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On The Expansion Of COMESA Trade Agreement

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ABSTRACT

While the world trading system is being reshaped by regional integrations, many of them are witnessing the expansion and the deepening of the degree of integration. This paper focuses on COMESA and uses trade flows to study the trade effects of its later expansion. The effects are assessed both toward newcomers and toward some old member countries. Outcomes obtained through descriptive evidence and a series of regression, using export and import volume at aggregate level show that; first, COMESA's expansion has resulted into trade creation toward newcomers, while this expansion has not led to a trade diversion among old member countries. Second, COMESA's creation has resulted into relative weak trade creation between founding countries without thereby entailing trade diversion toward non founding countries. Thus, COMESA appears to be more trade creating than trade diverting implying that, joining the trade agreement for non-members regional countries might lead to welfare gain.

1. INTRODUCTION

The world trading system has been reshaped over the last decade by regional integrations. Many regions witnessed the expansion and deepening of the degree of regional integration such that, it is estimated that more than the half of world trade is now conducted under agreements of this kind. Such agreements are found in every continent. Among the best known are the European Union (EU), the European Free Trade Area (EFTA), the North American Free Trade Agreement (NAFTA), the Southern Common Market (MERCOSUR), the Association of Southeast Asian Nations (ASEAN) and its ASEAN Free Trade Area (AFTA), the East African Community (EAC) and the Common Market of Eastern and Southern Africa (COMESA). The need for regionalism is driven by its ability to foster institutional building and the harmonization of legal and regulatory framework which increases the return on investment. Countries' geographic proximity, associated with similarities in cultural and historical characteristics, have animated enthusiasm towards Regional Trading Agreement (RTA). Free Trading Agreements (FTA), on bilateral basis, have become the pioneering driving force of trade liberalization because narrower pacts are easier to negotiate, less time consuming and they can closely address the needs of both parties (Keembiyahettige, 2008 p. 295). According to Daniel (2008, P. 86), regional integration and cooperation enhance countries' conditions for economic growth and investment by providing greater access to favorable and reliable market for their products and by fostering the expansion and diversification of their exports.

It is for the same purpose that COMESA was created. The concern was to achieve sustainable economic and social progress in all member States through increased co-operation and integration in all fields of development. It is a regional agreement with twenty member states after some countries have voluntarily suspended their participation and other have joined the trade agreement. The ultimate objective of the

agreement is to allow access to wider trading and investment environment leading to economics of scale and therefore, to regional value added. Trade literature however, has described the effects coming from an economic integration. As described by Jacob (1950) cited by Onintza and Jone (2006 P. 32), it is the increase of trade for countries receiving a preferential treatment and the reduction of trade for countries who do not. The author has referred to as trade creation and trade diversion respectively. Trade creation occurs when in a same regional integration, a member state starts importing, from the other members, goods that were previously produced domestically by inefficient producers (at higher-cost). Trade diversion arises with an increase in trade volume through the replacement of imports from third countries with low-priced imports from trading partners in the free-trade area. Several studies have advanced dissenting opinions about the impact of RTA coming from developing countries. Among them the World Bank (2000) cited by Jacob (2005, P. 118) which argues that, South-South RTAs are likely to generate trade diversion if external tariffs are high. While empirically studies argued that South-South RTAs have trade creation effects (Cenat 2001). Empirical work estimating these effects are particularly important since theoretical works suggest that, regional agreements may be beneficial or harmful depending on the particular countries involved and the extent of trade creation relative to trade diversion (Christopher, 2008). Indeed, trade creation represents a movement in the direction of free trade, which is linked with an increase in welfare of the member country in the RTA. Trade diversion is a movement away from free trade which is linked with a diminution in welfare. Thus, on the size of these two effects depends the net effect of a regional integration on trade.

In this study, we focus on COMESA trade agreement. The purpose is to determine whether its implementation led to a trade creation or trade diversion, by examining the level of trade flows of its members. This study will, in doing so, aim at determining the trade effect of COMESA's expansion arising from the new member's entry to the trade agreement, to the trade between old members. Starting as PTA for Eastern and Southern Africa in December 1981, with nineteen State members stretching from Libya to Zimbabwe, passing through Madagascar, five other countries have joined the group after its creation. Among the new entries we have Egypt in 1999 and Seychelles in 2001. Thus, the study will be built on this main question: What was the effect, from the point of view of trade creation and diversion, of the creation and the extension of COMESA with additional countries? Regional integration presents a lot of interest to both development and trade literature. The emphasis on regional integration has occasioned multiple studies and innovative methodologies which aimed to assess and to understand its effects. The well-known model is the gravity model introduced by Tinbergen (1962). Today, the original gravity relation is used, with few adaptations due to theoretical considerations (geographical, historical, monetary and trade policy factors), in multiple topics (Won and Anatoly, 2006 P. 410; Kimberly, 2001). Many of these studies aim to isolate the effects of preferential trade agreement. Rare are studies which have tried to highlight the trade effects of the entry of new countries into a given trade agreement on trade among old member countries and between old

members and newcomers. Nevertheless, Keembiyahettige, (2008), in using an augmented gravity model in panel context has tried to check whether FTA between an outsider and insider country of a Regional Trading Bloc creates trade equally or unequally for both parties. Also, Glejser and Moro (1996) have developed a simple regression analysis to estimate the trade effects of Portugal's and Spain's entry to the European Union, in regressing the share of bilateral trade between a country and its trade partners separately.

