Impact Study of the Economic Partnership Agreement Market Access Offer on West African Countries

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STUDY DONE BY THE CONSORTIUM POUR
LA RECHERCHE ECONOMIQUE ET SOCIALE

July 2011

Summary of the Study

Introduction

Under Lome IV Convention and previous ones, the European Community (EC) offered non reciprocal trade preferences to products from Africa, Caribbean and Pacific (ACP) countries. The Cotonou Agreement concluded in June 2000 between the European Community and ACP countries put an end to successive Lome regimes and paved the way for the conclusion of an Economic Partnership Agreement (EPA) consistent with WTO rules[1] by 31 December 2007.

The EPA aims to establish a Free Trade Area (FTA) between West Africa and the European Union. Thus, countries in the sub region are expected to open their domestic markets to almost all products from the EU over a period of 25 years.

Aside the gradual removal of barriers to imports from EU, the main objectives of the EPA are, among others, to improve ACP countries' access to EU markets, negotiate on trade in services, strengthen the regional integration process between ACP countries and enhance cooperation in trade related areas such as competition and investments.

The liberalisation scheme proposed by WA was established by identifying four groups of products as follows:

Group A: Products to be liberalised as soon as possible or immediately after signing the agreement;
Group B: Products to be liberalised over a period of 10 years after a partial moratorium of five years;
Group C: Products to be liberalised over a period of 10 years at the end of the Group B process;
Group D: Sensitive products, excluded from the liberalisation.

For each group of products, the pace of tariff removal is differentiated based on the capacity to deal with competition and the level of initial customs duties. The pace of tariff removal was determined, taking into account three criteria: i) the level of initial customs duties (20, 10 or 5%); ii) the necessary phasing between external trade liberalisation and adaptation of productive sectors to competition); iii) simplicity (reduction of five points every 5 years) in order to facilitate understanding by operators and implementation by customs authorities.

This liberalisation scheme can only be completed when the CET is finally adopted by ECOWAS.

The EPA will be a major challenge that must be addressed by ECOWAS Member States. Even if ECOWAS Member States may gain from a greater guarantee of access to EU markets, the removal of customs duties on goods from EU countries would have a significant impact on public revenue, competition between local production and European imports, purchasing power and poverty. It is therefore important for each country and the entire region to assess the possible impact of the liberalisation of their markets and study possible policy options.

Negotiations on the level of liberalisation of the West African market for imports from Europe have not always led to consensus among the EU, W/A region and civil society. From 60% in 2009, the market access offer made by West Africa to the EU rose to 69.69% in 2010 and to 70% in 2011. Based on the regional study on sensitive products conducted in 2008 and economic realities in West Africa, civil society, on its part, proposed a maximum of 65%. These are the three Market Access Offer (MAO) liberalisation options that are the focus of our analysis.

The aim of the study is to assess the short and long term impact of the MAO on economic growth, foreign trade, public finance and poverty. Our approach is the Calculable General Equilibrium Modelling.

Methodology

In view of economic interdependence and retroactive effects of behaviours of economic agents, the analysis of EPA macro and micro economic impacts perfectly forms part of a general equilibrium context which takes into account on one hand, the structure of the economy as a whole, and on the other hand, interrelations between various economic agents. This type of modelling offers a number of advantages in analyzing the impacts of EPAs.

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1. Non reciprocal trade agreements which form the basis of EU/ACP trade relations were contrary to the MFN principle under the WTO. In Doha in 2001, EU and ACP countries obtained a derogation to maintain preferences until 2007. The aim of the EPA is to make EU/ACP trade relations consistent with WTO legal requirements.

Firstly, the signing of an EPA, when compared to the regime in force before Cotonou, will have a direct impact on imports prices and trade flows and put pressure on the balance of foreign relations. Meanwhile, a change in customs tariffs will have multiple direct repercussions on public finance, competitiveness of companies, economic structure, employment, household well-being in each country of the region. It is therefore essential to use an instrument which allows the consideration of all these interactions when assessing the overall impact of the EPA.

Secondly, EPAs concerns all ACP countries and aim at a general reorientation of trade relations between these countries and the EU. In the case of West Africa, the countries concerned do not have the same economic structure. As a result, the extent of macroeconomic and microeconomic impacts may vary from one country to the other. As growth and poverty reduction trajectories of countries evolve, there is the need to know those that will be negatively affected by the policy change and those that will rather benefit from it. It is therefore important to assess the EPA's impact, bearing in mind these diversities in economies. Using the Social Accounting Matrices as accounting framework for basic data, our multi country model takes into consideration the structure of each of the economies as well as all interactions existing between countries within the region.

Thirdly, the elimination of tariffs and implementation of the new economic partnership agreement will be done gradually over a period of 25 years. Consequently, the impacts will be felt not only in the short term but also in the medium to long term. One of the advantages in using a dynamic model is the possibility of generating trends that help to assess the effects of the reform during implementation. The general equilibrium approach allows at each stage of the process comparisons with the underlying scenario in order to assess effects of the agreement on economic growth, sector allocations, public finance and people's well-being.

Besides the advantages of EGC modelling, our model has peculiarities compared to MEGCs used in analysing the impact of EPAs. The first one lies in the consideration of the 12 economies within the ECOWAS space for which macroeconomic information is available. To these economies were added three economic regions or partners which are: the other three ECOWAS Member States, EU and the rest of the world. An EGC model was developed for each of the 12 ECOWAS economies. This replicated in detail production, trade and consumption activities within each economies well as interrelations with other economic entities through trade flows, mobility of factors of production (labour and capital) and private transfers. A second peculiarity of the study is the analysis of effects of poverty through the inclusion of microeconomic modules in the ECG model for 10 countries for which microeconomic information was available. The microeconomic modules which provide economic information on several thousands of real households derived from surveys representative of populations in countries concerned helped in assessing the impact on poverty. Thus, the model takes into account, on one hand, effects of changes in prices of goods and factors of production on households due to the implementation of the EPA, and on the other hand, impacts of policies adopted by government to offset tax revenue losses following the removal of duties on imports from EU countries.

The third peculiarity of the study is the simulation of three realistic scenarios of market access offers by ECOWAS. The first scenario involved a 70% liberalisation of imports from EU over a period of 25 years, with 45% over the first 15 years. The second scenario assumes 70% liberalization of imports from EU over a period of 25 years, with 64% during the first 15 years. Finally, the third scenario concerns 65% liberalisation of imports from EU over a 25 year period, with 45% during the first 15 years.

Like the other models, EGC modelling is based on assumptions which facilitate the reading of results achieved when they are highlighted. Among these assumptions, the competitiveness of products market inherent in this type of model lead to optimistic results and findings. The analysis assumes that the commercial margins of intermediaries do not change with a greater liberalisation of ECOWAS markets for EU products; where appropriate, findings of the study on revenue distribution and poverty reduction could prove optimistic. On the other hand, it is worth noting that a greater trade liberalisation could speed up the adoption of more efficient technologies leading to an improved productivity of factors. With the omission of effects of market access offer on productivity of factors, the study arrived rather at pessimistic findings and results.

Results of the simulation of scenarios

The simulation results were compared to those of continuity scenarios, meaning the absence of market access offer. Serving as reference, this indicated average growth rate of economies in the sub region similar to those recorded in the last decade.

The specific customs tariff – ratio of customs revenue and imports value – applied to imported products was initially estimated at 7.3% for the entire region.

The entire liberalisation period can be presented in three phases based on the pace of removal of tariffs on products in group A, B and C.

■ **Phase 1** is spread over the first 5 years of liberalisation with a reduction of effective rates applied on European goods[2] ranging between 0.8 and 0.9%. The three scenarios do not present any significant differences in the pace of liberalisation. In this phase, the reduction in customs tariffs affected mainly products in group A.

■ **Phase 2** stretches from the 6th to the 15th year of liberalisation and marked by a significant difference in the pace of tariff reduction between scenario 1 and 3 and scenario 2. It is recalled that 64% of imports from the EU into the sub-region should be liberalised during the first 15 years of the process under scenario 2 compared to 45% in scenario 1 and 3. In addition, the liberalisation of group B products which are more protected than those of group A are expected to take effect during this period and contribute to a significant difference between scenario 1 & 3 and scenario 2.

■ **Phase 3** is beyond the 15th year and continues to year 25 of the liberalisation process. It is marked by a significant gap in the customs tariffs removal scheme under scenario 1, 2 and 3. While the liberalisation is accelerated under scenario 1, it is remains almost similar to the pace in the previous period under scenario 3. Finally, the pace of liberalisation slows down slightly under scenario 2 but remains all the same quite significant. It is during this period that group C product will be liberalized.

2. The term "European goods" refers to products originating from the European Union.

These products are clearly more protected than those of group A and B and account largely for imports in countries of the region.

Based on the assumptions of this model, the main findings of the study are summarized as follows:

1. The liberalisation of a maximum of 65% of imports in the sub region should contribute to the acceleration of economic growth in the sub region. Beyond this threshold, there is a risk of a deceleration in the overall economic growth of the sub region.

2. However, this general positive impact of the sub regional market access offer conceals significant disparities between economies: four countries namely Côte d'Ivoire, Ghana, Niger and Benin come out as gainers; five countries including Nigeria, Senegal, Togo Cape Verde and Guinea-Bissau come out as losers while the effect is almost neutral on the three other countries covered by the analysis, namely Burkina Faso, Mali and Guinea.

3. Nigeria' economy will pay the highest price for a greater opening up to EU products, meaning moving from 65% to 70% of liberalisation. A faster pace of tariff reductions from 45% to 65% during the first 15 years of liberalisation under a 70% opening would widen disparities between economies of gainers and those of losers.

4. The liberalisation of group A products would contribute to a slight acceleration in economic growth in the sub region. The liberalisation of group B products remains generally favourable for the region but creates disparities between economies. The liberalisation of Group C products will lead to a slowdown in economic growth and amplify disparities between economies.

5. The analysis shows that the deterioration of the trade balance is the main cause of GDP decline in the sub region. Improvement in the trade balance trough improved competitiveness of the sub regional economy would be a major challenge in the sub regional compensation programme. Increased imports as a result of a wider opening of the sub regional market to European products, particularly those of group C would lead to increased competition with local products and to the least extent with non European imports.

6. In case of a significant slowdown in economic growth, loss of State of revenue due to other taxes (direct tax, consumption tax, production tax etc.) could be as substantial as those caused by customs revenue. A liberalisation beyond 65% of imports of the sub region would benefit consumers through an increase in their purchasing power. On the other hand, this positive impact is almost nullified when the competition pressure from European goods mounts as the liberalisation scales up to 70%.

7. The liberalisation of products in group A and B will contribute to poverty reduction in the sub region in the first 15 years under the three market access offer scenarios. However, that of group C product could lead to increased poverty from the 20th year when the liberalisation hits 70% of imports. This increase in poverty is very significant when the pace of liberalisation is more sustained.

