing trade for 85% of trade in all products (SADC Secretariat, 2009:1). Beyond just SADC, regional integration in eastern and southern African has also been considered by other countries. The Common Markets of Eastern and Southern Africa (COMESA) achieved the FTA status in 2000 and by 2008 the COMESA customs union was launched (COMESA Secretariat, 2011:1). In east Africa, members of the East African Community (EAC) signed a treaty establishing EAC in 1999 and by 2005 a customs union was launched. All these developments have led to the initiatives to establish a larger regional bloc joining the EAC, COMESA and SADC into a market consisting of 26 countries, population of more than half a billion and a combined gross domestic product of more than US\$ 600 billion.

After the recession Africa as a continent faces new set of challenges and therefore regional integration needed to be supported even more (Maswana, 2010:1). The African challenges should not consist of ensuring that national economies return to the pre-crisis commodity export-led type of growth, but also seek drivers of growth and to switch to a more value chain-based and intra-Africa trade-driven pattern. Addressing the challenges of African post-crisis development requires policies that strengthen the resilience of African economies to external shocks, by investing massively in infrastructure.

The combination of infrastructure, value chain based and agriculture seem to be the core of the much needed strategy to address these challenges. Agriculture alone already involves many people in the region than other sectors from the simple fact that most people reside in rural areas and derive most of their livelihood from land-based activities. Trade enables the contribution of agriculture to extend further beyond just land and local communities. Various agricultural products are affected differently by trade. Agricultural trade is categorised into four broad groups (Regmi, et al, 2005:1) in order to understand the pattern of trade for different product groups. The first category is the traditional bulk commodities such as wheat, maize, rice and coffee. The second category is the semi-processed products such as flour, oil, wool and hides. In the third category is horticultural crops and produce such as fruits, vegetables and nursery products. The final group is processed products with examples such beverages, breakfast cereals, dairy products and chocolate.

The last three categories are considered to be high value products. Unlike the bulk commodities, high-value products often ready to consume and are generally more perishable. Therefore, they require specialised shipping, packaging and handling. These characteristics make high value products subject to stringent conditions of quality and safety relative to bulk

products. As a result, this may sometimes make suppliers to prefer local market than to export.

The processed products group is of particular interest in this study. The processing of agricultural products into final consumer food tends to make more contribution into the economy, development and has high job creation potential than the other groups. Furthermore, there is more linkage with other sectors such as capital markets, transportation, technology, storage and packaging. Therefore, agriculture can contribute more to job creation, poverty reduction and general development if more products were processed before trade takes place.

However, as it is the case in general trade, trade in processed products is affected by trade policy and other factors that influence trade flows. Patterns of trade in processed products are also shaped by the underlying forces that affect consumer preferences as well as factors of food production. Countries specialise in and export those products that that make use of their abundant resources.

The problem in SADC and other African countries is that despite evident resources in agriculture, this advantage has not been taken further to processed agricultural products. Trade in the processed products has not been used to advance the contribution of the sector beyond just farm activities. While some of the constraints may be structural, but most of them are hypothesised to be policy-related. The policy-related constraints can be addressed in the short- to medium-term, and thus improve intra-regional trade in processed agricultural products.

This paper focuses on bilateral trade patterns of processed agricultural products between the SADC member states. The purpose of this paper is to investigate some of the factors that influence trade in processed agricultural products and the implications for regional integration, particularly on the role of agriculture. Ostensibly, the economic rationale behind regional integration is the development and growth aspects that should be created by a larger, freer and more cooperative market.

In the next section we will discuss trade data issues in SADC followed by trends of agricultural trade in section three. The analytical sections start with comparative advantage of agricultural and processed products in section four as well as the econometric model. The results of the model are discussed in section six and finally, the conclusion section.

