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The Effects of the Implementation of an External Trade Agreement on Trade within a Customs Union

**The Case the African Growth and Opportunity Act (AGOA) on
Intra-Regional Trade in ECOWAS**

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Abstract

African economic unions are perceived to be weak partly because they have relatively low levels of intra-regional economic activity, especially trade. This is contrary to the assumption that forming a trading bloc will increase economic activity within the group. Africa's weak economic unions have been attributed to a number of constraints such as: inadequate communication lines; high transactions costs despite geographical proximity; comparative advantage in similar products (as majority of exports are primary goods); and a lack of collective will to implement the terms of their trade agreements. It has also been suggested that preferential trade agreements outside of the regional unions undermine trade within the union. In view of this, the study tests the hypothesis using the case of the African Growth and Opportunity Act (AGOA)—which was instituted by the United States (US) in 2000—to determine if AGOA has had an effect on internal trade within the Economic Community of West African States (ECOWAS). This paper uses annual export data for 16 countries for the period 1980- 2008. The study uses time trend correlations and cross sectional regressions to test how trade patterns of AGOA beneficiary ECOWAS states have changed over time; and how given factors including: exports to the United States (US), exports within ECOWAS itself, being a beneficiary of AGOA, and duration in AGOA, have affected overall exports the ECOWAS economic unit. Major findings of this study show that exports from each of the member states increases to all importers after 2000, regardless of whether the exporting nations are in AGOA or not. Exports to the USA did increase after entering AGOA however continued stay in the programme results in declining exports to the US.

Background

Africa has had volatile export trends over time. Although overall trade from the continent to global market is increasing, African trade is still faced with many challenges including competition from cheaper exporters as well as declining terms of trade of African exports—which are mostly primary goods.

In order to maximise revenue gains from exports and expand export bases, African economies have been encouraged to be more engaged in global trade by liberalising their markets. The expectation is that comparative advantage will lead to gains from trade for all parties involved in trade. This has been evident in a number of developing countries that have grown their economies by increasing trade and investment. Advocates of the export led growth theory argue that trade is indeed the main engine of growth in South-East Asia. They add that for instance, Hong Kong, Taiwan, and Singapore have been successful in achieving high and sustained rates of economic growth since the early 1960s because of their free-market, outward-oriented economies (Medina-Smith, 2001)

According to 2001 UNCTAD statistics, Africa's share of the world market was at 1.1 per cent between 1999 and 2000 even though Africa as a region had had positive growth in world trade of 2.2 percent during that same period. In 2005 WTO reports that this figure grew to 4 per cent. ECOWAS alone experienced growth in its exports to the world by 7.9 per cent. A level which is substantial compared to poorer results of other African economic groups.

Intra-regional trade in ECOWAS stood at 10.2 per cent (the highest rate in Africa in 2001); but this rate pales in comparison to the EU and NAFTA at 60.7 per cent and 54 per cent respectively. MERCOSUR and ASEAN had intra-regional trade levels of 20.8 per cent and 22.7 per cent respectively.

In 1999 developing African countries (this excludes South Africa) exported goods worth \$87091 million in total, out of which \$6358 million was exported to the rest of Africa. With regards to agricultural products 12.3 per cent of all produce was exported to other African countries and only 5.1 per cent of fuel was exported within the continent (UNCTAD 2001). Agricultural primary goods and fuel are the largest exports from Sub Saharan Africa (SSA).

US Imports from SSA rose from \$50,364 million in 2005, to \$86,052.7 million in 2008 (US Dept of Commerce 2009). In 2008 alone US imports from SSA grew by 27.8 per cent. from 2006 to 2008 US imports from ECOWAS AGOA beneficiaries increased from \$28, 479 million to \$38,855.7 million, a growth rate of 17.6 percent in 2008 (AGOA Info). Intra-regional exports in ECOWAS from 2005 to 2008 rose from \$5539.601 million to \$9069.585 million. In 2008, exports within the region increased by 23.6 per cent however, between 2005 and 2006, the rate of growth had only been 7.48 per cent. Although an upward trend is observed in intra-regional trade in ECOWAS, the volume of exports within the group are far lower than the volume exported to the US.

It has been argued that it is difficult for developing nations to import from each other as it is cheaper to import foreign goods from countries with lower production costs. The influx of cheap foreign goods is facilitated by trade liberalisation. To provide developing nations some form of leverage in the competitive global market, the World Trade Organisation (WTO) introduced the General System of Preference (GSP). The GSP permits developing nations to form Preferential Trade Agreements among each other. Furthermore, the GSP allowed developed countries offer non-reciprocal preferential treatment (such as low duties on imports) to products originating in developing countries. It is assumed that in encouraging the formation of trading

blocs of developing countries, trade among members will increase as they remove trade barriers leading to trade creation in the newly formed unions.

Despite the formation of economic groups in Africa there is still limited trading across regions within Africa. This may be attributed to high transaction costs of trade in Africa because of poor communication and transportation lines making trade inefficient; exporters may have comparative advantage in similar goods and therefore there is little incentive for export; language barriers; currency exchange and stability and increased free trade agreements with more wealthy economies therefore rendering trade between the domestic regional agreements less profitable. Instead, there has been a trend of African nations engaging in preferential trade agreements with developed nations

This then raises the question of how trade within the customs union of developing economies are responding to external trade agreements with developed economies. My hypothesis is that since trade with a larger market is more lucrative than trade within a union of developing economies, it is expected that there will be exports diverted from the group to the larger external trading partner. I will use the case of how exports from ECOWAS countries have responded to the AGOA agreement with the United States. I would study how it has affected total trade and the direction of trade from the ECOWAS member states to: the US, ECOWAS, and the rest of the world (ROW).

The first part of this paper will describe prior studies on African Growth and Opportunity act and its effects on the economies of beneficiary nations. The second part of the paper will describe prior work on the ECOWAS union and what steps it has taken towards securing its

customs union and how it has responded to trade with AGOA. The third part will describe the data set and methodology. The final part describes the results and conclusion of the paper.

Prior Studies on the Implementation and Effects of AGOA in Sub Saharan Africa

The General System of Preference allows developed countries to offer non-reciprocal preferential treatment (such as low duties on imports) to products originating in developing countries. An example of such a preferential trade agreement is the Trade Policy for Sub-Saharan Africa SEC. 101 is also known as the African Growth and Opportunity Act (AGOA) between the US and Sub-Saharan African (SSA) (WTO).

AGOA was signed into law on May 18, 2000 by President Clinton as Title 1 of The Trade and Development Act of 2000. The initiative is aimed at promoting African exports to the United States and encouraging freer and open markets among African nations. The provisions of AGOA give beneficiary nations access to the American markets with zero percent tariffs on a variety of goods.

The eligibility criteria were developed by the US in consultation with African countries. The criteria include: the establishment of market based economy, development of political pluralism; elimination of barriers to US trade and investment among other stipulations (AGOA Implementation). All goods are permitted to enter the US market tariff free provided that they meet the AGOA rules of origin provisions. There are about 6433 goods that could be imported into the United States under AGOA giving African exporters access to the US' \$10 trillion market (Mattoo et al).

Since its inception in 2000, AGOA has undergone several amendments. In 2002, the AGOA II provisions gave narrower definition of components that can be used for apparel production with regards to AGOA import eligibility. In July 2004 AGOA III was introduced. The new provisions extended the programme until 2015 and expanded eligibility of apparel clothing imported into the US. In President Bush 2006 signed AGOA IV which legislation extended the third country fabric provision until September 2012 and allowed lesser developed beneficiary SSA countries export certain textile articles under AGOA (AGO.gov)

AGO's results in SSA have varied over time. These inconsistent results have been attributed to the advantage of petroleum products over all other exports; the introduction of more stringent rules of origin stipulations in the AGOA amendments, lack of export diversification, and varying socio-economic environments.

As stated earlier, AGOA has been most beneficial for petroleum and mineral exporting economies. In their research, Fayissa and Tadasse (2008) examine whether the implementation of AGOA has led to an increase in imports from AGOA eligible nations. The authors argue that AGOA exports are predominantly petroleum products thus allowing very few economies such as Nigeria and Gabon dominate exports to the US. Nevertheless, their results show that 17 AGOA participant countries benefitted from the programme but there are variations and this is because there are other factors to take into consideration when assessing the AGOA programme.

On the other hand, Brenton and Hoppe find that although, for example, in 2004 90 per cent of all exports were petroleum products under AGOA, oil imports into the US were not necessarily prompted by AGOA and oil imports would have occurred under any circumstance.

They use the garment industry as evidence as a key non-oil export because of low labour costs and initial capital needed is relatively low.

The recent introduction of more stringent rules of origin requirements on imports have hindered growth in some export industries—with the textile industry being the one of the most affected. From 2005 to 2008, US apparel and textile imports from ECOWAS dropped from \$10.8 million to \$1.845 million. Between 2006 and 2007 it dropped dramatically from \$8.628 million to \$2.202 million, a 74.45 percent decline (AGOA Info). Mattoo et al (2003) estimate that from 2005 onwards, gains of trade could have been greater had there not been the *multi fibre agreement*¹ or the *yarn forward rule*² on clothing imports to the US. They add that tougher restrictions on apparel would make African apparel exports to the US uncompetitive when compared to other apparel exporters particularly from Asia.

Similarly, Collier (2006) finds that the stringent Rules of Origin imposed on AGOA exports have led to a decline in specific industries exports under AGOA. Moreover, despite the introduction of AGOA, the US still maintains quotas in imports from SSA. For instance clothing made of African fabric and yarn is subject to a cap of 1.5 per cent of all AGOA imports. The cap will be increased to 3.5 per cent after 8 years of implementation (Mattoo et al, 2003).

