


TARIFF ELIMINATION: IMPACTS AND TREATMENTS FOR RESOLVING NIGERIA-EPAs STALEMATE

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ABSTRACT

In this manuscript, attempts were made to assess the impacts on Nigeria of full and instant tariff elimination from agricultural imports. A schedule of annual percentage reductions till full elimination as against an instant total or arbitrary elimination across all imports from the EU, as well as the expected annual provisions via aids for envisaged trade to install infrastructural capacity aimed at forestalling fiscal imbalance, leading to stabilization for Nigeria, advocated. The study evaluates the likely share of Nigeria's imports from the European Union (EU), Economic Community of West African States (ECOWAS), and the rest of the world (ROW) in major agricultural product sections trade. The World Integrated Trade Solutions (WITS) platform was used to illicit a likely Economic Partnership Agreements (EPAs) scenario import data through a tariff eliminated query set up. The major impacts estimated include the resultant consumption impact, revenue impact, welfare impact, trade creation and diversion impacts, welfare impact of trade creation with consumption impact, and Welfare impacts of trade diversion with consumption impacts, in addition to their implications for scheduled tariff eliminations. Summary results were presented at product section levels as percentage of the impacts to contribution of agricultural sector in Nigeria's GDP. Based on the estimated impacts and terms of trade deal, it is recommended that Nigeria should follow a schedule of percentage tariff reduction across product sections relative to the current most favored nations' rather than arbitrary measures as a major policy of liberalizing trade. An annual percent tariff reduction rates over the 25 years, of 0.38%; 1.35%; 0.62%; 0.72%; and 0.2, for product sections 01-05, respectively, is recommended. In addition, it is also recommended that corresponding tariff losses in revenue due to scheduled reductions in tariff should be provided annually via aid for trade, for improvement in infrastructure, production and exportation that will sustain and improve intra, inter and extra regional trade in a growth and globalization pursuit aided by the EU.

Keywords: Export, SPS and TBT, Fishery Export, Coverage Ratio International Agricultural Product Imports; Aid for Trade; EPAs; Impacts; Percentage Tariff Reduction Schedule.

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Introduction

The Economic Partnership Agreements between the EU and African, Caribbean and Pacific countries and regions aim at promoting ACP-EU trade – and ultimately contribute, through trade and investment, to sustainable development and poverty reduction. Trade with

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ACP countries represent more than 5% of EU imports and exports. The EU is a major trading partner for ACP countries. The EU is the main destination for agricultural and transformed goods from ACP partners – but commodities (e.g. oil) still form a large part of ACP-EU trade. The EPAs intend to support trade diversification by shifting ACP countries' reliance on commodities to higher-value products and services. Specifically, EPAs: (1) a process dating back to the signing of the Cotonou Agreement? (2) "tailor-made" to suit specific regional circumstances; (3) WTO-compatible agreements, but go beyond conventional free-trade agreements, focusing on ACP development, taking account of their socio-economic circumstances and including co-operation and assistance to help ACP countries benefit from the agreements; (4) open up EU markets fully and immediately, but allow ACP countries long transition periods to open up partially to EU imports while providing protection for sensitive sectors; (5) provide scope for wide-ranging trade co-operation on areas such as sanitary norms and other standards; (6) create joint institutions that monitor the implementation of the agreements and address trade issues in a cooperative way; (7) last but certainly not least, are also designed to be drivers of change that will help kick-start reform and contribute to good economic governance. This will help ACP partners attract investment and boost their economic growth.

It has been documented as part of EPAs that if local industry is threatened because of import surges from the EU, EPAs make it possible for ACP countries to protect certain established or infant industries (ones which the country seeks to develop). ACP countries have also been able to keep their market closed to imports from the EU of sensitive products ones which are especially susceptible to foreign competition. This includes doing so to protect government revenue. Processed agricultural products in particular stand to gain from EPAs. Local agriculture is protected. The EU has committed to stop export subsidies on all agricultural products exported to EPA destinations, and EPAs also involve enhanced policy cooperation and dialogue on agriculture and food security, with a commitment to transparency on domestic support for the farming sector. The products already traded among the regional members automatically qualify and are regarded as sensitive products and exempted from tariff removal. Therefore, imports of similar products from the EU not welcome to avert trade displacement given superior technology in production. This will not only protect, but help improve and sustain intra-regional trade development in the product sections. The support in aid for trade should be geared towards other product areas where Nigeria or ECOWAS has potential; in other words, where current trade volume is low, but has comparative advantage to produce over other countries. Tariff elimination in this regard should be in products such as high-tech products where Nigeria/ECOWAS has little or no potential in producing. Such products, will maximum welfare and have less interference with the tariff schedule and production of products that Nigeria/ECOWAS is endowed with the potentials.

It is true that the EU has initialed an Economic Partnership Agreement with 16 West African states; the Economic Community of West African States (ECOWAS) and the West African Economic and Monetary Union (WAEMU). More so, the Economic Partnership Agreement (EPA) with West Africa covers goods and development cooperation. The EPA also includes the possibility to hold further negotiations on sustainable development, services, investment and other trade-related issues in the future, such as: help West Africa to integrate better into the global trading system and will support investment and economic growth in the region; increase West African exports to the EU; and stimulate investment and contribute to developing productive capacity, with a positive effect on employment. And that both parties have started to design together a monitoring mechanism for the implementation of the EPA.

But how effective would EPAs be when revenue losses due to trade creation or diversion are not catered for even assuming a scheduled percentage reduction rates of tariff given current most favored nation's rates for various product imports. The productive capacities that would engender more production cum exports to generate employment are yet to be put in place, hence, what are to be invested, monitored in terms of level of stimulation of the Nigerian/ECOWAS economy? The way to support investment could be the upgrading of infra-

structural facilities in viable areas to boost production and foster economic growth in Nigeria/ECOWAS. The diversification of economies and raising of real income and output should take into account the world trend in terms of competitiveness of products of trade given globalization of all markets cum levels of economic development. This can be realized through continued support in provision of fiscal deficits in tariff reduction in revenue and trade implications that should compensate Nigeria/ECOWAS until full tariff elimination in 25 years' time, when hopefully regional products would reach a competitive threshold of the EU high tech agricultural products. The aids for trade as recommended by this study could be specified and spread to be included as provisions of harmonious and development strategy of Nigeria/ECOWAS's integration process support over the scheduled tariff reduction period.

Given that EPAs have better offers than WTO, the sources of funding are to be found more in the European Union than Nigeria or ECOWAS due to the aid for trade offer. The contributions of EU in an EPA is seen majorly as a support towards more productive activities to evolve, leading to economic growth, and more intra, inter cum extra regional exports by Nigeria and or among ECOWAS member nations. Sensitive products standards are likely to change due to and with respect to tapping of untapped but endowed potentials evolving via infrastructural capacity installations, possibly financed through compensatory tariff reduction revenue implications. The European Council conclusions of 17 March 2014 included a commitment of €6.5 billion for activities related to EPADP in West Africa during 2015-2020). However, the provision of this support and its implementation within the framework of the Cotonou Agreement, hopefully would signal the beginning of commitment of the EU towards EPAs, knowing fully well that trade, revenue and welfare losses resulting from this arrangements need be catered for by the general budget of the EU and the support mechanisms of EIB and member states having opted to the trade deal and support through EPADP. More so, the matrix of activities to be followed should be released by the countries of ECOWAS sub region that has signed the agreement as a starting point, hopefully, putting at the fore their sensitive agricultural product developmental activities. Hence, it was important for the West African parties that there be provisions in the EPA specifically regarding agriculture, fisheries and food security. This is given their strategic significance and their importance in terms of contribution to development. Thus, the first paragraph of Article 46 states that 'in the West African region, the agriculture, including livestock farming, and fisheries sectors account for a significant proportion of GDP, play a key role in the fight against food insecurity and provide an income and employment for most of the working population.

There is no doubt that EPA would have trade, revenue and welfare impacts on Nigeria and or ECOWAS member nations. There will be trade displacement impacts on major agricultural products given the level of technology used in EU products. Besides, in as much as its EPAs negative implications exists, it is pertinent to continually address the need for financial provision that will improve production on the part of Nigeria, if really meant to support Nigeria's growth, development and globalization. More so, diversification of products and value addition, skill acquisition cum poverty reduction is seen as would be a function of the promise of EPA support. Hopefully, these issues and trade displacement and tariff reduction implications could be simultaneously handled considering the aid for trade recommendations as contained in this study. However, welfare positive impacts are welcome and may be only possible for products under Trade Classification Sections (TDC 70-97), where Nigeria is not endowed and has zero or little potentials cum comparative advantage to venture into production yet.