2. Data and data challenges

2.1. Data

Most of trade data used is from the United Nations Statistics Division's (UNSD) UnComtrade database. The database is accessed through the World Bank's World Integrated Trade Solutions (WITS) software. Data on gross domestic product (GDP), agriculture value added, manufacturing value added, and other data at country level are from World Bank's World Development Indicators (WDI). The Corruption Perception Index which is used to measure corruption is from Transparency International. The index measures the perceived level of public sector corruption. The survey of corruption perception is based on several experts and businesses focusing mainly on corruption in the public sector. The index ranges from zero (most corrupt) to 10 (least corrupt).

Data on the trade facilitation indicators are from the World Bank and International Finance Corporation (IFC). The indicators included are documents that are required to export, time needed to export and cost to export 20-foot container. Number of documents refers to the number of documents required to export, while time to export refers to the average number of days required to complete all steps including obtaining documents, inland transport and handling, customs clearance and inspections as well as port and terminal handling. It excludes ocean transport time. The export cost of a 20-foot container is measured in US\$ and it includes cost of documents, administrative fees for customs clearance and technical control, broker fees, terminal handling and inland transport. They exclude tariffs and trade taxes. These measures are not specific to agricultural products but average for all merchandise exports. Therefore they may not be representative of documents time or cost to export processed agricultural products as many will require additional documents (food safety and private standards), refrigerated storage and transportation or other special handling.

2.2. Data Challenges

The first point when using this information to analyse trade patterns is always to acknowledge that trade data is hardly ever complete. The trade data challenges are made worse by the fact that in our sample all countries are either developing or least developed. And thus, data challenges are more than average trade data problems. Instead of being worried about issues of data quality, reliability and consistency, there are still concerns at a stage of data availability.

Trade data availability is thus the first challenge of this study as some countries are still not reporting official statistics. For the year 2007 which was used for the econometric model, three countries had not reported their trade data at all. These are Angola, Democratic Republic of Congo (DRC) and Lesotho. To overcome that, we used mirror data for exports using imports reported by other SADC partners. In addition to the non-reporting problem, the Southern African Customs Union (SACU) trade data is not reported by South Africa. Again, South African data was captured using mirror of reporting SACU partners.

The problem accompanying such procedure is that such export data will be higher than the actual trade that took place. This due to the fact that import data records include the cost of

getting the goods from one country to the other plus associated fees such as insurance, handling and docking fees. Export records do not have such costs as they are recorded just before they take off to the destination. There is also a problem that trade between non reporters is not going to be captured, in full or partially. The implication for that is bilateral trade between the non reporting members will have the same weight as zero trade. This may introduce some bias to our econometric estimation procedure.

3. Trends and patterns of processed agricultural products

The agricultural exports have more than doubled between 2000 and 2008, globally and in SADC. World exports of agricultural products increased from \$420 bn in 2000 to \$930 in 2008. SADC agricultural exports increased from about \$6 bn to almost \$ 12 bn. Figure 1 clearly shows the effect of global economic crises in 2009. Both export trends were growing at an average annual growth rate of more than 100%. Another trend that is observable from Figure 1 is that the pace of growth between 2004 and 2008 was the fastest for both SADC and world exports.