Fayissa and Tadasse (2008) find that a country's eligibility for AGOA was determined at different times with varying socio-economic environments in each country suggesting that the effects of AGOA on each economy would not be equal. They also find that the increase or

¹ The *Multi Fibre Arrangement* or the Agreement on Textile and Clothing with regards to world trade in textiles and garments from 1974 to 2004, imposed quotas on the amount developing nations could export to developed countries.

² *Yarn Forward Rule* states that in order for clothing imports to qualify for the benefits under AGOA, the goods must be made of yarns and fabrics produced in the United States or in AGOA beneficiary countries.

decrease in trade may also not be based just on AGOA but also macroeconomic variables, trade policy, these and other factors could contribute to the positive and negative trade.

Prior Studies on the Trade and Economic Environment in ECOWAS

In order to cement ECOWAS' goals of becoming a full economic union, the group introduced the Common External Tariffs (CET) in 2008. The CET was previously limited only to the West African Economic Monetary Union (WAEMU³) countries but it has since been extended to all of ECOWAS. However, it has been argued that the CET and other efforts to create a cohesive economic union in ECOWAS have not necessarily stimulated intra-regional trade. There are a number of factors that have contributed to low levels of trade within the ECOWAS group namely: similar comparative advantage in export goods; the lack of a common currency and/or the lack of stable currencies; and lack of a collective will to implement trade policies developed.

Yeats (1998) attributes limited intra-regional trade in Africa to countries having comparative advantage in the same goods and services. However, he notes that capital goods would have been a beneficial advantage but none of the SSA countries has a low enough opportunity cost in the production of capital goods to make it profitable. Yeats concludes by citing Forouton and Pritchelt who suggest that that African intra trade is higher than expected because regional blocs and economic regions that have been established have contributed in further lowering trade across the continent but not necessarily within the regional blocs.

³ West African Economic Monetary Union (WAEMU): has 8 countries in their union, namely: Benin, Burkina Faso, la Côte d'Ivoire, Guinea-Bissau, Mali, Niger, Senegal, and Togo. These countries are part of a larger monetary union of the CFA Franc Zone. Their currency is the CFA Franc which is pegged the French Franc and now the Euro at a 1:2 ratio. These countries are still a part of ECOWAS

Further expounding on the nature of African exports, we find that many African countries trade in primary commodities such as petroleum, coffee, gold, and cocoa; and because their economies are not diversified and depend on the sale of a few commodities, they are more prone to experience *immiserizing growth*. Pugel (2007) defines immiserizing growth as: growth that expands a country's willingness to trade but trade can result in a large decline in the country's terms of trade leaving the country worse off. This occurs mainly when a country's growth is strongly biased towards the supply of exports and these exports are significant enough to impact world trade. Furthermore, these commodities must be price inelastic such that increased supply by the exporting country can drop its price. When the country is heavily engaged in growth, a decline in terms of trade leads to a fall in welfare offsets the gains of the country's ability to produce further. Pugel concludes that countries that have a diversified selection of exports are not at such a high risk of experiencing immiserizing growth (Pugel, 2007).

In addressing the high transactions costs in trading in Africa, Masson and Pattillo (2001) find that the lack of easily convertible currency is also a hindrance to increasing trade in the ECOWAS area. They suggest that some form of common currency would boost trade and reduce the transactions costs. This was evident in the period between 1997 and 1998, WAEMU countries exported more to fellow WAEMU countries than Non-WAEMU (ECOWAS) countries did with each other.

Still focusing on the advantages of the common currency in WAEMU, Goretti and Weisfeld (2008) find that intra-regional trade within the WAEMU was about 11 per cent between 2000 and 2006. That is much higher than other economic groups in Africa including ECOWAS.

In 1996, WAEMU states signed the Free Trade Agreement of 1996. Following that in 2000, they introduced the Common External Tariff, thus expanding their monetary union into a full economic union. The agreement included non tariff barriers such as transit fees. In 2006, they moved to expand the CET to ECOWAS which would gradually ease tariffs but instead they chose to resort to safeguard measures according to WTO policies. However, inefficient practices prevent adequate progress of the customs union. For instance Mali has its own means of implementing the agreement. It has additional tariffs and rates of existing tariffs that are outside the CET. Furthermore there are also lengthy bureaucratic processes that slowed down trade transactions (Goretti and Weisfield, 2008).

ECOWAS Customs Union

In a March 2004 agreement, ECOWAS leaders resolved to launch its Customs Union in May 2007 with the implementation of the Common External Bands (CET). The CET originally had four tariff bands for various levels of imported goods from outside the region. These bands are the same bands that WAEMU adopted in 1998 and now the tariffs have been extended to the rest of ECOWAS ranging from 0 to 20 per cent with an average of 12.1 per cent total of all tariffs excluding the 4th band. These bands are in harmony with the regulations of the WTO.

After a request by Nigeria to include a fifth band at 50 per cent for finished products with adequate local production capacity, in May 2009 there was a consensus to include a 5th band of tariffs at 30 to 35%. The final decision was concluded at a head of governments meeting in June 2009 (ITSCD).

Fig 1. ECOWAS CET Bands *(Does not include 5th Band of 30-35%)

Band	Dutiable Items
0%	Necessaries, Special Medicaments, Industrial Machinery and Equipment (Industrial Machinery and equipment would attract 0% for one year).
5%	Raw Materials and other capital goods
10%	Intermediate
20%	Finished goods

Source: ECOWAS CET Bands itscd.org

Fig. 2 ECOWAS Countries in AGOA

Country	AGOA Eligibility Date
(Republic of) Benin	October 2, 2000
Burkina Faso	December 10, 2004
(Republic of) Cape Verde	October 2, 2000
(Republic of) Ghana	October 2, 2000
(Republic of) Guinea	October 2, 2000
(Republic of) Guinea-Bissau	October 2, 2000
(Republic of) Liberia	December 29 , 2006
(Republic of) Mali	October 2, 2000
(Republic of) Niger* ⁴	October 2, 2000
(Federal Republic of) Nigeria	October 2, 2000

⁴ As of 20 October 2009, Niger has been suspended from ECOWAS because of Nigerien President Tandja refused to heed ECOWAS calls to suspend illegitimate elections after prematurely dissolving parliament and suspending the constitution.

(Republic of) Senegal	October 2, 2000
(Republic of) Sierra Leone	October 23, 2000
(Republic of) Togo	April 17, 2008

Source: www.agoa.gov

Methodology and Data

The study includes an assessment of how export trends of ECOWAS member states have responded to a number of variables contributing to an increase or a decrease in exports to ECOWAS and the United States.

The exports of each ECOWAS member state and the United States for the dataset are provided by the International Monetary Fund Direction of Trade Statistics Database (DOTS). All export values are in millions of US dollars. The dataset covers the period from 1980 to 2008. The limitations of the dataset are that some years had no export values reported for one country or a country's exports to another.

The difference in exports to the ECOWAS, the United States, and the Rest of the World (ROW) for five year periods before and after the implementation of AGOA (1995 to 1999 and 2001 to 2005) are determined. The percentage change in exports to ECOWAS, the US, and ROW for 5 year periods before and after the implementation of AGOA are also determined.

To determine export trends to ECOWAS, the US and ROW, I find the correlation between time (years) and the level of exports (exports in millions of US dollars). This demonstrates how exports have increased or decreased over time for each of the countries in the dataset. This test excludes United States' exports during that time period. The correlation graphs are available in the annex section.

To test how exports to ECOWAS respond to exports from member states to the US, and ROW. Regressions and cross-sectional regressions are run with Exports to ECOWAS, Exports to the United States, and exports to ROW as the dependent variables. The following were the variables:

<i>agdum</i>	- a dummy binary variable ;1= in AGOA, 0= not in AGOA in a given year (AGO A Participation Variable).
<i>tt</i>	- time trend, exports over the 29 year period
<i>agdumtt</i>	- the AGOA dummy time trend, the duration in AGOA (Duration in AGOA)
<i>usa</i>	- exports to the US
<i>row</i>	- exports to the rest of the world

Separate cross-sectional regressions are then run with *Exports to US* and *Exports to ECOWAS* as the dependent variables respectively. The cross-sectional regressions test how the given variables affect exports to ECOWAS, exports the US, and exports to ROW.

