Trade Impacts of EU[16]-ESA[17] EPA[18] Transitional Period On Malawi Sugar Exports

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Abstract

The renunciation of the Sugar Protocol between European Union (EU) and African, Caribbean and Pacific (ACP) countries in 2007 initiated a gradual reform process that will culminate into a reciprocal Duty Free Quota Free non-preferential access for all sugar producers in 2017. This paper analyzes how the reforms implemented this far have affected Malawi sugar exports. Since expansion of regional trade is seen as one of the adaptation measures for affected sugar industries. The study also analyzed the effect of regional integration areas. The results show that the EU sugar price reforms and elimination of country specific quotas had a positive influence of exports. Malawi being a low cost producer, it was not affected by falling prices and benefited to expanded access granted by a group safeguard. However, the production quotas for EU producers and high tariffs non-preferred producers meant that Malawi was still shielded from competition that will prevail when the EU market is fully liberalized.

Keywords: Gravity, Sugar, Trade Creation and Diversion, Malawi, EU-ESA EPA, COMESA, SADC, FTA[19]

INTRODUCTION

The long history of European Union and African Caribbean and Pacific countries (ACP) relations has resulted into the European Union (EU) being a major aid provider and the main market for African, Caribbean and Pacific (ACP) countries exports. However, trade relations between the EU

[16] EU = European Union
[17] ESA = Eastern and Southern Africa
[18] EPA = Economic Partnership Agreement
[19] FTA = Free Trade Agreement

and ACP have changed tremendously since 1990(Karin, 2003). Market access was originally granted through the two Yaoundé conventions which were essentially the continuation of the post-colonial relations (Hurt, 2003). The Lome Conventions followed from 1976 to 2000 when the Cotonou agreement was signed in Benin.

Sugar which is one of Malawi's major exports to the EU has been of special interest in these agreements. The Sugar Protocol was attached to the first Lome Convention (Zoungrana, 2009) detailing the non-reciprocal preferences accorded to Malawi and other ACP sugar producers. The EU then European Community (EC) undertook "for an indefinite period to purchase and import, at guaranteed prices, specific quantities of cane sugar, raw or white, which originate in the ACP States", members to the protocol. The ACP States, on their side, undertook to deliver the agreed quantities. The sugar imported in the framework of the Sugar Protocol benefited from duty free access to the Community market. The sugar protocol was carried over into the Cotonou agreement and by 2007 Malawi had a 20,000 tons quota. Additional access was through under Everything But Arms (EBA) transitional quotas and under special preferential arrangements quotas at46, 461 tons and 10,000 tons respectively.

Following the sugar policy reforms that started in 2006, the Sugar protocol denounced in October 2007 setting in place a duty free quota free transitional period that ends in 2017. Ex-ante analysis of the reforms indicated that absence of quotas would cost ACP/LDC €850 million in lost revenue up to 2020 and would "lead to the death of the sugar sector" in certain ACP countries (Technical Center for Agricultural and Rural Cooperation, 2013). Increasing competitiveness and exploiting regional markets has been touted as an adaptive measure for affected sugar producers. This paper analyzes the effect the EU reforms and regional trading blocs on Malawi's sugar exports. The aim is to monitor the extent to which sugar trade flows have been affected and draw lessons for policy action.

METHODOLOGY

Data sources

Data on sugar exports from Malawi to European Union, Southern Africa Developing Countries (SADC), and COMESA was collected from International Trade Centre database (http://www.intracen.org). Data on GDP per capita for Malawi, EU countries, population and real effective exchange rate were collected from World Development Indicators of the World Bank database. Data on distance between international cities expressed in kilometers were collected from 'Centre d'EtudesProspectives et d'InformationInternationales' (CEPII).

Model specification

Since Tin Berg developed the gravity model for international trade in 1962, the model has been applied in studies as a way of explaining various types of inter-regional and international flows. The gravity model for trade postulates that the volume of trade between two countries is proportional to the sizes of their respective economies (in terms of capacity to supply exports and absorb imports) and inversely proportional to the costs of trading usually measured in terms of the distance between the trading nations(Nouve & Staatz, 2003). The basic form of the gravity model for international trade is presented as:

$$T_{ij} = k\frac{Y_i Y_j}{D_{ij}} \qquad \dots\dots (1)$$

Where T_{ij} are Value of exports or imports from country i to country, Y_i & Y_j measure of economic size of country i and country j and; D_{ij} is distance between country i and country j measured in terms of distance between the capital cities. The Gravity Model is applied in its log-linear. From equation (1), the gravity model in its log-linear form is presented as:

$$LnT_{ij} = \alpha_0 + \alpha_1 LnY_i + \alpha_2 LnY_j + \alpha_3 D_{ij} + \varepsilon_{ij} \qquad \dots\dots (2)$$