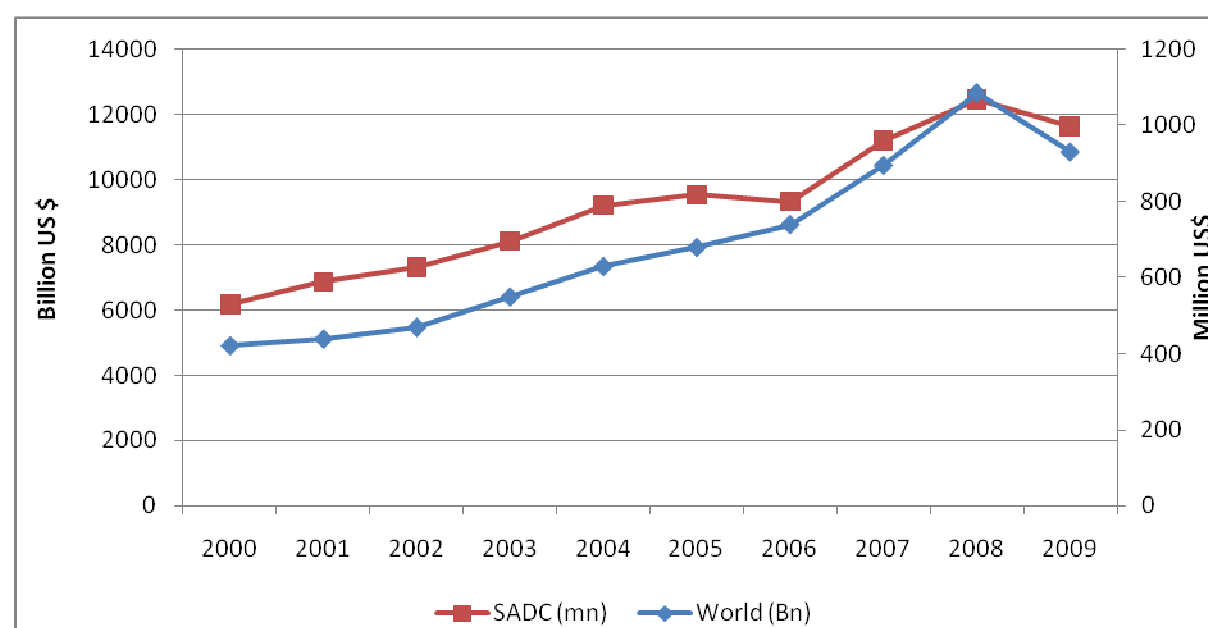


Figure 1: World and SADC agricultural trade (2000 - 2009)

The share of agricultural exports in total exports for SADC declined from 12% in 2000 to 9% in 2009. An interesting observation in Figure 2 is that over the period when agricultural exports of SADC and world were growing their fastest pace (2004 -2008), SADC was losing agricultural market share. The share declined from 11% to 6% of total exports. This is an indication that exports of other sectors were growing even faster than agricultural exports and

therefore reducing its shares. This growth was mainly dominated by mineral exports (petroleum oils, precious metals, copper iron ore and other). African development outlook (2010) reported an average growth rate in most of these products at more than 150% per annum between 2009 and 2008.

Globally, the share of agricultural exports remained relatively flat, just fluctuating between 6 and 8% of total exports.

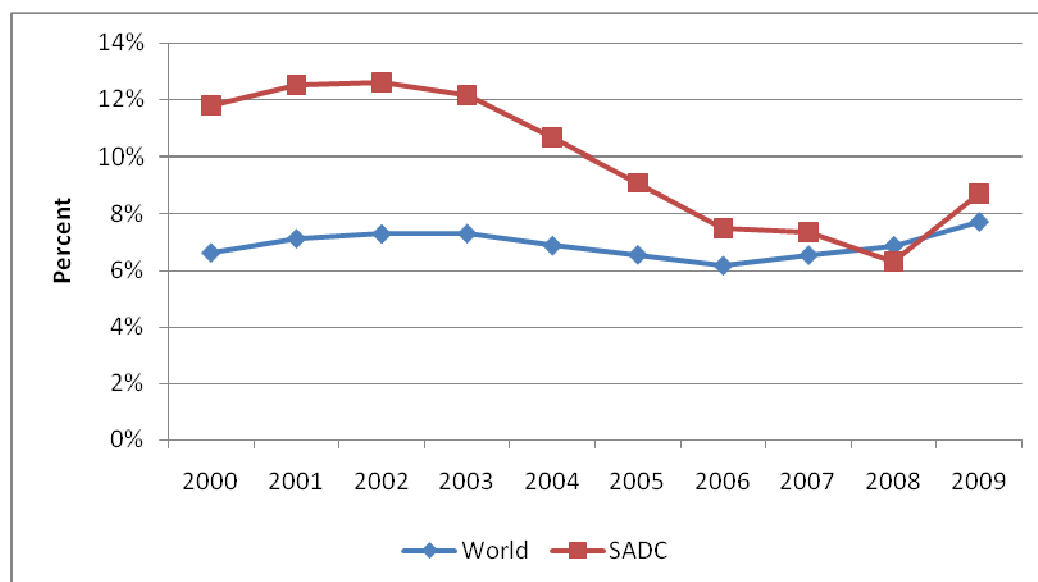


Figure 2: Share of agricultural exports in total exports (World and SADC)