Finally regression is run with *exports to ECOWAS* as the dependent variable with given independent variables. This was to determine the effects of the independent variables on **each country's exports to ECOWAS**. This test is done for each ECOWAS country. The results of these regressions can be found in Fig. 10

Results

Fig 3. Changes in Export Volumes from ECOWAS Member States to the ECOWAS Group, the United States, and the Rest of the World 1995-1999 and 2001-2005 (Figures in Millions of US Dollars in Current Values of Given Year)

	1995-1999			2001-2005		
Country	Δ Total ECOWAS EXPORTS	Δ Total USA EXPORTS	Δ Total ROW EXPORTS	Δ Total ECOWAS EXPORTS 2	Δ Total USA EXPORTS2	Δ Total ROW EXPORTS 2
Benin	-0.679	7.305	33.653	25.083	-0.311	-290.739
Burkina Faso	-34.341	2.175	14.981	26.044	-2.455	198.863
Cape Verde	-0.360	-0.095	-2.038	0.062	0.637	16.013
Gambia	-5.799	-0.591	-19.563	2.113	-0.273	0.501
Ghana	22.643	-1.546	265.790	74.526	-28.909	888.760
Guinea	3.740	-51.321	-192.323	12.140	-14.492	788.707
Guinea-Bissau	-0.135	0.091	-36.664	18.355	0.182	-15.791
Mali	-0.624	3.000	10.381	0.279	-2.364	101.907
Niger	32.890	-0.231	-14.086	6.753	59.741	137.343
Nigeria	123.336	-375.630	979.000	1738.346	15506.430	25486.000
Senegal	28.460	-1.463	208.124	322.181	13.915	659.872
Sierra Leone	0.000	-0.397	-35.206	4.080	4.727	140.041
Non- AGOA						
Côte D'Ivoire	220.300	201.535	480.070	902.814	752.028	3379.750
Liberia	0.360	20.455	-390.433	4.238	47.636	99.705
Togo	20.419	1.581	18.868	118.500	-1.157	143.672

Source:IMF Direction of Trade Statistics Database

Fig 4. Percentage Changes in Export Volumes from ECOWAS Member States to the ECOWAS Group, the United States, and the Rest of the World 1995-1999 and 2001-2005 (Figures in Percentages of Millions of US Dollars in Current Values of Given Years)

	1995-1999			2001-2005		
Country	%Δ Total ECOWAS EXPORTS	%Δ Total USA EXPORTS	%Δ Total ROW EXPORTS	%Δ Total ECOWAS EXPORTS 2	%Δ Total USA EXPORTS2	%Δ Total ROW EXPORTS 2
Benin	-6%	541%	19%	63%	-52%	-49%
Burnkina Faso	-73%	472%	9%	120%	-54%	114%
Cape Verde	57%	-52%	-15%	-7%	37%	164%
Gambia	-81%	-69%	-70%	299%	-50%	2%
Ghana	25%	-1%	18%	107%	-15%	60%
Guinea	729%	-34%	-28%	273%	-15%	145%
Guinea-Bissau	41%	N/A	-39%	1877%	N/A	-13%
Mali	-10%	57%	4%	4%	-40%	65%
Niger	89%	-63%	-7%	9%	11229%	85%
Nigeria	15%	-8%	8%	213%	212%	141%
Senegal	23%	-45%	34%	192%	559%	84%
Sierra Leone	0%	-19%	-85%	-620%	111%	250%
Non-AGOA						
Côte D'Ivoire	32%	124%	13%	100%	276%	87%
Liberia	7%	225%	-41%	62%	117%	10%
Togo	93%	536%	9%	92%	-22%	65%

Source: IMF Direction of Trade Statistics Database

The tables above describe results on how exports to ECOWAS, US, and ROW have changed over a five year period before and after the implementation of AGOA in 2000 (from 1995-1999 and 2001- 2005). All figures (other than if indicated as a percentage) are in millions of US Dollars.

From 1995-1999, exports from the ECOWAS region were relatively volatile. There was no consistent trend of exports at the time. Nigeria had the largest increase in exports (with absolute dollar values) to ECOWAS whilst Burkina Faso's exports falling by about \$34 million within the 5 year period. According to Fig 3 and Fig 4, exports to the USA were varied. Benin experienced the largest dollar value climb in exports by about \$7 million whilst Guinea's plunged \$51 million between 1995 and 1999. Overall exports to the world from Senegal grew by \$208 million whilst Guinea's exports fell by \$192 million from 1995 to 1999.

In 2001, a year after the implementation of AGOA, beneficiaries and countries outside the programme experienced an overall positive trend in each country's absolute export volumes to ECOWAS. Nigeria had a change in export values of about \$1.738 billion dollars between 2001 and 2005. Cape Verde had the lowest change in exports to ECOWAS with an increase of \$62,000 in its exports to the ECOWAS group.

Exports to the US which were expected to be higher as a result of the implementation of the programme had varied results even in countries that entered AGOA in 2000. Only 5 out of the 12 AGOA participating ECOWAS countries had positive percentage increases with Niger enjoying a percentage change of 11229 per cent. Change in exports to ROW remained relatively positive from 2001- 2005; only Guinea Bissau had a negative change of 13 per cent.

Regression Analysis and Results

Fig 5. Cross –sectional Regression of Exports to ECOWAS with Random Effects

Exports to ECOWAS	Coefficient	Std. Err	P Value
AGOA Participant	305.594	46.90158	0.000
Constant	196.7431	21.94203	0.000
R-Square Within		0.0853	
Between		0.0012	
Overall		0.0345	

Fig 6. Cross –sectional Regression of Exports to ECOWAS with Random Effects

Exports to ECOWAS	Coefficient	Std. Err	P Value
AGOA Participant	-204.6552	56.44737	0.000
Duration in AGOA	32.83373	9.762877	0.001
Time Trend	7.443119	2.022051	0.000
Exports to US	.0971747	.0053113	0.000
Exports to ROW	.0029338	.0001479	0.000
Openness	-.015584	.0610407	0.798
R-Square Within	0.6655		
Between	0.8510		
Overall	0.7735		

Fig 7. Cross –sectional Regression of Exports to US with Random Effects

Exports to US	Coefficient	Std. Err	P Value
AGOA Participant	601.3908	381.3182	0.115
Duration in AGOA	51.03513	65.96862	0.439
Time Trend	-27.02066	13.64716	0.048
Exports to ECO	4.346856	.2379682	0.000
Exports to ROW	-.0130565	.0012093	0.000
Openness	-.0191436	.407651	0.963
R-Square Within	0.4644		
Between	0.5905		
Overall	0.5159		

Fig 8. Cross –Sectional Regression of Logarithm of Exports to ECOWAS with Random Effects

Log of Exports to ECOWAS	Coefficient	Std. Err	P Value
AGOA Participant	.0787982	.1783657	0.659
Duration in AGOA	.0770694	.0307111	0.012
Time Trend	.0074723	.0069246	0.281
Log of Exports to US	.0369153	.0492338	0.453
Log of Exports to ROW	.6369508	.0797457	0.000
R-Square Within	0.3382		
Between	0.6641		
Overall	0.6156		

Fig 9. Cross –Sectional Regression of Logarithm of Exports to US with Random Effects

Log of Exports to US	Coefficient	Std. Err	P Value
AGOA Participant	-.1434407	.1701011	0.399
Duration in AGOA	.0677665	.0296275	0.022
Time Trend	.0066571	.0067234	0.322
Log of Exports to US	.0328596	.0476456	0.490
Log of Exports to ROW	.3435437	.0896657	0.000
R-Square Within	0.1645		
Between	0.1580		
Overall	0.1419		

In Fig 5 the *AGOA Participant* variable is statistically significant; therefore it shows that a country in AGOA would increase its exports to the ECOWAS group by a 301.8759 coefficient, indicating that AGOA has positively impacted exports within the economic group.

In a cross sectional regression test on the ECOWAS region as shown in Fig 6, the independent variables are statistically significant with p values of 0 with the *AGOA Participant* and *Openness* variables are the least significant. The *AGOA Participant* and *Openness* variables result in negative coefficients. This shows that the being in an AGOA participant reduces exports to ECOWAS by a coefficient of -204.6552. However, the *Duration in AGOA* variable increases exports to ECOWAS by a 32.83373 coefficient signifying that the longer a country remains in the AGOA programme, their exports to ECOWAS increase. Again in Fig. 6 the coefficient of the *Openness* variable shows that the more liberalised a country is, the less it exports to the ECOWAS group by a -.015584 coefficient. On the other hand, exports to ECOWAS are positively affected by *the Time Trend*, *Exports to USA* and *Exports to ROW*. The *Time Trend* variable shows that over the 28 year period, exports have increased by a 7.443119 coefficient.

In Fig 7, a cross sectional regression with *Exports to the US* as the dependent variable, we find that the *Participation in AGOA* variable positively affected aggregate ECOWAS exports to the US by a coefficient of 601.3908; however over the given *Time Trend*, exports to the US have dropped by coefficient of -27.02066 and yet the *Exports to ECOWAS* variable positively contributes to the increase in ECOWAS exports to the US.

When the logarithm of the *Exports to ECOWAS* variable is taken and tested in a regression, the p values are relatively high indicating that the coefficients are weakly significant. The results show that all variables result in increased exports to ECOWAS; however these values

are relatively low. It is important to note that the results show that the *AGOA Participant* variable and the *Duration in AGOA* variable give very similar results.

When the logarithm of *Exports to US* is tested in a cross-sectional regression, the results show that the *AGOA Participation* variable results in a negative coefficient of -.1434407. This means that being in AGOA reduces exports to the US. The *Duration in AGOA* variable however showed that the longer a country stayed in the programme, its exports to the US increased by a coefficient of .0677665.

Fig. 10 Regression Results of Testing how Exports from ECOWAS Member States to ECOWAS Respond to Given Variables.