When using the model for estimation, other variables such as exchange rates, specialization indices and other dummy variables such as common membership to regional integration, common border and common language are added to the model (Deardorff, 1995). This is the case since it is expected that these are among some of the variables that would facilitate or affect negatively trade between any two or more states. In the case of gravity equations used to estimate the impact of regional trade arrangements, dummy variables are added for each RTA under scrutiny (Cernat, 2003).This yields the generalized gravity model of trade described by (Martinez-Zarzoso & Nowak-Lehmann, 2003).

$$LnT_{ij} = \alpha_0 + \alpha_1 LnY_i + \alpha_2 LnY_j + LnPop_i + LnPop_j + \alpha_3 D_{ij} + \alpha_4 LnREER + \sum_h \alpha_h w_{ijh} + \varepsilon_{ij}$$

(3)

Where

w_{ijh} are Dummy variables representing trade agreements colony and common border

T_{ij} are value of exports or imports from country i to country j

Y_i & Y_j GDP per capita i and country j

D_{ij} is distance between country i and country j

$LnPop_i$ and $LnPop_j$ are population size for exporting and importing countries respectively.

Since trade relations are considered to have a longtime effect on trade (Martinez-Zarzoso & Nowak-Lehmann, 2003) lagged values of REER and sugar exports were added. Descriptions of the variables are displayed as follows.

Variable	Expected sign
Malawi's GDP Per Capita **(log exporter GDP)**	GDP per capita for Malawi represents the output capacity for Malawi. This variable is expected to have a positive sign implying that the higher the output capacity, the higher the amount of sugar exported
Importing country GDP per Capita **(log importer GDP)**	This represents the income effect for the importing country. GDP per capita for importing country is expected to have a positive sign implying that an increase in income for importing countries would increase the amount of goods consumed from Malawi
Real Effective Exchange Rate **(Log REER)**	A positive effect on trade is envisaged as an increase in the real effective exchange rate between Malawi and her trading partners would make exports from Malawi relatively cheaper
Distance **(Log Distance)**	Distance variable is a proxy for trading costs between Malawi and her trading partners. This variable is expected to have a negative sign implying that the longer the distance between Malawi and any of her trading partners, the less the amount of goods exported to that country since this means that the trading costs are going to be huge
EU Transition Period Dummy **(EU EPA)** Annual Dummies (2009-2013) **D2009-2013**	These are the individual annual dummy variables for the implementation of the preferential treatment on sugar exports from Malawi. it expected that removal of country specific quotas will have a negative effect on sugar exports
Common Language, colony and common border (**contig**)	Where countries share a common border, colony and have the same official language, it is expected that trade will be enhanced as these variables will facilitate trade. Therefore a positive effect is expected
SADC, COMESA dummies	FTA are established to enhance trade between members as such a positive effect is envisaged
Trade Flow Dummies *EU EPA* Yes *EU EPA* No *SADC* Yes *SADC* NO	These are dummy variables introduced when analyzing trade creation and diversion. $SADC_{yes}$ and EU_{yes} represents a scenario where both Malawi and its trading partners in SADC and EU respectively are in agreement (both in scenario) and takes values of one for implementation of trade agreement and 0 otherwise (other trading partners). $SADC_{no}$ and EU_{no} takes the value of 1 for Malawi and other trading partners (outside the trade agreement) and 0 otherwise (within SADC and EU respectively) and this is an in-out scenario

RESULTS AND DISCUSSION

Sugar Exports

The value of sugar exported from Malawi has been increasing over the years. Figure 1 presents the trends of sugar exports from Malawi to EU, COMESA (Common Market for Eastern and Southern Africa), SADC (Southern Africa Developing Community) and Rest of the World (RoW) from 2001 to 2014. Since the denunciation of the Sugar Protocol in 2007, the value of earnings from sugar exports to the EU has taken an upward trend. The highest earnings were recorded in 2011/12 at US$131 million. Malawi which had a sugar protocol quota of only 20,000 tons took advantage of the expanded access in 2011/12 and exported five times this volume. In addition, exports destinations from Malawi sugar have increased to 12 EU member states (Technical Center for Agricultural and Rural Cooperation, 2014). On the contrary, regional exports to Southern Africa Development Community (SADC) and Common Market for Eastern and Southern Africa (COMESA) took a downward trend since 2012.