The share of processed products has not changed considerably in agricultural exports for both the world and SADC. The difference is that the share of processed agricultural exports is about a quarter of agricultural exports, while globally that share is around 45%. This difference is also the reason to be concerned about the potential of SADC agriculture to contribute to development, job creation and poverty reduction. This potential gets unlocked when additional processing activities take place in the producing countries, and reflected by the share of processed products in agricultural trade or total trade. The fact that during high economic and agriculture products export growth rates the share of processed products did not change considerably implies that the potential remained stagnant. This implies that opportunity may have been missed to improve agricultural contribution to the economy.

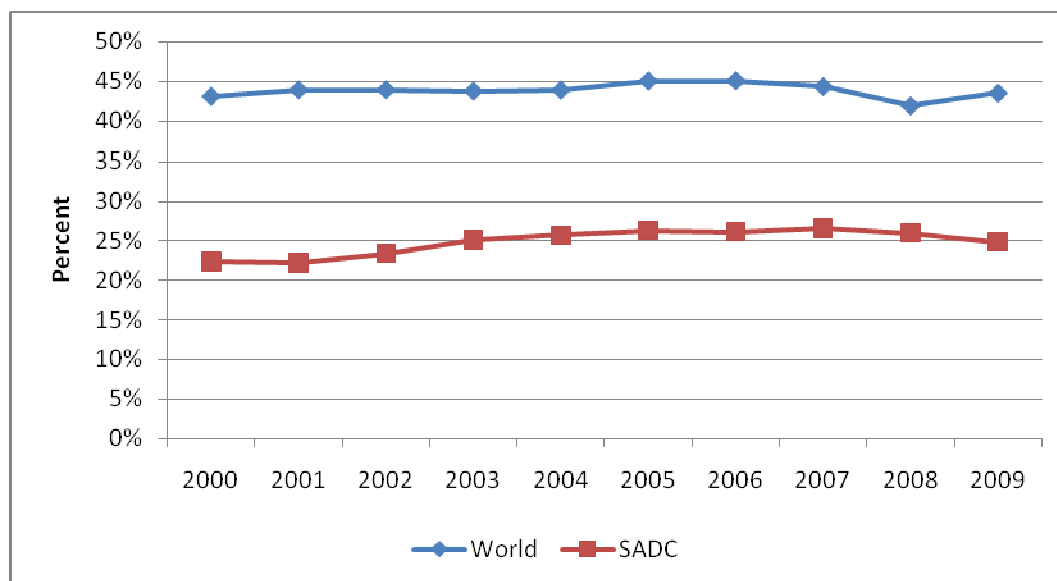


Figure 3: Share of processed products in total agriculture (2000 - 2009)

In summary, the global and SADC trade in agricultural exports increased in the years leading to the recession. For SADC, this growth did not lead to substantial improvement in the processed products share. The processed products contribute about just one quarter of agricultural exports while globally that share is approaching half of all agricultural products. That basically means that SADC is performing below average levels in global terms. In the section that follows the comparative advantage of SADC processed and agricultural products is assessed.

4. Revealed Comparative Advantage

One of the indications of whether a country or region has the ability to compete in international markets is through the export share of products from that country relative to share of the same product traded globally. There are various measures that use the share to compare country's performance. In this paper we use the Balassa's revealed comparative advantage (RCA) to assess individual SADC's country's agriculture and processed products (1961). This index is very popular as it shows products or sectors where a country has comparative advantage. In the case of SADC countries, this should show some potential of individual countries.