		Variables				
	Country	AGOA Participant	Time Trend	Duration in AGOA	Exports to US	Exports to ROW
1	Benin					
	P Value	0.400	0.120	0.000	0.075	0.103
	Coefficient	-6.198709	.6081618	9.97381	-1.941575	.0907502
2	Burkina Faso					
	P Value	0.944	0.977	0.167	0.306	0.103
	Coefficient	-.8691052	.0142763	4.803132	-1.941575	.0907502
3	Cape Verde					
	P Value	0.357	0.000	0.211	0.215	0.678
	Coefficient	-.356515	.0753871	-.107514	.0749047	.005593
4	Côte d'Ivoire					
	P Value	(dropped)	0.125	(dropped)	0.537	0.000
	Coefficient	(dropped)	11.62595	(dropped)	-.1884168	.2799779
5	Gambia					
	P Value	(dropped)	0.000	(dropped)	0.099	0.167
	Coefficient	(dropped)	-.3335946	(dropped)	.6916492	.0176284
6	Ghana					
	P Value	0.132	0.067	0.676	0.400	0.159
	Coefficient	-71.2064	4.373259	4.934128	-.1636777	.0547983
7	Guinea					
	P Value	0.677	0.187	0.098	0.474	0.219
	Coefficient	-4.492361	.5815469	5.004035	.0665429	-.0179722
8	Guinea-Bissau					
	P Value	0.000	0.093	0.000	0.383	0.729
	Coefficient	-8.61789	.1242453	4.88361	-.0621726	.0030015
9	Liberia					
	P Value	0.109	0.001	0.058	0.000	0.756
	Coefficient	-5.593894	.2324387	2.739148	.103377	.0003393
10	Mali					
	P Value	0.439	0.056	0.614	0.467	0.126
	Coefficient	20.3172	-3.314566	1.960947	-1.978762	.1729069
11	Niger					
	P Value	0.317	0.047	0.996	0.679	0.007
	Coefficient	17.23717	1.576297	-.0205304	-.080811	.0593144
12	Nigeria					
	P Value	0.004	0.000	0.809	0.200	0.000
	Coefficient	-344.8337	38.08006	8.680585	.0221735	.0333392

	Country	AGOA Participant	Time Trend	Duration in AGOA	Exports to US	Exports to ROW
13	Senegal					
	<i>P Value</i>	0.072	0.172	0.000	0.482	0.130
	<i>Coefficient</i>	-53.08723	1.699192	59.60361	-1.268022	.0880862
14	Sierra Leone					
	<i>P Value</i>	0.709	0.008	0.495	0.752	0.334
	<i>Coefficient</i>	-.3740382	.1655423	.1438409	.006034	.0070775
15	Togo					
	<i>P Value</i>	0.037	0.011	(dropped)	0.699	0.000
	<i>Coefficient</i>	-145.4602	3.489898	(dropped)	-.5501098	.5659766

A regression is run on each country to test how exports from that country respond to the given independent variables. Fig.10 above provides the list of coefficients, standard errors, and p values of the regressions.

In the case of Benin, the coefficient for the *AGOA Participant* variable is weakly significant and resulted in a negative coefficient meaning exports to ECOWAS declined as expected by -6.198. However, the *Duration in AGOA* variable is statistically significant and results in an increase in ECOWAS exports.

The *AGOA Participant* variable and the *Time Trend* of Burkina Faso are strongly insignificant. The *Exports to USA* variable is slightly significant but shows that exports to the US have reduced exports to ECOWAS; however, the duration of Burkina Faso in AGOA has increased Burkina's exports to ECOWAS. Albeit weakly significant the *Exports to ROW* variable has positively impacted Burkina's exports to ECOWAS

La Côte d'Ivoire's (CID) *AGOA Participation* and *Duration in AGOA* variables were dropped because CID has never been a beneficiary of AGOA. Over the 28 year period CID's

exports have increased to the rest of the group by an 11.625 coefficient; nevertheless and exports to the USA have reduced its exports to ECOWAS by 0.188.

Guinea Bissau's *AGOA Participation* and *Duration in AGOA* variables are significant and yet show opposite results. *AGOA Participation* variable shows that being in AGOA reduces Guinea Bissau's exports to ECOWAS and yet the duration in AGOA variable indicates that over time, being in AGOA increases its exports to the ECOWAS group by a 4.88361 coefficient.

Mali's *AGOA Participation* and *Duration in AGOA* variables are weakly significant but in this case the coefficients of the *AGOA Participation* and the *Duration in AGOA* variables are positive showing that being in AGOA and their duration in the programme increase their exports to the ECOWAS group.

Nigeria presents peculiar results where the *AGOA Participation* variable is highly significant however the *Duration in AGOA* variable is not. The results show that being in AGOA has significantly reduced Nigeria's exports to ECOWAS.

In conclusion we find that all of the countries with more or less statistically significant values for the *Time Trend* variable indicate that over the 29 year period exports to the ECOWAS region from each of the ECOWAS member states has been on an upward trend. This pattern is corroborated by the correlation graphs in the appendix. There were a few outliers such as Cape Verde and the Gambia whose coefficients in this test are negative.

The *AGOA Participation* and *Duration in AGOA* variables were dropped when running regressions for La Côte d'Ivoire which is not a part of the AGOA programme. In the case of Togo, the *Duration in AGOA* variable was dropped because Togo was just admitted into the programme in 2008.

Overall, the regressions show that the *AGOA Participation* variable generally results in a negative coefficient meaning that being in the AGOA programme led to a reduction in exports to the ECOWAS region. On the other hand, the *Duration in AGOA* variable results in coefficients indicating that the longer a country stays in the programme, the more it increases its intra-ECOWAS exports.

The regression test on *Exports to the US* from the ECOWAS countries corroborates the prior findings that show that the *AGOA Participation* and *Duration in AGOA* variables result in positive and negative coefficients respectively in exports to the US. This means that being in AGOA increases exports to the US but being in AGOA for duration of time leads to a fall in exports to the United States. These results are counterintuitive as it would be expected that being a part of the programme would increase exports to the US from the ECOWAS region.

Conclusion

The purpose of this study is to assess how trade within a customs union of developing economies responds the implementation of an external free trade agreement between a wealthier external economy and members of the existing customs union. For the purposes of this paper I focus on how trade in ECOWAS responds to the African Growth and Opportunity Act with the United States. The general assumption was that there would be exports diverted from within the economic union to the wealthier economy mainly because it is a larger market for exports.

There were three methods used to analyse this hypothesis. Export volumes and percentage change in exports volumes from ECOWAS to the US and to ECOWAS itself were compared over a 10 year period (5 years before the inception of AGOA and 5 years after its

implementation). Secondly, export growth trends were determined by correlating export volumes and years from 1980 to 2008. Finally I tested how exports to ECOWAS and exports to the US were affected by given variables by running cross sectional regressions.

Confirming the assumption that as a country opens up trade increases, ECOWAS member states' exports rose over the 29 year period. It is also noted that also increased sharply after 2000 when AGOA was implemented. The purpose of AGOA is to encourage African economies to open up and spur exports from participating countries. According to the results, the programme was successful in doing so; however this has not been directly translated into exports to the US although AGOA is targeted towards exports to the US. This may suggest that there are other external factors that led to the increase in African exports overall. A number of African countries are signatories to a number of other preferential trade agreements with other developed economies such as the Economic Partnership Agreements with the EU which was ratified by the Cotonou Agreement in 2000—the same year AGOA was signed.

Another finding shows that AGOA participation increases exports to the United States and decreases exports to ECOWAS when a beneficiary country joins the programme initially; however as a country remains in AGOA its exports to the US decrease over time, and exports to ECOWAS start an upward trend. This is counterintuitive because it is assumed that as a country remains in the programme, increased revenue from exports would encourage the expansion of exports to the US.

This trend of decreasing exports to the US whilst in AGOA could be attributed to the several amendments and rules of origin that have been added to the original AGOA law. These rules of origin and specifications have limited the amount of goods African exporters can send to

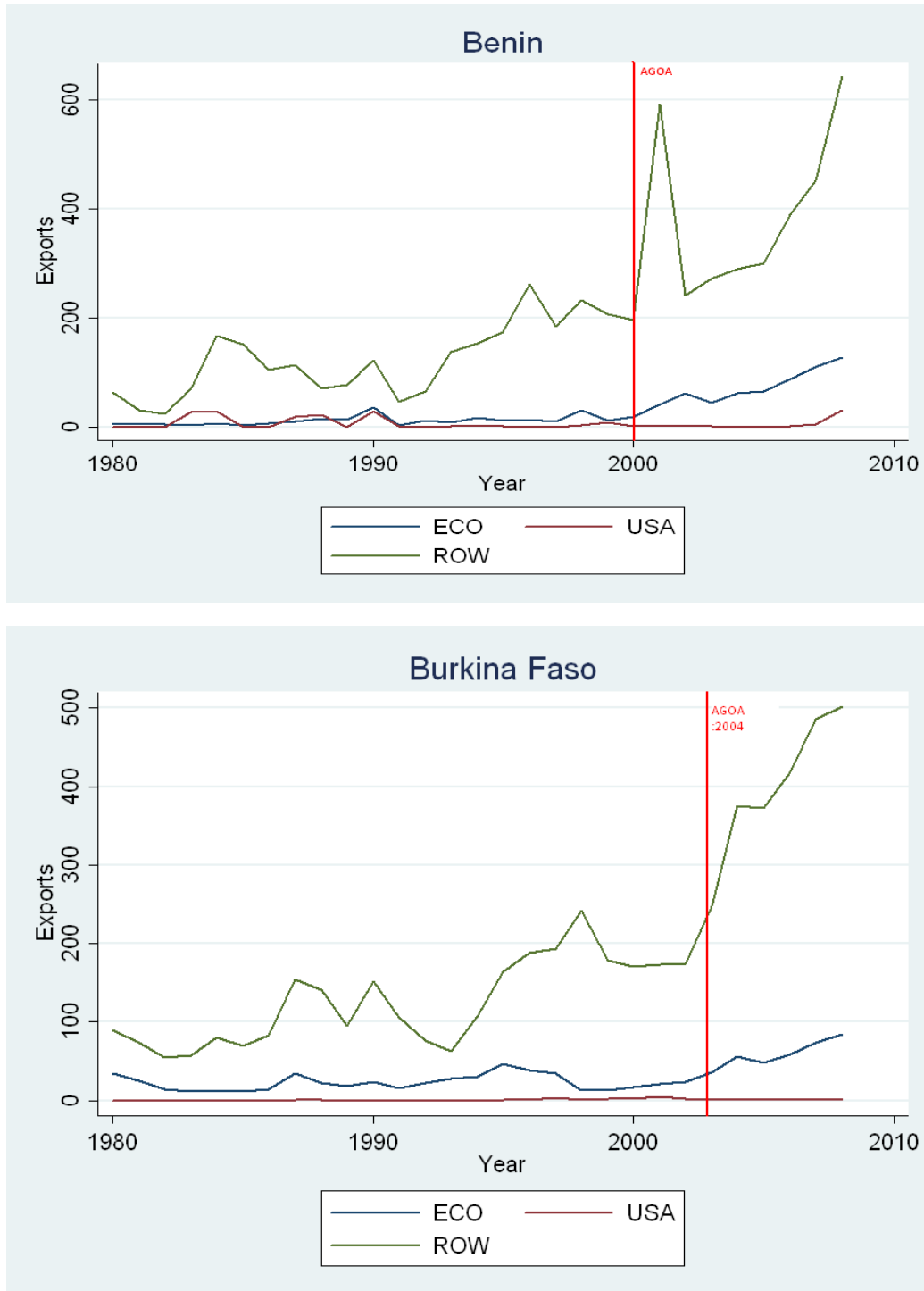
the United States. The garment and agricultural export industries in particular have been negatively affected by the changes in AGOA law. An exception of the cases of decreased exports to the US is Nigeria which is the largest African exporter of oil and petroleum products to the United States. Nigeria has consistently had the largest volume and largest share of exports to the United States from the ECOWAS region.