An EPA, which gives development goals a central role in trade relations, has being negotiated with West Africa. It was entered into force on 1 January 2008. The EU opened its market almost fully to ACP countries which negotiated EPAs with the EU, but allowed them 15 (and up to 25) years to open up to EU imports while providing protection for the sensitive 20% of imports. Following up to the Council conclusions of 27 May 2008 and 10 November 2008, the Commission and EU Member States, jointly with ACP regional organizations and countries, and in collaboration with other donors, have been developing regional aid for trade packages

that set out support for EPA implementation and regional economic integration. These packages, developed around the regional integration agendas and the specific roadmap of each ACP region, will build on, and complement, the existing and planned support for EPA implementation and regional economic integration provided by the regional and national programs of the 10th European Development Fund (EDF). All six 10th EDF regional programs focus on Trade and regional integration, in anticipation of EPA implementation needs. The last of these documents was signed with the Central African region in September 2009, while the other five regional programs had been signed in November 2008. Regional Organizations and the European Commission are currently working on the implementation of these regional programs with a view to improve the coherence between support at national and regional level, and to enhance the coordination of support with EU Member States and other donors.

Negotiations towards more comprehensive and inclusive EPAs continued in parallel to the process towards signature of the interim agreements. The region prospects show that West Africa (WA) Parties continue to engage on a regular basis. Both parties committed to finalize an inclusive trade and development agreement including trade in goods, development cooperation and certain trade related issues by October 2009. Although this deadline could not be met, negotiations are continuing and progress was made, notably on the West-African market access offer and the EPA Program for Development. However, success will also depend on progress on other outstanding issues (Most-favored Nation clause –MFN–, regional taxes, non-execution clause,) Services and other rules that will be included in a rendezvous clause and negotiated afterwards. Also, in October 2009, the EU dropped its quotas on imports of sugar from two groups of ACP countries: the 41 ACP states which the UN defines as Least Developed Countries (LDCs), and other ACP countries which have negotiated an EPA or interim EPA. A safeguard applies until 2015 to imports from this latter group. However, on 31 December 2009, the EU kept its promise to lift its last ACP restriction on rice exports.

On West African side, EPAs negotiations were led by commissions of ECOWAS and UEMOA. ECOWAS is an organization of 15 countries seeking to promote regional economic integration and establish a functioning customs union. On the other hand, UEMOA is a monetary union of 8 ECOWAS members (Benin, Burkina Faso, Ivory Coast, Mali, Niger, Senegal, Togo and Guinea-Bissau). Its currency, the CFA-Franc, is issued by the UEMOA central bank (BCEAO), which is supported by the French Treasury and is fixed against the euro. Their EPAs negotiations are focused on: strengthening regional integration; prioritizing development and enhancing the region's development program (PAPED); enhancing competitiveness (e.g. capacity-building for West African companies and exporters); integrity of agricultural sector; alternative funding for net transitional and tax offsetting costs inclusion of a regional list for sensitive West African products.

Two West African countries, Côte d'Ivoire and Ghana, initialed bilateral "stepping stone (or "interim") EPAs" with the EU at the end of 2007. The interim EPA with Ivory Coast (Côte d'Ivoire) was signed on 26 November 2008. The interim EPA with Ghana has not been signed. The two agreements have not been ratified. European Union and West African negotiators met in Accra, Ghana, at technical level from 15 to 18 November 2011, to discuss the way ahead in the regional Economic Partnership Agreement (EPA) talks. Progress was made in particular on the text of the agreement and the EPA Development Program (PAPED), work continues on issues including West Africa's market access offer. The Interim EPAs which were signed with Ivory Coast (Côte d'Ivoire) and initialed with Ghana cover the following: (i) duty and quota-free EU market access; (ii) gradual liberalization (removal of duties and quotas) over 15 years for 81% of EU imports to Ivory Coast (Côte d'Ivoire) and 80% to Ghana; (iii) EU exports are mainly industrial goods, vehicles and chemicals which do not compete with domestic production; (iv) safeguard provisions enabling both countries to protect fragile economic sectors by re-introducing quotas or duties; (v) agreement to foster cross-border trade within the region (e.g. more efficient customs procedures); (vi) EU support to help local companies become more competitive and meet EU import standards; However, until the adoption of the full regional EPA with West Africa, 'stepping stone' Economic Partnership Agreements with

Côte d'Ivoire and Ghana entered into provisional application on 3 September 2016 and 15 December 2016 respectively.

Problem Statement

Notably, problems arise because, free trade is often opposed by domestic industries that would have their profits and market share reduced by lower prices for imported goods. More generally, producers often favour domestic subsidies and tariffs on imports in their home countries while objecting to subsidies and tariffs in their export markets. Free trade is meant to eliminate unfair barriers to global commerce and raise the economy in developed and developing nations alike. But free trade can and has produced many negative effects, in particular deplorable working conditions, job loss, economic damage to some countries, and environmental damage globally. Advantages to trade protectionism include the possibility of a better balance of trade and the protection of emerging domestic industries. Disadvantages include a lack of economic efficiency and lack of choice for consumers. Countries also have to worry about retaliation from other countries. Prominent among economic arguments against free trade include: The need to protect domestic industries - The oldest and most frequently used economic argument against free trade is the urge to protect domestic industries, firms, and jobs from "unfair" foreign competition to be precise (protectionism).

Besides, policies that make an economy open to trade and investment with the rest of the world are needed for sustained economic growth. The evidence on this is clear. No country in recent decades has achieved economic success, in terms of substantial increases in living standards for its people, without being open to the rest of the world. In contrast, trade opening (along with opening to foreign direct investment) has been an important element in the economic success of East Asia, where the average import tariff has fallen from 30 percent to 10 percent over the past 20 years. Opening up their economies to the global economy has been essential in enabling many developing countries to develop competitive advantages in the manufacture of certain products. In these countries, defined by the World Bank as the "new globalizers," the number of people in absolute poverty declined by over 120 million (14 percent) between 1993 and 1998. There is considerable evidence that more outward-oriented countries tend consistently to grow faster than ones that are inward-looking. Indeed, one finding is that the benefits of trade liberalization can exceed the costs by more than a factor of 10. Countries that have opened their economies in recent years, including India, Vietnam, and Uganda, have experienced faster growth and more poverty reduction. On average, those developing countries that lowered tariffs sharply in the 1980s grew more quickly in the 1990s than those that did not.

Hence, the liberalization of trade has been a significant plank in the World Bank's attempt to reform the policy environment in developing countries. The reduction of tariffs in this context is prompted mainly by the desire to lower the level and structure of protection to domestic industries and to reduce the corresponding bias against exports. However, trade taxes constitute a major source of revenue for many countries and recommendations to reduce protection necessarily have revenue implications. Since the success of an adjustment program is often seen to depend in a critical way on the correction of fiscal imbalances, it is imperative that the revenue consequences of tariff reform be anticipated. Thus, where tariff reductions are expected to lead to revenue losses, trade policy advice must be integrated with tax policy recommendations to develop alternative revenue sources (Rajaram, 1994).

It has been argued that in the African interim EPAs, regional integration has in fact been undermined; in the case of Central and West Africa, by adoption of bilateral EPAs with individual countries; in the case of SADC by tariff liberalization schedules that do not respect the obligation of SADC countries to maintain a common external tariff and by the different treatment for South Africa; in the case of ESA, by the separate schedules each of the countries has attached to the agreement; and in the case of EAC by adopting tariff elimination schedules inconsistently with the Customs Union Protocol which requires the application of the three-

band common external tariff to all imported products (ATPC, 2008:73). So, these agreements are variable in commitments, especially regarding the schedule of liberalization, and which products are classified as sensitive (and hence excluded from liberalization).

