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The SADC Region and EPA/EBAI - Potential Winners and Losers

by

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Abbreviation

- ACP – African Caribbean and Pacific
- CARIFORUM - Caribbean Forum of Caribbean States
- CEMAC - Economic Community of Central African States
- CPC – Central Product Classification
- DOM - French Overseas Departments
- DRC - Democratic Republic of Congo
- EAC - East African Community
- EBAI – Everything but Arms Initiative
- ECOWAS - Economic Community of West African States
- EPA – Economic Partnership Agreement
- ESA - Eastern and Southern Africa
- EU – European Union
- FTA – Free Trade Area
- GDP – Gross Domestic Product
- GTAP – Global Trade Analysis Project
- ISIC – International Standard Industry Classification
- ISO - International Organization for Standardization
- LCD – Least Developed Country
- MENA - Middle East and North Africa
- OCT - Dutch Overseas Country Territory
- PIF - Pacific Islands Forum

- RISDP - Regional Indicative Strategic Development Plan
- SACU – Southern African Customs Union
- SADC – Southern African Development Community
- UN – United Nation

Abstract

The aim of the paper is to investigate convergence tendencies in the SADC region and to determine whether the EPA/EBAI policies between SADC and EU_27 member states will promote such convergence tendencies. The analyses of the EPA/ABAI policies make further conclusion on SADC member states' potential winners and losers from changes in trade profile brought about by these policies since individual SADC member states are heterogeneous in their trade profile. Therefore these policies outcome will likely have negative or positive effects on economic growth and convergence tendencies of individual member states of the SADC region.

The study has found evidence of absolute convergence in the SADC region using income and GDP growth rates data for the year 2008 to 2015. Further analysis of the effects of the EPA/EBAI policies reveal that SADC LDC are likely to be winners except Madagascar and Tanzania while the SADC ACP countries are possible winners on condition they set up enabling environments that promote development of industries where they are likely to benefit more given their export profile which is an indicator of their comparative advantage. It is further concluded that overall the EPA/EBAI will likely promote convergence tendencies and be beneficial to the region as a whole.

1. Introduction – The SADC Region

The SADC region is one of the regions that will be affected by the EPAs between ACP countries and EU member states. Some SADC member states are classified as LDCs and are therefore not affected by the full EPA policies but are subjected to the EBAI that does not have the reciprocity clause. However, SADC countries are heterogeneous both in their trade and export profile which is an indicator of their respective comparative advantage. The significance of such within region heterogeneity is that umbrella policies that are equally applicable to the region as a whole will result in individual member states being affected either positively or negatively by such non discriminatory policies.

The SADC region is made up of 15 member states which are: Angola (ANG), Botswana (BOT), Democratic Republic of Congo (DRC), Lesotho (LES), Madagascar (MAD), Malawi (MAL), Mauritius (MAU), Mozambique (MOZ), Namibia (NAM), Seychelles (SEY), South Africa (SA), Swaziland (SWA), Tanzania (TAN), Zambia (ZAM) and Zimbabwe (ZIM).

The region remains one of the poorest in the world with 45% of the population living on less than a dollar a day and 36.1% of the population undernourished (SADC SECRETARIAT, 2008). It is also one of the regions being hardest hit by HIV/AIDS which reduces the life expectancy for most of the member states.

These alarming figures are despite the fact that the region is rich in natural resources and has favourable climatic conditions for agricultural productivity. Poverty in the region means that most of the member states are classified as LDCs. Out of the 15 SADC member states, 8 are

classified as LDCs and these are Angola, Democratic Republic of Congo, Lesotho, Malawi, Madagascar, Mozambique, Tanzania and Zambia. The rest of the SADC member states (with the exception of South Africa) are part of ACP countries and are subject to EPAs with the EU while the LDCs are subject to the EBAs. South Africa is not part of the ACP member states but for the sake of analysing policies that affect SADC and SACU regions it is reasonable to classify it as such since the SADC and SACU member countries' economies are strongly linked to that of South Africa.

Even though the rest of the SADC member states are not classified as LDCs poverty still persists mainly due to poor productivity and export base, this situation being exacerbated by the HIV/AIDS scourge that is putting a strain on most of these countries' economies. A special case is that of Swaziland, which is not classified as LDC but has 69% of the population living below poverty line (which is set at E165 per month or US\$ 0.8 per day¹) and with 37% of the Swazi population income below the extreme poverty line (i.e. E 91 per month or US\$ 0.44 per day) (EUROPEAN COMMISSION Report, 2007).

It is the SADC development plan to have a fully functional Free Trade Area (FTA) by 2010, a Common Market by 2015 and a Monetary Union by 2016, which was a road map set out in the Regional Indicative Strategic Development Plan (RISDP) and adopted in August 2003 (Network Development Africa, 2007).

The SADC and ACP Region Trade and Development Profile

For sake of the EPA negotiations ACP countries have been divided into seven regions which are the following:

¹ E represents Emalangeni which is the Swazi currency set at par with the South African Rand (R). Exchange rate used is E6.9=US\$1 (20 December 2010 exchange rate)

Southern African Development Community (SADC)

This region is made up of Angola, Botswana, Lesotho, Namibia, Mozambique, Swaziland and South Africa.

Main exports to the EU: diamonds, oil, fish, beef, sugar, tobacco

Main imports from the EU: machinery, vehicles, chemicals

Eastern and Southern Africa (ESA)

This region is made up of Comoros, Djibouti, Eritrea, Ethiopia, Madagascar, Malawi, Mauritius, Seychelles, Sudan, Zambia and Zimbabwe.