The index is computed as country i 's share of exports of product k relative to that country's exports in all products to the ratio of total world trade of product k to the total world merchandise exports.

$$RCA_{i,k} = \frac{X_{i,k} / \sum_k X_{i,k}}{\sum_i X_{i,k} / \sum_i \sum_k X_{i,k}}$$

Where;

$RCA_{i,k}$ = revealed comparative advantage of country i in product k ; and

$X_{i,k}$ = country i exports of product k .

An RCA value “greater than 1” implies that a country has comparative advantage in that product. A value “less than 1” implies that a country has comparative disadvantage in the product, while values equal to one means that the country has neither the advantage nor disadvantage. For this study, all agricultural products have been aggregated to evaluate the comparative advantage in the sector. The same was done for processed products.

The RCA was calculated for each year between 2000 and 2010 for each SADC member as well as SADC as a group. Table 1 shows RCA values for 2000 and 2007 for processed and agricultural products. The last two columns of the table show change in RCA for both sets of products. In cases where a country had comparative disadvantage, it is recorded as “na” in Table 1 to facilitate interpretation. Seychelles is not included in the table because it has comparative disadvantage for both products and both years.

From Table 1 it is apparent that SADC countries have comparative advantage in agricultural products, and less so in processed products. The overall region has RCA index of 1.78 for the 2000 and 1.13 in 2007. All SADC countries with exception of the DRC and Seychelles had comparative advantage in 2000. In 2007, it was Seychelles, Lesotho and Botswana that had no comparative advantage in agricultural products. Malawi had the highest index value of 13.37 and 12.35 in 2000 and 2007, respectively. Other countries with high RCA value are Zimbabwe, Tanzania and Swaziland. They all had higher a value 2000, and remained relatively high in 2007.

In terms RCA change between 2000 and 2007, most countries displayed declining trend in comparative advantage in agriculture. It was only Mauritius and the DRC that have shown improvement in the comparative advantage. The improvement in DRC may be attributed to the contribution of skills and capacity building that was brought by the South African and Zimbabwean farmers who relocated to that country over the years. The rest of the countries have declining comparative advantage in agricultural products. This is an indication that while SADC was implementing the trade protocol and approaching the free trade status, it was losing competitiveness in the agricultural sector.

Table 1: SADC countries with comparative advantage in agriculture and processed products (2000 and 2007)

Country	RCA index in 2000		RCA index in 2007		RCA Change	
	Agric	Processed	Agric	Processed	Agric	Processed
Botswana	1.19	2.48	na	1.05	Negative	Negative
DRC	na	na	1.18	na	Positive	None
Lesotho	1.95	na	na	na	Negative	None
Madagascar	4.85	na	3.00	na	Negative	None
Malawi	13.37	na	12.35	na	Negative	None
Mauritius	2.4	na	3.07	na	Positive	None
Mozambique	4.6	na	2.3	na	Negative	None
Namibia	1.82	2.79	1.01	1.42	Negative	Negative
South Africa	1.44	1.13	1.21	1.01	Negative	Negative
Swaziland	7.45	4.84	4.99	5.82	Negative	Positive
Tanzania	7.78	na	6.47	na	Negative	None
Zambia	2.03	na	1.66	na	Negative	None
Zimbabwe	8.67	1.62	4.41	1.68	Negative	Positive
SADC	1.78	na	1.13	na	Negative	None

As a region SADC had no advantage in processed agricultural products throughout the period. Only one third of SADC members have comparative advantage in processed products in 2000 and 2007. These are Botswana, Namibia, South Africa, Swaziland and Zimbabwe. It is interesting to note that four of the five countries are SACU members. The same countries maintained their comparative advantage in the two periods. However, only Swaziland and Zimbabwe were able to improve. All SACU members experienced declining advantage in processed agricultural products. The Zimbabwean improvement may be limited to the growing usage of the manufacturing capacity that was underutilised.