In the light of the findings summarized above, the main recommendations drawn from the study are as follows:

1. Market access offer will be favourable for the West African sub region if the liberalisation is limited to Group A and B products and this over both a 15 and 25 year period ; it should not include products from Group C.

2. In the case where group C products need to be liberalised, upgrading of industries producing these goods must begin as soon as possible to enable them deal later with greater competition from European products.

3. In view of the upgrading of industries involved in the production of Group C products, which required resources and time from countries, in the sub region, it is not advisable to accelerate the pace of tariff removal.

1. Introduction

The Cotonou Agreement concluded in June 2000 between the European Community and ACP countries ended successive Lome regimes and paved the way for the conclusion by 31 December 2007 of an Economic Partnership Agreement (EPA) consistent with WTO rules.[1]

The EPA aims to create a Free Trade Area (FTA) between West Africa (WA) and the European Union (EU). Thus, countries in the sub region are expected to open their domestic market to almost all EU products over a period of 25 years.

Apart from the gradual removal of barriers to trade, the EU and the sub region agreed within the framework of EPA to design development programmes to enable the region to adapt to the new trade environment created by the liberalisation of trade with Europe.

The liberalisation scheme proposed by WA was established by distinguishing four groups of products as follows:

Group A: Products to be liberalised very quickly or immediately after signing the agreement;
Group B: Products to be liberalised over a period of 10 years after a partial moratorium of five years;
Group C: Products to be liberalised over a period of 10 years at the end of the Group B process;
Group D: Sensitive products, excluded from the liberalisation

For each group of products, the pace of tariff removal is differentiated based on the capacity to deal with competition and level of initial customs duties. The pace of tariff removal was designed, taking into account three criteria: i) the level of initial customs duties (20, 10 or 5%); ii) the necessary phasing between external trade liberalisation and adaptation of productive sectors to competition); iii) simplicity (reduction of five points every 5 years) in order to facilitate understanding by operators and implementation by customs services.

The EPA will be a major challenge that must be addressed by governments of ECOWAS Member States. Even if ECOWAS Member States could benefit from a greater guarantee for access to EU markets, the removal of customs duties on goods from the EU would have a significant impact on public revenue, competition between local production and European imports, purchasing power and poverty. It is therefore important for each country and the entire region to assess the impact of the liberalisation of their domestic markets and study possible policy options.

The aim of the study is to assess the short, medium and long term impact of the Market Access Offer (MAO) on economic growth, foreign trade, public finance and poverty. Our approach is the dynamic Calculable General Equilibrium Modelling.

In the literature, there are two methodological approaches used to analyze the impact of EPAs. The first approach is that of partial equilibrium (Busse and al (2004). It focuses on sector impacts and does not take into account the interrelations between sectors and agents. The second one is that of general equilibrium which has the advantage of presenting an overview of both national economies and the regional economy as well as the transmission channels of the shocks to microeconomic agents whilst taking into account macroeconomic constraints under which they operate.

Busse and al (2004) analysed the EPA impact on the economies of ECOWAS Member States within a partial equilibrium framework. The authors laid special emphasis on trade and budgetary effects that could occur if West African countries open their domestic markets to imports from the European Union (EU). To analyse trade effects, their model made a distinction between imports under preferential regimes and those that are not. The overall change that occurred in imports under a favourable regime was thus broken down into the trade creation effect and the trade diversion effect. In addition, the authors made the assumption of a full liberalisation of imports from the EU to West African countries during the base year focusing on the last stage of the EPA process. The results of simulations were therefore estimates of the upper end of static trade and budgetary effects. However, the tariff removal was done gradually and spread over a period of 25 years. It is therefore also important to assess the impact that the implementation schedule of the new

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economic partnership agreement and pace of introduction of reforms can have on the economy.

In view of economic interdependence and retroactive effects of economic agents' behaviour, the analysis of EPA macro- and microeconomic impacts fit perfectly into a general equilibrium context which takes into account on one hand, the structure of the economy as a whole, and on the other hand, interrelations between various economic agents. This type of modelling offers a number of advantages in analyzing the impacts of EPAs. Firstly, the signing of an EPA, when compared to the regime in force before Cotonou, will have a direct impact on import prices and trade flows and put pressure on the balance of foreign relations. Meanwhile, a change in customs tariffs will have multiple direct repercussions on public finance, competitiveness of companies, economic structure, employment and household welfare in each country of the region. It is therefore essential to use an instrument which allows the consideration of all these interactions when assessing the overall impact of the EPA.

Secondly, EPAs concern all ACP countries and aim at a general reorientation of trade relations between these countries and EU. In the case of West Africa, countries concerned do not have the same economic structure. As a result, the scope of macroeconomic and microeconomic impacts may vary from one country to the other. As growth and poverty reduction trajectories of countries evolve, there is the need to know those that will be adversely affected by the policy change and those that will rather benefit from it. It is therefore important to assess the EPA's impact, bearing in mind these diversities in economies. Using the Social Accounting Matrices as accounting framework for basic data, our multi country model takes into consideration the structure of each of the economies as well as all interactions existing between countries within the region.

Thirdly, the elimination of tariffs and implementation of the new economic partnership agreement will be done gradually over a period of 25 years. Consequently, the impacts will be felt not only in the short term but also in the medium to long term. One of the advantages in using a dynamic model is the possibility of generating a growth path that allows comparisons with the underlying scenario at each stage of the process to assess the effects of the agreements on economic growth, sector allocations, public finance and people's well-being.

Research on the economic impact of EPAs using the calculable general equilibrium model is scarce. Those that are known to us are those of Stephane Calipel and Alii (2006) and Decaluwé, Laborde, Robichaud and Maisonnave (2008). Meanwhile, these studies were conducted well ahead of the finalization of the list MAO products. These do not therefore take into account the current MAO in the definition of their scenarios. In addition, these authors gave precedence to the analysis of macroeconomic impacts, thus excluding the impact of tariff reforms on distribution and poverty. Besides, Calipel and Alli (2006) confined their analysis to the specific case of the Senegalese economy. The impacts on each of the 14 other countries in the sub region were not specifically considered in their analysis. In a recent study, Decaluwé, Laborde, Robichaud and Maisonnave (2008) used a multi sector, multi-country and dynamic general equilibrium model to analyse the macroeconomic and sector impacts of the EPA. Their model made an explicit distinction between the eleven countries in the sub region and in each country 14 sectors were identified. The authors simulated two scenarios of tariff liberalisation. The first scenario was the non-signing of the EPA. Under this assumption, the trade policy of West African countries did not change and tariff preferences related to the Cotonou Agreements disappeared. African countries entered the European market under the Generalised System of Preferences (GSP), including the "Everything but Arms Initiative" for the Least Developed Countries (LDCs). The second one presupposes the signing of the EPA. As such, on 1st January, all African products were exempted from customs duties on the European market. The results of their analysis revealed that with the exception of Nigeria, which showed a peculiar behaviour with a decline in its financial needs towards the end of the period, all other countries needed fiscal neutralisation, meaning the necessary transfers to enable countries to maintain their revenues at levels that could be attained without the removal of tariffs. This fiscal neutralisation had positive effects on the position of the balance of current operations, investments and growth in the various countries. However, their analysis revealed that the improvement in the economic situation due to a neutralisation of fiscal impacts of tariff removals increased the performance of exports to other African countries and reduced exports to Europe.

Besides the advantages of GCE modelling, our model has peculiarities compared to the GCEMs used in analysing the impact of EPAs. The first one lies in the consid-

eration of the 12 economies within the ECOWAS space for which macroeconomic information is available. The results of the model helped to analyse in detail the results of simulations on each of these countries.

The second peculiarity is that our model lays emphasis on microeconomic impacts of tariff reforms as changes that will occur in prices of goods and factors of production due to the implementation of the EPA will affect households. In addition, policies adopted by government to offset tax revenue losses following the removal of duties on imports from EU countries will have differentiated impacts on households. These effects will vary from one household to the other depending on its factor endowments and consumption structure. It is therefore important, particularly in assessing the overall impact of the EPA, to stress microeconomic impacts in order to know if the effect will be an improvement or deterioration of living conditions of households. The effect on the poverty rate will vary in time and from one country to the other. Consequently, we used the micro simulation approach.

The third peculiarity is the simulation of three realistic scenarios of market access offers by ECOWAS, reflecting the content of negotiations between the EU and the sub region. The first scenario involves a 70% liberalisation of imports from EU over a period of 25 years, with 45% over the first 15 years. The second scenario assumes 70% liberalisation of imports from EU over a period of 25 years, with 64% during the first 15 years. Finally, the third scenario concerns 65% liberalisation of imports from EU over a 25 year period, with 45% during the first 15 years. This last simulation reflects the initial position of the sub region during negotiations on the level of MAO with EU.

The simulation results were compared to those of a continuity scenario, meaning the absence of a market access offer. Based on the assumptions of the model, the main lessons drawn from the study are summarized in the following points.

The liberalisation of a maximum of 65% of imports in the sub region contributed to the acceleration of economic growth in the sub region. Beyond this threshold, there was a risk of a deceleration in the overall economic growth of the sub region. However, this general positive impact of the sub regional market access offer concealed significant disparities between economies: four coun-

tries namely Côte d'Ivoire, Ghana, Niger and Benin came out as gainers; five countries including Nigeria, Senegal, Togo, Cape Verde and Guinea-Bissau came out as losers while the effect was almost neutral on the three other countries covered by the analysis, namely Burkina Faso, Mali and Guinea.

Nigeria' economy paid the highest price for a wider opening to EU products, meaning moving from 65% to 70% of liberalisation. A faster pace of tariff reductions from 45% to 65% during the first 15 years of liberalisation under a 70% opening scenario widened disparities between economies of gainers and those of losers.

The liberalisation of products in group A slightly accelerated economic growth within the region without any significant disparity between countries. The liberalisation of Group B products remained generally favourable for the region but created disparities between the countries. The liberalisation of group C products led to a deceleration in economic growth in the sub region and widened disparities between economies.

The liberalisation of products in group A and B contributed to poverty reduction in the sub region in the first 15 years under the three market access offer scenarios. However, the liberalisation of group C products led to increased poverty from the 20th year when the liberalisation hit 70% of imports. This increase in poverty was very significant when the pace of liberalisation was more sustained.

The rest of the document is structured as follows. Section 2 provides a reminder on the objectives of the EPA and its implications for the sub region. Section 3 presents the macroeconomic framework of the sub region and section 4 describes the methodology. Finally, the main findings are provided in section 5.

2. Reminder on the EPA objectives and implications of the reform of trade rules between ECOWAS and EU

2.1. Principles and objectives of the EPA

Among the 16 countries making up the West African region, 4 are developing countries and 12 are classified as Least Developed Countries (LDCs). For the developing countries, the trade concessions they enjoyed in previous

agreements are in contradiction with the Most Favoured Nation (MFN) principle of the WTO. According to this principle, advantages granted to a country must be extended to all developing countries or must be within a logic of reciprocity between the two countries or regions within the framework of a regional trade agreement (RTA).