Main exports to the EU: copper, raw cane sugar, textiles, tobacco, processed tuna, coffee

Main imports from the EU: machinery, vehicles, chemicals

East African Community (EAC)

This region is made up of five countries which are Burundi, Kenya, Rwanda, Uganda and Tanzania.

Main exports to the EU: plants, cut flowers, coffee, vegetables, fish, tobacco

Main imports from the EU: machinery, chemicals, vehicles

West Africa

This region is made up of the 15 member states of the Economic Community of West African States (ECOWAS) which are The Republic of Benin, Burkina Faso, Cape Verde, Cote D'Ivoire, The Republic of Gambia, The Republic of Ghana, The Republic of Guinea, The Republic of Guinea Bissau, The Republic of Liberia, The Republic of Mali, The Republic of Niger, The Federal Republic of Nigeria, The Republic of Senegal, The Republic of Sierra Leone, Togolese Republic and Mauritania.

Main exports to the EU: oil, gas, cocoa, iron

Main imports from the EU: machinery, vehicles

Central Africa

This region is made up of all six members of the Economic Community of Central African States (CEMAC) which are Cameroon, Central African Republic, Chad, Republic of Congo, Equatorial Guinea and Gabon plus the Democratic Republic of Congo (DRC) and São Tomé and Príncipe.

Main exports to the EU: oil, wood products, diamonds, cocoa, bananas

Main imports from the EU: machinery, vehicles, chemicals, iron and steel, pharmaceuticals

Pacific Islands Forum (PIF)

This region is made up of Island states which are Fiji, Cook Islands, Micronesia, Niue, Kiribati, Nauru, Samoa, Palau, Papua New Guinea, Marshall Islands, Vanuatu, Solomon Islands, Tonga and Tuvalu.

Main exports to the EU: palm oil, sugar

Main imports from the EU: machinery, transport equipment

Caribbean

This region is made up of the Caribbean Forum of Caribbean States (CARIFORUM). The member states of CARIFORUM are Antigua and Barbuda, Bahamas, Barbados, Belize, Cuba, Dominica, Dominican Republic, Grenada, Guyana, Haiti, Jamaica, Montserrat, St. Kitts and Nevis, Saint Lucia, St. Vincent and the Grenadines, Suriname and Trinidad and Tobago. The UK and Dutch Overseas Country Territory (OCTs) i.e. Anguilla, Aruba, British Virgin Islands, Cayman Islands, Montserrat, Netherlands Antilles, Turks and Caicos Islands have observer status while active co-operation is pursued with the French Overseas Departments (DOMs).

Main exports to the EU: fuel, chemicals, agricultural products (e.g. mangoes, bananas, rice, rum, sugar)

Main imports from the EU: machinery

The EPA classification of ACP countries means that some SADC member states are also part of the Eastern and Southern African Region. The export and import structure show that ACP regions are heterogeneous in their trade profile which is an indicator of their regional comparative advantage. There is also a within region heterogeneity as shown by the top 10 exports for each SADC member state which are reported in table 2 in the appendix section. These export profiles are an indication of each member state's comparative advantage and highlight the heterogeneity of these countries. It can be seen from the export profile that most of SADC countries depend on natural resource endowments for their export.

Angola is an important African oil producer and exports mineral fuels and oils, distillation products, pearls, precious stones, metals, coins, sulphur and earth stones, plaster, lime and cement, copper and aluminium.

Botswana exports precious metals, pearls, copper and nickel.

Lesotho also exports pearls, precious stones, metals and coins

DRC exports pearls, precious stones, metals, coins, other base metals, mineral fuels, oils, distillation products, copper and ores.

Mauritius exports pearls, precious stones, metals and coins

Zimbabwe exports pearls, precious stones, metals and coins, salt, sulphur, earth, stone, plaster, lime and cement, iron and steel.

Namibia exports pearls, precious stones, metals, coins, zinc, copper, salt, sulphur, earth, stones, plaster, lime and cement.

South Africa exports pearls, precious stones, metal, coins, steel, mineral fuels, oils and distillation products.

Zambia exports ores and copper

Tanzania exports pearls, precious stones, metals, coins, mineral fuels, oils, distillation products, ores, slag and ash.

The disparities in the SADC trade and industry profiles means that some countries will be winners and some will be losers in the EPA and EBAI since trade outcomes of these agreements will most likely promote some industries and harm others. As such, multinational policies that affect a region as whole will have different impacts on individual countries because of their within region differences.

The success of a regional trade policy can be assessed by its ability to promote regional or club convergence in which case it will have an effect of promoting faster growth in the lesser developed countries to catch up with the more developed ones within a given regional bloc.

This idea can be used to analyse the potential convergence performance of the EPA and EBAI policies in the SADC region.

SADC member states are also heterogeneous in their developmental stages as shown by the growth projections of their GDP per capita reported in table 1 below for the year 2008 to 2015.