Our study approach will be inspired by previous studies and will try to adapt an empirical model according to the COMESA member countries and history. The study will cover the period from 1976 to 2010 (from the Pre-COMESA period to the Post-COMESA expansion period), Data used concern bilateral export and import flows obtained through United Nations Commodity Trade (UNcomtrade) Statistics database and UNCTAD database. Data processing will be done by resorting to statistical analysis. In this case, the study uses first some graphs and trends to describe data. Secondly, it computes a series of regressions on a linear model corrected by Praise and Winston transformation in examining the trade effects of new member's entry. Data are used at an aggregate base. Regressions done assess the effects by using trade volume between old members and new countries on the one hand and among old countries members on the other hand. Results are obtained by resorting to STATA Ver. 12 and analyzed by relying on economic and trade theories.

In the next pages, the content of the study is subdivided into five sections. The first section deals with the conceptual framework. We define the trade agreement, the theory on trade creation and trade diversion is summarized; we briefly present the Common Market of Eastern and Southern Africa and provide some results related to previous studies. The second section will present the methodology and hypothesis. In this section, the model used is specified; the hypotheses are presented and data are described. In the third section the outcomes obtained through regression process are presented and discussed and then, we give their implications. The limitations with regard to this piece of work and the future research perspectives are raised in the conclusion. Following section presents the conceptual framework.

2. CONCEPTUAL FRAMEWORK

Trade agreement is referred to when two or several nations agree on the terms of trade between them. For this reason, trade agreements determine the tariffs, or taxes and duties countries impose on imports and exports. The term Regional Trading Agreements is inherently vague. The World Trade Organization (WTO) uses it to denote all types of regional agreements including Free Trade Agreement (Keembiyahettige, 2008), so do many other researchers. In order to avoid confusion, we will use Preferential Trade Area, Trade Agreement (TA) and Regional Integration (RI) to denote Trade agreement, despite of the many different terms used in the literature.

It's an important exception to its own central prescript[1] that, the WTO, through Article XXIV of its General Agreement on Tariffs and Trade (GATT) allows countries to enter into preferential trade agreements with one another. Specifically, under this article, countries may enter into preferential trade agreements by fully liberalizing "substantially" all trade between them while not raising trade barriers on outsiders. Encouraged by the formation of the European Economic Community (EEC) in 1958, regional integration schemes spread, during the 1960s, to the rest of Europe with the formation of the European Free Trade Area (EFTA), and to Africa, Latin America, and other parts of the developing world[2]. The recently evolving and popular argument given by the proponents is that, the motivation for PTA has little to do with lowering of trade barriers as such, and that PTAs are primarily a vehicle for undertaking "deeper" forms of integration to achieve institutional harmonization with partners (Pravin 2012, P.6). For an economist's point of view, the usual presumption is that the national goal is to maximize national economic welfare. According to this perspective, which still leaves room for interesting political- economic interactions (Barry and Jeffrey, 1995), free trade is the first-best strategy, as so long as tariffs against third countries remain in place. The elimination of barriers in a trade agreement can as easily intensify distortions as it can eliminate them. The standard thought experiment presumes that trade barriers against outsiders remain unchanged when a PTA is established. However, Krugman (1991) shows how, in a world of a few large trading blocs, each unit will have more monopoly power and thus, will be tempted to seek to shift the terms of trade in its favor by raising tariffs against the other blocs. The same idea is supported by Bhagwati and Panagariya[3] (1996) who have argued that, as administered protection is more elastic and manipulable by domestic players, PTA members may resort to the use of the more aggressive usage of various forms of administered protection against non-member countries.

On their side, Lawrence and Dominick (1995 P. 165) argued that, from a trade agreement result, first, an increase in competition, which is likely to stimulate the development and utilization of new technology. Second, an increase in economies of scale which can result from reducing the range of differentiated products manufactured in each plant and increased "production runs." And finally, an increase in investment stimulated, not only internally, but also from abroad to overcome trade barriers on non-union products. Lipsey

[1]Refer to the principle of non discrimination which is a cornerstone of the WTO: Member countries should not discriminate against goods entering their borders based upon the country of origin.

[2]The world trade report (2011) provides an enlightening analysis on the increase in trade taking place between PTA members. In 1990, intra-PTA trade level reached 18% of world trade (537 billion in US dollar terms), while this level rose up to 35% in 2008 (4 trillion of USD), EU intra-trade excluded. The exchange level, when the EU is included ranges from 966 billion USD (28% of the world trade) in 1990 to nearly 8 trillion USD (a little over 50% of world trade) in 2008

[3] They fear that, preferential trading arrangements may lead to trade diversion as the international mechanisms to discipline trade diversion, such as article 24 of the GATT, are too weak. (Bhagwati, 1994)

(1960), in his research concluded that, a Trade agreement is more likely to lead to increased welfare. And, the higher are the pre-union trade barriers of member countries, the lower are the customs union's barriers on trade with the rest of the world. Anyway, Viner's analysis (1950) illustrated the main findings regarding the welfare effects of customs union and free trade areas. It concludes that, no general statement can be made about the welfare effects of preferential trading agreements. Trade agreements may be beneficial or harmful depending on the particular countries involved and the extent of trade creation relative to trade diversion