Despite nearly three decades of privileged access to the EU market, ECOWAS trade or economic development seems not to have benefitted from it as intended. In this regard, preferential access has failed to boost local economies and stimulate growth in ECOWAS and ACP countries in general. The ECOWAS countries still export just a few raw materials such as Oil, Coffee, Cocoa or Minerals, which are subject to frequent and severe price fluctuations. Besides, these products exported remain isolated from the rest of the economy since usually hardly do any processing take place and little value is added. Furthermore, the ECOWAS share of the EU market has consistently fallen from 7% to 3% of EU imports, while other developing countries that used to be just as poor have increased their sales to the EU over the same period without such generous access to the EU market. On 1 January 2008, the waiver obtained from the WTO at the Doha Ministerial Conference ended and has been replaced by a new framework compatible with WTO rules. In trade terms, the EPAs will almost certainly take the form of free-trade areas between the EU, ECOWAS and the other six ACP geographical regions, the aim being the progressive abolition of both tariff and non-tariff obstacles to trade. The objectives of economic and trade cooperation as defined in Article 34 of the Cotonou Agreement are to foster “the smooth and gradual integration of the ACP countries in general into the world economy... thereby promoting their sustainable development and contributing to poverty eradication”. If the EPAs are both based on and aimed at the process of integration and deepening the regional integration and cooperation although already embarked upon by the ECOWAS countries. Is it expected to promote intra-ECOWAS trade with a view to stimulating and sustaining their markets shares and traded products leading to integration into the world economy? Is it reasonable to expect that these objectives can be achieved? Will they be compatible with development needs in the ECOWAS countries? Will the EPAs be sufficiently flexible in their design to enable the ECOWAS countries to adapt? Are the countries themselves ready for such wide-ranging negotiations? Who, which product sections will really benefit from the EPAs? Will all traded products among the ECOWAS member markets be regarded as sensitive and such exempted from tariff removal? Which method will be used for selecting the sensitive products? In what way will the new trade framework offer better opportunities than the old system? Will Europe lower its ambitions and show flexibility to reach a deal? What will be the downside of the EPAs for the ECOWAS countries or ACP regions? How will these negative effects be taken into account? What place will be reserved for the development dimension? How will the specific situation of ECOWAS /LDCs within the region be tackled? How will the links with the WTO rules be established? Whether such free trade deals could ultimately deliver on their development promises has been a hotly debated issue for over a decade. However, it is notably argued that the EU system needs to be more flexible to respond to issues of development concern in the trade negotiations, e.g. market access and support measures for ACP states. Efforts are furthermore required to improve the coordination of European policy-making on trade and development. Both the EU’s communitarian and bilateral policies will need to engage in a more complementary fashion to support productive and trading capacities in the ACP and developing countries.

Besides, during the structural adjustment program (SAP) era (1986-1993), policies of most ECOWAS member nations were directed at altering and re-aligning aggregate domestic expenditure, specialization, and production patterns to minimize over dependence on imports; enhance non-oil export base and ensure a steady and balanced economic growth. In spite of all these efforts, the possible trade, tariff revenue, and welfare implications of EPAs on intra- ECOWAS trade in major products traded are not known as to equip ECOWAS policy makers in their negotiation bid towards arriving at EPAs that will accommodate trade and developmental interests of the sub-region.

Knowledge Gap being filled

A number of ex ante studies of the trade effects of EPAs on various ACP groupings or countries have been undertaken by different authors including, but not limited to: [Milner et al. \(2005\)](#) successor to the Lomé Convention, offers African, Caribbean and Pacific (ACP) analyzed the welfare impacts on the EAC; [Greenaway & Milner \(2006\)](#) covered CARICOM and [Milner, Morrissey, & Zgovu \(2005\)](#) even greater trade cost reductions and trade and welfare benefits may be reaped from a broader view of trade facilitation (TF) considered aspects of impact and adjustment costs for the EAC and Mauritius. [Morrissey & Zgovu \(2010\)](#) focused on agriculture and total respective imports for a large sample of ACP countries to compare the welfare effects of a full liberalization with a scenario that excluded products traded intra-regionally. These studies measured the regional trade displacement effects of the liberalization of tariffs on imports from the EU given their areas of study. By far, one of the studies closer to our research intention was the study by [Busse, et al \(2004\)](#). As well, focused on agricultural products only, but silent on overtrade classification and product details. Again, their study is silent at product sections levels hence on the listing of products traded among ECOWAS member nations within the region for which EU are suppliers (sensitive products) requiring sustenance. This can be used as a strong bargaining factor in EPAs between ECOWAS and the EU. Besides, other authors have not, however, explored in many details the associated trade, tariff revenue and welfare effects of EPAs on Nigeria- ECOWAS trade, nor have they explicitly considered the source and volume of imports of traded products as a measure for sensitive products listing and criterion in designing a reduction of adverse Nigeria-ECOWAS trade development effects, as done by G.O Onogwu and C.J. Arene. More so, while suggesting tariff elimination across products for a 15-25 year period, cognizance were not taken of the prevailing tariffs for products of various section tariff lines and a possible schedule to adequately address tariff reduction over the years rather than instant and total tariff elimination or 20% arbitrary removal as sensitive product candidates as opined by some contemporary scholars. As well, the provisions to be made to cushion the fiscal economic changes due to tariff reduction were not addressed, in terms of EPAs offsetting the tariff revenue loss due to trade diversion of imports to EU from the rest of the world, and trade creation due to high tech products gaining grounds in Nigeria, plus average percent of current MFN tariff rate of different product sections cum rates of tariff reduction, given the 25 years period. This study's expectations are that the aid for trade should be put in place running till full tariff elimination to cushion these implications of the scheduled tariff reduction, trade creation and trade diversions. This manuscript aims at filling these gaps.

Objectives

The broad objective of the study is to assess the likely revenue and welfare impacts on Nigeria of eliminating tariff entirely or substantially on agricultural products imports, while the specific objectives include to:

- i. Assess the pattern of agricultural products import trade of Nigeria from Economic Community of West African States (ECOWAS), European Union (EU) and rest of the world (ROW);
- ii. Evaluate the share of Nigeria's imports from ECOWAS, EU and ROW trade in three different agricultural products sections;
- iii. Estimate the likely volume of tariff revenue losses by Nigeria on embarking on total tariff elimination on imports of agricultural products from the EU;
- iv. Analyze the likely trade creation and trade diversion impacts
- v. Analyze the likely welfare impacts on Nigeria of total tariff elimination on imports of agricultural products from the EU;

Literature Review

Heckscher-Ohlin (1933) theorem conceptualized international trade as a phenomenon consisting of each country exporting goods and /or services in order to improve growth through comparative advantage, technology and competitiveness. This framework, otherwise referred to as inter-industry trade, was considered by economists as the most relevant for predicting the pattern of trade existing among nations. As well, one could consider it as the most logical way of giving a tangible or visible relationship between factors of production, specialization, and patterns of trade among countries. In our scenario, it is expected that members of ECOWAS through their similar factor endowments would improve on its intra-industry and or intra-regional trade as against ECOWAS and the EU trade deal, given their less factor endowments, but for EPAs with the EU. More so, despite the EPAs negotiations, ECOWAS have been implementing trade liberalization policy through a number of actions taken to improve trade disorders which include, but not limited to free international trade, common external tariff wall, consolidation or freezing of custom duties, and non-tariff barriers to intra-trade. Others include gradual phasing out of duties on industrial products from community projects over a period of 6-10 years at 10-16.6% annual rates of reduction depending on the classification of member states based on the level of development, location and importance of customs revenue (Choi & Hartigan, 2008). If the most relevant trade pattern (assuming EPA) to be in line with HO theorem which holds that the direction of international trade flows between two Countries (regions) is determined by the endowments of productive factors in the two countries (regions) and the factor content of the goods involved (inter-industry, HO framework) as upheld by (Arene, 2002; Brander, 1981; Falvey, 1981 without requiring increasing returns to scale or imperfectly competitive markets, and with its pattern determined along traditional (relative factor abundance; and Richard, Courant, and Douglas, 1994), among others, how could the Nigeria and all ECOWAS improve on her and regional trade liberalization policy amid the full implementation of EPA? HOW could the aid for trade offer by the EPA deal ensure improved intra-industry cum intra-regional trade via infrastructural development, increased production by Nigeria to take advantage of access to everything but arms offer by the EU? When and how the aid for trade offer would be drawn. How will it be monitored? When will the liberalization of trade or tariff elimination/reduction commence and end? What gains will accrue for Nigeria and other ECOWAS members for embarking on EPA. Which Nigeria's agricultural products will benefit?