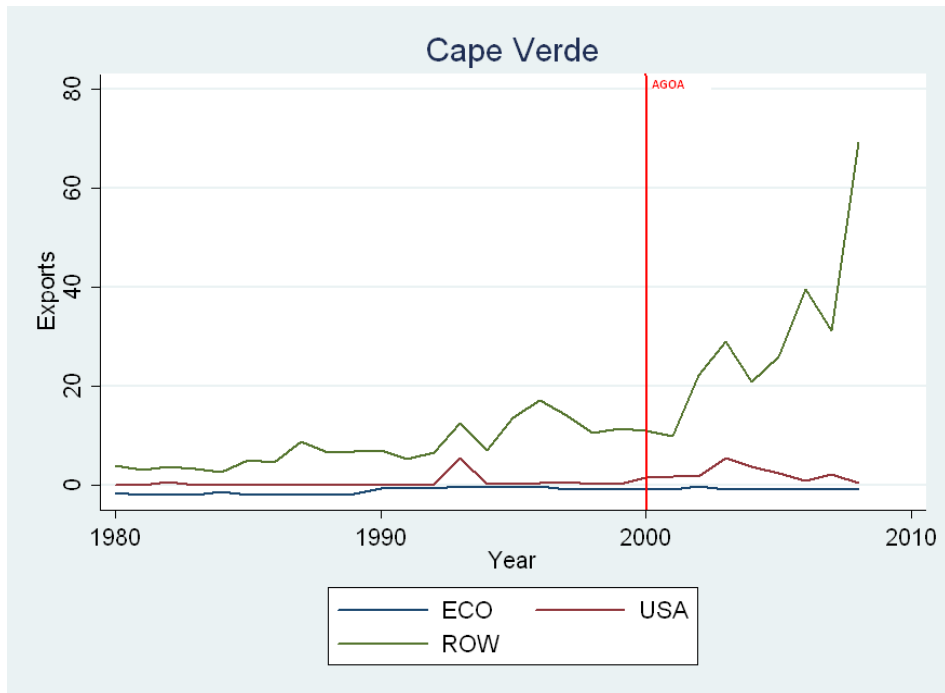
Trade within ECOWAS is still relatively low albeit increases in exports to each other as shown by this study. There is still the need for institutional weaknesses in ECOWAS and internal barriers such as currency instability and poor communication, to be addressed in order to promote and sustain trade within the newly formed ECOWAS customs union. Furthermore this study suggests that African economies need to diversify their export portfolios to protect their export revenue from suffering when certain primary goods are shut out of the US market due to trade restrictions. Finally, African adding value to exports could improve export options for African exporters. Majority of exports are primary goods which could lead to a case of immiserizing growth. In addition, it does not encourage intra-regional trade as ECOWAS economies have comparative advantage in similar goods.

Annex

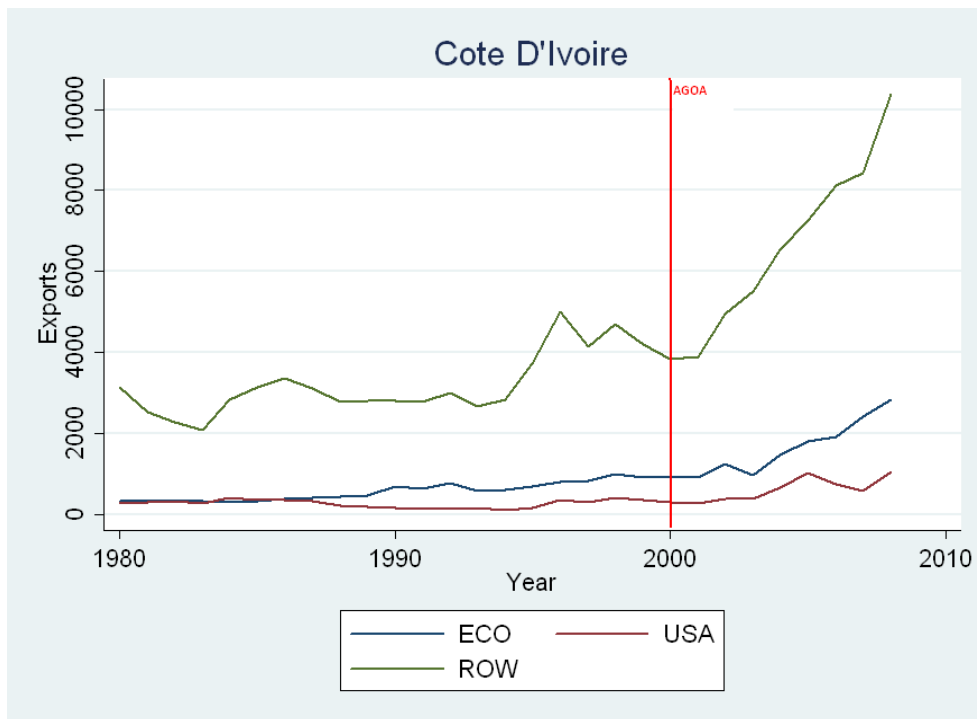
The figures below show the export trends of 15 ECOWAS States from 1980 to 2008

Fig 11. Export Volumes for ECOWAS Countries from 1980 -2008. Values in Million US Dollars.