Economists have been interested in estimating trade creation and trade diversion since Viner (1950) have described how the welfare effects of RTA depended on the extent of those two effects. Trade creation refers to the replacement of relatively high-cost domestic production with lower-cost imports from the partner country while trade diversion refers to a switch in imports from a more efficient producer country in the rest of the world to a less efficient partner country. Jacob Viner (1950) has argued that, the net effect of trade creating on a trade agreement is positive if trade creation effects dominate trade diversion effects. Some empirical studies have tried to highlight the trade effects coming from trade agreement. Among others we can cite Masahiro Endoh (1999), who used a simplified version of the gravity model to analyze the effects of both trade creation and trade diversion in three economic organizations such as the European Economic Community (EEC), the Latin American Free Trade Association (LAFTA) and the Council of Mutual Economic Assistance (CMEA). The results obtained clarify each institution's character. First, the EEC has a trade creation effect and a negative trade diversion effect. Second, trade activities of the LAFTA have been stagnant, hence, has a negative trade creation effect and a trade diversion effect. Finally, for the CMEA, trade creation effect and a trade diversion effect are observed. In general, however, the trade effects of these three regional economic arrangements have been weakened especially during the 1990s. With reference to non aligned Japan, neither the EEC, nor the LAFTA appear to have greatly affected the volume of trade occurring between the member economies of these two institutions and Japan. In addition, the adverse effect that the CMEA had upon its members' trading activities with Japan appears to have weakened over the 35-year examined. Glejser and Moro (1996) assessed trade effects of the entry of Spain and Portugal into the European Union in 1986. They developed a simple regression analysis in regressing the share of bilateral trade between a country and its trade partners separately on linear trend variables, each of which starts with a new enlargement of the trade area. In trying to understand what can be expected from the point of view of trade creation and diversion of extension of a trade agreement with additional countries, the study aimed to know from the model developed if, for each trend variable, there is a positive coefficient for new partners and a negative one for older partners. Results show that, trade between Spain and Portugal increased. The Spain's trade with EU increased although Portugal's exports to the EU declined. The entry of both countries into the EU also resulted in a decline in their trade with Africa, Latin America. Quite a lot of trade diversion was found as a consequence of the entries from Northern as well as from Southern developed countries. The

model applied is limited by the fact that the equations used do not include many variables such as cyclical effects, political disturbances or structural factors.

3. METHODOLOGICAL APPROACH AND HYPOTHESIS

The study covers a sample of COMESA member countries of which three are in trade agreement since COMESA has started as a PTA in 1981, and two countries have joined the trade agreement after its creation. The study period of this paper is from 1976 to 2010. This period is divided into three sub-periods; the period 1976 to 1981 before implementation of PTA (1), the period 1982 to 1999 after implementation of PTA, but before the entry of new countries to the agreement (2); and finally, the period 2000 to 2010 after new entries to the agreement (3); Egypt and Seychelles[4].

Annual imports and exports flows expressed in USD million are extracted from United Nations Commodity Trade Statistics database (UNcomtrade) and United Nations conference on trade and development (UNCTAD Stat) and are used at current price. Data are collected on five countries, where three are former members, among which there are Kenya Madagascar and Mauritius, and two others are newcomers, here is about Egypt and Seychelles. The choice of Egypt and Seychelles is dictated by the fact that they are the new entries recorded in the trade agreement respectively in 1999 and 2001. The choice of Kenya on its side is motivated by the fact that it is the largest economy in the region and exports in almost all countries of the trade agreement. The choice of Madagascar is motivated by the fact that, the new entries being located far from Kenya, the distance might be inversely correlated to the trade flows as shown by the Gravity model theory. In considering the Madagascar, the distance effect is found in both directions, from the side of the former partner to the side of the new partners of Kenya. Thus, the variable distance, all things being equal, influences both partners of Kenya in the same way. This allows us then, in this study, to consider the impact of the variable distance as controlled in assessing the trade effects of the newcomers in the trade agreement between former members. Main dates of COMESA, especially concerning its creation, its evolution and its expansion, are taken from COMSTAT Data Portal.

The model used, adapted from Glejser Approach (1996), is based on the evolution of countries trade volume. It consists of three groups of countries (i, j and k), where i and j represent old countries in the trade agreement, and k the group of new entry. Then, the following regression equation is postulated[5]:

$$x_{ij} = \alpha_{ij} + \beta_{ij}T + \delta_{ij}T' + \lambda T'' + \phi_i Y + u_{ij} \quad (1)$$

[4] As said, Egypt joined the Trade Agreement in 1999 and Seychelles in 2001.

[5] Quadratic equations could have been used, but in that particular case, infinite growth issues matter.

In the above equation, Xij refers to the exports volume of country j to country i. With T, starting from the pre-COMESA[6]. It stands for the years from 1976 (=0) to 2010 (=35). T', represents The COMESA period before the new members' entry and stand for the years from 1981 (=1) to 2010 (=29) and T'' is the period with new members in the trade agreement and stands for the years from 2000 (=1) to 2010 (=10), Y represents a baseline of control variables. $\alpha, \beta, \delta\ \lambda\ and\ \Phi$ are taken as unknown values of the parameters, and *u* is the disturbance term. The specification errors in the equation above probably feed *u* most (Glejser and Moro, 1996). This fact can lead to a positive correlation of residuals[7] because the equation does not take into account many variables likely to determine the evolution of the market share[8]. The same model is assumed for imports volume m_{ij}, means, i is the importing country, and j the exporting one. It is necessary, then, to check equation (1) with:

$$m_{ji} = \alpha^*_{ji} + \beta^*_{ji} T + \delta^*_{ji} T^{'} + \lambda^*_{ji} T^{''} + \phi^*_j Y + v_{ji} \quad (2)$$

The regression of both two equations (1) and (2) allows to better appreciate, not only the evolution of exports from country j to country i, but also the imports of country i coming from country j. In this case, the second coefficients $\delta_{ji}\ and\ \delta^*_{ji}$ describe respectively the evolution of exports and imports volume and allows to check whether it exists the trade creation or trade diversion effects coming from the formation of COMESA[9]. The third coefficients $\lambda_{ij}\ and\ \lambda^*_{ji}$ describe respectively the evolution of exports and imports shares and allow checking whether there exists trade creation or trade diversion effects coming from new member countries' entry in the trade agreement. Φ_i represents the coefficients of a set of control variables.