5. Econometric model

To understand further the factors that influence trade in processed products in SADC we employ the gravity model. The model has become one of the standard tools to analyse trade patterns and trade in general. The gravity model provides a useful framework to understand trade in processed products. The model hypothesise that the larger, the richer and the closer the two countries are, the more they trade (Haq *et al*, 2010:3). Furthermore, the more things they have in common such as language, currency, political history or colonial connections, the more they trade. Finally, coastal states trade more than landlocked countries because they are easy to reach. So, the traditional gravity model variables are distance, landlockness, GDP, language and sharing borders. In this study we augment the gravity with trade facilitation variables (number of documents, number of days and cost to export) as well as corruption perception.

A technique of ordinary least squares (OLS) is preferred as an estimation procedure. The data and the model present the typical OLS properties of best linear unbiased estimators. Estimates were provided for bilateral trade for three regressions, aggregate level of processed products, agricultural products and total trade for the year 2007. The explanatory variables include the traditional gravity variables.

The equation to be estimated is given as:

$$\begin{aligned} \text{Log}X_{ij} = & C_0 + \beta_1 \text{Land}X_i + \beta_2 \text{Land}M_j + \beta_3 \text{Cont}_{ij} + \beta_4 \text{Lang}_{ij} + \beta_5 \text{SACU}_{ij} + \beta_6 \text{COMESA}_{ij} \\ & + \beta_7 \text{LogDist}_{ij} + \beta_8 \text{LogCorr}_i + \beta_9 \text{LogDoc}X_i + \beta_{10} \text{LogTime}X_i + \beta_{11} \text{LogCost}X_i \\ & + \beta_{12} \text{LogGDP}X_i + \beta_{13} \text{LogGDPM}_j + u \end{aligned}$$

Where:

$\text{Log}X_{i,j,k}$ = log of exports of sector k from country i to country j (US\$ million);

C_0 = common intercept;

$\text{Land}X_i$ = dummy taking the value of 1 if the exporting country is landlocked, 0 otherwise;

$\text{Land}M_j$ = dummy taking the value of 1 if the importing country is landlocked, 0 otherwise;

$\text{Cont}_{i,j}$ = dummy taking the value of 1 if trading partners are contiguous, 0 otherwise;

$\text{Lang}_{i,j}$ = dummy taking the value of 1 if trading partners share common official, 0 otherwise;

$\text{SACU}_{i,j}$ = dummy taking the value of 1 if trading partners are SACU members, 0 otherwise;

$\text{COMESA}_{i,j}$ = dummy taking the value of 1 if trading partners are COMESA members, 0 otherwise;

$\text{LogDist}_{i,j}$ = log of the distance between the trading partners' capitals (km);

LogCorr_i = log of corruption indicator in the exporting country, ranging from 0 to 10. To simplify interpretation, it has been added into the model as 10 minus the original indicator;

$\text{LogDoc}X_i$ = log of the number of documents to be completed by the exporter;

$\text{LogTime}X_i$ = log of the number of days taken by the exporter to prepare goods for exporting;

$\text{LogCost}X_i$ = log of all cost required to export per 20 foot container (US\$);

$\text{LogGDP}X_i$ = log of the per capita GDP in the exporting country (US\$);

LogGDPM_j = log of the per capita GDP in the importing country (US\$);

The variables COMESA and SACU are included as proxies for the influence of regional integration in bilateral trade. The physical distance between the capitals of the trading partners captures the attribute of transport cost. Indirectly that is also a reflection of the effects of infrastructure. If there is a poor state of physical infrastructure, then that will have an impact on the costs associated with moving goods using such an infrastructure. Finally, to simplify interpretation of corruption perception index, it has been added into the model as 10 minus the original indicator.

6. Results

The augmented gravity model was estimated using OLS. Three gravity equations were estimated, for all products, agricultural products and processed products. The zero trade between members was not included in the model. Therefore the results show estimation of the existence of bilateral trade. They do not explain why trade does not or has not taken place between some members.