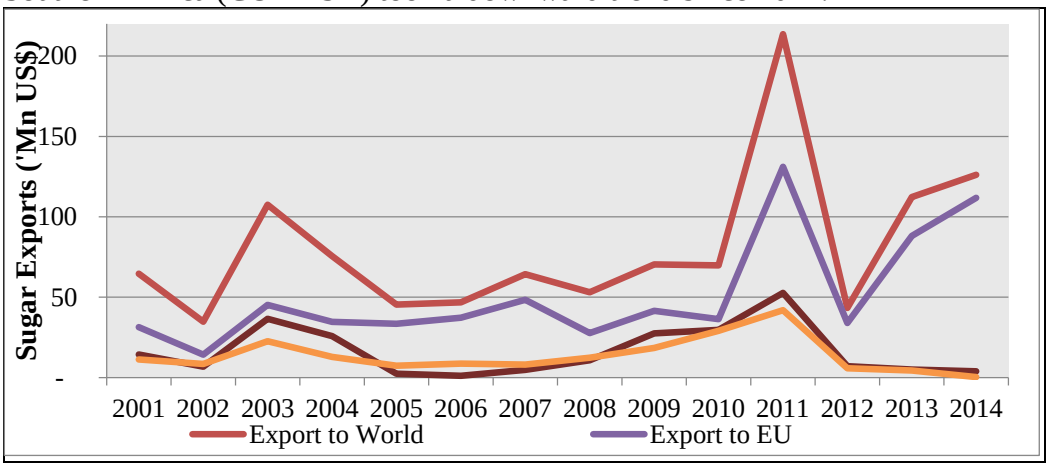

Figure 1: Trend of Sugar Exports from Malawi
Data source*: International Trade Center, 2015*

The market shares for the trading blocs are presented in Figure 2. In term of export markets shares, EU remains the largest importer of sugar. Since 2005 over half of sugar produced in Malawi was exported to the EU. For both SADC and COMESA, the share of exports to these regions has shrunk over the same period. However, the trends for SADC and COMESA should be treated with caution due to overlaps. Five export destinations for Malawi sugar belong to both regional groupings. This might contribute to the two trading blocs depicting a similar trend for some period.

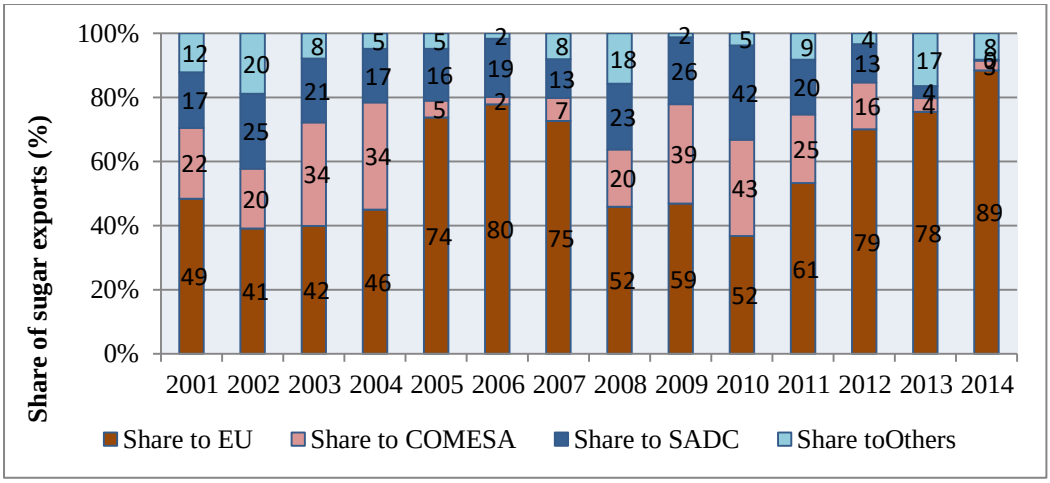

Figure 2: Share of Malawi sugar exports
Data source: *International Trade Center, 2015*

Effects of EU-ESA EPA Transitional Period, SADC FTA and COMESA FTA on Sugar **Exports**

Three dummies, SADC, EU-ESA EPA Transitional Period and COMESA, were used to assess if trade agreements had an effect on sugar trade. The results of the analysis are presented in table 1.Malawi and some of the Africa's large sugar importing nations, Sudan and Egypt, formed the COMESA FTA (Free Trade Agreement) in 2000. The promise of more trade through removal of barriers meant that Malawi would have preferred access to markets within the bloc. However, the results showed that the FTA had an insignificant effect on exports. Despite, the treaty establishing COMESA providing for elimination of non-tariff barriers (NTBs) in order to promote trade liberalization and development among member States. Non-Tariff Barriers are still being applied which limit trade (Common Market for Eastern and Southern Africa, 2010). In addition, COMESA had approved safeguards on domestic sugar sector in Kenya aimed at protecting the Kenyan sugar industry further limiting the effectiveness of the free trade area. However, the results for COMESA should be treated with caution as it excluded members that are also part of the SADC.