	2008	2009	2010	2011	2012	2013	2014	2015
Angola	5008.367	4301.902	4812.226	5302.048	5875.643	6503.795	6891.029	7389.36
Botswana	7550.951	6436.95	6795.931	6944.151	7365.739	7827.335	8124.334	8436.979
DRC	184.378	171.496	188.869	198.398	207.481	219.479	230.946	243.598
Lesotho	651.105	650.4	707.956	724.57	755.872	728.508	733.87	859.645

Madagascar	466.178	413.842	391.082	395.584	434.12	469.801	505.3	544.055
Malawi	298.274	339.052	354.271	378.477	403.614	428.503	455.798	484.777
Mauritius	7316.589	6703.608	7303.315	7472.815	7764.613	8012.239	8262.292	8545.348
Mozambique	478.07	464.536	473.098	488.274	541.878	603.744	657.089	699.481
Namibia	4343.759	4511.899	5454.39	5558.815	5849.554	6021.087	6213.486	6412.342
Seychelles	10755.08	9252.957	10713.72	11335.99	11958.75	12492.04	13185.36	13983.65
South Africa	5684.68	5823.578	7100.809	7249.414	7520.518	7836.658	8199.296	8590.922
Swaziland	2778.184	2923.871	3072.831	3131.317	3208.169	3229.054	3288.438	3322.334
Tanzania	519.645	525.627	542.555	562.861	609.884	661.775	708.305	751.028
Zambia	1251.995	1069.737	1286.13	1394.541	1487.188	1596.16	1719.696	1855.686
Zimbabwe	344.384	393.784	475.154	528.864	572.515	621.517	674.089	726.787

Source: IMF

It can be seen from table 1 that the SADC countries' stages of development are different and such trends will continue into the near future. Much as the GDP per capita is expected to increase for all member states, the GDP profiles will look similar. Given these disparities the question to try and answer is will the EPA /EBAI between the EU and ACP member states promote absolute convergence in the SADC region?

2. Convergence and the SADC region

Absolute (Beta) Convergence

Absolute convergence is a neoclassical growth model idea that was proposed by Robert Solow in the 1950s.

The absolute convergence (β -convergence) hypothesis posits that poor countries will grow much more rapidly than rich countries and this process will end with the equalisation of the countries' GDP or their incomes. This means that absolute or β -convergence is proven if there is

a negative relationship between the initial productivity levels or per capita income and growth rates (Barro, 1991; Barro and Sala-i-Martin, 1992).

When analysing convergence among developed countries, most studies have found evidence of beta convergence over long periods. Not many studies have been done for developing countries however. Although Barro (1998) included a Latin American dummy variable in his study of 98 countries, not much specific research have been performed for developing countries. Esquivel (1999) studies Mexican regions for the period 1940-1995 finding convergence. Cardenas and Ponton (1995) also find evidence of convergence among the departments in Colombia between 1950 and 1989.

Dobson and Ramlogan (2002) found evidence of beta convergence for Latin America for the period 1960-1990.

Peridy et al (2009) found evidence of beta convergence in Middle East and North African (MENA) countries which include Tunisia, Egypt, Turkey, and Morocco. Maruping (2005) highlighted some of the challenges for macro-economic convergence and monetary coordination in Sub Saharan Africa.

Venables (1999) found that free trade agreements between low income countries tend to lead to divergence of member countries while agreements between high income countries will cause convergence.

Carmignani (2003) investigated the extent of per-capita income convergence in regional integration initiative using unit root testing on panel data for 28 regional groupings and found evidence of convergence in South-South integration.

However, no specific study has analysed convergence tendencies in the SADC region and the potential effects of international policies on such convergence tendencies.

Convergence in the SADC region is investigated by finding out whether per capita income and economic growth for the different countries are converging or not.

The relationship between growth and income has been derived by Sala-i-Martins (1996) using the equation below:

$$\log (y)_{it} = a + (1-\beta) \log (y_{i,t-1}) + u$$

(Where y is income or GDP)

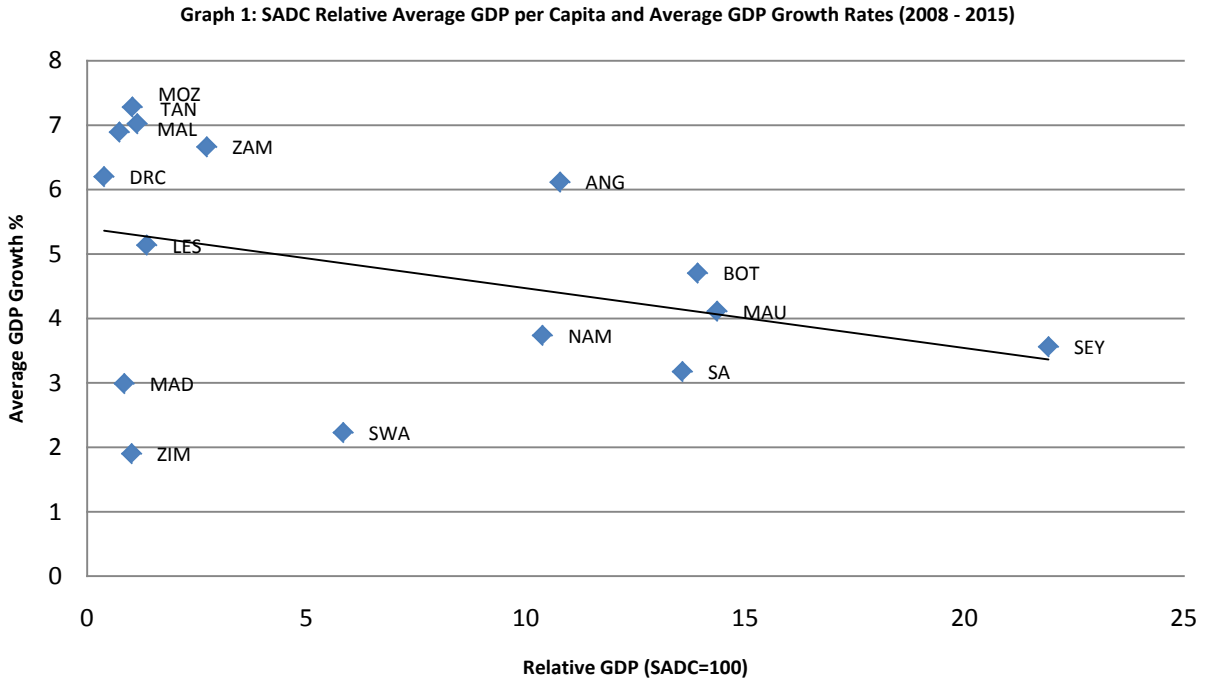
Rearranging this equation leads to the identity below:

$$\log (y_{it}/ y_{i,t-1}) = a -\beta \log (y_{i,t-1}) + u$$

$\beta >0$ is proof of beta-convergence and implies a negative relationship between growth and income.