The establishment of an FTA precludes the extension of EU concessions to ACP countries to all trade partners by introducing reciprocity between the EU and ACP. With the purpose of the trade cooperation defined in the Cotonou Agreement as promoting regional integration within economic communities, the establishment of the FTA is envisaged at the regional level including the two categories of countries, LDCs and non LDCs.

The definition of an FTA and its conformity with WTO rules is provided under article XXIV of the GATT on regional trade agreements. This article states that for a trade agreement to be considered as a free trade agreement the two regions must liberalise the "bulk of their trade" and this must take effect within "a reasonable length of time". The WTO and jurisprudence do not give a specific interpretation of these two provisions. They must therefore be subject to negotiation between the two parties. The European Commission interprets these provisions as follows: the liberalisation must cover 80% of total trade and must be implemented within a period of 25 years. The ECOWAS and UEMOA Commissions addressed this issue in the light of two main parameters: the consideration of development implications and priorities accorded to the regional integration of economies and trade; the need to ensure special and differential treatment especially with regard to specific implications related to the liberalisation of imports for LDCs.

2.2. Different dimensions of the EPA

West Africa has always defended the importance of building an agreement with a focus on development and poverty reduction. In this regard, the region and the EC agreed on the need to: (i) design a liberalisation scheme at the service of regional sector policies and the regional integration process and (ii) at the same time draw up development programmes to enable the region to adapt to the new trade environment induced by the liberalisation of trade with Europe, support tax reforms and take into account the loss of revenue during this transitional phase.

The trade component is the cornerstone of the economic partnership agreements. It involves the removal of tariffs by countries of the region on goods from Europe. It includes defining products excluded from the liberalisation (these are products considered as sensitive to trade liberalisation and will therefore not be liberalised) as well as the pace of the removal of tariffs on products subject to liberalisation. This component also involves the definition of rules of origin as well as the formulation of safeguard clauses to be triggered when the volume of imports from one of the parties to the agreement or prices of these imports undermine production sectors.

Development dimension

The EPA development programmes are designed within the logic of upgrading and supporting the implementation of the agreement. Three axes were defined to guide the preparation of the programmes:

- Taking into account the costs of adjustment: This aspect involves mainly bearing the cost of fiscal adjustments and support for tax reform;
- Improving competitiveness and developing production capacity: Diversify and increase production capacity, develop intra-regional trade and facilitate access to international markets, improve trade related national and regional infrastructure in order to reduce the cost of transactions;
- Implementing rules: This axis deals with the ownership of trade reforms, enforcement of rules as well as the monitoring and evaluation of the EPA implementation.

In the region's approach to designing a "Development EPA", the two dimensions – trade and development programmes – are closely linked and must be developed in synergy.

2.3. Implications of EPAs for the region

The community authorities have repeatedly stated the implications of the EPA for the region by setting objectives for it that are in line with its vision. Referring to the Cotonou Agreement, the region considers that the regional integration of economies and trade as well as a proper integration into the world economy should be the ultimate goal of EPAs. These two aspects are the crucial elements

for economic development and poverty reduction in the region. Against this background, liberalisation is only one of the tools at the service of the development strategy.

Strengthening regional integration

Countries in the region have for a long time embarked on the construction of an integrated regional space at the West African level. They are banking on the EPA as a means of accelerating this process and contributing to the removal of the many obstacles to effective integration. The effective trade liberalisation in the region and establishment of a customs union with a common external tariff are part of this agenda. But there are many obstacles to the achievement of these objectives to the extent that integration is considered as a process. This integration is difficult to build, as beyond the political will clearly exhibited by the region, multiple fragmentations break up the regional space and must be overcome one after the other. Within this context, the issue of sequencing in building the domestic market and liberalising trade at the borders of the space is very crucial. For example, building a regional market of foodstuffs or livestock-meat can be seriously undermined by the untimely importation of competing products. The promotion of effective and competitive sub sectors requires some protection of internal investments at least until such sub sectors become competitive, with reduced costs of transaction. This informed the design of the liberalisation scheme while giving absolute priority to a regional integration of economies based on complementarities between national economic and productive structures.

Ensuring a better integration into the world economy

The region has improved its apparent export performance in recent years especially due to the increase in commodity prices, with oil at the forefront. But the region as a whole is still constrained by a low diversification of its export products and a high concentration on unprocessed raw materials from mining and agriculture sectors. The region has considerable advantages to diversify its export base and add value to its export products. It must also derive some benefits from the demand trends in emerging countries in Asia, Europe (new EU members), Latin America and also Africa. Country reports provided as part

of the process of defining sensitive products regularly refer to strategic products alongside products sensitive to competition from imports. Improving competitiveness and more broadly developing exports of processed products with high value added and responsive to consumers' preferences and international regulations is a major issue in the EPA trade strategy. This issue is taken into consideration in the liberalisation scheme under the liberalisation of imported inputs and equipment. It is also addressed in the development programmes.

Lending credibility to internal policies, strengthening development policies and sector options

The development EPA is based on sector policies and programmes available or being defined in the region. In the case of agriculture, the regional agricultural policy is a reference point while in the case of industry, the UEMOA industrial policy and the ECOWAS industrial policy being developed serve as reference. Investment programmes in the area of energy, communication, etc. were taken into account as building blocks for the development of a regional market and internal and international competitiveness of productive sectors. The liberalisation scheme is based on priorities identified in these sector policies and support for the implementation of these policies is part and parcel of the EPA development programmes. This is essential as the will to achieve regional integration is held back on a daily basis by divergent short term interest among countries. The EPA must therefore serve as a lever of these difficulties and contribute to the convergence of national policies and strategies.

2.4. Market access offer

Besides the design of the whole trade liberalisation process between EU and ECOWAS, the MAO covers the liberalisation of imports from the European Union, including the list of products excluded from liberalisation, proposals of terms of rules of origin and safeguard clauses.

Sensitive products and exclusion list

The exclusion list (known as Group D) covers products the region excluded from liberalisation. This list has four types of products:

■ Products competing with European exports which could be threatened by trade liberalisation either because they are not quite competitive or the conditions for competition are unfair;

■ Products that are not produced internally but whose sensitivity is due to taxes. They account for a significant proportion of customs revenue and their liberalisation may lead to imbalances in public finance;

■ Sensitive products of the region : products that are sensitive from the economic and social perspective on one hand ; and from the fiscal perspective on the other;

■ Finally, promising products, whose industrial or agricultural production are currently low but represent levers of growth in the coming years either on the regional market or international market.

Schedule for tariff removal

The liberalisation scheme proposed by WA was established by identifying four groups of products as follows:

Group A: Products to be liberalised as soon as possible or immediately after signing the agreement;
Group B: Products to be liberalised over a period of 10 years after a partial moratorium of five years;
Group C: Products to be liberalised over a period of 10 years at the end of the Group B process;
Group D: Sensitive products, excluded from the liberalisation.

For each group of products, the pace of tariff reduction is differentiated based on the capacity to deal with competition and the level of initial customs duties. The pace of tariff removal was determined, taking into account three criteria: i) the level of initial customs duties (20, 10 or 5%); ii) the necessary phasing between external trade liberalisation and adaptation of productive sectors to competition); iii) simplicity (reduction of five points every 5 years) in order to facilitate understanding by operators and implementation by customs authorities.

This liberalisation scheme can only be completed when the Common External Tariff (CET) is finally adopted by the region. It will therefore be necessary to make some adjustments to the list of sensitive products and categorization of products under the CET in order to strengthen coherence in the external trade policy of the region. This harmonisation must cover products for

which it will be judicious to transform customs duties into excise duties.

3. Economic situation

The Economic Community of West African States is a regional integration space comprising fifteen West African Countries namely Benin, Burkina Faso, Cape Verde, Côte d'Ivoire, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone and Togo. The economies of these countries generally depend mainly on agriculture with high level of staple grains production (millet, rice, maize…) as well as fruits and vegetables with a significant proportion exported (mangoes, banana, pineapple,…). With an average Gross Domestic Product per capita below USD 900 in 2008, ECOWAS countries are mostly classified as least developed countries. The majority of their populations live in poverty. In the last decade, their economies were marked by the rapid development of the services sector fuelled by the telecommunication sub sector. However, this situation hides significant disparities.

With a GDP per capita of $US 3439 and $US 1450 respectively, Cape Verde and Nigeria are the richest countries and are classified among the middle income countries. Nigeria is also one of the most populous nations in the world (over 151 million inhabitants) and one of the leading oil producers. Côte d'Ivoire and Ghana are respectively first and third world producers of cocoa notwithstanding their important production of coffee and other agricultural products while Mali and Burkina Faso are leading producers of cotton and Liberia and Sierra Leone are diamond producers.

3.1. Macroeconomic trends

a) Structure of real GDP for each country within the ECOWAS space

A review of the GDP structure showed the dominance of the Nigerian economy. Nigeria was constantly the major contributor to the sub region's growth. However, its weight dropped slightly from 63.3% in the 70s to 58.9% in the 80s which corresponds to the early years of structural adjustment. Later, Nigeria saw its average stabilize (at 58.1%) during the period 1991 – 1994 pre-

ceding the monetary adjustment in the Franc zone to reach 60.9% during the post CFAF devaluation period from 1995 to 2009. After Nigeria come Côte d'Ivoire, Ghana and Senegal. However, while Ghana and Sen-

egal improved their contribution to the regional GDP over the various periods, Côte d'Ivoire recorded a significant decline in its contribution during the period 1995 – 2009.

Table 1: Structure of ECOWAS Real GDP* (base 100 in 2005)

Countries	1970 – 1979	1980 – 1990	1991 – 1994	1995 – 2009
Benin	1.7%	2.3%	2.5%	2.6%
Burkina Faso	2.1%	2.5%	2.7%	3.1%
Cape Verde	0.3%	0.4%	0.4%	0.6%
Côte d'Ivoire	10.0%	12.7%	13.1%	10.9%
Gambia	0.3%	0.4%	0.4%	0.4%
Ghana	5.8%	5.3%	6.3%	6.4%
Guinea	1.4%	1.6%	1.8%	1.8%
Guinea-Bissau	0.5%	0.5%	0.5%	0.4%
Liberia	1.9%	1.6%	0.3%	0.3%
Mali	2.0%	2.6%	3.0%	3.2%
Niger	2.6%	2.5%	2.2%	2.0%
Nigeria	63.3%	58.9%	58.1%	60.9%
Senegal	4.6%	5.2%	5.3%	5.1%
Sierra Leone	1.6%	1.8%	1.6%	0.8%
Togo	1.8%	1.8%	1.7%	1.4%
ECOWAS	100.0%	100.0%	100.0%	100.0%

Source: Our calculations using data from the United Nations Department of Statistics (UNDS)
*GDP at constant prices for 2005 and in USD

b) Trends in overall activity

The aggregated real GDP of the ECOWAS space recorded an average growth of 6.7% in the last ten years (2000 – 2009) reflecting an economic trend consistent with economic performance across the world. However, there has been a significant downturn in activity within the community space in recent years, with an overall average growth of 5.6% over the last five years and 4.9% in 2009.