The SADC FTA which became effective in 2008 had positive and significant effect on exports. Noteworthy, Malawi, Tanzania and Zimbabwe have derogations that include allowances for 25% import duty on sugar until 2015 in order for their industries to take measures to adjust (Stanley, 2013). However, majority the members states are traditional trading partners who are used to trading with each other. This might have influenced the positive effect on sugar exports from Malawi. In addition, SADC FTA has the Sugar Cooperation Agreement. Under this agreement, member states that are not

members of Southern Africa Customs Union (SACU) are allowed to export specific quotas of duty free sugar to SACU members (Southern Africa Development Community , 2008).

Contrary to expectation, the EU-ESA EPA transitional period had a positive effect on Malawi's sugar export. Record, Hara, & Chiputula, (2005) indicated that Malawi is third low cost producer of cane sugar after Brazil and Zimbabwe. Thus, even with the relatively lower sugar prices following the removal price guarantees, Malawi was still competitive on EU sugar market. In addition, the EU is still implementing production quotas for EU producers and maintains tariffs against non-preferred suppliers. EU offers import tariffs in the terms of a fixed duty and a variable duty resulting from application of the safeguard clause, outside preferential duties offered to preferred importers. This raises import price for non-preferred imports to three times the world price. This prohibitive tariff keeps most of efficient foreign producers of sugar out of the EU market. This most certainly also contributed to the positive influence on sugar originating from Malawi considering that it is among preferred countries for sugar imports for the EU market.

Annual Effects of EU ESA EPA Transitional Period on Malawi's sugar exports to the EU

Annual effects of the transitional period on Malawi's sugar exports were analyzed using annual dummies from 2009 to 2013. The results are presented in Table 1. A positive and significant coefficient was reported for 2009. This implies that the reform on EU sugar imports increased the value of exports by 2.81 percent. Noteworthy in 2009 Malawi faced a reduced reference price of sugar i.e. at least 90% of the reference price and country specific quotas were abandoned (European Commission, 2013). However, since the changes took effect on 1 October 2009, it highly unlikely that the positive effect emanated from the reforms. However, the positive annual effect on sugar exports from Malawi in 2010 confirms that the reforms had a positive impact on sugar exports. The traditional limit for sugar imports during the transitional period could not cover the gap created by reduction in domestic supply within the EU in 2010 and 2011 such that an additional amount of 1.35 and 1 million tons was imported in 2010 and 2011 respectively (Technical Center for Agricultural and Rural Cooperation, 2014). This might have influenced sugar exports from low-cost producers such as Malawi.

In addition, Associated British Foods (ABF) bought 51% share ownership of Illovo which produces sugar in Malawi, Mozambique, Swaziland, Tanzania and Zambia. Given that, prior to reform, ACP raw sugar exports went to traditional cane sugar refiners, including ABF's main

UK rival TLS, this changing pattern of ownership is likely had an impact on commercial relationships (Technical Center for Agricultural and Rural Cooperation, 2013). Potentially explaining why Malawi sugar exports expanded to 12 EU countries in the post sugar protocol period.

In 2012, a negative annual effect on sugar exports was observed but was statistically insignificant. From 1st October 2012, the price guarantees were abolished and replaced with negotiated market-related price (Fairtrade, 2013). The market negotiated price had a positive effect albeit insignificant relationship on sugar exports from Malawi in 2013. However, the market was characterized by high price volatility such that some exporters negotiated for higher prices and some sold their sugar at lower prices.

Trade Flow Effects of EU ESA EPA Transitional Period and SADC FTA

In assessing effects of trade agreements on sugar exports originating from Malawi, the DFQF transitional period and SADC FTA were found to have significant influence. Further analysis was conducted to establish whether the two trade agreements had created or diverted trade. Table 3 presents the results. The coefficients for trade creation and trade diversion dummies for DFQF Transitional period and SADC FTA were all positive but only statistically significant for the latter. According (Cernat, 2003) to positive dummies for both dummies mean that the trade agreement had a trade creation and expansion effect. It can be argued that the Sugar Agreement within the SADC Trade Protocol facilitated such that in addition to traditional exports Malawi is now able to export some level of duty free surplus sugar to SACU member states.