The Coefficient obtained will be interpreted as fallow: If δ's (λ's) significant positive value is vindicated by a significant positive value of δ^*_{ji} (λ^*) we can talk about strong trade creation caused by COMESA formation (COMESA's expansion). If λ^* is positive, but not significant, we shall speak of likely trade creation. If λ^* is negative, but no significant, we shall speak of weak trade creation. The same logic holds for trade diversion. New member's entry in the trade agreement results in trade diversion when $\lambda_{ij}\ and\ \lambda^*_{ji}$ are negative. But, if at the same time δ_{ij} shows a significant positive trend, it may be argued that no diversion is

[6] Or Pre-PTA, and PTA period is COMESA Period.

[7] To cope with this problem, we'll use Prais and Winsten transformation, and then let the Durbin–Watson test show whether the criteria is fulfilled (Gujarati 2003, P. 478). The transformation is explained in the next pages

[8] In this category, one can include cyclical effects, political disturbances structural factors and others.

[9] In this study PTA stands for COMESA

taking place as a consequence of this new entry. In this case, a relative diversion should not be excluded. An important fact is that, if we have a positive $\delta \text{ and/or } \lambda$, this may implies that $\delta \text{ and/or } \lambda$ with the rest of the world is negative. One can try to find out, in this case, which countries are concerned. That is why, on the other side, in this study we will assess the export and import flows in two periods[10], from former country i to the new entry member k, using the equation bellow:

$$x_{ik} = \alpha_{ik} + \beta_{ik} T + \delta_{ik} T' + \lambda_{ik} T'' + \Phi_i Y + u_{ik} \quad (3)$$

The same equation will be referred to for the share of imports of country k from country i. We will have then the following equation:

$$m_{ki} = \alpha^*_{ki} + \beta^*_{ki} T + \delta^*_{ki} T' + \lambda^*_{ki} T'' + \Phi_i Y + v_{ki} \quad (4)$$

In this equation, if $\lambda_{ki} \text{ and } \lambda^*_{ki}$ are significantly positive, it denotes a strong trade creation for new members countries due to their entry in the trade agreement, and may result in negative $\lambda \text{ and } \lambda^*$ for the rest of the former countries in the trade agreement. This may lead to a relative trade diversion for them[11].

Data used in those equations are time series data where the serial correlation and nonstationarity are the frequent problems in such analysis. On the one hand, various factors can produce residuals that are correlated with each other like an omitted variable, or a wrong functional form. To check for the presence of serial correlation, the Durbin Watson test has been done and we corrected from the influence of autocorrelation by using Praise and Winston transformation. Indeed, *Praise and Winston transformation* is accomplished by estimating ρ and transforming the model in such a way that, the assumption of the classical model applied to the transformed model ρ is estimated by regressing the OLS residuals on themselves at a lag. The estimate $\hat{\rho}$ is used where the model (6) bellow

$$y_t = a + \sum_{t=1}^{n} b_t x_{t-1} + e_t \quad (6)$$

is transformed as presented in the equations (7) bellow :

$$y^*_t = (y_t - \hat{\rho} y_{t-1}); \quad x^*_t = (x_t - \hat{\rho} x_{t-1}) \quad (7)$$

And $e^*_t = (e_t - \hat{\rho} e_{t-1}) = u_t \quad (8)$

For the first observation, the model is transformed by multiplying it by

[10] Before and after the entry of new countries into the Trade Agreement (with T'= 1982 – 1999) and (T''=2000 – 2010).

[11] We shall not work this part (relative trade diversion) here. In this paper, we concentrate on Absolute trade diversion.

$\sqrt{(1-\hat{\rho}^2)}$

The parameter estimates in the general equation (6) are found by estimating:

$$y_t^* = \alpha^* + \sum_{t=1}^{n} \beta_1 x_{t-1}^* + u_t \quad (8)$$

An iterative procedure is used whereby the residuals from the corrected model are used to re-estimate ρ . The model is then transformed with the new estimate of ρ .and re-estimated. This process is repeated until the estimates converge and change by an insignificant amount from one iteration to the next. The Durbin-Watson test, recalculated after the Praise and Winston transformation, helps to evaluate whether the problem of autocorrelation has been corrected. Efficient estimates of the coefficients in the equation (6), as well as valid t and F *statistics*, are calculated based on the transformed model. The estimates from this model are referred to as *Feasible Generalized Least Squares* (FGLS) estimates. The R squared no longer has a clear interpretation under FGLS, since it measures the proportion of deviation in y* explained by the variance in the variables x*. This is not of particular interest, though it may be a useful descriptive measure.