This downward trend is mainly attributed to Nigeria (5.6% in 2009 after reaching 9.1% in 2008), but also to Senegal (2.2% in 2009 against 3.3% in 2008), Benin (2.7% in 2009 after 5.0% in 2008), Burkina Faso (3.2% in 2009 and 4.5% in 2008) and to lesser extent to Sierra Leone whose activity declined significantly between 2007 (6.4%) and 2009 (4.4%).

For the rest of the countries, the trend was rather fluctuations in economic performance. Thus, Niger for exam-

ple, recorded an economic growth rate of 5.4% in 2002, then -0.8% in 2004 before achieving immediately 8.4% in 2005. Finally, countries emerging from long conflicts and therefore under reconstruction like Liberia and Sierra Leone recorded relatively high average economic growth (6%) rate in the last five years.

Table 2: GDP growth rate of ECOWAS countries (base 100 in 2005)

Countries	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Benin	4.9%	6.2%	4.4%	3.9%	3.1%	2.9%	3.8%	4.6%	5.0%	2.7%
Burkina Faso	1.9%	7.1%	4.7%	8.0%	4.6%	7.1%	5.5%	3.6%	4.5%	3.2%
Cape Verde	7.3%	6.1%	5.3%	4.7%	4.3%	6.5%	10.1%	8.6%	5.9%	4.1%
Côte d'Ivoire	-2.7%	0.1%	-1.6%	-1.7%	1.6%	1.8%	1.2%	1.5%	2.3%	3.8%
Gambia	6.1%	5.8%	0.5%	2.3%	-0.6%	2.1%	6.7%	6.3%	6.1%	4.6%
Ghana	3.7%	4.2%	4.5%	5.2%	5.6%	5.9%	6.4%	6.2%	6.7%	4.7%
Guinea	2.9%	3.8%	3.8%	5.5%	1.2%	2.4%	1.0%	1.8%	4.7%	4.9%
Guinea-Bissau	7.5%	3.7%	1.8%	-3.5%	3.1%	5.0%	2.2%	0.3%	3.5%	3.0%
Liberia	22.3%	2.9%	3.7%	-31.3%	2.6%	5.3%	7.8%	9.4%	7.1%	4.6%
Mali	-3.3%	11.9%	4.3%	7.6%	2.3%	6.1%	5.3%	4.3%	5.0%	4.4%
Niger	-2.6%	7.5%	5.3%	3.4%	-0.8%	8.4%	5.8%	3.3%	5.9%	-0.9%
Nigeria	5.3%	4.4%	3.8%	10.4%	33.7%	3.4%	7.5%	6.9%	9.1%	5.6%
Senegal	3.2%	4.6%	0.7%	6.7%	5.9%	5.6%	2.5%	4.9%	3.3%	2.2%
Sierra Leone	3.8%	18.2%	18.2%	10.9%	9.6%	7.5%	7.5%	6.4%	4.3%	4.4%
Togo	-1.0%	-1.3%	-1.3%	4.8%	2.5%	1.2%	3.9%	2.1%	2.4%	3.3%
ECOWAS	3.3%	4.3%	3.1%	7.2%	20.9%	3.8%	6.2%	5.9%	7.5%	4.9%

Our calculations using data from the United Nations Department of Statistics (UNDS)
*GDP at constant prices for 2005 and in USD

c) Countries' contribution to economic growth within the ECOWAS space

Over the last decade (2000 – 2009), Nigeria had been the major contributor to growth within the regional space. This contribution hovered around 2 points between 2000 and 2002 and went up to 6 points in 2008 before falling 5.7 points in 2009 (table 3). On the other hand, Côte d'Ivoire made negative or insignificant contribution to growth in the region compared to its weight, with a maximum contribution of less than 0.3 points. Ghana contributed regularly and positively to economic growth (between 0.3 and 0.4 points). Though Senegal recorded similar performance during the period, this was uneven and sometimes fell between 0 and 0.1 point.

Table 3 : Countries' contribution to overall growth of ECOWAS

Countries	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Benin	0.001	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Burkina Faso	0.001	0.002	0.002	0.003	0.002	0.002	0.002	0.001	0.001	0.001
Cape Verde	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000
Côte d'Ivoire	- 0.004	0.000	- 0.002	-0.002	0.002	0.002	0.001	0.001	0.002	0.003
Gambia	0.000	0.000	0.000	0.000	- 0.000	0.000	0.000	0.000	0.000	0.000
Ghana	0.003	0.003	0.003	0.004	0.004	0.004	0.004	0.004	0.004	0.003
Guinea	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.001	0.001
Guinea-Bissau	0.000	0.000	0.000	- 0.000	0.000	0.000	0.000	0.000	0.000	0.000
Liberia	0.001	0.000	0.000	- 0.002	0.000	0.000	0.000	0.000	0.000	0.000
Mali	- 0.001	0.004	0.002	0.003	0.001	0.002	0.002	0.001	0.002	0.001
Niger	- 0.001	0.002	0.001	0.001	- 0.000	0.002	0.001	0.001	0.001	- 0.000
Nigeria	0.029	0.025	0.021	0.058	0.195	0.022	0.048	0.045	0.060	0.037
Senegal	0.002	0.003	0.000	0.004	0.003	0.003	0.001	0.002	0.002	0.001
Sierra Leone	0.000	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.000	0.000
Togo	- 0.000	-0.000	- 0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000
ECOWAS	0.033	0.043	0.031	0.072	0.209	0.038	0.062	0.059	0.075	0.049

Source: Our calculations using data from the United Nations Department of Statistics (UNDS)
*GDP at constant prices for 2005 and in USD

d) Trends in sector activities

Steady growth in the tertiary sector

The tertiary sector accounted on average for 31% of overall GDP within the ECOWAS space. However, this modest weight was due to the performance of Nigeria (26%) and Liberia (24%) which were the only countries that recorded rates below this average. On the contrary, Cape Verde (68%), Gambia (54%) and Senegal (53%) had the most buoyant tertiary sectors.

Following a phase of contained growth (3.6% on the average) over the period 2000 – 2003, the tertiary sector recorded a strong growth from 2004 (9.3% on average

between 2004 and 2009) within the ECOWAS space. The major countries behind this buoyant growth in the last five years (starting from 2009) were Nigeria (12.1%), Liberia (9.4%) Sierra Leone (7.8%), Ghana (7.5%). Mali was the first francophone country with 5.9%.

The West African context has been marked in recent years by the development of telecommunication services thanks to internet and mobile telephone services which mobilized huge investments to respond to technological innovations and development requirements inherent in the sector. It is therefore not surprising that within the ECOWAS space, the transport, post and telecommunication sector recorded the strongest average growth rate in the last six years (13.6%). This was constantly a

double digit growth rate during the period, reaching its peak in 2004 (23.2%). However this situation resulted from an uneven performance in the various countries and sectors. In the telecommunication, post and transport sector, these results were attributed to Nigeria, Sierra Leone, Mali and Senegal with average growth rates of 17.2%, 16.5%, 12.7% and 9.2% respectively in the last six years. Gambia (8.8%), Ghana (8.1%), Burkina Faso (7.6%) and Cape Verde (6.8%) followed the same trend as the above countries but to a lesser extent in this sector.

In contrast, some countries experienced over the same period a mixed performance in the telecommunication, post and transport sector. This was the case of Côte d'Ivoire which recorded an average rate of barely 0.4% with at least four years of recession out of the six. In Guinea, the sector seemed to be having structural difficulties with a 2.8% average growth rate obtained by achieving a performance ranging between 1% and 3% on a regular basis. Guinea-Bissau was alternating between years of good performance and years of poor performance to finally achieve an average rate of 3.2% for the sector in the last six years. Finally, Niger performed barely better with an average rate of 3.3% despite an improvement in its end of period performance (5.1% and 3.7% in 2008 and 2009 respectively).

Trading, catering and hospitality was also a particularly vibrant sector with an overall average economic growth rate of 12.3% in the last six years after achieving double digit annual growth rates (with the exception of 2005 with 9.4%). The peak of activity in this sector was also recorded in 2004. This performance was mostly due to Nigeria, Cape Verde, Ghana, Sierra Leone and Mali with average growth rates of 13.8%, 8.0%, 8.0%, 7.9% and 7.3% respectively in this sector. On the other hand, Togo experienced a recession during five out of the six years under review and its average performance settled at -3.7% of activities in the said sector. Côte d'Ivoire (1.6%), Guinea (2.0%), Guinea-Bissau (2.4%) and Senegal (2.8%) recorded a mixed performance, reflecting stagnation in the sector, especially in Senegal and Côte d'Ivoire. The performance of Ghana (7.1%), Nigeria (6.9%), Cape Verde (6.1%), and to a lesser extent Sierra Leone (5.3%) seemed to fall within the dynamic of their overall economic growth. Togo also recorded a significant performance (7.2%) in this sector.

In sum, the ECOWAS started witnessing from 2004 a process of development of activities in the services sector, notably telecommunication, hospitality and catering as well as trading. This led to a steady and significant growth in the sector until 2009.

A mixed development in the secondary sector with the exception of construction

The secondary sector has a significant weight in economic activities within the ECOWAS space, with an average of 31% of GDP in the last five years. However, this weight has been crumbling each year falling from 35% in 2005 to 28% in 2009. The relative importance of the secondary sector is attributed to Nigeria, with 37% of GDP on average over the last five years. All the other countries contribution to the secondary was below or equal to the average, notably, Guinea (31%), Ghana and Côte d'Ivoire (26% each).

In the secondary sector, starting from 2005, there was a steady and relatively vibrant growth in the construction sub sector with 9.6% growth in the entire ECOWAS space in the last five years. With construction projects generally spanning two to three year periods, it can be concluded that this sub sector followed the development trend in the tertiary sector (especially, telecommunication and hospitality). However, there were also deliberate public policies of infrastructure development (roads, bridges, public electrification system etc.) in some countries within the ECOWAS space. Though activity was still significant in this sector (48% in 2009), it witnessed a serious deceleration.

Double digit average growth rates were observed in Nigeria (12.7%), Côte d'Ivoire (10.5%), Togo (12.7%), Liberia (11.9%) and Gambia (11.8%). Growth in the secondary sector was also significant in Cape Verde (9.9%), Ghana (8.8%), Burkina Faso (8.8%) and Senegal (6.0%).

In contrast to the construction sub sector, industry recorded mixed results marked by a near stagnation of activity, with an overall average growth of 0.2% in the last five years within the ECOWAS space. In fact, this sub sector was generally in recession each year between 2006 and 2008. The weakness of the processing sector especially in the food industry made it impossible for countries to derive benefits from the upturn in prices in 2008 contrary to the extractive industry among others.

A number of countries which do not have a recognized mining tradition (with the exception of products like phosphates, uranium, etc.) and/or an industrial sector facing some constraints like Senegal (0.4%), Togo (0.0%), Niger (0.1%), Guinea-Bissau (0.7%) witnessed stagnation in this sector.