So, since 1st January 2010, African, Caribbean and Pacific (ACP) countries have been able to export all goods to the EU duty-free and quota-free, especially those that meet Rules of Origin and product state of health requirements for all Least Developed Countries. But EPAs go further. EPAs entail commitments by both parties. Both the EU and ACP countries must open their markets to each other. But the EU opens its market fully and upfront, whereas ACP countries can liberalize more gradually – over many years. And ACP countries can exclude products they consider sensitive, or protect infant industries. The EU backs ACPs' regional integration and EPAs with substantial development aid. The European Commission alone provides ACP countries with over €1 billion annually in Aid for Trade, on top of funding from EU Member States. Total Aid for Trade from the EU and its Member States to ACP states comes to more than €2 billion each year. The Aid for Trade (AfT) initiative launched under the auspices of the WTO in December 2005, has successfully raised awareness on the importance of providing support to Developing Countries with the view of enabling them to benefit from the multilateral trading system. Worldwide AfT commitments rose from USD 24.6 billion in 2002 to USD 48.2 billion in 2010. Overall there has been an increase in global Official Development Assistance (ODA) flows over the last decade, of which Aid for Trade constitutes a stable share of approximately 25% of total ODA commitments.

The stepping stone EPA with Côte d'Ivoire was signed on 26 November 2008, approved by the European Parliament on 25 March 2009, and ratified by the Ivorian National Assembly on 12 August 2016. It entered into provisional application on 3 September 2016. The third

meeting of the joint EPA committee took place in Brussels on 11 April 2019. It discussed the state of play of implementation and related issues (effective implementation of the liberalization schedule, monitoring and evaluation...) Side meetings took also place with the private sector and the civil society. The stepping stone EPA with Ghana was signed on 28 July 2016, ratified on 3 August 2016 by the Ghanaian Parliament and approved by the European Parliament on 1 December 2016. It entered into provisional application on 15 December 2016. The first Meeting of the joint EPA committee with Ghana took place on 24 January 2018 in Accra. It discussed about the rules of procedure of the EPA committee and the revision of the Ghanaian market access schedule. The last technical meeting with Ghana took place in Accra in February 2019. It focused mainly on the Ghanaian market access offer. Negotiations of the regional EPA were closed by Chief Negotiator on 6 February 2014 in Brussels. The text was initialled on 30 June 2014. All EU Member States and 13 West African Countries signed the EPA in December 2014, except Nigeria, Mauritania and The Gambia. Gambia signed on 9 August 2018 and Mauritania on 21 September 2018. Nigeria remains the only country of West Africa that has still not signed the EPA. Mauritania and ECOWAS signed an Association Agreement on 9 August 2017 to define the country's participation in ECOWAS' trade policy including the EPA. Stepping stone EPAs with Côte d'Ivoire and Ghana: the agreements are provisionally applied. The 2nd EPA committee with Ghana is scheduled to take place in September 2019. The next technical meeting with Côte d'Ivoire will take place in Abidjan in October 2019 and the 4th EPA committee with Côte d'Ivoire is scheduled for the first quarter of 2020.

Hitherto, the welfare gains from free international trade are several. First, it enjoys the static gains from trade, which increases economic well-being of a region by holding resources and technology constant. This leads to consumption and production gains. Even though production may remain fixed, the opportunity to trade at world prices leads the consumption point to a higher consumption indifference curve. These gains come about because productive resources are channelled into the region's comparative advantage industries; and because of this redistribution of resources, overall output (GDP) rises, leading to the static production well-being from trade. Second, dynamic welfare gains from trade bring about increases in the economic well-being that accrue to a region because trade induces increases in the productivity of existing resources. This is because the economy of a region grows over time either due to increases in its stock of productive factors or because a technological innovation helps a region's existing stock of factors to become more efficient, culminating to a shift in a region's production possibility frontiers. The relationship between international trade and economic growth are in terms of non-restrictions of trade in both raw materials, intermediate products and capital goods, such that there would be increases in stock of these categories of goods in either of the regions at any point in time. In this way, the international trade will enhance the international diffusion of all products to ensure faster economic growth through greater competition that will encourage more efficient production, as the discrepancy between price and marginal cost is closed. In addition, as competitions destroy industry rents, fewer resources are devoted to wasteful rent-seeking behaviours. Moreover, given economy of scale, dynamic gains from free international trade accrue because trade expands the size of the market. As the market expands, industries are able to move further down their average-cost curves, bringing down prices in the process. Again, expanding the size of the market may encourage industries to step up investments in research and development, as a way of spreading the costs of these investments over larger levels of output. These investments could, in turn, raise the overall level of technology of the region. Besides dynamic gains from international trade would accrue to the region by enlarging the pool of savings that is available to fund investment purchases, through the raising of the real income of the region above the level that would exist in autarky (Husted and Melvin, 1993). However, this study is concerned with static gains only.

Several important trade-related meetings have taken place in the West African region. In February, 2013, information coming from the ECOWAS Ministerial Monitoring Committee (MMC) hinted towards a possible upwards revision of the region's EPA market access offer.

The level of market opening on the West African side has been one of the major sticking points in the EPA negotiations with the European Union, with ECOWAS – up until then – refusing to consider a percentage of market access opening above 70%. According to sources close to the negotiations, a new draft market access offer was presented by the ECOWAS and UEMOA commissions to the MMC in the Cape Verdean Capital, Praia back in late March, 2013. The level of market access opening in the new draft offer stood at 74.19%, inching closer to the EU's position, asking for 80% market access opening. However, the Praia MMC meeting did not, at the time, come to an agreement on this new draft offer. Indeed, ECOWAS Member States requested more time to study the implications of the revised market access offer on their economies.

When European Union and West African negotiators met in Brussels at technical and Senior Official level from 17 to 20 April 2012, to discuss the way ahead in the regional Economic Partnership Agreement (EPA) talks, progress was made in particular on the text of the agreement. Work continued on issues including West Africa's market access offer and the EPA Development Program (PAPED). The regional agreement negotiated covers goods and development-cooperation and include rendezvous clauses for services and rules chapters. Next meeting was expected after West Africa carry out their internal consultations on the remaining outstanding issues (ECDPM, 2013). Shortly thereafter, an expert meeting was convened in Banjul, Gambia, on May 6th, 2013 in order for Member States to report back on the revised market access offer and voice their concerns. A few hundred tariff lines were reportedly shifted in the liberalization offer's schedule, but leaving the general level of market opening roughly untouched. It was hoped that the new Market Access offer should be submitted to the ECOWAS Council of Ministers in due course. It can be expected that a negotiating session with the EU will be convened shortly after should the ministers adopt the expert's work. Expert and civil servants in West Africa have also been working on another major point of contention in the negotiations, namely the development finance component of the agreement. It seems that the region is putting significant work into actualizing the "Programme de l'APE pour le Développement (PAPED)", last updated in 2010. The PAPED is the main program for the financing of EPA related needs and challenges. ECOWAS has always held the position that the signing of the EPA is tied to an "appropriate" financing of the PAPED from the EU, given the fiscal, competitive, and other trade related needs that the region will face if an EPA is signed. The fund meant to operationalize the plan "Fond Régional pour l'APE" (FRAPE), is also progressing. On a related topic, the region's Finance Ministers have put the final seal of approval on the region's Common External Tariff (CET) on March 20th, 2013, during the aforementioned Praia meeting. The regional CET is the fruit of ten years of negotiations amongst ECOWAS member states. Amongst others, notable features of the CET include the so-called "fifth band" and the "Community Integration Levy". The fifth band regroups "strategic" products deemed essential for economic development, at a rate of 35%. The fifth band was incorporated at the explicit request of Nigeria and various other actors, who feared that without it the region's most promising sectors would not be granted appropriate protection from outside competition. The band now groups together 130 different tariff lines, out of a total of 5899. But, the method of selection of the 130 different tariff lines to be exempted according to Nigeria's request is still verge, given that they may not be research based. Information on market situation vis a vis the volume of pre-EPA and EPA induced import sources for sensitive product identification is more useful. More so, our contemporary scholars have advocated for reduction of 20% in lieu of sensitive products across board which still does not take into account the sources/volume and product section imports which are vital for progressive welfare and sustained in-tra-ECOWAS trade improvement considerations.