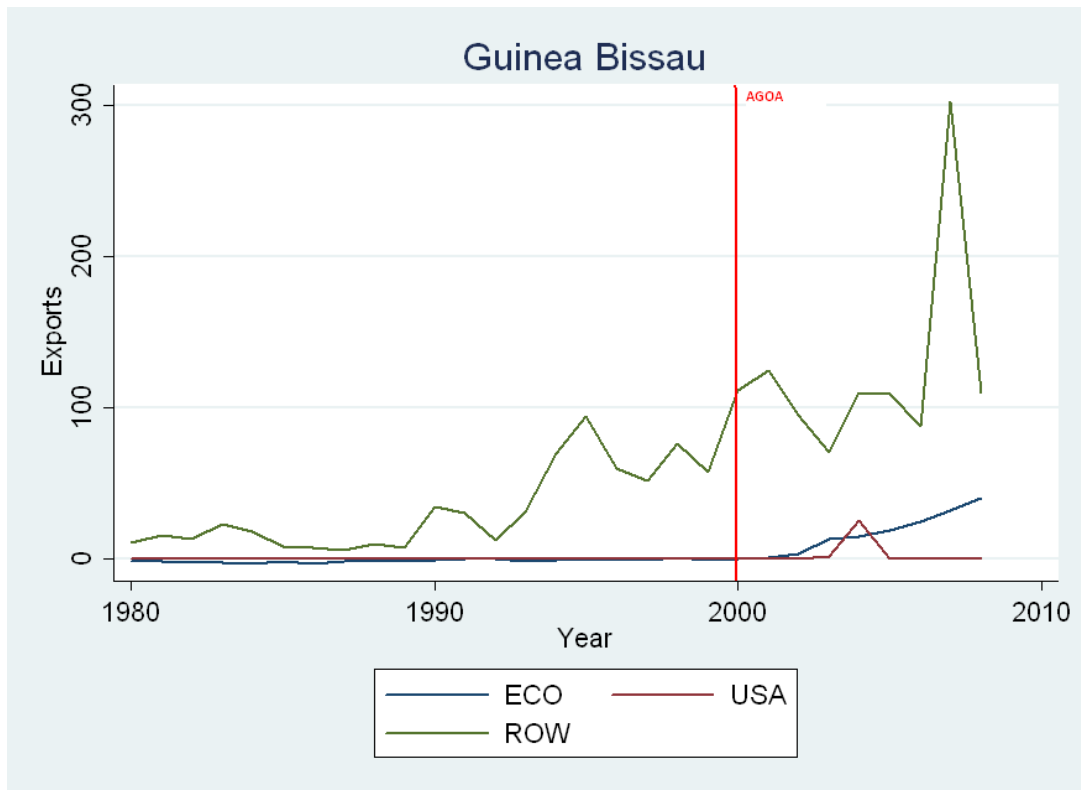
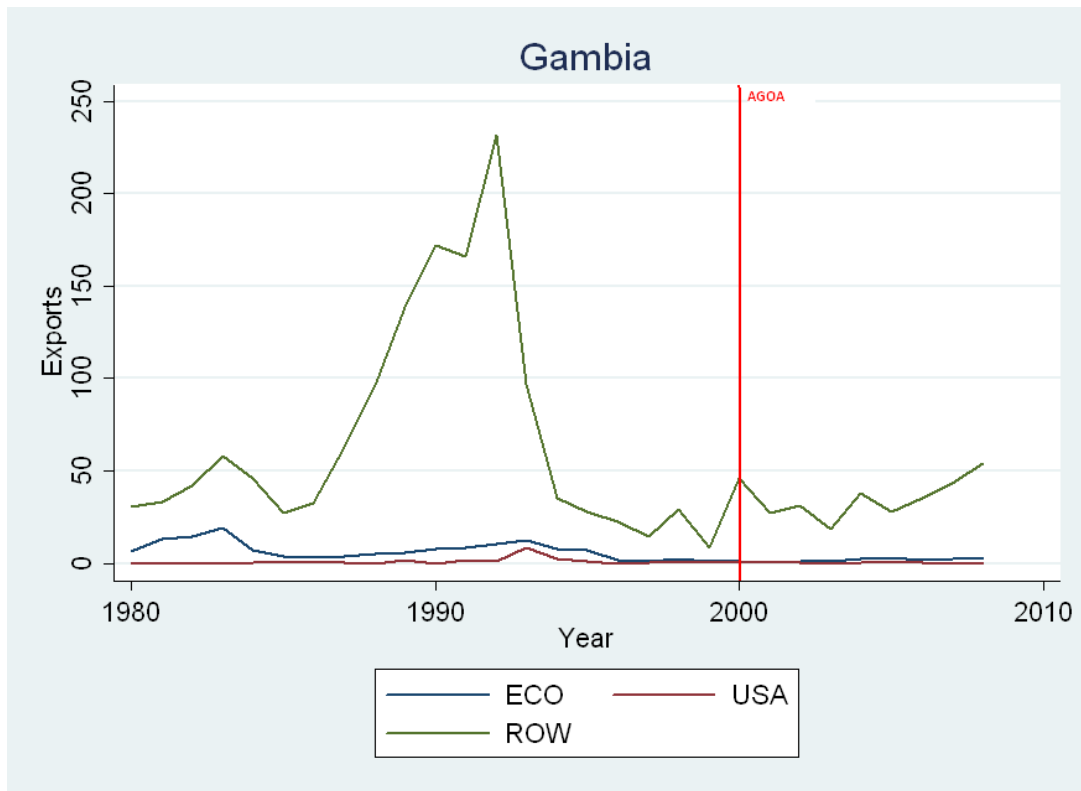


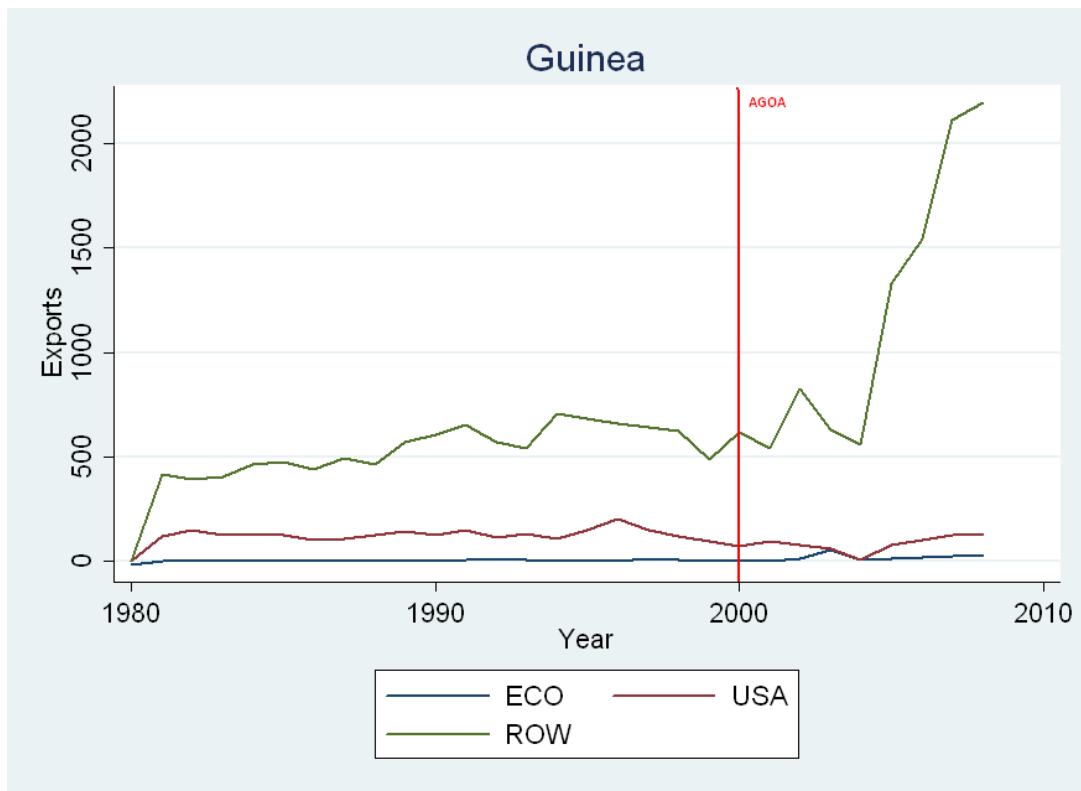
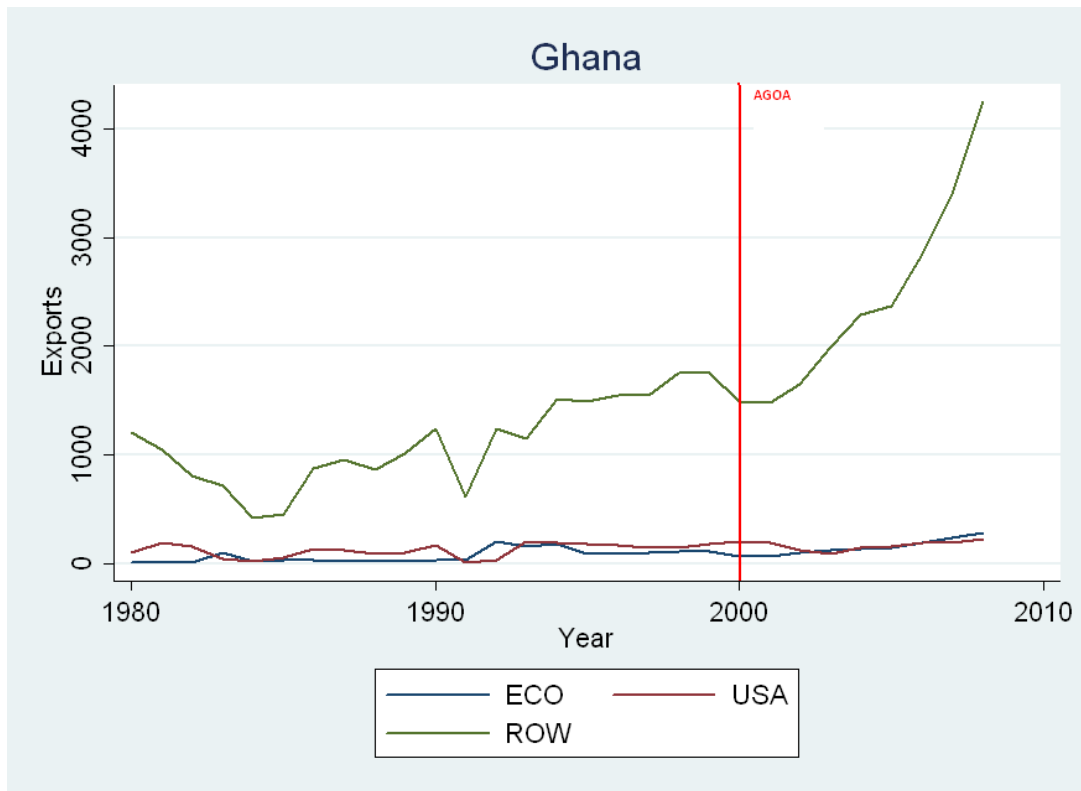