Growth Convergence

Graph 1 below shows the relative average GDP per capita and average GDP growth rates from 2008-2015 for the SADC region using data from the IMF.



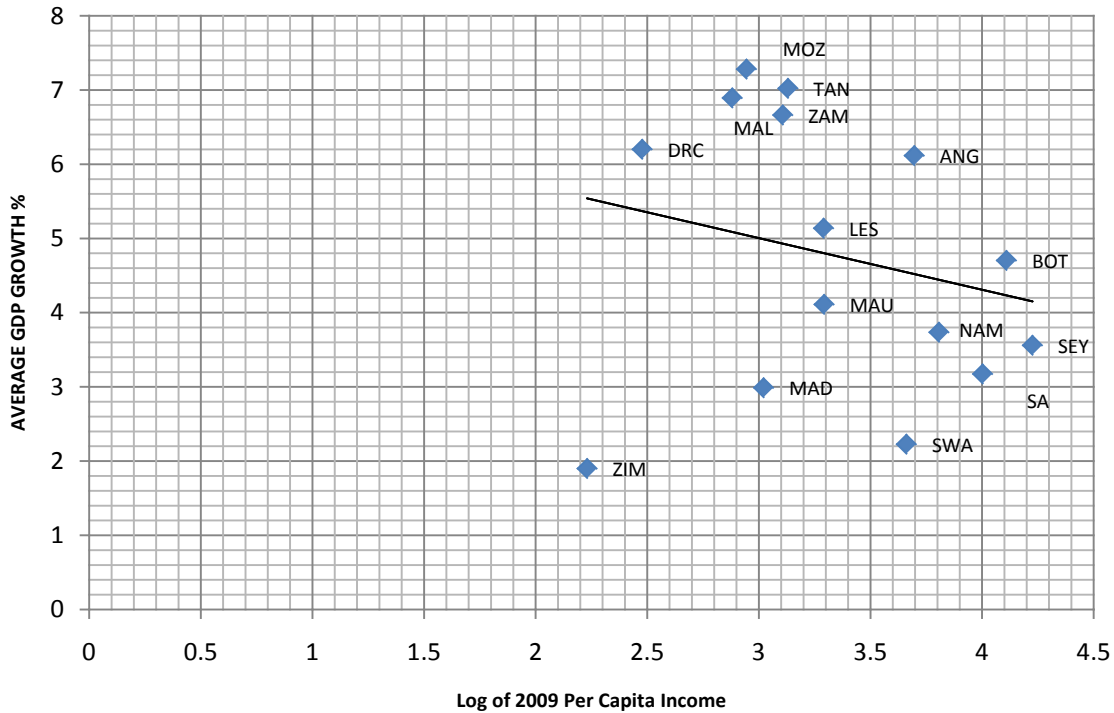
The graph above shows a trend toward growth convergence with Madagascar (MAD), Swaziland (SWA) and Zimbabwe (ZIM) appearing to be outliers.

Income Convergence

Using the identity derived by Sala-i-Martins, income convergence result in a negative relationship between per capita income and growth rates.

Graph 2 below is a plot of the log of 2009 per capita income and average GDP growth rates for the years 2008-2015 using data from the IMF and the World Bank.

Graph 2: SADC log 2009 per Capita Income and Average GDP Growth rates (2008-2015)



The above graph also show a negative slope meaning that countries that start with a lower income per capita are growing faster than those that are starting with a higher income per capita and a trend towards convergence is seen. Again Madagascar, Swaziland and Zimbabwe are outliers and do not fit into the general convergence trend exhibited by the other SADC member states. Although the SADC member states are heterogeneous in their trade profile this convergence tendency can be viewed as a form of club convergence, which is a form of convergence exhibited by countries of a regional bloc with similar developmental and trading structure and policies. The question then is to find out the possible effects of the EPA/EBAI between the EU_27 and ACP countries on convergence tendencies exhibited by the SADC member states.

The potential effects of the EPA and EBAI policies between the EU_27 and ACP member states is analysed using the GTAP model and GTAP 7 data base.

3. The GTAP Model and Policy Simulation

The model used in this paper is the Standard GTAP model developed by Hertel in 1997. The GTAP model is a widely used static, multi sector, multi region applied general equilibrium model. It is based on a detailed database with a broad coverage of (trade) distortions and explicit statistics on transport margins. Firms use constant-returns-to-scale technologies except for the resource supply sectors with an upward-sloping supply function where a fixed factor is included in the production technology to construct a diminishing-returns-to-scale technology. Import demand is modeled through the Armington assumption of imperfect substitutability between domestic and imported goods and between imported goods from different regions.

Simulation of the Effects of an EPA and EBAI in the SADC Region

Country Aggregation

For the sake of analysing the potential effects of EPA and EBAI on the convergence tendencies in the SADC region the countries in the GTAP 7 model are aggregated as follows:

- SADC_ACP - ACP countries that are members of the SADC
- RoACP - Rest of ACP countries
- SADC_LDC - LDC that are part of SADC region
- RoLDC - Rest of the LDC
- EU_27 - The EU_27 member states
- ROW - Rest of the World

Sector Aggregation

The sectors are classified according to CPC product classification and ISIC3 activity code classification. They are aggregated according to the following categories guided by the top 10 export profile for each SADC member country.