Table 2 reports the results for all products (in columns 2 and 3), agricultural products (columns 4 and 5) and processed products (columns 6 and 7). For the all products equation there were 168 observations, 140 for the agricultural equation and 98 for the processed agricultural products. The reported R^2 is above 60% for all three equations implying that the explanatory variables (gravity, trade facilitation and others) account for a considerable portion of bilateral trade. For all products equation, distance, corruption, language and contiguous were highly significant with the expected sign. For bilateral trade in agricultural products, language, distance, export time and export costs are highly significant. Only export time has the unexpected sign.

Table 3: Gravity model estimation of bilateral trade in 2007

Variables	All products- Log of trade			Agriculture Log of trade			Processed Products Log of trade		
	Coefficient	Std Error		Coefficient	Std Error		Coefficient	Std Error	
Constant	31.444***	7.978		36.988***	8.217		26.992**	12.446	
Landlocked exporter	-2.135	0.68		-0.306	0.764		-1.634	1.313	
Landlocked importer	-1.732**	0.601		-1.583*	0.676		-1.869*	1.008	
Contiguous	2.364***	0.643		1.859**	0.645		1.09	0.937	
Same official language	1.894***	0.539		2.226***	0.58		1.409	0.857	
SACU	-1.577	0.97		-0.507	1.068		2.724*	1.421	
COMESA	0.522	0.579		-0.068	0.622		1.789*	1.045	
Log of distance	-2.598***	0.528		-2.09***	0.532		-1.775**	0.724	

Log of corruption perception	-6.764***	0.303	-3.258	2.324	-6.146*	3.181
Log of number of documents to export	1.046	0.969	0.222	1.029	0.181	1.668
Log of export time	2.01	1.204	4.519***	1.386	5.488*	2.136
Log of export cost	-0.195	1.038	-3.759***	1.199	-1.812	2.158
Log of exporter GDP per capita	-0.166	0.289	0.315	0.301	-0.098	0.509
Log of importer GDP per capita	0.255	0.197	0.019	0.212	-0.281	0.315
Observations	168		140		98	
R-Squared	0.650		0.642		0.605	

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

The standard errors for the processed products equation are less robust compared to agriculture and all products. This may be due to less bilateral trade taking place between members of these products compared to the other two equations. Nevertheless, the factors that matter for bilateral trade in processed products include distance, export time, whether the importer is landlocked and regional integration (SACU and COMESA). Once again export time has unexpected sign.

Distance between the trading partners turns out to be a very important factor in all the products for bilateral trade. Distance is a reflection of the state on infrastructure, since the poorer the infrastructure the more will be cost of trading between the partners. The results indicate that a 10% reduction in transport cost (improvement in infrastructure) will boost bilateral trade in all products by 26%, agriculture by 20% and 18% for the processed products.

In all products, whether or not the exporter is landlocked plays a minor role in bilateral trade. However, when the importer is landlocked, it is associated with bilateral trade reduction. Countries that share the border trade more in all and agricultural products than those that do not. Language is also very important for all and agricultural products. Language and border in agricultural trade may be a result of communities belonging to the same ethnic group, but located on the opposite side of the border. Furthermore, the fact that many farmers on the continent are small in size and have low education means that they would rather trade with those that are nearer and they can communicate. Their education and size may also limit their ability to process their agricultural produce.

As expected, corruption lowers bilateral trade, but more so for all products. A 10% reduction in corruption will increase bilateral trade in all products by 68% and processed products by 61%. The surprising part of the results is an indication that suggests corruption is less prohibitive of agricultural trade. Another surprise is with the sign of time taken to export time variable. Considering the perishability of agricultural products, it is expected that the longer time taken to export will discourage trade; hence we expected a negative sign for the variable.

The fact that membership of partners to SACU and COMESA increases bilateral trade in processed provides support for the proposed tripartite free trade area between SADC, COMESA and the East African Community (EAC). The importance of regional integration in

bilateral trade for the processed products may be due to the improving harmonisation of the food safety requirements and other legislation affecting processed products.

7. Conclusions

The countries in southern African are engaged in various initiatives from multilateral to regional and bilateral trade negotiations in order to free trade and to reduce the cost of that trade. The successes of those initiatives are usual measured by improved trade between the negotiating members. Looking at the agricultural trends of agricultural exports of SADC countries over the past decade, one gets the impression that such progress has been made.