Oil producing countries like Nigeria (-0.5%) or countries under embargo like Sierra Leone (-4.6%) under the Kimberly process experienced recessionary trends.

On the whole, industrial activity, including the extractives, was generally in difficulty within the ECOWAS space as a result of structural constraints weighing on the sector. There was lack of diversification of mining products leading to a situation which favoured only gold producers slightly. At the same time, construction activity recorded average growth above 5% in all ECOWAS countries, indicating economic vibrancy in this sub sector.

Inadequate growth in the primary sector

The primary sector accounted for 31% of overall GDP of the ECOWAS space. This ratio was almost constant over the last five years. This reflects perfectly Nigeria's rate (32%). Most countries were well above the average, especially Liberia (62%), Sierra Leone (48%), Guinea-Bissau (42%) and Togo (41%). On the other hand the weight of the primary sector was low in Cape Verde (8%) and Senegal (14%).

Over the last five years, the primary sector recorded an overall average growth rate of 5.9% due to a steady increase in economic activity with a maximum of 6.5% in 2008 and a minimum of 5.3% in 2009. A review of individual country performance showed that over the last five years, only a few countries were generally above the average. These were Liberia (7.3%), Nigeria (6.8%), Senegal (6.8%), Mali (6.5%) and Sierra Leone (6.2%). On the other hand, Cape Verde (2.3%), Côte d'Ivoire (2.7%) and Togo (2.9%) were countries that were below the average in the last five years. For the first two countries, this showed stagnation in agriculture in spite of their potentials, especially in the area of fruit growing.

Though the level of primary activity, especially farming within the ECOWAS space is acceptable, it is still inadequate to drive development. It is also observed that the uncertainties weighing on the sector seem to be offset at the consolidated level of the ECOWAS space.

Table 4: Growth rates of key sectors within ECOWAS (base 100 in 1990)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Primary sector (agriculture, livestock, hunting, forestry and fishing)	1.9%	1.8%	30.3%	5.9%	3.7%	6.4%	5.6%	5.9%	6.5%	5.3%
Secondary sector	7.2%	9.5%	-0.6%	15.4%	5.1%	3.8%	-0.3%	0.2%	-0.3%	1.5%
Industry (including extractives)	7.4%	10.3%	-0.9%	16.3%	5.3%	3.1%	-1.2%	-0.8%	-1.3%	1.1%
Construction	5.0%	1.2%	3.6%	5.5%	2.1%	12.4%	10.1%	11.5%	9.4%	4.8%
Tertiary sector	2.4%	3.1%	6.2%	2.8%	13.9%	7.3%	8.5%	9.7%	8.3%	8.1%
Trading, catering, hospitality	1.5%	1.2%	3.6%	4.2%	22.6%	9.4%	10.5%	12.1%	10.4%	8.8%
Transport, post and communication	2.7%	10.9%	4.1%	7.7%	23.2%	9.8%	11.7%	12.4%	13.1%	11.5%
Other services	3.0%	2.9%	8.9%	0.4%	4.1%	4.5%	5.4%	6.2%	4.2%	5.8%

Source: Our calculations using data from the United Nations Department of Statistics (UNDS)

e) Contribution of sectors to GDP growth

The tertiary sector contributed the most to economic growth (3 points over the entire period) within the ECOWAS space as a whole. This contribution was evenly distributed between telecommunication, post and transport (1 point), trading (1 point), trading, catering and hospitality (1 point) and other services (1 point).

It turned out that in spite of its high performance, the telecommunication, post and transport sector did not contribute more than one point to growth. This was the case of Nigeria, Sierra Leone, Gambia, and Cape Verde due to their relatively modest weight in the overall GDP.

The trading, catering and hospitality sector contributed 2 points to economic growth in Nigeria while this performance was 1 point for the group of countries made up of Cape Verde, Gambia, Guinea, Liberia, Mali, Niger and Senegal. Togo's contribution was -1%.

In the ECOWAS space as a whole, the primary sector was the second contributor to economic growth (2 points over the entire period). In 2009, this characteristic was more pronounced in Togo and Liberia with a contribution of 4 points to growth in both countries. However, this situation in these two countries was a recent development as the primary sector's contribution to growth was only 1 point in 2005.

The primary sector's contribution to growth was nil in Côte d'Ivoire and Cape Verde, while it was negative (-3 points) in Niger. The secondary sector's contribution (through the construction and industrial subsectors) was generally nil for ECOWAS countries. With regard to the construction sub sector, only Gambia recorded a positive contribution of 1 point to growth in 2009 while in the rest of the countries, it was significantly nil. Industrial and extractive activities made a positive contribution of 1 point to economic growth in Guinea, Guinea-Bissau and Liberia. On the contrary, their contribution to economic growth was negative (-1) in Sierra Leone while elsewhere it was significantly nil.

Table 5: Contribution of key sectors to overall value added growth

	Key sectors	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
ECOWAS	Primary sector (agriculture, livestock, hunting, forestry and fishing)	0.01	0.01	0.09	0.02	0.01	0.02	0.02	0.02	0.02	0.02
	Industry (including Extractives)	0.02	0.04	- 0.00	0.06	0.02	0.01	- 0.00	- 0.00	- 0.00	0.00
	Construction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Trading, Catering and hospitality	0.00	0.00	0.00	0.01	0.03	0.01	0.01	0.02	0.02	0.01
	Transport, post and communication	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.01	0.01
	Other services	0.00	0.00	0.01	0.00	0.01	0.01	0.01	0.01	0.01	0.01

Source: Our calculations using data from the United Nations Department of Statistics (UNDS)
*GDP at constant prices for 2005 and in USD

f) Distribution of GDP growth: private consumption, public consumption, investment, net exports

Taking ECOWAS as a whole, private expenditures accounted for most of the economic growth achieved in 2009 (9 points) while in 2005 it was rather the Gross Fixed Capital Formation (2 points). On the other hand,

net exports (-4 points) and public consumption (-1 point) made a negative contribution to economic growth.

Depending on the country and aggregate expenditures, contributions to economic growth are distributed differently and have different scope as summarized in Table 3 "Contribution of main aggregates to overall value added growth".

Table 6: Distribution of growth among the main expenditure aggregates

	Main aggregates	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
ECOWAS	Private consumption expenditures *	0.01	0.25	0.02	0.12	- 0.02	- 0.01	- 0.10	0.26	- 0.07	0.09
	Public consumption expenditure	0.00	0.00	0.00	- 0.00	0.04	0.01	0.02	0.02	0.04	- 0.01
	FBCF	- 0.01	- 0.01	- 0.00	0.01	0.03	0.02	0.02	- 0.00	0.00	0.01
	Net export of goods and services	0.03	- 0.13	0.02	- 0.02	0.04	- 0.01	0.10	- 0.13	0.06	- 0.04

Source: Our calculations using data from the United Nations Department of Statistics (UNDS)
* (including those of benevolent organizations at the service of households y, (ISBLSM) (associations, political parties, NGOs, trade unions, foundations)

g) Per capita GDP trends from 2000 to 2007

Cape Verde had the highest per capita GDP within the ECOWAS space with US$ 3439 in 2008. This was followed from afar by Nigeria with US$ 1450 for the same year, Côte d'Ivoire (US$ 1137) and Senegal (US$ 1088). Liberia (US$ 219) and Guinea-Bissau (US$ 257) had the lowest per capita GDP within the ECOWAS space.

Table 7: Distribution of per capita GDP in ECOWAS countries

Countries	2004	2005	2006	2007	2008
Benin	532	554	579	657	767
Burkina Faso	378	395	406	459	522
Cape Verde	1 967	2 108	2 479	2 962	3 439
Côte d'Ivoire	833	850	883	983	1 137
Gambia	356	412	440	509	636
Ghana	414	489	568	663	709
Guinea	444	353	349	420	505
Guinea-Bissau	188	204	204	232	257
Liberia	145	153	193	180	219
Mali	431	464	505	576	677
Niger	229	257	268	300	354
Nigeria	639	797	1 008	1 123	1 450
Senegal	731	772	808	949	1 088
Sierra Leone	288	291	313	360	418
Togo	331	347	358	403	446

Source: Our calculations using data from the United Nations Department of Statistics (UNDS)
* Per capita GDP at current prices in US Dollars.

3.2. Current trends in relation to some convergence criteria in ECOWAS and UEMOA countries

Convergence criteria are criteria based on economic indicators that member countries of a monetary union must meet. Member countries are expected to constantly meet these criteria or risk attracting warnings then sanctions. Compliance with these criteria is considered necessary to strengthen macroeconomic framework stabilisation and avoid the "free rider" phenomena that are encouraged in monetary zones.

In the subsequent sections, the performance of ECOWAS countries in terms of some convergence criteria (budget balance/GDP ratio, wage bill/tax revenue ratio or tax pressure rate) will be reviewed.

Basic budget balance/ GDP ratio

The basic budget balance (the difference between total revenues excluding grants on one hand and total expenditures and net loans on the other) is in fact the one which is, in practice, most suited to the standardisation of a sustainable budget policy. The basic budget balance includes interest payments so that in an initial approximation, a zero basic balance corresponds to a surplus which covers completely interest payments on public debt.

In 2010, this criterion was negative for all ECOWAS countries. With the exception of Nigeria, the same trend has been observed in 2011 in all the other countries. In the light of this observation, a positive budget balance does not seem to be relevant for ECOWAS countries. In fact, the budget balance must be limited by an unavoidable criterion which implies both a suitable definition and an adequate level taking into account several constraints because if the standard retained is too ambitious, it may not be credible and would be flouted often. However, the standard retained must be quite ambitious to avoid excessive deficits which may undermine the cohesion of the region or monetary stability.

Table 8: Basic budget balance/GDP ratio in ECOWAS countries (in percentage)

	2006	2007	2008	2009	2010	2011
Burkina Faso	-11.3	-12.2	-8.4	-8.9	-9.5	-10.0
Côte d'Ivoire	-0.6	-1.6	-1.1	-2.1	-2.2	-2.7
Cape Verde	-10.3	-5.6	-6.1	-11.9	-13.5	-11.7
Ghana	-12.6	-14.9	-18.8	-14.4	-12.3	-7.9
Benin	-2.8	-1.4	-3.4	-4.8	-	-
Gambia	-8.4	-1.0	-4.7	-8.1	-6.9	-8.7
Guinea	-1.9	-0.9	-1.7	-4.0	-8.4	-8.7
Guinea-Bissau	-21.0	-25.8	-21.9	-22.7	-24.3	-23.8
Mali	-8.5	-7.9	-5.6	-4.2	-5.1	-5.0
Liberia	2.5	4.8	0.6	-4.4	-4.6	-4.7
Togo	-4.2	-1.4	-2.3	-2.5	-3.4	-3.4
Niger	-5.9	-6.7	-5.8	-7.0	-6.5	-6.6
Sierra Leone	-11.0	-6.8	-9.6	-8.9	-9.1	-8.8
Nigeria	7.5	-1.1	3.8	-5.2	-2.8	0.2
Senegal	-7.6	-6.2	-7.2	-7.6	-7.8	-7.8

Source: OECD.