- Oil and Gas – OilandGas
- Meat and Meat Products - Meats
- Textile and Apparels – Text_App
- Manufacture of Machinery, Electrical and Communication Equipment – Manufactured
- Processed Foods - ProcFoods
- Paper and Publishing Materials - PaperProducts
- Beverages and Tobacco Products – Bev_Tobacco
- Precious Stones - StolronSteel
- Fishing - Fishing
- Vegetables, Plants and Flowers - VegPlantsFlw
- Crops (paddy rice, wheat, cereals, oil seeds, sugar cane, sugar beet and plant based fibres) - Crops
- Traded Sugar - Sugar
- Livestock and Livestock Products other than Meat and Meat Products - LivestockPro
- Mining and Extraction - Extraction
- Manufacturing - Mnfc
- Utilities and Construction – Util_Cons
- Transport and Communication - TransComm

- Other Services - OthServices

Problems with the Aggregation of Countries

For this study ACP SADC member states include Botswana, Lesotho, Mauritius, Namibia, South Africa, Swaziland and Zimbabwe.

The SADC LDC member states are Angola, Madagascar, Malawi, Mozambique, Tanzania and Zambia.

South Africa has been classified as a SADC ACP country but for EPA negotiations it is not classified as such. However, since it is part of SADC it is sensible to classify it as such since policies that affect the other SADC countries are directly relevant to South Africa since this country is an important economic member of SADC region.

Lesotho should be classified as a LDC but has been classified as a SADC ACP since it has not been possible to disaggregate this country from Rest of South African Customs Union where it is aggregated in the database together with Botswana, Namibia and Swaziland.

Seychelles has not been aggregated into SADC ACP since it is not possible to disaggregate it from the Rest of Eastern African countries where it is originally aggregated in the GTAP database.

Policy Simulation

To simulate the effects of the EPA/EBAI policies we use the GTAP model and GTAP 7 data base.

The GTAP 7 Data Base consists of 57 commodities and 113 regions. The 113 regions are defined as aggregates of 226 countries using the GTAP standard country list. The Alpha-3 codes defined by the International Organization for Standardization (ISO) are used as country codes for the GTAP primary regions.

In the sectoral definitions used in the GTAP 7 Data Base GTAP agricultural and food processing sectors are defined by reference to the Central Product Classification (CPC) and the other GTAP sectors are defined by reference to the International Standard Industry Classification (ISIC) since this is the reference classification point for I-O statistics tables where the GTAP data is sourced. The CPC was developed by the Statistical Office of the United Nations (UN) and serves as a bridge between the ISIC and other sectoral classifications (Narayanan et al 2008).

The aggregation of the data base for the study used the complete GTAPAgg software licensed to the author. Simulation experiments were done using RunGTAP, which is a graphical user environment developed by Mark Horridge of the Centre of Policy Studies at Monash University. The experiment conducted is a full implementation of an EPA between ACP member states and EU_27 countries by a reciprocal abolition of all import duties between the two trading partners. For the simulation of the EBAI the EU_27 region abolishes all import duties for all product lines from LDC without the LDC member states reciprocating.

4. Selected Results and Discussion

Relevant results for this study are the changes in trade balance of commodities from each region as a result of full EPA and EBAI policies. These results are shown in table 2 below:

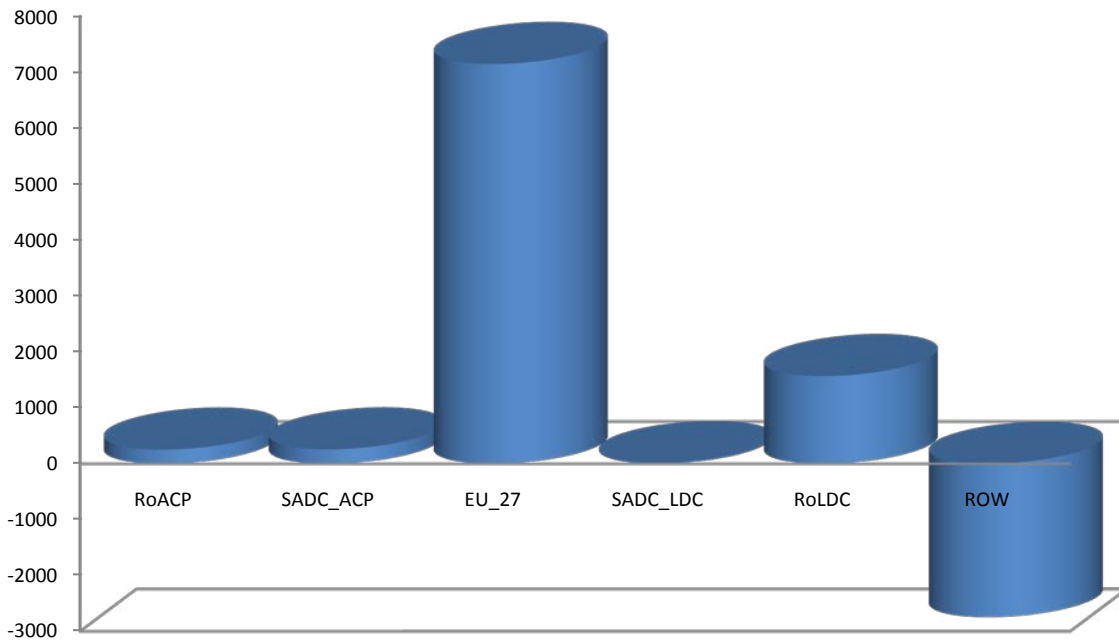
DTBALi	RoACP	SADC_ACP	EU_27	SADC_LDC	RoLDC	ROW
OilandGas	135.77	168.85	-251.83	-25.86	-69	52.45
Meats	-33.45	477.67	-699.13	-3.3	358.73	-128.31
Text_App	-7.47	-98.8	-363.01	-15.61	255.59	182.09
Manufactured	-750.82	-529.61	-402.96	-10.68	-773.29	2421
ProcFoods	-78.49	96.47	-349.92	-12.62	385.49	-132.93
PaperProduct	-92.35	-89.01	122.87	-2.87	-60.84	111.18