However, the region was then working its trade defense instruments, whose implementation and design was meant to allay some fears amongst ECOWAS member states and productive sectors of increased competition from extra-regional imports. The first drafts have been presented in Dakar, on the 19th of April, during the 13th meeting of the joint CET management committee and further discussed during the 52nd session of the ECOWAS technical

committee on trade, customs and free movement. The main points of discussions seem to revolve around the institutional setup of the instruments – clear task divisions and process being key to avoid abuse of protective measures.

Besides, more joint negotiating sessions were held between the EC and ECOWAS since April 2012, the negotiation broke down on, inter alia, Market Access issues. Since then, the region has been held up mostly on domestic regional trade policy issues, finalizing its Common External Tariff (CET) and trade defense instruments. It has also, at the same time, worked at the technical level on a revised Market Access offer, as we reported back in January. Whether the “revised” market access offer will stand at 70% or, as previously reported, at 75% as per the outcome of the meeting held in Banjul on May 6th, will likely be a political decision. At the ACP-EU JPA, Mr. Thompson from DG Trade indicated he was “awaiting a new Market Access Offer shortly”, and hoped the negotiations would move swiftly thereafter. The European Commission has re-iterated that, in their view, 80% over 25 years was a “very generous” interpretation of the WTO’s “substantially all trade” requirement, and implied that lowering the bar from this threshold could invite a WTO challenge (de Roquefeuil, Q., 2013).

In 2015, ECDPM’s Isabelle Ramdoo writes that ACP countries were required for the first time to negotiate reciprocal, though asymmetric trade agreements, with a major – and developed – trading partner, the EU, giving birth to the Economic Partnership Agreements (EPAs). What have ACP countries gained more than what they already had and how fit are these EPAs in an evolving trading regime? If successfully concluded, the Transatlantic Trade and Investment Partnership (TTIP) between the European Union (EU) and the U.S (and other mega-regionals) will set new benchmarks for the global trading system. The timing and the outcomes are, for the moment unknown, but there is no time for complacency. It is clear that the ‘do nothing’ or ‘wait and see’ responses on the part of the ACP are not a strategy. Similarly, the ‘reject’ strategy is not helpful either, because mega-trade deals such as TTIP will happen anyway, and there will be very little third countries can do about it. Finally, retreating into protectionism may accentuate the marginalization of the ACP countries because isolation weakens further the capacity of states to transform themselves. It is therefore timely for ACP policymakers to forge strategic responses, by taking bold steps within their own intra-regional trade agenda, as a way to mitigate the ‘tsunami effect’ of mega trade deals. It may also be appropriate to build strategic alliances with other non-participating countries, in order to take the lead at the WTO to address some of the issues that might affect the global trading system once those mega-trade deals are agreed.

San (2016), opined, the Economic Partnership Agreements (EPAs) concluded by the European Union (EU) with three African regions, i.e. EAC, ECOWAS, and SADC, should be signed. The conclusion of these negotiations in 2014 can be seen as an achievement in itself, but the implementation of the EPAs is facing serious challenges. Instruments have to be identified to ensure that EPAs fulfil their various objectives, namely supporting the regional integration processes, or increasing ACP exports and contributing to sustainable investment and employment opportunities through making use of the duty-free quota-free access to the European market. Aid for Trade is foreseen to support EPA implementation and is necessary to support limited implementation capacities in all regions. Monitoring has to be well designed and can be instrumental in ensuring effective implementation. Some lessons can be drawn from the implementation experience in the Caribbean region so far, where the CARIFORUM-EU EPA has been in place since 2008.

In 2017, Woolfery and Bilal in their discussion made it clear that the Economic Partnership Agreements (EPAs) concluded by the European Union (EU) with regional blocs of African countries (and certain individual African countries) are supposed to do more than just boost trade between the EU and African countries. They are meant to promote sustainable development and poverty reduction, including through supporting regional integration processes in Africa, promoting the gradual integration of African economies into global markets

and enhancing African countries' ability to leverage trade opportunities for economic growth. Given the internationalization of production processes, with 70% of global trade involving intermediate goods or services, increased participation in regional and global value chains has become a crucial part of African countries' economic transformation and sustainable development strategies. It is therefore relevant to consider how EPAs might affect the ability of African producers and service providers to integrate into such value chains. The 3rd meeting of the Joint CARIFORUM-EU Consultative Committee was held on 6 and 7 November 2017 in Trinidad. The aim of the meeting was to dialogue and agree on a plan of action and thematic priorities to monitor the implementation of the Economic Partnership Agreement (EPA). The committee members aim to be genuine partners for development and to be integrated into the implementation strategies and frameworks as well as to monitor the impact of the EPA on the region, its citizens, private sector as well as the most vulnerable groups of society. The meeting also put forward some priority issues and challenges to inform the work of the Trade & Development Committee and the Joint Council. The Committee will also be exploring the goal of a broader and deeper partnerships between state and non-state actors and a proactive role in the monitoring of EPA implementation.

In April 2019, letter from Nigeria shows that, "the relations between our two regions date back to antiquity. The 1957 Treaty of Rome had within it an association clause with certain African colonial dependencies and overseas territories. From then to this day, there has been a succession of 'cooperation agreements' covering trade, development and political dialogue, in addition to cultural and technical cooperation. The ten-year Cotonou agreement between the African, Caribbean and Pacific (ACP) Group of States and Europe is currently up for renegotiation. Europe has a separate strategic partnership with the African Union covering development and security. Europe remains the most generous provider of official development assistance to Africa, ahead of all other donor countries. Without European generosity, many African countries would hardly be in a position to balance their budgets. But it would be naive to imagine that EU aid is a one-way street with few benefits accruing to the giver. EU development assistance enhances Europe's influence throughout Africa, giving it unprecedented "soft power" on our continent. It is particularly instructive to note that capital outflows from Africa to Europe and the advanced industrial economies exceed US \$100 billion annually. This is far more than all inward capital flows. Europe has been Africa's most important trading partner. Until recently, the EU accounted for over 60 per cent of Africa's trade, although the figure has fallen since 2011, thanks to the emergence of China as a new global player. After almost a decade of negotiations, the majority of ACP regions are either implementing or at the verge of concluding economic partnership agreements (EPA) with the EU. As a new leadership is soon to take over in Brussels, it is our hope that they will commit to building on the foundations laid by their predecessors. Africa should have a priority place in Europe's international policy. We share a common neighborhood and are bound together by the forces of geography, history and world economics. Europe and Nigeria need to forge a strategic partnership if Europe is to have meaningful impact in Africa's development. My generation of leaders' aims to build a rainbow continent; a prosperous and democratic Africa that is open to the world and ready to do business with Europe. But it must be on the basis of interdependence, mutual interests and shared obligations, shorn of post-colonial attitudes. Africa still has a long way to go. But on that journey of a thousand miles, we hope we can count on Europe to walk with us as a friend and partner of destiny".