On the other hand, to check for the stationarity, an augmented Dickey–Fuller test has been conducted and showed a unit root in our data. Thus, a linear trend in time seems included in our annual trade flows where *t*, representing the independent variables, is the indicator of year, and thus, the variation over time is modeled as a linear trend in the location parameter. β, δ *and* λ represent different slopes, in this case, the annual rate of change in trade flows. However, Fawcette and Walshaw, (2008), in comparing two models, a stationary model and a model which allows for a trend in time (non-stationary). In using the deviance statistic, as the time is nested within the model which allows for time dependence, they have shown that, in an environmental process where it is common to observe nonstationarity, as different periods have different economic patterns and long term trend owing to economic change, the non-stationary model is worthwhile[12]. As Shelton M.(1998) who used non-stationary data in analyzing the static welfare implications of CACM, in our analyses that follow, the model used allows for a trend in time. i.e., the data have not been detrended as we are regressing trade flows on trend variables. Given the theoretical and methodological presentation, we can now issue hypotheses which will be tested by the model described.

Hypothesis

COMESA expansion had led to trade creation on favor of new members, whereas this entry did not result into trade diversion to old member countries.

[12] The general theory cannot be extended for non–stationary series. According to the authors, it is usual to adopt a pragmatic approach of using the standard extreme value models as basic templates that can be augmented by statistical modeling.

The creation of COMESA has resulted into trade creation between founding member countries; trade effects toward non founding countries will be also assessed.

4. RESULTS AND DISCUSSION

The section presents findings obtained through a regression process. The first regression table deals with Kenya's exports volume to newcomers.

Table N°1: Export flows from Kenya to New member countries (1976-2010)

Dependent variable: Kenya total exports to new member countries					
		(1).	(2).	(3).	(4).
Constant	Coefficient	3.53E+07	-3.62E+07	-1.11E+07	-3.28E+07
	P-value	(0.305)	(0.721)	(0.727)	(0.729)
Pre-COMESA	Coefficient	-6542842	1648532	-6230747	-3624039
	P-value	(0.413)	(0.900)	(0.291)	(0.768)
COMESA	Coefficient	9968709	2581858	1.11E+07	8667209
	P-value	(0.248)	(0.838)	(0.091)	(0.464)
New entry	Coefficient	8447402***	7373100**	5924067**	5659396**
	P-value	(0.005)	(0.020)	(0.023)	(0.044)
Share of Kenya exports		No	Yes	No	Yes
Share of new members imports		No	No	Yes	Yes
Observations		34	34	34	34
Durbin Watson		2.051	2.005	1.977	1.966
Adjusted R-squared		0.758	0.7741	0.8536	0.83
F-Test (P-value)		0.0000	0.000	0.000	0.000
Regression using trade flow data of 35 years on trend variables representing different steps of COMESA: (1976-1981), (1982-1999) and (2000-2010). P-values are reported in parentheses. Column (1) shows result out of any control variable. Column (2) shows result with control of share of Kenya exports in world total exports. Column (3) shows result with control of share of new member countries' imports in the world total imports. Column (4) shows result with control of the two preceding control variables. The model has been adjusted using Praise and Winston transformation. The adjustment has been interpreted using computed and tabulated Durbin-Watson values.					

Source: Self conception from computed STATA results.

The second regression table deals with Kenya's exports volume to newcomers.

Table N°2: Export flows from Kenya to Old member countries (1976-2010)

Dependent variable: Kenya total exports to old member countries					
		(1).	(2).	(3).	(4).
Constant	Coefficient	1.57E+07	7990555	1.64E+07	1.02E+07
	P-value	(0.167)	(0.657)	(0.072)	(0.531)
Pre-COMESA	Coefficient	-1385674	-385040.6	-1695036	-920588.6
	P-value	(0.558)	(0.898)	(0.382)	(0.721)
COMESA	Coefficient	1207866	283273.7	1651920	939314
	P-value	(0.62)	(0.924)	(0.417)	(0.715)
New entry	Coefficient	1715888***	1622177**	1898254***	1809897***
	P-value	(0.007)	(0.014)	(0.002)	(0.005)
Share of Kenya exports		No	Yes	No	Yes

FTA Period	No	No	Yes	Yes
Observations	34	34	34	34
Durbin Watson	1.828	1.857	1.901	1.918
Adjusted R-squared	0.3561	0.2744	0.3537	0.441
F-Test (P-value)	0.0038	0.0092	0.002	0.0043

Regression using trade flow data on 35 years on trend variables representing different steps of COMESA: (1976-1981), (1982-1999) and (2000-2010). P-values are reported in parentheses. Column (1) shows result out of any control variable. Column (2) shows result with control of share of Kenya exports in world total exports. Column (3) shows result with control of period of free trade area. Column (4) shows result with control of the two preceding control variables. The model has been adjusted using Praise and Winston transformation. The adjustment has been interpreted using computed and tabulated Durbin-Watson values.

Source: Self conception from computed STATA results

The results obtained in table N°1 show that, before the creation of COMESA, the trade flows between countries have been continuously decreasing over the time. In fact, African governments rely a lot on trade tariffs for their revenue. This led them to constantly change tariff level, whether in purpose of taxes collection maximization, or domestic industries protection. Thus, the need of governments' revenue and economic development seems to have led to a continuous increase in trade tariffs and a reject of regionalism ideas. This situation has continuously affected negatively the trade flows over the Pre-Trade agreement period. Indeed, with the regional integration, countries, especially the poor ones, feared that the few industries they have may migrate to relatively more advanced neighbors. This is predicted by Krugman's hypothesis according to which, under the assumption of increasing returns to scale, economies of scale and trade cost considerations determine the location of economic activity and therefore, regional blocks may enhance economies of scale by locating a production activity in one location rather than each activity in each country.