Wage bill /tax revenues ratio

Personnel costs absorb the bulk of state resources. The wage bill covers salaries and others allowances as well as social security contributions borne by the state for its employees. Given that the state has to meet other obligations (operational expenses, investments…) there must be a ceiling to the share of salaries. The ECOWAS Commission fixed a ratio of 35% based on practices in the private sector.

Generally, Benin, Gambia, Guinea, Mali, Niger and Senegal comply with this criterion by achieving most often wage bill to tax revenue ratios below or equal to 35% over the period 2006 – 2011. Nevertheless, at the end of the period there was a deterioration of this criterion for most of the countries. In 2011, very few countries have complied with this criterion, namely Ghana, Mali, Niger and Senegal.

Table 9: Wage bill/tax revenues ratio in ECOWAS countries

	2006	2007	2008	2009	2010	2011
Burkina Faso	44.1%	46.3%	44.7%	46.2%	46.7%	46.4%
Côte d'Ivoire	43.3%	44.1%	44.7%	48.0%	48.4%	48.1%
Cape Verde	50.6%	47.3%	45.7%	50.0%	49.3%	45.6%
Ghana	49.0%	50.2%	56.8%	49.3%	42.3%	34.5%
Benin	35.7%	32.0%	35.5%	44.2%	-	-
Gambia	24.5%	22.6%	31.3%	33.7%	36.0%	37.3%
Guinea	20.4%	25.9%	27.9%	44.7%	60.6%	60.0%
Guinea-Bissau	110.9%	116.5%	106.7%	92.3%	91.4%	83.6%
Mali	31.5%	29.7%	31.7%	31.7%	32.5%	32.7%
Liberia	40.1%	29.0%	40.3%	48.1%	48.6%	48.6%
Togo	37.7%	40.0%	42.0%	43.5%	44.8%	44.8%
Niger	33.6%	31.0%	30.7%	32.1%	32.4%	32.1%
Sierra Leone	56.6%	58.3%	52.8%	51.5%	49.5%	49.4%
Nigeria	78.3%	81.5%	76.3%	77.4%	73.8%	68.9%
Senegal	31.1%	31.6%	32.2%	33.0%	33.0%	33.0%

Source: OECD.

Tax pressure rate

This indicator is meant to lead countries to lay emphasis on internal resource mobilisation given that the financial situation of the state is highly influenced by the performance of its tax administration. Tax revenues are made up of payments without counterparts and non reimbursable paid to public authorities. They also include fees and charges levied by authorities that are not comparable to the cost or scope of the service provided to

the payer. Performance trends in respect of this criterion over the period 2006 – 2011 showed that very few countries were able to go beyond a tax pressure rate of 20%, these were Cape Verde, Ghana and Liberia. Gambia, which met this criterion in 2011, is showing trends indicating that this situation may persist for a long time. Countries within the UEMOA space are still far from observing this criterion. At this level also and for the same reasons related to the viability of integration and also its reliability, there is a proposal to review the limits of

this criteria so as to remain within the reach of countries while remaining ambitious due to the double principle of constraints. This is meant to avoid, among others, counter performance in the implementation of tax policies at the risk of creating imbalances detrimental to optimal integration of the ECOWAS zone.

Table 10: Tax pressure rate in ECOWAS countries (in percentage)

	2001	2006	2007	2008	2009	2010	2011
Burkina Faso	10.44	12.01	12.51	12.15	11.50	11.42	11.39
Côte d'Ivoire	15.10	15.00	15.20	15.20	15.20	15.30	15.60
Cape Verde	18.72	21.61	21.90	22.64	22.04	21.90	21.78
Ghana	17.20	20.20	20.50	20.60	20.70	21.30	22.60
Benin	13.50	15.40	16.90	17.20	16.50	–	–
Gambia	13.00	18.80	19.00	19.20	19.30	19.70	20.40
Guinea	11.00	14.20	13.50	14.70	14.10	13.20	12.50
Guinea-Bissau	9.38	11.16	10.28	10.17	11.24	10.85	11.03
Mali	14.33	14.69	15.99	14.98	14.45	14.54	14.55
Liberia	8.77	18.10	27.65	28.60	22.12	26.83	26.16
Togo	12.03	13.56	13.25	11.73	11.45	11.49	11.38
Niger	9.40	10.70	11.30	11.40	11.20	11.10	10.90
Sierra Leone	12.70	11.30	10.30	10.80	10.30	10.70	10.61
Nigeria	9.30	4.60	5.40	5.90	6.20	6.10	6.10
Senegal	16.10	19.00	19.30	18.30	18.20	18.20	18.20

Source: OECD.

Annual average inflation rate

The annual average inflation rate is the variation of the annual consumer price index and is calculated in a harmonised manner in UEMOA countries. The other ECOWAS countries have their individual method of calculating the annual consumer price index. This could be attributed to data quality. None of the countries met this criterion (3% or less) in a sustained manner between 2007 and 2011.

Table 11: Annual average inflation rate in ECOWAS countries (in percentage)

	2007	2008	2009	2010	2011	2010	2011
Benin	1.3	7.9	4.1	3.3	3.0	11.42	11.39
Burkina Faso	-0.2	10.7	2.8	2.6	2.5	15.30	15.60
Cape Verde	4.3	6.8	2.2	2.5	2.7	21.90	21.78
Côte d'Ivoire	1.9	6.3	1.4	2.5	2.2	21.30	22.60
Ghana	10.7	18.1	18.8	12.2	10.1	–	–
Guinea	2.8	6.0	5.5	2.9	2.5	19.70	20.40
Guinea-Bissau	5.4	4.5	4.2	5.1	5.5	13.20	12.50
Liberia	11.4	17.5	7.8	5.0	5.3	10.85	11.03
Mali	1.4	9.2	2.2	1.9	1.8	14.54	14.55
Niger	0.1	11.3	4.3	3.3	3.1	26.83	26.16
Nigeria	5.4	11.6	12.0	9.3	8.5	11.49	11.38
Senegal	5.9	5.4	-1.1	2.2	2.6	11.10	10.90
Sierra Leone	12.1	10.5	10.7	9.1	7.5	10.70	10.61
Togo	1.0	8.7	1.9	2.4	2.3	6.10	6.10

Source: OECD.

However, in view of their peculiarity linked to the international economic environment, the review of the performance will overlook 2007 and 2008. Within this perspective, it was observed that, with the exception of Niger and Guinea-Bissau, all UEMOA countries observed this criterion. This is due to one of BCEAO's monetary policy objectives which is to ensure price stability. Cape Verde is the only country which has observed this criterion continuously between 2009 and 2011 among the other ECOWAS countries.

4. Methodology

The Calculable General Equilibrium (CGE) modelling is used to simulate the impact of the market access offer (MAO) of West Africa within the framework of economic partnership agreements with the European Union. A CGE model is a simplified representation of how a market economy functions. Through mathematical equations, the model specifies microeconomic behaviours of supply and demand of agents and macroeconomic constraints within which they operate.

Like most CGE models, the model developed within the framework of this study does not include detailed information on household incomes and expenditures which allows an evaluation of the effects of the various MAO scenarios on poverty. To address this shortcoming, a micro-simulation model was developed for countries for which statistical information was available in order to simulate the impact of EPAs on poverty.

The following sections describe successively the structures and functioning of these economic models .

4.1. CGE Model

The CGE model developed to simulate the impact of the West African MAO comes in the forms of various country models linked mainly by trade flows in goods and services: intra-regional trade.

Country modules are, first of all, specified (or tailored) to economies in the West African sub region through Social Accounting Matrices (SAM) of member countries of this geographical space. The report presents the main characteristics of the model and analyses the main macroeconomic data used in its calibration to sub regional economies.

a) Country modules

The country modules follow the standard structure of CGE models based on the neoclassical theory of general equilibrium. Producers maximize their profit depending on given technologies and prices. Consumers maximize their well-being depending on given preferences and prices. Competitive markets determine prices which ensure a balance between producers' supply and consumers' demand. This theoretical formulation is completed with a structuralist vision which takes into account peculiarities of economies in the sub region. The following sections examine these specificities.

The sectoral production of goods and services (S) is represented as a mathematical function overlapping[2] at two levels where Labour (L) and capital (K) on one hand, and the set of factors as well as commercial goods and services (D) on the other hand, are combined based on an imperfect substitution.

Private consumption of goods (C) flows from a linear demand system while public consumption (G) is, by assumption, exogenous over a period. Total investments (I) is made up of the gross fixed capital formation and changes in stocks. While these elements are fixed for a period, product demand for gross fixed capital formation is closely linked to the level of national savings and the cost-benefit ratio of investments

2. In particular a Constant Elasticity of Substitution (CES) function

The international trade in goods is presented in the form of imports (M) and exports (X). Imports flow from the assumption of imperfect substitution between local and foreign products (Armington Hypothesis) and exports from the imperfect transformation between the local and foreign market.

The equilibrium prices of goods are those that equalize simultaneously local supply and demand of goods on all markets.

Labour is an unconstraining factor in economies of the sub region, its supply is assumed to be perfectly elastic. This factor is therefore constrained by the demand of companies. Consequently, the price is assumed to be exogenous in real terms, meaning it is indexed to the general level of consumer prices.

Capital is specific to every branch of production, its demand and supply are assumed to be exogenous.

The balance of the current account of external trade is maintained at a fixed level to ensure equilibrium through the real exchange rate.

Public expenditures – services, transfers and investments – being exogenous and their revenues endogenous, the State budget balance is financed through private savings (crowding out effect).

The economic trend is mainly explained by rules of capital accumulation and labour. Capital accumulation follows the neoclassical specification presented by Thorbecke and Junk (2001). Labour is supposed to grow at a fixed rate. The analysis shows that public expenditures, services, transfers and investment – are exogenous for each inhabitant, as a result, they increase at the rate of population growth as well as minimal consumption. The other exogenous variables such as private transfers increase at the pace of economic growth in countries of the sub region.

b) Modelling of intra-regional trade

The CGE model developed in this study is the combination of 12 country modules working independently as described in the previous section. However, these sub models are interlinked through intra-regional trade in goods and services.

Intra-regional trade in goods and services

Each country in the sub region has trade relations – import and exports – with three distinct geographical entities namely the other countries of the sub region, (ECOWAS), EU and the rest of the world (ROW). Local consumers substitute imperfectly products from these regions as indicated in the Chart below. Thus, the analysis shows that competition between products from ECOWAS countries, EU and the ROW mainly occurs at the level of demand.