However when one focuses at the products that have high likelihood of making contribution to creation of jobs, reduction of poverty and overall contribution to development, the level of optimism declines. That group of product that have a high potential to contribute to development are high value processed products. SADC exports just about a quarter of them in total agriculture, compared to nearly half in the world. This was also the case even during the period of good performance of agricultural trade.

The comparative advantage of SADC countries is apparent in agricultural products. There is clearly no shortage of agricultural potential in all but few countries. The advantaged was assessed used the revealed comparative advantage, which is a basically a ratio of share of a product in national exports to the share of same products in world exports. The two problems for SADC are first this advantage has been declining over the period. Secondly, only one third of the countries have comparative advantage in processed products. There is really a need to focus on the sector, particularly processed products in order to make it contribute further to the development of the region.

Focusing on country specific advantages, two cases were very interesting and can help improve agriculture in some countries. The first one is the improving agricultural advantage in the DRC. The agricultural resources endowments of that country are well documented such that it should not be a surprise that is the case. However, it is conceivable that part of the reason the DRC is rising again is due to the contribution of farmers from Zimbabwe and South Africa who are engaged in farming activities in the country. That indicates the utilization or resources, the sharing of skills and building of local capacity.

The second case involves the improvement of in the RCA of processed products in Zimbabwe. The political and economic problems that affected Zimbabwe in the past years meant that the economy could not perform at full capacity. Yet the presence of manufacturing capacity in the country has been known for years that it above the average SADC country. Therefore an improvement in that regard suggests that some of that capacity is being utilised again, and hopefully that will continue to improve.

A gravity model was used to assess the pattern and factors that influence bilateral trade of all products, agricultural and processed products. The results show that improvement in infrastructure and the length of export time as well as reduction in corruption will boost trade in SADC particularly for agricultural trade.

For processed products trade, regional integration is an additional factor that can improve trade. This is also supported by some of the results from the comparative advantage analysis. Therefore this also points out that the move towards a tripartite free trade area involving SADC, EAC and COMESA may be very beneficial to trade flows. This will still have to be accompanied by infrastructure development, capacity building, sharing of skills, and investment in agriculture and reduction in corruption levels.

8. References

African Development Outlook .2010.Public Resource Mobilisation and Aid. Issy les Moulineaux, France.

Balassa, B. 1961. Towards the Theory of Economic Integration. *Kyklos* 14(1), 1-17.

COMESA Secretariat.2011. Communiqué of the Second COMESA-EAC-SADC Tripartite Summit (12 June 2011). Lusaka, Zambia.

Haq, Z., Karl, M and Cranfield, J.2010. Does the Gravity Model Suffer From Selection Bias?" CATPRN Working Paper, 2010-01 , January

Maswana, J.C. .2010 "The Global Financial Crisis and Recession - Impact on and Development Prospects for Africa", JICA Research Institute, April, Working Paper, no 15.

NEPAD Planning and Coordinating Agency. 2011. A framework for Policy and Engagement. Midrand, Johannesburg. South Africa.www.nepad.org.

Regmi, A.,Gehlhar, M., Wainio, J., Volrath, T, Johnston, P., and Nintin, D (2005). "Market Access for High Value Food". Economic Research Service, United States Department of Agriculture, USDA/ERS, Report 840, Washington D.C, USA. February 2005.

SADC Secretariat. 2009. Southern African Development Community Free trade Area Brochure. Gaborone, Botswana. www.sadc.int.

Transparency International .2010.Global Corruption Report. Berlin Germany

United Nations Statistics Division. (2011). *UN COMTRADE*. International Merchandise Trade Statistics, United Nations Statistics Division, New York, USA. Available online at <http://comtrade.un.org/>

World Bank and International Finance Corporation .2009. Doing Business 2010.Southern African Development Community (SADC).Washington D.C. USA.

World Bank. 2011. World Development Index. Washington DC, USA.