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Bev_Tobacco	-99.18	77.37	92.67	-1.53	-5.9	-83.35
StolronSteel	-324.09	-98.07	242.58	-29.32	-211.18	372.13
Fishing	1.38	11.45	-3.42	-0.14	-7.83	-1.77
VegPlantsFlw	268.2	0.19	-470.86	-17.61	85.9	58.78
Crops	-16.71	-27.19	-454.59	-0.68	410.42	62.05
Sugar	1092.38	957.36	-1869.87	158.04	147.95	-470.97
LivestockPro	-119.78	-33.59	301.84	-2.78	-97.56	-53.98
Extraction	-4.45	20.78	-76.22	-3.12	-56.97	119.6
Mnfc	-1996.47	-1889.47	5556.83	-29.29	-619.04	-1228.01
Util_Cons	2.49	-1.03	-91.82	-7.49	-39.21	137.07
TransComm	-6.34	-40.03	-220.39	-10.66	-548.43	1406.88
OthServices	-236.49	-40.26	-853.63	-13.67	-518.09	1662.14

The results of Equivalent Variation, which is a measure of welfare are summarised in graph 3 below:

Graph 3: Welfare Outcome (US\$Million) of an EPA/EBAI Policy between the EU_27 and ACP/LDC



The results show that the SADC region will experience a welfare gain from the EPA and EBAI with the EU_27. SADC ACP countries experience a welfare gain of US\$ 255.98 Million while SADC LDC experiences a welfare gain of US\$ 13.04 Million. However, some countries are likely not to benefit or the benefits will not be equally distributed with some member states experiencing less welfare gains or even welfare losses due to changes in trade profiles as a result of these policies. These possible unequal benefits will affect the convergence tendencies shown by the SADC member states. The Rest of ACP countries (RoACP) and Rest of LDC (RoLDC)

also experience welfare gains while the Rest of the World (ROW) which is not liberalizing its trade suffers a welfare loss. The EU_27 has an overall welfare gain of US\$ 7149.25 Million.

Changes in trade balance show that SADC ACP countries are more competitive than the rest of ACP countries in meat and meat products, processed foods, beverages and tobacco industries and mining and extraction industries as shown by a positive trade balance in these sectors but are less competitive than the rest of ACP member states in utilities and construction, vegetable, fruits, nuts, plant products and vegetable oils and fat industries with a very low or negative trade balance in these sectors.

All the ACP member states experience a negative trade balance in textile and apparel, livestock and livestock products other than meat and meat products, manufacturing, paper and publishing materials, transport and communication, stones, iron and steel, crops and manufacture of machinery, electrical and communication equipment industries.

This means that SADC ACP countries that initially exported commodities that show a negative trade balance after the EPA and EBAI policies will tend to be losers and therefore these policy initiatives will have a negative impact on their convergence tendencies.

SADC LDCs experience a negative trade balance in all traded commodities except sugar. This means that generally SADC LDCs are likely to be negatively affected by the combination of the EBAI and EPA policies and will not be able to compete with the rest of LDCs member states. Further, this outcome means that SADC LDCs that are likely to experience a positive growth and reap maximum benefit from the EPA/EBAI policies are sugar producers and exporters and these are Malawi, Zambia and Mozambique. Since these countries are low in developmental stages,

an improvement in their export base and trade will promote development and therefore support their convergence tendencies.

However, the rest of the SADC LDCs which are Angola, Madagascar and Tanzania are likely to be affected negatively by these policies thus undermining these countries' convergence tendencies. Angola exports oil and gas and the results show that SADC LDC will be net importers of these commodities. However, Angola will likely remain an important exporter of these commodities which will support growth and development meaning that Angola will still experience strong growth and convergence tendencies in future. Therefore, the EPA/EBAI will generally support growth and convergence in the SADC region for the SADC LDC and the only possible losers are likely to be Madagascar and Tanzania.

The rest of LDCs outside SADC region experience a positive trade balance in meat and meat products, textile and apparels, processed foods, vegetables, fruits, nuts, plant products, vegetable oils and fats industries, crops and sugar

SADC ACP countries experience a negative trade balance in livestock and livestock products other than meat and meat products, crops (these include paddy rice, wheat, cereals, oil seeds, sugar cane, sugar beet and plant based fibres), textile and apparels, machinery, electrical and communication equipment, petroleum products, coal products, chemicals, rubber, plastic products, metal products, motor vehicles and parts, transport equipment, leather and wood products, paper and publishing materials, utilities and construction and other services and precious stones.