Graph 1: Descriptive outline of the importation of products in ECOWAS countries
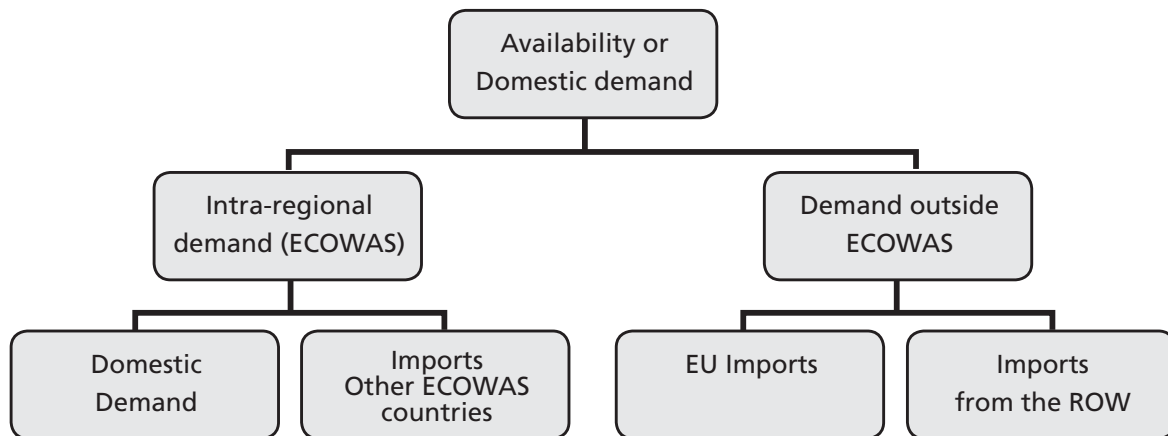
Source: Authors
Legend: ECOWAS: Economic Community of West African States; EU: Europe Union; ROW: Rest of the World

The supply of products to EU and the ROW is assumed to have perfect elastic demand, and therefore their export border prices are exogenous reflecting preferential agreements between countries of the sub region and these regions. In other words, products of the sub region are easily exported to the EU and the ROW, meaning that the availability of products of the sub-region is mainly constrained by the supply of countries within this geographical entity.

On the other hand, supply to ECOWAS is assumed to be constrained by demand in countries of the sub region for sub regional products. Consequently, the overall supply of the country is first of all deduced from exports to ECOWAS, the remaining supply is then shared between the domestic market and those of EU and the ROW according to an imperfect transformation.