In 1981 however, COMESA has been created; Egypt and Seychelles were not members. Basically, everything being equal, one may expect any effects of founding members' trade flows (especially Kenya for this study) toward Egypt and Seychelles. And if it is so, effects might have been negative, as exporting toward COMESA member countries could now cost less for founding countries and particularly, for Kenya. But that period shows a positive coefficient of δ, implying an increase of trade flow, compared to the first period. This means that, the creation of COMESA has not resulted into trade diversion toward nonmember countries. Indeed, trade flow between COMESA founding countries and non COMESA countries have not been affected negatively. But rather, trade flow has been positively affected in this particular case. This aspect may not be surprising because COMESA started as a Preferential Trade Agreement whereas at its beginning stage the trade tariff had been reduced only for about 20 to 30%, and, only on some particular type of products among founding members. This may not significantly change the decision of exporters to completely change their foreign market. Those results are confirmed by the study of Anna and Chad (2009) who tried to find out, in their study, if South-South trade agreements increase trade. They have concluded that, no evidence of trade diversion effect of COMESA trade agreement.

The third period is characterized by the entry of two countries; Egypt and Seychelles, in COMESA. The period starting from 2000 to 2010 shows a positive and significant value of λ, with a significant increase in Kenya's exports toward Egypt and Seychelles. This implies trade creation for the newcomers. Indeed, in 2000, many cuts in trade tariff had been already done among COMESA's member countries. The entry of Egypt and Seychelles implied a reduction in trade tariffs on the same level with those existing member countries, which constitutes for them an opportunity to trade. This explains then, the rise on Kenya's exports to the two newcomers and then, a generation of trade creation. We noticed that, empirical studies on trade effect of new member countries in trade agreement are rare, especially when one shift to COMESA. However, these findings are in line with those found by Glejser and Moro (1996), whose outcomes have highlighted a trade creation for Spain, resulting from its entry in the European Union. In short, when examining exports to Egypt and Seychelles, the results allow one to conclude that the creation of COMESA did not lead to trade diversion toward no founding countries, but rather, the entry of new countries has led to trade creation on their favor. This result confirms the first part of our hypothesis. Thus, in accordance with Sawkut (2006), COMESA seems to be a building bloc that has liberalized the trade more internally than it has diverted it from the rest of the world.

When Analyzing Kenya exports toward the old member countries, the same reasons mentioned previously might explain the decreasing trend in trade flows before the creation COMESA. The year 1981 ended up by the creation of COMESA, and has led to an increasing positive trend in trade flows among founding countries. This implies a trade creation for new member countries to the created trade agreement. But the values reported by the regression are not statistically significant; reporting almost a weak trade creation, when one compares to others coefficients. Indeed, the creation of Preferential Trade Agreement has implied a cut in tariff, going from 20% and continuously expanding over the time. This facilitated trade across member countries, generating trade creation; meanwhile it does not lead to trade diversion for nonmembers countries, as seen previously. Theses relatively no-significant effects on the flow of bilateral trade with the creation of PTA, traducing weak trade creation, are also reported by Alemayehu and Haile (2007). These authors have related them, in their empirical study, to the problems of variation in initial conditions, compensation issues, real political commitment, overlapping membership, policy harmonization, lack of diversification and poor participation of private sector. In addition, since low-income countries usually specialize in goods with constant returns to scale (Trefler and Antweiler, 2002), their trade is unlikely to be affected by scale economies. Therefore, South-South trade agreements are likely to give rise to smaller trade increases than both North-North and North-South PTAs (Maria and Steinberg (2009). In other words, developing countries tend to have a comparative advantage in the same sectors; therefore, they generally are not low-cost producers of goods imported by other developing countries.

In 2000, newcomers joined the group. Kenya exports toward them automatically increased as seen previously to benefit from new opportunities. Meanwhile, Kenya exports toward old member countries did not fall, but rather, raised (positive and significant coefficient of λ). This implied the absence of trade diversion among old member countries due to new countries' entry. Indeed, as newcomers applied the same trade tariff as old members when joining the trade agreement, since there was still market for goods in old members' countries, every things being equal, there seems to be no reason to divert trade, particularly for those to which Kenya pays the same trade tariff. To assess the increase in trade flows toward old member countries while they rise in the same time toward newcomers, we controlled for the trend of share of Kenya exports in world total exports. And the period of free trade area as FTA was implemented in year 2000. Indeed, Venables (2003) has shown that, the trade creation and trade diversion effects of an agreement may depend on member countries' factor endowments (and therefore comparative advantage) relative to each other and relative to the rest of the world. Nevertheless, the findings obtained, after resorting to control variables, obey to the previous interpretation, when considering each variable individually and both at the same time