This means that countries like Botswana, South Africa, Namibia and ²Lesotho are likely to be losers since they are exporters of precious stones, iron steel and manufacturing and manufactured products. However, it is unlikely that the SADC exporters of precious stones will suffer welfare losses despite this negative trade balance since the SADC precious stones industry is one of the most competitive in the world. Swaziland is a potential winner since it exports products that show a positive trade balance after the application of the EPA/EBAI policies. It is then important that Swaziland promote sugar, processed foods and livestock industries since the country has a relative comparative advantage and these industries show a favourable outcome after the EPA/EBAI policies.

Overall, SADC ACP countries are likely to be winners if they promote the industries that show a positive trade balance as their preferred export base and in so doing these countries are unlikely to divert from club convergence tendencies due to the EPA/EBAI policies and regional integration will be realised. For example Mauritius is likely to be a winner if it promotes sugar, meat and food processing industries which show a positive trade balance as opposed to electrical and electronic equipments and live animals trade which show a negative trade balance after the EPA/EBAI policies.

² Lesotho is a LDC but has not been classified as such because of the GTAP data base country aggregation which makes it impossible to appropriately classify this country.

5. Conclusion

The benefits of the SADC region from EPA/EBAI policies will depend on selective industry development by each member state in line with their comparative advantage and the speed of alignment of domestic policies with the changing international trade policy environment so as to support such development. It is by these means that regional development, convergence and regional integration will be realised.

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Appendix

Table 2: Top 10 Export Products from SADC Member States to EU27		
Angola		
	Product	Value (US\$'000)
'27	Mineral fuels, oils, distillation products, etc	4937674
'71	Pearls, precious stones, metals, coins, etc	249115
'25	Salt, sulphur, earth, stone, plaster, lime and cement	21355
'03	Fish, crustaceans, molluscs, aquatic invertebrates nes	17462
'90	Optical, photo, technical, medical, etc apparatus	12737
'84	Machinery, nuclear reactors, boilers, etc	5704
'74	Copper and articles thereof	4476
'85	Electrical, electronic equipment	2973
'76	Aluminium and articles thereof	2853
'44	Wood and articles of wood, wood charcoal	2201
'99	Commodities not elsewhere specified	1737
Botswana		
	Product	Value (US\$'000)
'71	Pearls, precious stones, metals, coins, etc	3169349
'61	Articles of apparel, accessories, knit or crochet	166546
'02	Meat and edible meat offal	63760
'74	Copper and articles thereof	10679
'62	Articles of apparel, accessories, not knit or crochet	8845
'85	Electrical, electronic equipment	4399
'84	Machinery, nuclear reactors, boilers, etc	3502
'88	Aircraft, spacecraft, and parts thereof	2813
'75	Nickel and articles thereof	2460

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'16	Meat, fish and seafood food preparations nes	1329
Lesotho		
	Product	Value (US\$'000)
'71	Pearls, precious stones, metals, coins, etc	166130
'61	Articles of apparel, accessories, knit or crochet	1842
'62	Articles of apparel, accessories, not knit or crochet	620
'11	Milling products, malt, starches, inulin, wheat gluten	604
'99	Commodities not elsewhere specified	93
'84	Machinery, nuclear reactors, boilers, etc	18
'85	Electrical, electronic equipment	17
'03	Fish, crustaceans, molluscs, aquatic invertebrates nes	14
'02	Meat and edible meat offal	11
'69	Ceramic products	10
'95	Toys, games, sports requisites	10
Madagascar		
	Product	Value (US\$'000)
'61	Articles of apparel, accessories, knit or crochet	157495
'03	Fish, crustaceans, molluscs, aquatic invertebrates nes	131308
'62	Articles of apparel, accessories, not knit or crochet	111894
'48	Paper & paperboard, articles of pulp, paper and board	74400
'49	Printed books, newspapers, pictures etc	50348
'09	Coffee, tea, mate and spices	43920
'16	Meat, fish and seafood food preparations nes	43686
'27	Mineral fuels, oils, distillation products, etc	43501
'84	Machinery, nuclear reactors, boilers, etc	19585

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'18	Cocoa and cocoa preparations	19095
'08	Edible fruit, nuts, peel of citrus fruit, melons	18123
Malawi		
	Product	Value (US\$'000)
'24	Tobacco and manufactured tobacco substitutes	245772
'17	Sugars and sugar confectionery	48405
'09	Coffee, tea, mate and spices	30894
'08	Edible fruit, nuts, peel of citrus fruit, melons	4551
'52	Cotton	1910
'12	Oil seed, oleagic fruits, grain, seed, fruit, etc, nes	1616
'07	Edible vegetables and certain roots and tubers	962
'93	Arms and ammunition, parts and accessories thereof	816
'94	Furniture, lighting, signs, prefabricated buildings	638
'63	Other made textile articles, sets, worn clothing etc	600
'84	Machinery, nuclear reactors, boilers, etc	430
Zambia		
	Product	Value (US\$'000)
'26	Ores, slag and ash	70892
'81	Other base metals, cermets, articles thereof	44152
'17	Sugars and sugar confectionery	36807
'06	Live trees, plants, bulbs, roots, cut flowers etc	26255
'07	Edible vegetables and certain roots and tubers	20430
'74	Copper and articles thereof	17659
'52	Cotton	11207
'24	Tobacco and manufactured tobacco substitutes	9209
'84	Machinery, nuclear reactors, boilers, etc	5514