Analytical Framework

Related analyses are found in [Laird and Yeats \(1986\)](#), [Panagariya \(1998\)](#), [Greenaway and Milner \(2000\)](#), and [Milner, Morrissey and McKay \(2005\)](#), among others. [McKay, et al \(2005\)](#) presented a relatively simple method, requiring moderate data to measure the likely short-run welfare consequences, static effects on trade flows, and tariff revenue, of EPAs for ACP countries. The partial equilibrium method was illustrated for the case of East African Cooperation (Kenya, Tanzania, and Uganda). The results suggested that the welfare effects (excluding rev-

enue effects) from a reciprocal agreement with the EU will be small whether positive or negative, but ACP countries will experience short-run adjustment costs especially in the form of revenue losses. Furthermore, the study found that Kenya would significantly lose its Tanzanian and Ugandan markets. And concluded that trade diversion with the EAC would negate not only the integration efforts but would at the same time accelerate de-industrialization. [Busse et al \(2004\)](#) relied on the model of [Verdoorn \(1960\)](#) to estimate the impact of EPAs on trade flows and budget revenue in West African countries. In particular, it focused on the trade and budget effects that might occur if West African countries open up their domestic markets for EU imports. The results clearly indicated that a few product categories were sensitive in almost all West African countries with respect to changes in trade flows. Their study further found that ECOWAS countries would experience an absolute decline of US\$2.2 million. This includes, for instance, US\$487.8 million in Nigeria and loss of tariff revenue of up to 20% for Gambia and 80% in Cape Verde. They opined that lessons from other regional integration projects including the European case which illustrated the need for a gradual and country-specific approach in trade liberalisation and a proper sequencing of complementary, compensatory and institutional measures to counter possible negative repercussions of integration need to be noted. [Tekere and Ndlela \(2003\)](#) examined the effects of SADC-EU EPA on SADC countries using partial equilibrium analysis and showed that EPA would lead to significant loss of government tax revenue given the significant imports from EU to these countries. The study showed that Tanzania and Namibia may incur loss of up to 37% and 24% decline in tariff revenue, respectively. However, the study also showed that trade creation would outweigh trade diversion effects. Trade diversion in Tanzania is estimated at US\$79 million. All studies agree that tariff revenue losses will be substantial for both countries. [Karingi et al. \(2005\)](#) report welfare gains to Malawi (US\$2.1 million) and Tanzania (US\$8.2 million). In contrast Zvogu and Kweka found significant trade diversion effects outweighing trade creation and in the process fashioning tariff revenue and net welfare losses to both Malawi and Tanzania. It seems plausible that for small economies with insignificant intra-regional trade and heavily dependent on the rest of the world more than they depend on the EU for imports, there are relatively small opportunities for new trade to be created but larger opportunities for switching the sources (i.e. trade diversion) of imports from non-EU to EU producers when relative prices change, ceteris paribus.

On the issue of welfare gains analysis, [Morrissey and Zgovu \(2005\)](#) estimated the impact on a sample of 36 ACP countries of eliminating tariffs on agricultural imports from the EU under EPAs, considering trade, welfare and revenue effects. In their results, even assuming 'immediate' complete elimination of all tariffs on agriculture imports from the EU, and when excluding up to 20% of imports as sensitive products, over half of ACP countries are likely to experience welfare gains. They also opined that overall welfare effect relative to GDP tends to be very small, whether positive or negative. While potential tariff revenue losses are not negligible, given that countries have at least ten years in which to implement the tariff reductions, there is scope for tax substitution. They further stated that an important issue is identifying the sensitive products (SPs) to be excluded, and that excluding SPs reduce the welfare gain (or increased the welfare loss) compared to estimates where no products are excluded. We evaluated the trade, revenue and welfare impacts of instant and total tariff elimination, while suggesting a product section specific schedule of percentage tariff reduction on the basis of prevailing most favoured nation's tariffs over a period of 25 years. We also computed the tariff reduction implications and trade creation cum diversion implications of tariff reduction and recommended as complementary support for revenue losses and scheduled tariff reduction that would lead to fiscal adjustment costs, for EPA to take the lead in trade and economic development in Nigeria and indeed West Africa.

Data and Research Methods

The Study Area

The study area, Federal Republic of Nigeria, commonly referred to as Nigeria is a federal republic in West Africa, bordering Benin in the west, Chad and Cameroon in the east, and

Niger in the north. Its coast in the south lies on the Gulf of Guinea in the Atlantic Ocean. It comprises 36 states and the Federal Capital Territory, where the capital, Abuja is located. Nigeria is officially a democratic secular country. It has a total area of 923,768 km² (356,669 sq. mi), making it the world's 32nd-largest country (after Tanzania. Nigeria is often referred to as the "Giant of Africa", owing to its large population and economy. With 186 million inhabitants, Nigeria is the most populous country in Africa and the seventh most populous country in the world. Nigeria has the third-largest youth population in the world, after India and China, with more than 90 million of its population under age 18. The country is viewed as a multinational state as it is inhabited by over 500 ethnic groups, of which the three largest are the Hausa, Igbo and Yoruba; these ethnic groups speak over 500 different languages and are identified with a wide variety of cultures. The official language is English. Nigeria is divided roughly in half between Christians, who live mostly in the southern part of the country, and Muslims, who live mostly in the north. A minority of the population practice religions indigenous to Nigeria, such as those native to the Igbo and Yoruba ethnicities. As at 2018, Nigeria is a middle-income, mixed economy and emerging market, with expanding manufacturing, financial, service, communications, technology and entertainment sectors. It is ranked as the 30th-largest economy in the world in terms of nominal GDP, and the 23rd-largest in terms of purchasing power parity. Nigeria is worth more than \$500 billion and \$1 trillion in terms of nominal GDP and purchasing power parity respectively. It overtook South Africa to become Africa's largest economy in 2014. The 2013 debt-to-GDP ratio was 11 percent. Nigeria is considered to be an emerging market by the World Bank; it has been identified as a regional power on the African continent, a middle power in international affairs, and has also been identified as an emerging global power. However, it currently has a "low" Human Development Index, ranking 152nd in the world. It is also listed among the "Next Eleven" economies set to become among the biggest in the world. Nigeria is a founding member of the African Union and a member of many other international organizations, including the United Nations, the Commonwealth of Nations and OPEC. The major sectors of Nigeria economy include; Trade, Agriculture, Infrastructure, Manufacturing, Oil and gas.

Data Sources

Data type is secondary and the unit of measurement for all the data are in units of 1000 of US \$. United Nations Statistical Division is one of the major sources of data of agricultural sector contributions to Nigeria GDP. The World Integrated Trade Solution (WITS) platform assisted in eliciting response to EPAs scenario query by generating the induced agricultural imports given tariff eliminated scenario. The data were separated according to three product sections of the agricultural trade classification section (TDC 01). The extraction of import (M) values by Nigeria were completed to obtain sources imports from the EU (M_EU); imports from the ECOWAS (M_ECOWAS); and imports from the rest of the world (M_ROW). The Most Favored Nation (MFN) Tariff data of HS Sections and import demand elasticity for the corresponding product sections and tariff lines were sourced from Trade Analysis and Information System (TRAINS), the United Nations Conference on Trade and Development (UNCTAD) cum UNCOMTRADE data. Data were also sourced from National Bureau of Statistics among others.

Data Analysis

Analyses aimed at evaluating the likely trade, revenue and welfare impacts on Nigeria were set out in equations 2 to 8. In addition a scheduled tariff revenue reduction ratio was obtained by a simple average of the available tariff lines current most favoured nations' tariff to the number years required for full tariff elimination by Nigeria and sub-regional members. Compensating for the percent losses in revenue, trade creations and diversions annually would set a center stage for growth in trade and development for Nigeria and ECOWAS members alike. The obvious implications in tariff revenue, trade creation and trade diversion constitutes a setback to growth and development due to revenue and trade reduction. The required compensations in aid for trade that may offset the tariff reductions within 25 years liberalization

period is outlined in table 4. More so, the current level and projection of infrastructural development and agro industrial growth and development that would counter balance the likely losses in revenue, trade and welfare when trade deal goes into operation seems being put in place via aid for trade. Besides, there is no doubt the EU has better technology for production of substitute products which will be preferred by consumers, leading to displacement of Nigerian products and trade creation in her sub-regional market (ECOWAS). Though, hopefully the aid for trade if harnessed would likely provide alternative revenue for increased production and exportation of agriproducts at the heat of fiscal quagmire that will rise at wake of the EPA deal. Hanging hopefully on a schedule of a systematic agro industrial growth and development to be provided via aid for trade that will cushion supposed annual percentage tariff reduction treatments, the expectations are that a take off aid for trade, provided by donors for agro industrial outfits should be monitored by Nigeria and concerned states to ensure stability before full elimination period. Our reference annual aid for trade components were computed thus:

$$S_{Aft}^P = \frac{AV_{MFN}}{N_{YAL}} / 100. (\Delta R_{TD} + \Delta C^{TC} + \Delta D^{TD}) \tag{1}$$

Where:

- S_{Aft}^P : = Scheduled Annual Aid for Trade Provision
- AV_{MFN} = Average MFN tariff on Product j for the present period n
- N_{YAL} = Number of years for full Liberalization to come into effect
- $\Delta R_D = -t.M_O^E$ = The tariff revenue loss by Nigeria on imports from the EU

$$\Delta C^T = 0.5 \cdot \left(\frac{t}{1+t} \right) \cdot \eta_m^\delta \cdot M_O^{ECOWAS} = \text{Estimated trade creation effect}$$

$$\Delta D^D = 0.5 \cdot \left(\frac{t}{1+t} \right) \cdot \eta_m^\delta \cdot M_O^{ROW} = \text{Estimated trade diversion effect}$$

Other data Analytical approaches adopted the methodology of McKay, A., C. Milner, and O. Morrissey (2005) in addition to Morrissey and Zgou, (2008, pp 8-11) as modified to estimate trade, revenue and welfare impacts of EPAs on Nigeria’s economy on elimination of tariff. The study estimated the consumption impact alone (ΔC^M) relative to the existing Nigerian import levels of agricultural products where the EU is a supplier; by the relationship:

$$\Delta M_C = \left(\frac{t}{1+t} \right) \cdot \eta_m^\alpha \cdot M_O^{EU} \tag{2}$$

Where t , is the most favoured nations’ (MFN) tariff rate imposed by Nigeria on imports from the EU in the present period n?