In Brief, the analysis of Kenya exports toward old members, allows us to conclude that the creation of COMESA has led to the trade creation among the founding countries; meanwhile, the new entry to trade agreement did not lead to trade diversion among the old countries at all. This confirms the second part of our hypothesis. The outcomes are in line with the study of Jacob (2005), who analyzed the intensity of trade creation and trade diversion in COMESA. He concluded that the intensity of trade creation in COMESA is high and trade diversion is weak. Is the South-South characteristic of the COMESA trade agreement has influenced the outcome? Anyway, Bair and Bergstrand (2007) found strong evidence that countries that have FTAs tend to share economic characteristics that should enhance net economic welfare gains from an FTA, such as the size and similarity of their GDPs, closeness to each other, and the remoteness from the rest of the world. These variables tend to explain a large amount of trade flows between countries. The results found by analyzing Kenya exports flows are confirmed when one analyses from Kenya imports flows (see annex N°1&2). However, generally it is not always true that membership in an agreement would necessarily produce the same effect on trade flows for all the member countries. It is reasonable to expect that in cases where countries have some structural differences, a larger than proportionate effect may accrue to more competitive members (Buigut, 2012). Such differences may be large enough to warrant specific country analysis. In addition to ideological and political differences at a given time, there is a concern on some members who are seen as benefiting more than others.

5. IMPLICATIONS OF RESULTS

The results obtained through this study show that, first the creation of COMESA led to trade creation among founding countries, without causing trade diversion towards non-founding member countries. Second, the

entry of new member countries has led to trade creation on their favor while it didn't imply trade diversion between old member countries. These effects, as described above, are on the benefit of trade agreement member countries. As COMESA appears to be more trade creating than trade diverting, according to results found by this study in line with Sawkut's findings (2006), it should then expand its coverage toward nonmember countries. As the extent of trade creation to trade diversion is high, COMESA expansion might lead to Welfare gain (Viner, 1950 and Christopher, 2008). Welfare gain from successive expansion might allow COMESA to accomplish its mission of being a fully integrated internationally competitive regional economic community, with high standards of living for its entire people. This expansion might contribute to foster institutional building and the harmonization of legal and regulatory framework which may influence the return to investment.

Of course, various reasons are suggested as causes for the lack of progress in regional integration efforts in Africa. Chief among these reasons are unwillingness of government to (1) surrender sovereignty of macroeconomic policy making to a regional authority, (2) face potential consumption costs that may arise by importing from a high-cost member country, (3) accept unequal distribution of gains and losses that may follow an integration agreement at least in the short run and (4) discontinue existing economic ties with nonmembers. But, the resurgence of political will expressed in the Abuja Treaty of 1991 and in the recent formation of the African Union seems to generate a new momentum to invigorate the process of integration of African economies (Alemayebu and Haile, 2007).

Thus, in accordance with Daniel, (2008), the expansion of COMESA might enhance member countries' conditions for economic growth and investment by providing greater access to favorable and reliable market for their products, and by fostering the expansion and diversification of their exports. Nevertheless, this expansion should be done with clearly defined rules to allow all members countries to eventually and entirely benefit from opportunities offered by the expansion. Especially, the improvement should concern the "rules of origin" and the "certificate of destination", issues which might be raised by the overlapping of sub-groups within COMESA. Indeed, many PTA member countries belong to more than one agreement, resulting in competing demands (Maria and Steinberg, 2009). This is not a healthy situation and may have the consequent of further dividing African countries rather than strengthening regional integration. In any cases, a trade agreement expansion do not guarantee an improvement in the welfare of member countries; they could do so provided trade diversion is minimal and trade creation tilts the balance. Therefore, accurate rules of origin and certificate of destination might help to cope with opportunistic behaviors of nonmember countries' interest seekers.

6. CONCLUSION, LIMITATIONS AND FUTURE RESEARCH PERSPECTIVES

This study had the main objective that was to find whether the successive expansion of COMESA had led to trade creation toward newcomers, and trade diversion among old members. Besides, the objective was implicitly to find whether COMESA's creation led to trade creation among founding countries and trade diversions toward nonmember countries. To achieve these objectives, OLS regressions have been used and the model has been corrected for the influence of the autocorrelation in the residual term by using Praise and Winston transformation. Regressions have been done on trend variables and control variables have been used to reinforce the obtained results. The findings confirm that, the entry of new member countries led to trade creation, beneficial for them; meanwhile this entry didn't result into trade diversion between old member countries. Besides, the creation of COMESA led to trade creation among founding countries without causing trade diversion toward nonmember countries. Indeed, when Kenya exports to newcomers, results showed a downward sloping before COMESA creation. An increase in trade flows is observed when COMESA was created, traducing an absence of trade diversion toward non-founding countries. The entry of new members into COMESA coincides with a significant increase in Kenya's exports toward them, implying trade creation on their favor.

In considering export toward old member countries, COMESA creation shows a relative increase in Kenya's export toward them. This implies relative trade creation. In this study, we tried to raise some reasons of the weak increase in trade flows which are reinforced by those given by Alemayehu and Haile (2007). The period of new entry coincides with a significant increase of Kenya exports toward old member countries, even when controlling for some variable namely Free Trade Agreement creation. The same results are found when we shift to import flows side (see annex 1&2).