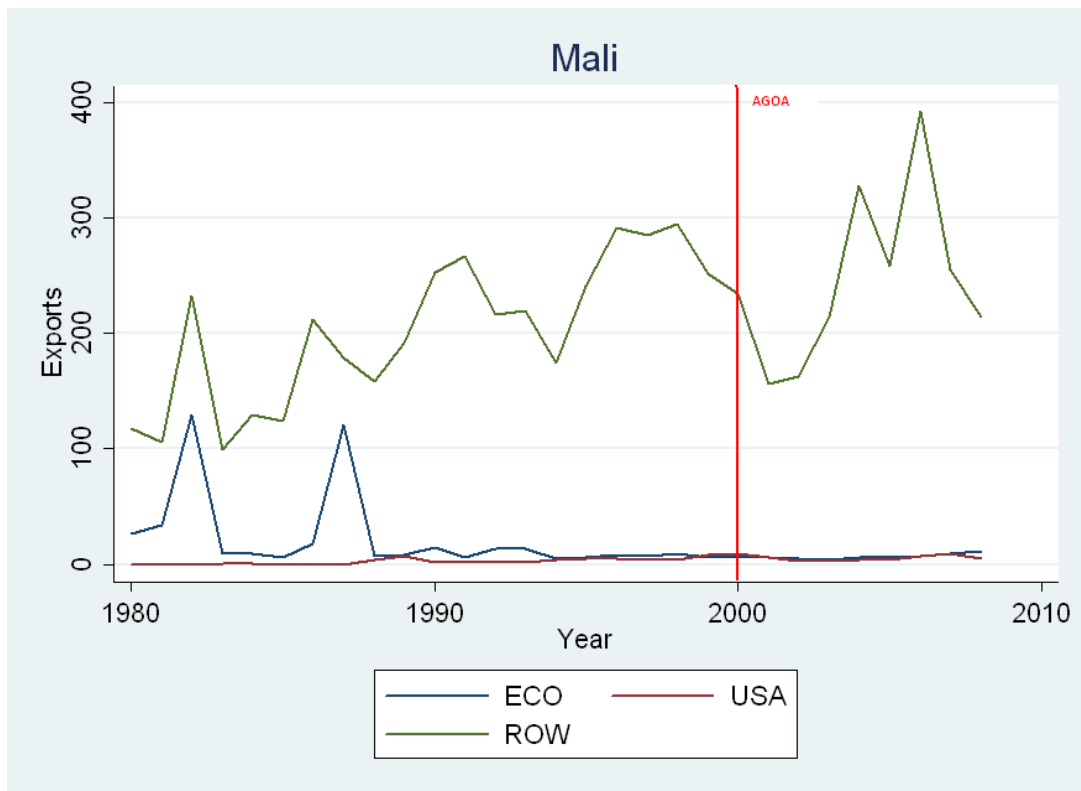
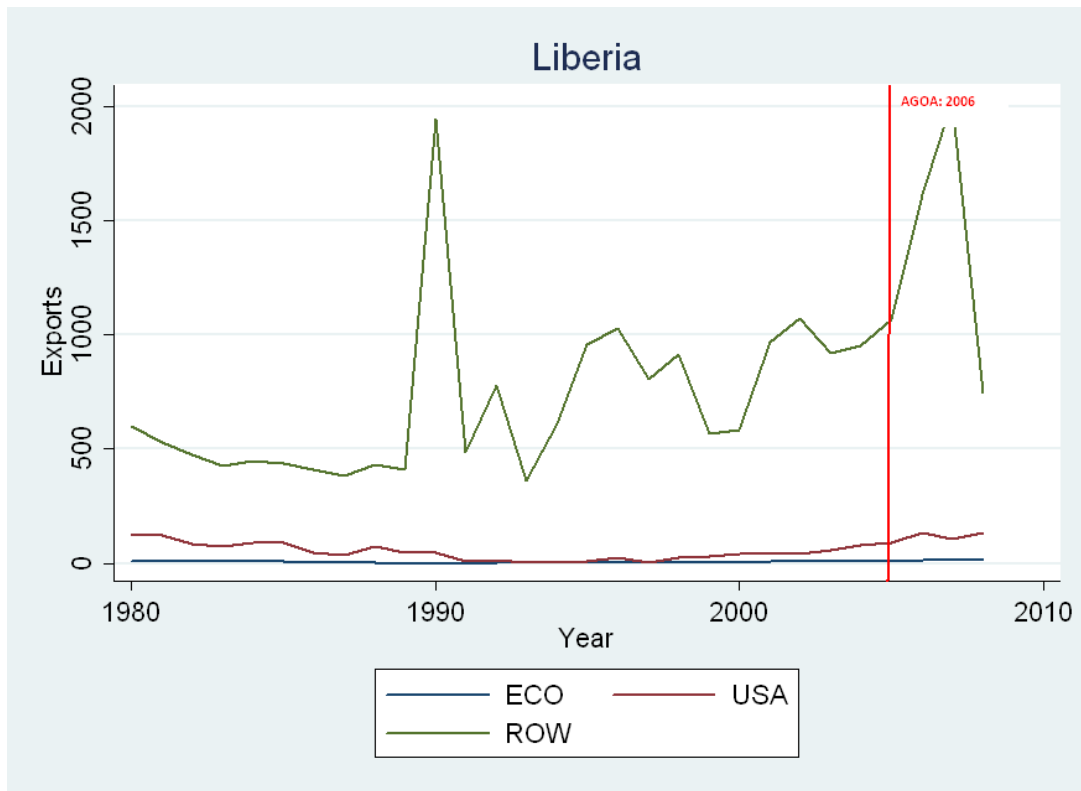
*La Côte d'Ivoire⁵

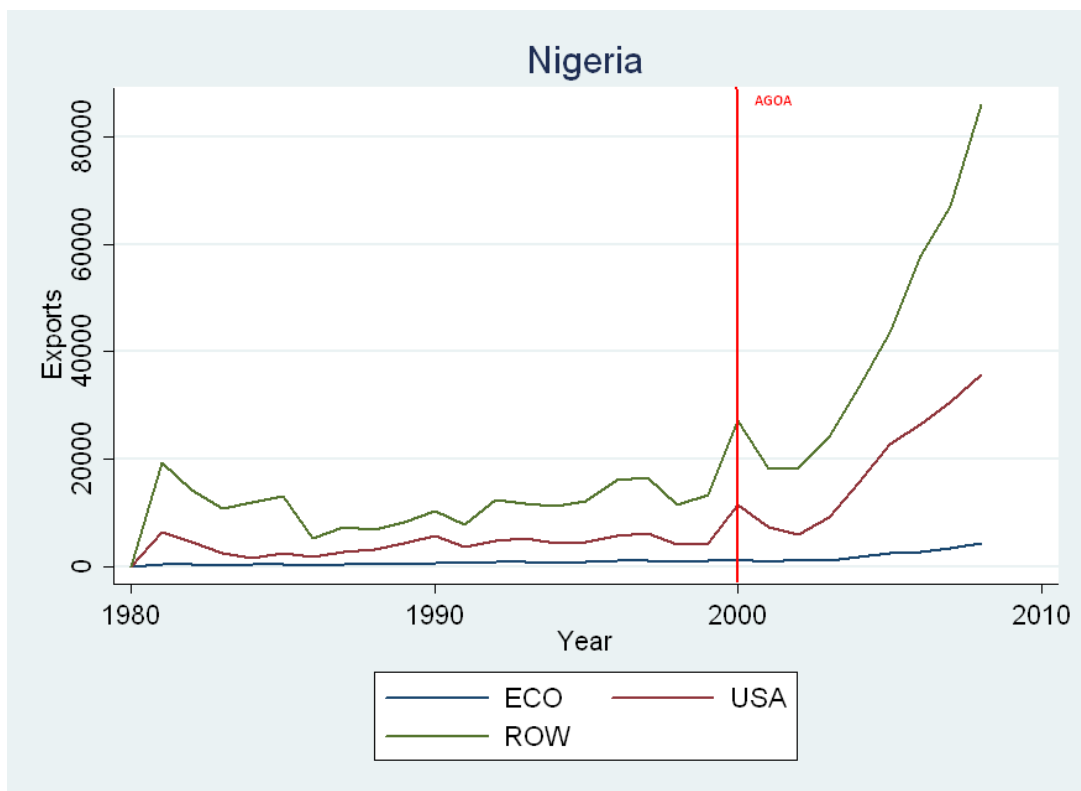
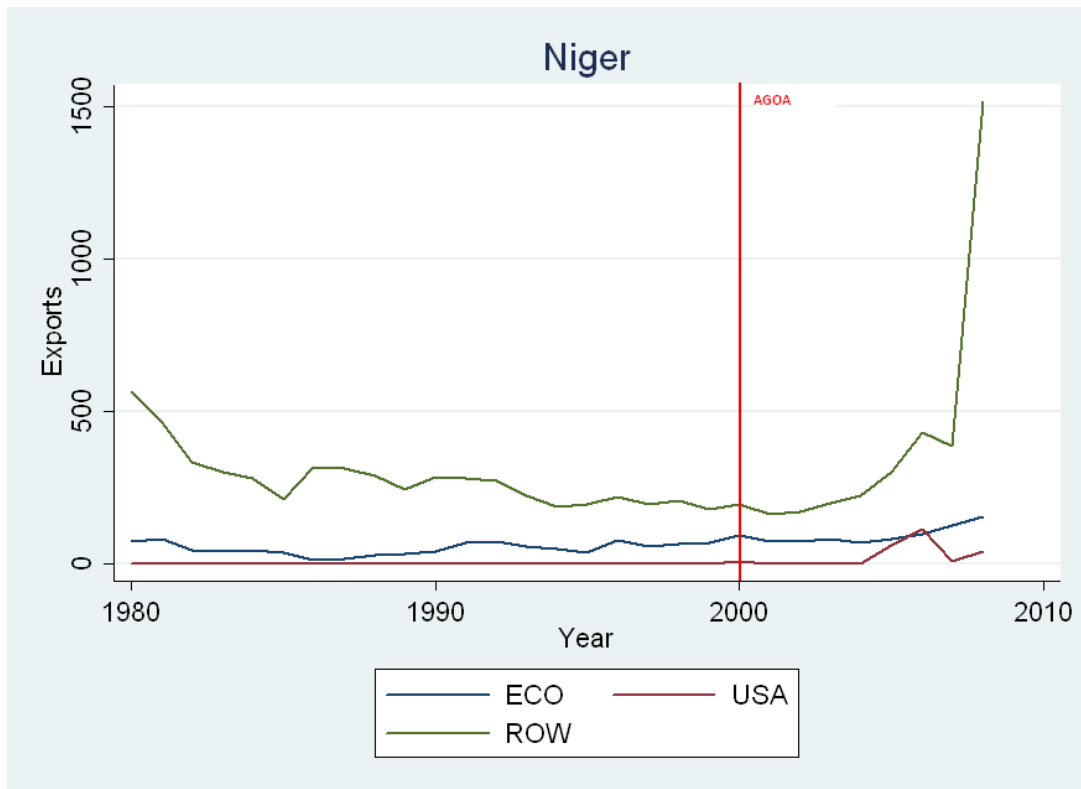