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'09	Coffee, tea, mate and spices	4239
'85	Electrical, electronic equipment	1702
South Africa		
	Product	Value (US\$'000)
'71	Pearls, precious stones, metals, coins, etc	3733715
'84	Machinery, nuclear reactors, boilers, etc	3201459
'27	Mineral fuels, oils, distillation products, etc	2279435
'72	Iron and steel	2239619
'26	Ores, slag and ash	1567367
'87	Vehicles other than railway, tramway	1265229
'08	Edible fruit, nuts, peel of citrus fruit, melons	906382
'76	Aluminium and articles thereof	560768
'22	Beverages, spirits and vinegar	531504
'85	Electrical, electronic equipment	441584
'94	Furniture, lighting, signs, prefabricated buildings	415041
Namibia		
	Product	Value (US\$'000)
'71	Pearls, precious stones, metals, coins, etc	681149
'79	Zinc and articles thereof	523157
'03	Fish, crustaceans, molluscs, aquatic invertebrates nes	321058
'89	Ships, boats and other floating structures	77691
'74	Copper and articles thereof	73782
'26	Ores, slag and ash	38345
'08	Edible fruit, nuts, peel of citrus fruit, melons	28614
'25	Salt, sulphur, earth, stone, plaster, lime and cement	17188
'41	Raw hides and skins (other than furskins) and leather	11430

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'43	Furskins and artificial fur, manufactures thereof	8227
'84	Machinery, nuclear reactors, boilers, etc	5208
DRC		
	Product	Value (US\$'000)
'71	Pearls, precious stones, metals, coins, etc	393483
'44	Wood and articles of wood, wood charcoal	171835
'81	Other base metals, cermets, articles thereof	155910
'27	Mineral fuels, oils, distillation products, etc	90559
'74	Copper and articles thereof	88250
'26	Ores, slag and ash	54054
'09	Coffee, tea, mate and spices	8728
'24	Tobacco and manufactured tobacco substitutes	5419
'13	Lac, gums, resins, vegetable saps and extracts nes	4070
'40	Rubber and articles thereof	2970
'85	Electrical, electronic equipment	1899
Mauritius		
	Product	Value (US\$'000)
'61	Articles of apparel, accessories, knit or crochet	550794
'17	Sugars and sugar confectionery	291822
'16	Meat, fish and seafood food preparations nes	192683
'62	Articles of apparel, accessories, not knit or crochet	147883
'71	Pearls, precious stones, metals, coins, etc	63990
'85	Electrical, electronic equipment	17308
'03	Fish, crustaceans, molluscs, aquatic invertebrates nes	17030
'42	Articles of leather, animal gut, harness, travel goods	15336
'01	Live animals	14678

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'52	Cotton	13221
'90	Optical, photo, technical, medical, etc apparatus	12529
Zimbabwe		
	Product	Value (US\$'000)
'07	Edible vegetables and certain roots and tubers	131340
'06	Live trees, plants, bulbs, roots, cut flowers etc	122294
'49	Printed books, newspapers, pictures etc	116613
'24	Tobacco and manufactured tobacco substitutes	51686
'97	Works of art, collectors pieces and antiques	16820
'25	Salt, sulphur, earth, stone, plaster, lime and cement	14693
'52	Cotton	14296
'71	Pearls, precious stones, metals, coins, etc	13379
'94	Furniture, lighting, signs, prefabricated buildings	9994
'72	Iron and steel	8432
'09	Coffee, tea, mate and spices	6458
Swaziland		
	Product	Value (US\$'000)
'17	Sugars and sugar confectionery	153420
'22	Beverages, spirits and vinegar	1101
'20	Vegetable, fruit, nut, etc food preparations	176
'41	Raw hides and skins (other than furskins) and leather	72
'70	Glass and glassware	61
'84	Machinery, nuclear reactors, boilers, etc	11
'07	Edible vegetables and certain roots and tubers	5
'97	Works of art, collectors pieces and antiques	2
'08	Edible fruit, nuts, peel of citrus fruit, melons	1

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'96	Miscellaneous manufactured articles	1
Seychelles		
	Product	Value (US\$'000)
'16	Meat, fish and seafood food preparations nes	91493
'03	Fish, crustaceans, molluscs, aquatic invertebrates nes	41201
'90	Optical, photo, technical, medical, etc apparatus	3296
'88	Aircraft, spacecraft, and parts thereof	2083
'99	Commodities not elsewhere specified	704
'22	Beverages, spirits and vinegar	379
'84	Machinery, nuclear reactors, boilers, etc	210
'69	Ceramic products	209
'76	Aluminium and articles thereof	187
'23	Residues, wastes of food industry, animal fodder	149
'09	Coffee, tea, mate and spices	135
Mozambique		
	Product	Value (US\$'000)
'03	Fish, crustaceans, molluscs, aquatic invertebrates nes	50131
'17	Sugars and sugar confectionery	37940
'24	Tobacco and manufactured tobacco substitutes	27429
'86	Railway, tramway locomotives, rolling stock, equipment	8908
'08	Edible fruit, nuts, peel of citrus fruit, melons	6090
'52	Cotton	3417
'88	Aircraft, spacecraft, and parts thereof	2759
'49	Printed books, newspapers, pictures etc	1737
'72	Iron and steel	1219
'01	Live animals	1089

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'44	Wood and articles of wood, wood charcoal	920
Tanzania		
	Product	Value (US\$'000)
'71	Pearls, precious stones, metals, coins, etc	833,599
'26	Ores, slag and ash	350,549
'24	Tobacco and manufactured tobacco substitutes	180,598
'09	Coffee, tea, mate and spices	162,141
'03	Fish, crustaceans, molluscs, aquatic invertebrates nes	140,581
'52	Cotton	139,467
'85	Electrical, electronic equipment	109,537
'07	Edible vegetables and certain roots and tubers	78,058
'08	0Edible fruit, nuts, peel of citrus fruit, melons	74,050
'27	Mineral fuels, oils, distillation products, etc	69,972
'63	Other made textile articles, sets, worn clothing etc	65,175