Effects of other variables on Exports

The GDP for countries importing sugar from Malawi has a positive influence on sugar exports from Malawi while an unexpected negative effect was observed for Malawi's own GDP. The negative relationship can be attributed to lack of sustained increases in sugar exports in the period under review in this study. Figure 1 shows that from 2003 to 2010 sugar exports did not increase.

Table 1: Effects of trade agreements on Malawi sugar exports and trade flows

Variable	Trade Agreement Effects Model	Annual Effects of EU-ESA EPA Transitional Period	Trade Flow Effects Model
Log REER	0.4171778 (0.6502192)	-2.407846* (1.426456)	-1.1547077 (0.6657054)
EU EPA TP	1.400353*** (0.434581)	-	-
SADC	1.130276* (0.6823354)	-	-
Log Importer GDP	0.173097 (0.580373)	-4.665851** (2.249364)	0.1526306 (0.602241)
Log Exporter GDP	-6.240867*** (1.773359)	-12.26085** (5.716554)	-16.0788*** (3.486153)
Log Distance	-1.121695 (1.003273)	17.18442 (13.73118)	-0.8950458 (1.254065)
COMESA	-0.4814181 (1.426688)	-	-
Common Language	0.1596986 (0.7340897)	-1.466159 (4.549704)	0.1564387 (0.8487749)
Common Border	0.1494847 (1.70027)	-	0.4639528 (1.79269)
Colony	6.579985*** (2.381825)	8.444328 (5.871126)	6.602183** (2.775183)
D2009	-	2.819967*** (1.048227)	-
D2010	-	2.583721** (1.170389)	-
D2011	-	3.609104*** (1.212622)	-
D2012	-	-0.5563793 (1.12815)	-
D2013	-	1.63749 (1.222506)	-
EU EPA TP Yes	-	-	1.694745 (1.386489)
EU EPA TP No	-	-	0.3511872 (1.351186)
SADC FTA Yes	-	-	2.797288*** (0.8448382)
SADC FTA No	-	-	1.916424*** (0.5860514)
Constant	42.31361*** (13.05808)	-25.65051 (116.9563)	95.45507*** (21.36595)

Note that D2009, D2010, D2011, D2012 and D2013 are dummies for preferential treatment on sugar exports from Malawi in respective year

Distance between capital cities, a proxy for trading costs, had a negative but insignificant influence on sugar exports from Malawi as

envisaged and consistent with other studies on Malawi trade such as (Simwaka, 2006).Real effective exchange rate had a positive effect on sugar exports from Malawi. Depreciation of home currency relative to foreign currency makes imports originating from the home country cheaper that increasing export demand. Common official language, a common border and colonial ties all had positive effects on trade. However, it was only colonial ties that were statistically significant.

CONCLUSION AND POLICY CONSIDERATIONS

This study investigated trade effects of the EU ESA EPA transitional period, SADC FTA and COMESA FTA on Malawi's sugar exports. Using a Hausman Taylor panel data estimation of the gravity model ofbilateral trade the effects of the trade agreements were analyzed and yielded a number of interesting results.

The results indicated that EU ESA EPA transitional period and SADC FTA had positive and significant influenced sugar exports from Malawi. In the case of COMESA, despite reporting a negative influence, it was not statistically significant. Thus, the null hypothesis is accepted for COMESA. The presence of NTBs and safeguards affect sugar trade between COMESA member states. Government lobbying for elimination of these NTBs among member states should be considered. Another key result, is that SADC FTA, which has a specific Sugar Cooperation Agreement had a positive effect on trade this suggest that pursuing for a specific agreement on sugar trade in COMESA might also help address the specific trade barriers that sugar faces in the region.

Erosion of preferences due to denunciation of the sugar protocol was expected to negatively affect sugar exports into EU but the results proved otherwise. The transitional period had a positive and significant effect from 2009 to 2011. This result indicates that if Malawi is capable of benefiting from the EU sugar policy reforms. As such policy such ensure that Malawi which is a low cost sugar producer remain competitive and expands its production to exploit the widened access.

SADC FTAresulted in trade creation and expansion for sugar originating from Malawi while the EU ESA EPA had a non-significant effect.One of the strategies for ensuring that the sugar industry in Malawi survives after complete liberalization of EU sugar markets in 2017 is by diversifying trade away from the EU. As observed, Malawi has diversified exports destinations within the EU instead of outside the EU. Cultivating new export markets outside the EU should be considered especially for the emerging non-Illovo owned sugar producers.

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