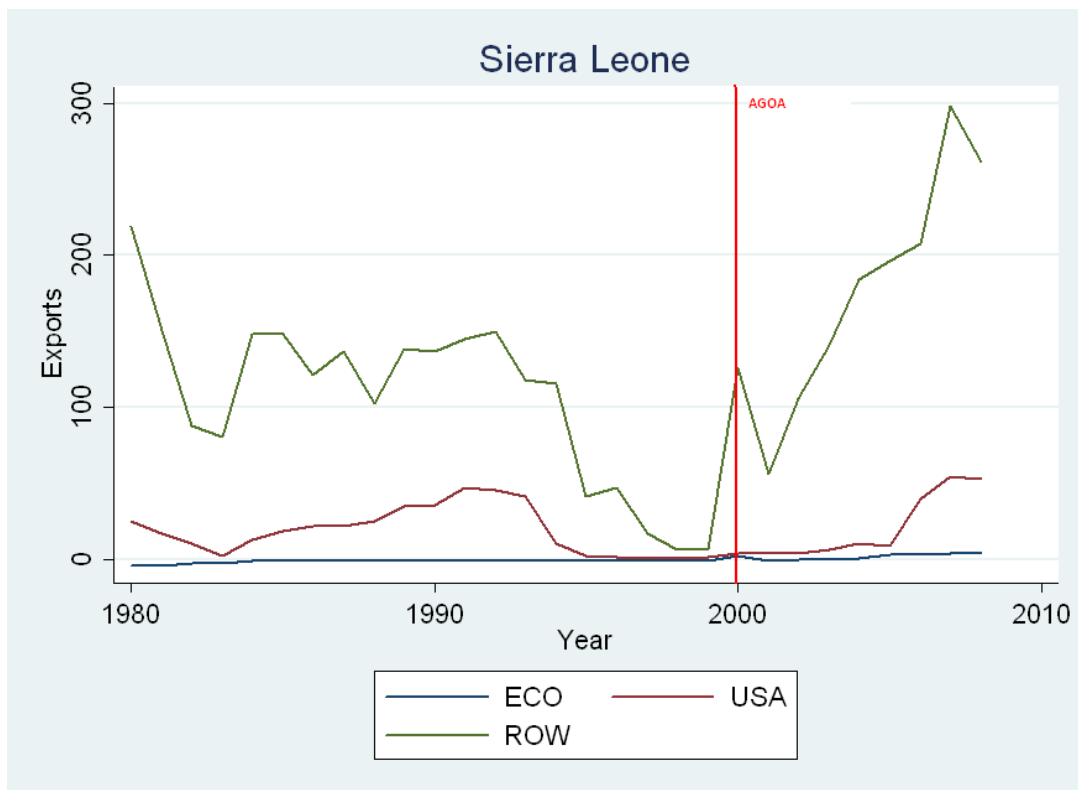
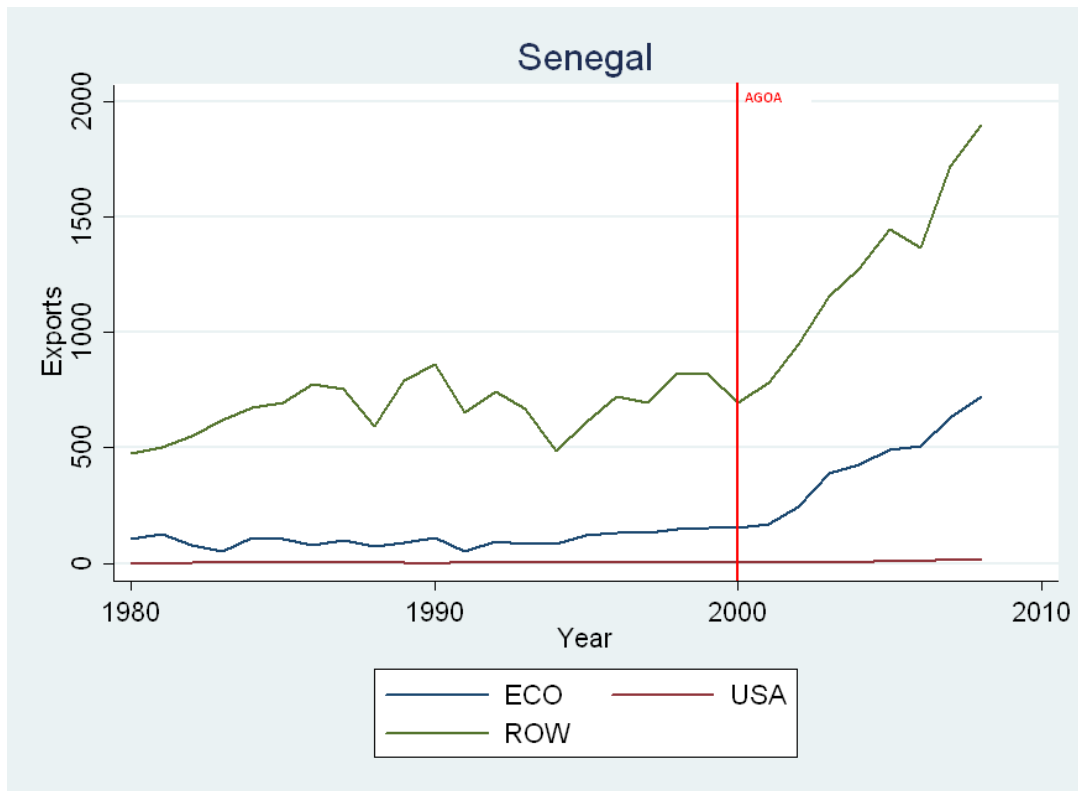
⁵ *La Côte d'Ivoire is the only ECOWAS country that is not an AGOA beneficiary

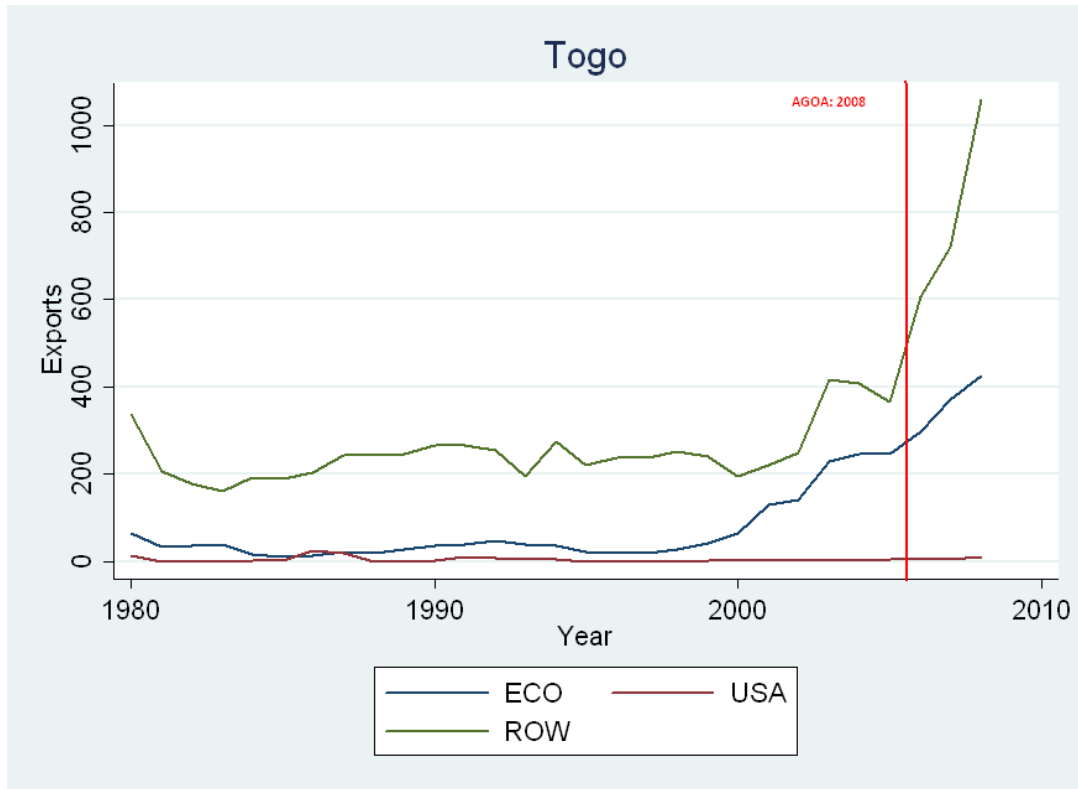












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