Despite relevant results found through this study, it is subject to some limitations. Indeed, trade effect of COMESA's successive expansion has been assessed only toward a limited number of countries[13], whilst COMESA is a trade agreement of 20 member countries. Assessing trade effects toward all member countries might give clear and accurate conclusions. Also, analysis of expansion's trade effect has been done without any regard to nonmember countries. Trade diversion might not have been appeared because of equal tariff across member countries. But, trade diversion could have been oriented toward nonmember countries in Africa as well as out of Africa, because they are out of trade agreement. Glejser and Moro (1996), in assessing trade effects of Portugal's and Spain's entries to European Union, found a decline in their trade with Africa and Latin America. Trade diversion was found as a consequence of the entries from Northern as well as from Southern developed countries. This study did not examine this fact. Thus, an analysis which evaluates

[13] Nevertheless, countries which intervene in this study seem to be highly representative given that, results found in its analysis are supported by almost all studies which used many COMESA countries in their analysis.

trade effects of successive expansion toward nonmember countries may contribute to complete results obtained by this study. The outcomes obtained show the benefit of the expansion of COMESA without computing potential gain. Further studies quantifying trade creation and the potential gain of a successive expansion toward all member countries would improve our results. Nevertheless, the successive expansion, given its potential benefit, raises questions about overlapping issues of sub-groups within COMESA trade agreement which might limit its actions.

7. BIBLIOGRAPHY

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APPENDICES

Annex N°1: New member countries' Import flows from Kenya

Dependent variable: New member countries' total imports from Kenya.					
		(1).	(2).	(3).	(4).
Constant	Coefficient	4.49E+07	-7.59E+07	-3.19E+06	-1.45E+08**
	P-values	(0.785)	(0.421)	(0.982)	(0.019)
Pre-COMESA	Coefficient	-7695065	1.34E+07	-8539519	1.24E+07
	P-values	(0.814)	(0.492)	(0.766)	(0.302)
COMESA	Coefficient	1.07E+07	-1.46E+07	1.32E+07	-1.17E+07
	P-values	(0.748)	(0.473)	(0.654)	(0.358)
New entry	Coefficient	6073613	1.44E+07***	2936392	1.12E+07***
	P-values	(0.419)	(0.007)	(0.677)	(0.006)
Share of nm imp: Kenya/world		No	Yes	No	Yes
Share new members import world		No	No	Yes	Yes
Observations		34	34	34	34
Durbin Watson test		1.647	1.871	1.672	1.859
Adjusted R-squared		0.140	0.637	0.205	0.781
F-Test (P-value)		0.0570	0.000	0.029	0.000

Regression using trade flow data on 35 years on trend variables representing different steps of COMESA: (1976-1981), (1982-1999) and (2000-2010). P-values are reported in parentheses. Column (1) shows result out of any control variable. Column (2) shows result with control of share of new members import from Kenya in their total import from the world. Column (3) shows result with control of share of new member's total imports from the world. Column (4) shows result with control of the two preceding control variables. The model has been adjusted using Praise and Winston transformation. The adjustment has been interpreted using computed and tabulated Durbin-Watson values.

Annex N°2: Old member countries' Import flows from Kenya

Dependent variable: Old member countries' total imports from Kenya.					
		(1).	(2).	(3).	(4).
Constant	Coefficient	1.16E+07	1.39E+06	1.32E+07	4.00E+06
	P-values	(0.554)	(0.949)	(0.164)	(0.739)
Pre-COMESA	Coefficient	1155733	1.02E+06	293655.3	2.70E+05
	P-values	(0.788)	(0.822)	(0.893)	(0.91)
COMESA	Coefficient	-1.65E+06	-1.18E+06	-2.53E+05	2.79E+04
	P-values	(0.715)	(0.803)	(0.915)	(0.991)
New entry	Coefficient	3602872***	3.06E+06**	4543669***	4.04E+06***
	P-values	(0.006)	(0.023)	(0.000)	(0.000)
Share import/world import		No	Yes	No	Yes
FTA period		No	No	Yes	Yes
Observations		34	34	34	34
Durbin Watson test		2.267	2.302	2.019	2.059
Adjusted R-squared		0.336	0.376	0.581	0.584
F-Test (P-value)		0.0059	0.007	0.000	0.000
Regression using trade flow data on 35 years on trend variables representing different steps of COMESA: (1976-1981), (1982-1999) and (2000-2010). P-values are reported in parentheses. Column (1) shows result out of any control variable. Column (2) shows result with control of share of old members import in the world total imports. Column (3) shows result with control of FTA period. Column (4) shows result with control of the two preceding control variables. The model has been adjusted using Praise and Winston transformation. The adjustment has been interpreted using computed and tabulated Durbin-Watson values.					

Annex N°3: Coefficients and P-values of control variables

Information on control variables used in the text					
		(1).	(2).	(3).	(4).
Dependent variable: Kenya total export to new member countries					
Share of Kenya exports	Coefficient		5.54E+10		1.89E+10
	P-values		(0.466)		(0.81)
Share New members import world	Coefficient			1.05E+10**	1.01E+10*
	P-values			(0.036)	(0.063)
Dependent variable: Kenya total export to old member countries					
Share of Kenya exports	Coefficient		4.77E+09		4.12E+09
	P-values		(0.579)		(0.648)
FTA Period	Coefficient			-4130831	-4015491
	P-values			(0.244)	(0.265)
Dependent variable: New member countries' total imports from Kenya.					
Share of Nm imp: Kenya/world	Coefficient		1.49E+10***		1.62E+10***
	P-values		(0.000)		(0.000)
Share: New members import world	Coefficient			1.20E+10	1.74E+10***
	P-values			(0.119)	(0.001)
Dependent variable: Old member countries' total imports from Kenya.					
Share of Import/world import	Coefficient		2.56E+09		2.21E+09
	P-values		(0.123)		(0.146)
FTA Period	Coefficient			-1.97E+07***	-1.88E+07***
	P-values			(0.004)	(0.007)