η_M^d Is price elasticity of demand for imports, and M_O^E is Nigeria’s import from EU.

(2) Since EPAs entail elimination of tariffs on imports from the EU, the tariff revenue loss by Nigeria on imports from the EU were estimated with equation 3, thus:

$$\Delta R_{TD} = -t.M_O^{EU} \tag{3}$$

(3) Trade creation is estimated with the relationship in equation 4 as shown below:-

$$\Delta C^{TC} = 0.5 \cdot \left(\frac{t}{1+t} \right) \cdot \eta_m^\delta \cdot M_O^{ECOWAS} \tag{4}$$

M_O^{ECOWAS} = Imports from ECOWAS now displaced by available high-tech substitutes from EU.

(5) Trade diversion is estimated thus:

$$\Delta D^{TD} = 0.5 \cdot \left(\frac{t}{1+t} \right) \cdot \eta_m^\delta \cdot M_O^{ROW} \quad (5)$$

Where; M_O^{ROW} = Imports from the rest of the world (ROW), now diverted to EU due to tariff elimination.

(6) The welfare impacts were estimated using the relationship as shown below:

$$\Delta W^C = (0.5 \cdot t \cdot \Delta M_C) \quad (6)$$

(7) The welfare impacts of trade creation with consumption impacts were estimated as the combination of the maximum value of trade created by the displacement of Nigeria exports to EU and consumption impacts of trade creation defined in equation (7) as shown below:

$$\Delta W_{TC}^M = (M_O^{ECOWAS}) \cdot t + \left(0.5 \cdot \left(\frac{t}{1+t} \right) \eta_M^\delta \cdot M_O^{ECOWAS} \right) \quad (7)$$

(8) The welfare impacts of trade diversion with consumption impacts (TD & CI) was estimated as the combination of consumption impacts and tariff revenue effects $\Delta R_{TD}^C = -M_0^{ROW}$, thus:

$$\Delta W_{TD}^M = (0.5 \cdot (0.5 \cdot t \cdot TD_M^C) - (t \cdot M_O^{EU})) \quad (8)$$

Finding and Discussion

The values of revenue and welfare impacts were estimated for Nigeria at product section levels for agricultural products namely; animal products (HS Sections 01-05), vegetable products (HS Sections 06-15), and foodstuffs (HS Sections 16-24). The estimated values of all impacts are hereunder presented in product sections as percent of the values to contribution of agriculture to GDP since this is recognized as better proxy than total sector initial imports. In the year under review 2016, Nigeria's GDP stood at \$404,649,125,399, while the contribution of agriculture sector to GDP stood at \$84,907,969,911, yielding a 20.98% contribution to the national GDP.

From the analysis of animal products section (HS 01-05), trade created due to increased imports from the EU as a result of tariff removal stood that yields 0.006% of the agriculture contribution to GDP. This is less than losses in revenue that would have accrued to Nigeria from the ROW for which trade has been diverted which yields 0.302% of agriculture contribution to GDP. In the same vein, the analysis of vegetable products section (HS 06-15) shows that trade created due to increased imports from the EU is 0.022% which is less than losses in revenue 0.179% of agriculture contribution to GDP that would have accrued to Nigeria from the ROW for which trade has been diverted. These implies that the policy of tariff elimination/ trade liberalization deal with the EU is not beneficial for animal and vegetable products imports in the short run and the policy should not ordinarily be implemented by Nigeria Government. These conditions are in line with (John Black, 2002) who opined that a customs union is beneficial to its members in the short run if their gains from trade creation exceed their losses from trade diversion.

Put differently, revenue losses due to diversion of imports are 0.302%, 0.179% for animal and vegetable products, which are greater than welfare gains of trade creation with consumption impacts 0.003% and 0.012%, respectively of agriculture contribution to GDP. This conditions are not beneficial to Nigeria in the short run. However, revenue losses due to trade diversion of foodstuffs imports from ROW to EU is 0.005%, which is less than 0.026% of agriculture contribution to GDP, meaning that implementation of the policy is favorable to Nigeria in the short run. This is in line with the economic theory that, a customs union is beneficial to its members in the short run if their losses from the diversion are less than their gains from trade creations (John Black, 2002). A possible means of stemming the tides and launching Nigeria into growth and globalization irrespective of trade liberalization would be

to compensate for losses due to trade creation, diversion and revenue whose impacts weigh the nations down when uncompensated for in aids for trade.

Nigeria's Agricultural Products Imports at Zero Tariff

Table 1. presents the Nigeria's agricultural products imports at zero tariff as percentage contribution of agriculture to national GDP. The actual import values for various product sections from the three trade sources (the EU, ECOWAS and rest of the world, ROW) are presented in appendix one to enable verification of contents of table below:

Table 1: Nigeria's Agric. Product Section Imports at Zero Tariff as % Contribution of Agriculture to National GDP ('000 of US \$)

HS Sections	Imports from EU	Imports from ECOWAS	Imports from Rest of the World	Total Imports
Animal and Animal Products (HS Sections 01-05)	30.67%	1.18%	68.15%	100%
Vegetable products (HS Sections 06-15)	13.83%	2.64%	83.53%	100%
Foodstuffs (HS Sections 16-24)	27.66%	1.70%	70.64%	100%

Source: Estimated by Authors from TRAINS Data: Nigeria's Agric. Products Imports at Zero Tariff Scenario, 2016.

Tariff Elimination Impacts on Agricultural Product Sections

The consumption, trade creation, trade diversion, and revenue as well total percent welfare impacts of agriculture product sections are presented in table 2. All the estimates were presented as percent of the contribution of agriculture to the national GDP for the year under review, 2016. The total welfare estimates in all the three agricultural product sections were all positive, which is an indication of overwhelming positive trade diversion and consumption impacts against trade creation and consumption impacts. Other details of the estimates are as presented in the table below.

Table 2: Impacts of the Product Sections as % Contribution of Agriculture to National GDP

HS Sections	Consumption Impact	Trade Creation	Trade Diversion	Revenue Impact	Welfare Impact	Welfare Impact of TC&CE	Welfare Impact of TD&CE	Total % Welfare Impacts
Animal and Animal Products (HS Sections 01-05)	0.002%	0.006%	0.302%	-0.002%	0.0125%	0.003%	0.071%	0.087%
Vegetable products (HS Sections 06-15)	0.002%	0.022%	0.179%	-0.001%	0.009%	0.012%	0.032%	0.053%
Foodstuffs (HS Sections 16-24)	0.014%	0.05%	0.005%	-0.008%	0.143%	0.026%	0.11%	0.279%
Total	0.02%	0.078%	0.486%	0.01%	0.165%	0.041%	0.213%	0.419%

Source: Computed by Authors using TRAINS Data: Nigeria's Agric. Products Imports at Zero Tariff Scenario, 2016

Schedule of Annual Aid for Trade and Tariff Reductions across Product Sections

Table 3 shows the Harmonized System (HS) product section codes and description, average current tariff charges on the product sections tariff lines, recommended annual rate of tariff reduction, total imports by Nigeria, and the annual revenue loss due to recommended tariff reduction rates. A Systematic tariff reduction across product sections relative to the

most favored nations' tariff rather than arbitrary removal of a stipulated tariff rate over a 25-year period is required and recommended as shown in the table below.

Table 3: Recommended Schedule of Tariff Reductions across Product Sections

HS Sections Codes & Description	Section Tariff Average (%)	Recommended Annual tariff Reduction Rate (%)	Total Imports from all Sources	Required Annual Stabilizing Revenue ('000\$)
Animals; Live (Section 01)	9.6052	0.384	6707.767	-2575.783
Meat and Edible Meat Offal (Section 02)	33.788	1.352	2165.068	-2927.172
Fish and Crustaceans, Mollusca and other aquatic Invertebrates (Section 03)	15.569	0.623	282453.5	-175968.531
Dairy Produce; Birds' eggs; Natural honey; Edible products of animal origin, not elsewhere specified or included (Section 04)	17.875	0.715	224968.1	-160852.192
Animal Originated Products; not elsewhere specified or included (Section 05)	5.00	0.2	1713.342	-342.668

Source: Authors' estimation from TRAINS Product Sections' Tariff Data, 2016

Given the need to source alternative revenue to stabilize and grow the economy, it is expected that the aid for trade offer by EU would translate into increased production and exports through the provision of possible roads and electricity among other infrastructural facilities to boost production. And subsequently provide the alternative revenue to provide fiscal stability by absorbing the likely revenue losses due to tariff reductions. The revenue losses in negative depict the required annual revenue expected from revenue accruals from improved production and exportation which the aid for trade offer by EU hopefully would facilitate, thereby cushioning the effects of a gradual protection removal/elimination policy.

Table 4. presents the recommended annual aid for trade relevant to each product sections viz, animal and animal products, vegetable products and foodstuffs, in addition to the recommended annual average tariff reduction rates.

Table 4: Recommended Annual Aid for Trade Schedule Provisions across Product Sections

HS Sections	Animal and Animal Products (HS Sections 01-05)	Vegetable products (HS Sections 06-15)	Foodstuffs (HS Sections 16-24)
Recommended Annual Average tariff Reduction Rate (%)	18.1328	14.8709	18.8996
Trade Creation	256196699.9	151783343.4	440444743
Implication of the Reduction ('000\$)	(46455635.1995)	(22571549.2137)	(83242294.6480)
Trade Diversion	5187161	18281054	42506955.7
Implication of the reduction ('000\$)	(940577.5298)	(2718557.2593)	(8033664.5995)
Revenue Implication of the Reduction ('000\$)	-1356791	-1123393	-7076149.2
	(246024.1984)	(167058.6493)	(-1337363.9698)
Required Absolute Annual Compensation in Aid for Trade for each Section	47642237.7232	25457165.1223	92613323.2173

Source: Computed by Authors from TRAINS Data, 2016

Figures in brackets are the required annual % tariff reduction implications on Nigeria given trade creation, trade

diversion and revenue impacts.

Conclusion

An arbitrary tariff elimination across all products and market access offer in face of lack of infrastructural facilities to improve productive capacity and exports have made signing of EPA deal by Nigeria, but unease. Trade displacement threat by superior technology of EU is feared and whether recommended aid for trade will off-set tariff revenue loss, trade displacement and trade diversion over the 25 years period of scheduled reduction in tariff can be proven otherwise with test of time, only if it leads to improved production and exportation of agricultural products. Moreso, when revenue accruals from expanded production and export trade had cushioned the effects of tariff change through provision of the stabilization revenue in line with the scheduled percentage tariff reductions relative to current most favored nations' tariff revenue losses (see table 3 and 4). As scheduled annual tariff removal aimed at eliminating domestic protection and the bias against exports that carries fiscal deficit retribution, causing decline in tariff revenue of Nigeria has been addressed. In this regard, revenue decline concerns could hopefully be adequately provided for or addressed by commitments in aid for trade offers that would kick start the EPA window for integration and globalization concerns for Nigeria and West Africa at large, as envisaged by the EU. Annual product level tariff reductions seem a better option for gradual tariff elimination than the arbitrary tariff removal across all traded products proposed by the EU. The absolute annual stabilizing revenues are relative percentage section reduction rates multiples to be provided by the EU as trade support to avert trade creation, trade diversion and revenue impacts of EPA deal proposed by the EU in light of WTO offers. In the same vein, these provisions (table 4 above) are to be made over 25 years period, within which intra, extra regional trade would have stabilized. More so the compensated trade and revenue losses ploughed into infrastructural and production technologies would make Nigeria and sub-regional agricultural products more competitive, hence integration into the world economy much easy. EPAs as a trade deal is either beneficial to Nigeria and indeed the entire ECOWAS in the short run if their gains from trade creation exceed their losses from trade diversion or if their losses from the diversion are less than their gains from trade creations. A possible means of stemming the tides and launching Nigeria into growth and globalization irrespective of trade liberalization would be to compensate for losses due to trade creation, diversion and revenue whose impacts weigh the nations down when uncompensated for in aids for trade.

Based on the findings, the following recommendations are made: (1) Given EU proposed arbitrary tariff schedule elimination over a period of 25 years for Nigeria and free access to EU market for all West African regional members, it is recommended that there should be a corresponding specific percentage tariff reduction based on the current most favored tariff of each product section for a period of 25 years; (2) Agro-infrastructural development projects aimed at implementing Aids for trade for agricultural products, should be clearly identified, funded and monitored such that period of breakeven marks the beginning of recommended tariff reductions, with the final elimination coming up in the 25th year of the market access offer for Nigeria and ECOWAS members; (3) The identified project entities should have on-going concern, managed by result oriented youths and devoid of government interference and supervised by donors to ensure delivery; (4) Specifically, tariff reduction across product sections should be relative to the current most favored nations' rather than arbitrary. An annual percent tariff reduction for 25 years, of 0.38%; 1.35%; 0.62%; 0.72%; and 0.2, respectively, for agricultural product sections 01-05 is recommended; (5) Given the required annual % tariff reduction implications on Nigeria of the trade creation, trade diversion and revenue impacts, it is recommended that aid for trade should compensate for all these implications until tariff elimination achieved in 25 year period.

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Appendix

Appendix 1: Pattern of Nigeria’s Agric. Products Imports at Zero Tariff (‘000 of US \$)

HS Sections	Value & % Imports from EU	Value & % Imports from ECOWAS	Value & % Imports from Rest of the World	Total Imports
Animal and Animal Products	158971.7	6118.427	353173.4	518263.5
(HS Sections 01-05)	(30.67%)	(1.18%)	(68.15%)	(100%)
Vegetable products	185162.4	35290.06	1118327	1338779
(HS Sections 06-15)	(13.83%)	(2.64%)	(83.53%)	(100%)
Foodstuffs	450164.8	27734.54	1149781	1627680
(HS Sections 16-24)	(27.66%)	(1.70%)	(70.64%)	(100%)

Source: Estimated by Authors from TRAINS Data: Nigeria’s Agric. Products Imports at Zero Tariff Scenario,2016.

Percentage Effects (in bracket).

Appendix 2: Product Section Impacts as % Contribution of Agriculture to National GDP

HS Sections	Consumption Impact	Trade Creation	Trade Diversion	Revenue Impact	Welfare Impact	Welfare Impact of TC&CE	Welfare Impact of TD&CE	Total % Welfare Impacts
Animal and Animal Products (HS Sections 01-05)	1782313 (0.002%)	5187161 (0.006%)	256196699.9 (0.302%)	-1356791 (-0.002%)	10668331 (0.0125%)	2651966 (0.003%)	60301129.46 (0.071%)	0.087%
Vegetable products (HS Sections 06-15)	1539546.5 (0.002%)	18281054 (0.022%)	151783343.4 (0.179%)	-1123393 (-0.001%)	7498512 (0.009%)	9943822 (0.012%)	27433589 (0.032%)	0.053%
Foodstuffs (HS Sections 16-24)	12249890.9 (0.014%)	42506955.7 (0.05%)	4404447.43 (0.005%)	-7076149.2 (-0.008%)	121453909.4 (0.143%)	21775697.9 (0.026%)	94086969 (0.11%)	0.279%
Total	0.02%	0.078%	0.486%	0.01%	0.165%	0.041%	0.213%	0.419%

Source: Computed by Authors using TRAINS Data: Nigeria’s Agric. Products Imports at Zero Tariff Scenario, 2016
Percentage Effects (in bracket)