Graph 2 : Descriptive outline of product exports in ECOWAS countries
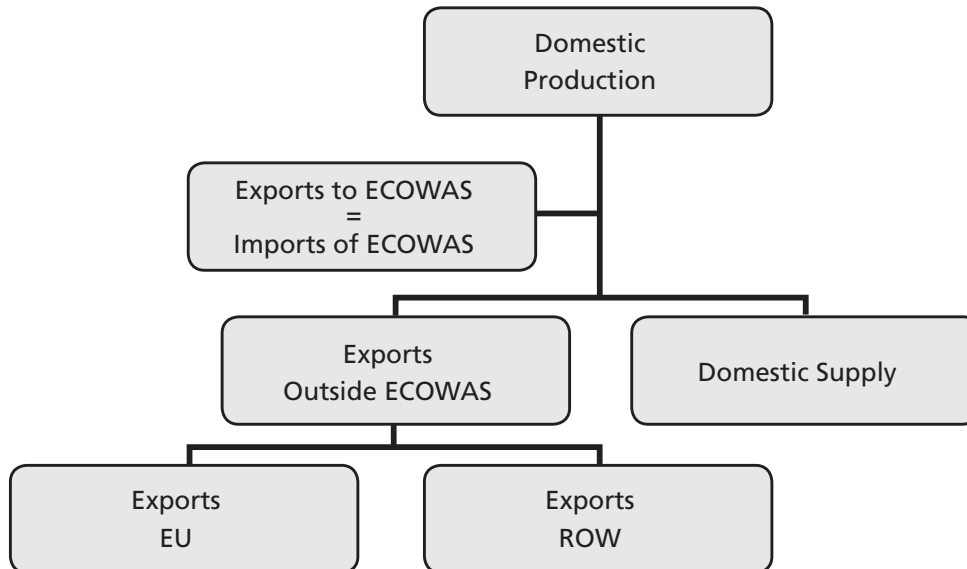
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                    ┌─────────────────────┐
                    │     Domestic        │
                    │     Production      │
                    └─────────────────────┘
                              │
        ┌─────────────────────┐
        │  Exports to ECOWAS  │
        │         =           │
        │  Imports of ECOWAS  │
        └─────────────────────┘
              │
    ┌──────────────────┐        ┌──────────────────┐
    │     Exports      │        │  Domestic Supply │
    │  Outside ECOWAS  │        │                  │
    └──────────────────┘        └──────────────────┘
        │
  ┌───────────┐    ┌───────────┐
  │  Exports  │    │  Exports  │
  │    EU     │    │    ROW    │
  └───────────┘    └───────────┘
```

Source: Authors
Legend: ECOWAS: Economic Community of West African States; EU Europe Union; ROW: Rest of the World

The sum of imports of countries of the sub region represents the total demand for exports directed at the sub region. This total demand for exports is then distributed to economies in the sub region in accordance with imperfect substitution to determine the national export supply of the country.

Like the EU and the rest of the world, regions for which export prices remain exogenous, prices of products meant for intra-regional trade represent an average of domestic prices weighted by the distributive shares of intra-regional exports.

Trade in factors of production and other intra-regional transfers

There is no specific treatment for trade in factors. The assumption of an abundance of labour and therefore unconstrained (or perfectly elastic) labour supply in all the countries makes the analysis of infra-regional mobility of labour irrelevant.

In fact, intra-regional migration is well taken into account in our analysis. However, we argue that the new comers swell the significant mass of unemployed in the host country. Consequently, the probability of the new comers to find work is relatively low compared to the indigenes, thus the economic consequence of inter-regional mobility is relatively weak.

With regard to capital, the analysis shows that endogenous savings of residents is mainly invested in the country of origin. On the other hand, the variation in non residents' savings or in foreign investments is closely linked to the economic performance of the country, meaning a variation of GDP.

Intra regional transfers are indexed to the GDP growth rate of the sub region. In other words, the more the ECOWAS space creates wealth, the more transfers between households on one hand and between them and other economic entities on the other hand are significant in this space.

The other aspects of the macroeconomic model are presented and discussed in the technical document available upon request.

4.2. Micro-simulation model

The standard calculable general equilibrium model (CGEM) generally covers a limited number of categories of households (representative households) thus restricting its use in the analysis of poverty and distribution of revenue (see Savard, 2004). More and more analysts choose to establish a link between the general equilibrium model (CGEM) and data from representative national household surveys to analyse the microeconomic impacts of macroeconomic policies.

Savard, 2010 provides three major approaches to analysing the impact of macroeconomic reforms on revenue distribution and poverty. The first and most commonly used approach is the representative household approach, the second is the top-down approach or sequential micro simulation and the third one, known as multi-household approach, includes all households in a survey directly in the CGEM (see Davies (2009) for a detailed description of these approaches).

According to the first approach, which was first developed by Dervis, de Melo and Robinson (1982) in the 1980s, one can approximate the impact of macroeconomic shocks on poverty by arguing that each category of households identified in the CGEM is actually an aggregate of heterogeneous households whose heterogeneity can be captured if the form of functional distribution of intra-category revenue is known. Thus, several forms of distribution functions have been proposed (normal, Pareto, etc. distribution) in or order to capture the intra-category heterogeneity of households. Supposing that this distribution remains unchanged before and after a shock, it is possible to calculate the variations in the common poverty indicators[3]. In spite of the many applications in the analysis of distribution, the representative household approach has been highly criticized because it does not help to capture intra-group changes in the distribution (Savard (2005) and Robilliard et al. (2008)).

The second micro simulation approach is known as "top-down". It involves applying the results of the standard CGEM simulations, especially impacts on prices of goods and services and factors of production, to information from household surveys in order to estimate the channels of revenue (or consumption expenditure) after a shock to calculate new rates of poverty. However, even if this method takes into account the heterogeneous nature of households in terms of their factor endowments and consumption preferences, it does not take into consideration the retroactive effects of households behaviours in the CGEM (Hertel and Reimar (2005) and Bourguignon and Spadaro (2006)).

To address this drawback, in recent studies (Cogneau and Robillard, 200 Cockburn, 2001, among others, based on proposals presented in Decaluwé, Savard and Dumond 1994[4]) the approach chosen involved integrating into a standard CGEM each household in a household survey. This approach boils down to building a CGEM with a number of household categories equivalent to the number of households in a representative national survey, thus avoiding the assumption of the representative agent. Consequently, the microeconomic behaviour of agents is directly taken into account in the macroeconomic framework and interdependence and retroactive effects are completely integrated in the CGEM resolution (Fofana and ali, 2004).

Nevertheless, this approach entails some challenges. Firstly, it requires a substantial amount of work to reconcile micro-household data with national accounts data of the SAM. In addition, there could be convergence problems if the CGEM is quite big, complex or combines non linear functions (Rutherford and al. (2005), Chen and Ravallion (2004) and Bourguignon and Savard (2008)).

To avoid these problems, Savard (2010) used another variant of the top-down approach known as Top-down-Bottom-up approach. This approach offers greater flexibility in modelling the behaviour of households compared to the integrated multi-household approach through the introduction of a bi-directional link between CGE and micro simulation models to obtain a

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3. See for example: Dervis, de Melo and Robinson (1983); De Janvry, Sadoulet et Fargeix (1991); Decaluwé, Savard and Thorbecke (1999); and Boccanfuso, Savard, Decaluwé (2003). In this last study, the authors make a comparison of results obtained by using seven different functional forms.

4. In their study, Decaluwé, Dumont and Savard (1999) used dummy data from a household survey to compare of a microsimulated GCEM (with 150 household) with those of a standard model with three categories of household. On the other, studies by Cogneau and Robillard and Cockburn dealt with real data gathered in Madagascar and Nepal respectively.

converging solution. The basic idea of the approach involves using the CGE model to generate a price vector (including salary rates) and a household micro simulation model to reproduce the behaviour of households (consumption and employment offer) in response to these price variations. These micro responses of households are aggregated once again and reintroduced into the CGE model and so on until there is convergence. The main challenge of this approach is that the convergence is not guaranteed and must be verified for each simulation.

Drawing on the work of Cabral, Cisse and Diagne 2009, Fofa et ali 2004, our analysis focused on the Top-down approach which proved more appropriate in the case of this study, given the difficulty in reconciling micro households data with those of the Social Accounting Matrix (SAM) for three main reasons. First of all, household surveys in ECOWAS countries do not generally provide information on incomes, making impossible the reconciliation of data from surveys and those of the SAM.

We chose the common P_α indices of Foster, Greer and Thorbecke (1984) (FGT). These indices have the advantage being decomposable and additive. It helps to take into account various dimensions of poverty according to the degree of aversion (measured by the value of α) attributed to the poor. This involves the incidence, depth and intensity of poverty.

Given that $P_\alpha = \dfrac{1}{n} * \displaystyle\sum_{i=1}^{p} \left(\dfrac{z - y_i}{z} \right)^{\alpha}$ where n represents the total number of households, p the number of poor people ; i the sub group of people with an expenditure level below z which is the poverty threshold ; α measures the degree of aversion for aversion ; When $\alpha = 0$, P_α is a measure of the poverty rate ; $\alpha = 1$ reflects the depth of the poverty and $\alpha = 2$ measures the intensity of the poverty.

For each country, we replicated the monetary poverty profile for the base year while taking into consideration the official national poverty line. After each simulation, consumer prices and expenditures were used to estimate new expenditure thresholds and vectors and, for that matter, new poverty rates.

4.3. Methodology used in calculating tax rates for the simulation

Treatment of tariff lines
The data base[5] containing information on imports and customs taxes was the one used in establishing the market access offer for West Africa. This data base contains all the tariff lines under the 2007 version of the Harmonised System of Nomenclature, disaggregated up to ten digits. It also contains volumes and values of imports and customs revenues per tariff line for each ECOWAS country. In the said data base a correspondence was established between the Harmonised System and the NOPEMA[6] nomenclature of national accounting. The various data were an average of 2000 – 2004 figures.

Calculation of tax revenue losses caused by tariff removal by:

Using specific customs duties rates
For each product of the SAM, tax revenue losses caused by tariff removals based on the liberalisation scheme adopted by the ECOWAS commission were estimated as follows:

1. The shift from the NOPEMA nomenclature branches of national accounting to the SAM products was taken into account. Table A1 in appendix shows the correspondence between SAM products and those of NOPEMA branches.

2. The specific customs duty rate (ts) was calculated using the following formula :

   ts = value of national customs duties on the product from the European Union / value of national imports of the product from the European Union

3. If the tariff removal is carried out from 2011 to 2035, Group A products will all be liberalised by January 2011. A four year moratorium will be observed. From January 2015 Group B products will be gradu-

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5. This data base was obtained after shifting tariff lines of 1988, 1996, 2002 versions from the SH nomenclature with six digits, six digits SH2000 version then to the same disaggregated version of ten digits.

6. This equivalence was established through a transition table between the SH and NOPEMA nomenclature. The transition table was provided by the Agence Nationale de la Statistique et de la démographie (ANSD).

ally liberalised over a ten year period and those of Group C will be liberalised starting from January 2025 till 31st December 2032. The gradual liberalisation will lead to a regular reduction in customs duties until they reach zero. For each product, there are projections till 2032 on the annual value of customs duties that would be collected if the tariff removal is implemented and conditions of tax revenue losses remain unchanged. This value is equal: $ts_j \times vimp_j$ with t corresponding to the year.

4. The value of customs duties (v_i^t) for each product of SAM i and year t, is obtained through the following formula: $v_i^t = \dfrac{\sum j \, ts_j \times vimp_j}{\sum j \, vimp_j}$, $vimp_j$ corresponds to the value of national imports from EU for product j. Trends in the projected value of customs duties are presented for each SAM product and for each country in table A2 as an appendix.

5. Based on the liberalisation scheme, the rate of tax revenue losses for each product (i) of the SAM is obtained by using the following formula: $\dfrac{v_i^t - v_i^{t-1}}{v_i^{t-1}}$

Extending the CET to all countries

By assuming that all countries within the region adopt the UEMOA CET, the structure of tax losses would change. In this case, to assess the tax losses following the removal of tariff, first of all, the gap between the value of customs duties obtained if the national tariff is applied and what is obtained if the UEMOA tariff is applied was calculated. This gap was later expressed as a percentage of customs duties if the national tariff is applied. From this rate, the progression of tax loss rate assessed in the first case was applied. The countries concerned were Nigeria, Ghana and Cape Verde

5. Results of simulations

We considered the following three market access offer scenarios:

Scenario 1: the liberalisation of 70% of imports from the European Union over a period of 25 years, with 45% during the first 15 years (or 64% of imports to be liberalised).

Scenario 2: The liberalisation of 70% of imports from the European Union over a period of 25 years with 64% over the first 15 years (corresponding to 85% of imports to be liberalised).

Scenario 3: The liberalisation of 65% of imports from the European Union over a period of 25 years, with 45% during the first fifteen years (or 69% of imports to be liberalised).

Results of the simulation of regional market access offer scenarios

Results of scenarios presented in the previous section were compared to those of the continuity scenario, meaning in the absence of a market access offer. The latter serving as a reference showed average growth rates of economies in the sub region[7] similar to those recorded in the last decade.

The specific customs tariff – ratio of customs revenues/value of imports – applied to imported products was initially estimated at 7.3% for the whole region (Appendix 1 Graph 22). Graph 1 presents the pace of removal in the three scenarios described previously. The entire liberalisation period was presented in three phases corresponding to the pace of liberalisation of Groups A, B and C and products.

■ **Phase 1** was spread over the first 5 years of liberalisation with a reduction of effective rates applied on European goods[8] ranging between 0.8 and 0.9%. The three scenarios did not present any significant differences in the pace of liberalisation. In this phase, the reduction in customs tariffs affected mainly products in group A.

■ **Phase 2** stretched from the 6th to the 15th year of liberalisation and was marked by a significant difference in the pace of tariff reduction between scenario 1 and 3 and scenario 2. It is recalled that 64% of imports from the EU into the sub-region is expected to be liberalised during the first 15 years of the process under scenario 2 compared to 45% in scenario 1 and

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7. We use interchangeably the expressions sub region, ECOWAS and West Africa to refer to this geographic entity covered by this study .

8. The term "European product" refers to products from European Union.

3. In addition, the liberalisation of group B products which are more protected than those of group A are expected to take effect during this period and contribute to a significant difference between scenarios 1 & 3 and scenario 2.

■ **Phase 3** was beyond the 15th year and continued to year 25 of the liberalisation process. It was marked by a significant gap in the customs tariffs removal scheme under scenario 1, 2 and 3. While the liberalisation was accelerated under scenario 1, it remained almost simi-

lar to the pace in the previous period under scenario 3. Finally, the pace of liberalisation slowed down slightly under scenario 2 but remained all the same quite significant. It was during this period that group C products were liberalized. These products are clearly more protected than those of group A and B and account largely for imports in countries of the sub region.

In general, macroeconomic results described above, reflect these phases that we will be referring to on a regular basis.

Graph 1: Effective customs tariff rates applied to EU products, variation in relation to continuity scenario (percentage point)
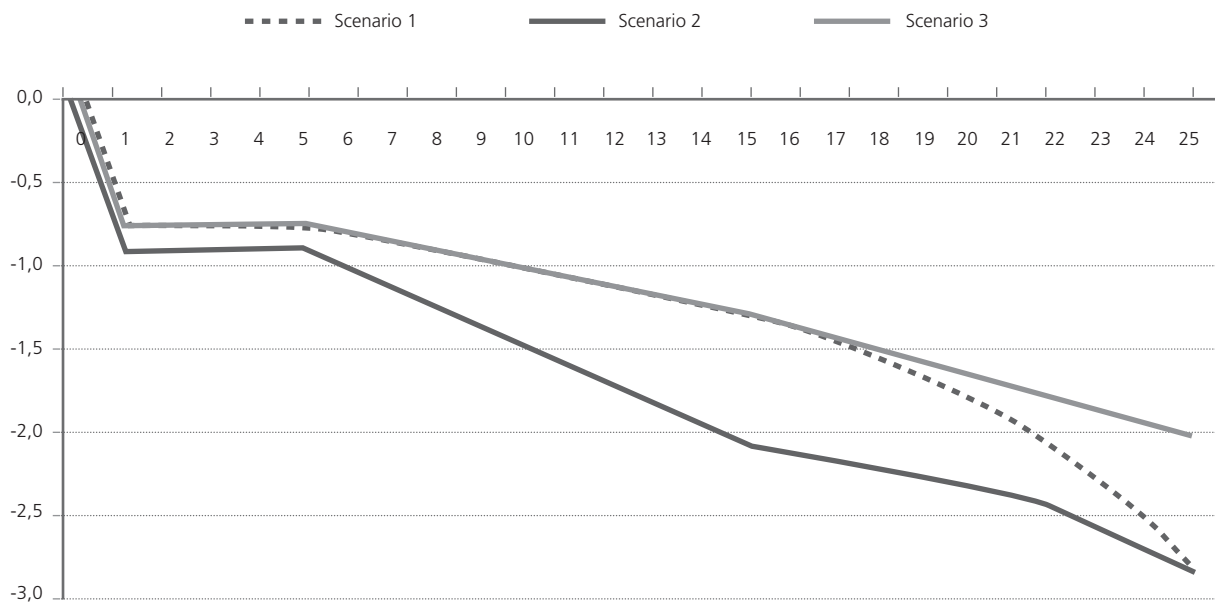
Source: Results of simulations

5.1. Regional Gross Domestic Product

Lesson 1: *The liberalisation of a maximum of 65% of imports in the sub region contributed to accelerated economic growth in the sub region. Beyond this threshold, there is a risk of a deceleration in the overall economic growth of the sub region.*[9]

Lesson 2: *The liberalisation of Group A and B products contributed to the acceleration of economic growth in the sub region; on the other hand, that of Group C products could lead to a slow down.*

Lesson 3: *The preparation (upgrading) of industries dealing with Group C products to face greater competition from European products would help reduce the adverse effects of a wider opening up of the sub regional market to EU products.*

The simulation of sub regional market access offer scenarios showed that overall ECOWAS GPD went up marginally by 0.2 during phase 1 corresponding to the liberalisation of Group A products (Graph 2). Indeed, local products in this group do not currently compete directly with European products and remain unprotected. Consequently, their liberalisation was beneficial for econo-

mies in the region as a result of a reduction in prices. This result was almost the same for the three scenarios.

The GDP was still on an upward trend under phase 2 (Graph 2). This result once again reflected the low competition local products pose to those from Europe that have so far been liberalised and their low tax impact compared to the reduction in cost enjoyed by consumers in the region. While the GDP growth in relation to continuity strengthened, reaching 0.4% in the 15th year of liberalisation under scenario 1 and 3 but slowed down under scenario 2 to settle around 0.1% during the same period. It is recalled that in the latter scenario, the pace of removal was more significant than in the first two.

The liberalisation of Group C products came into force under phase 3, meaning from the 15th year. These products are more protected than those of Group A and B and account for a great proportion of imports and tax revenues for the region. Besides, local products belonging to Group C are direct competitors to European imports. A significant reduction in GDP of 1.0 and 1.5% under scenario 1 and 2 respectively was observed in phase 3 (Graph 2). A greater pace of tariff removal and for that matter increased competition led to a downward trend in GDP. On the other hand a slower pace of removal helped to maintain a positive annual growth rate of 0.4% under scenario 3 compared to the continuity scenario.

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9. These results will be confirmed trough a sensitivity analysis with a liberalisation threshold below 60% and another one above 75%.

Graph 2: Regional GDP, annual variation in relation to the continuity scenario (%)
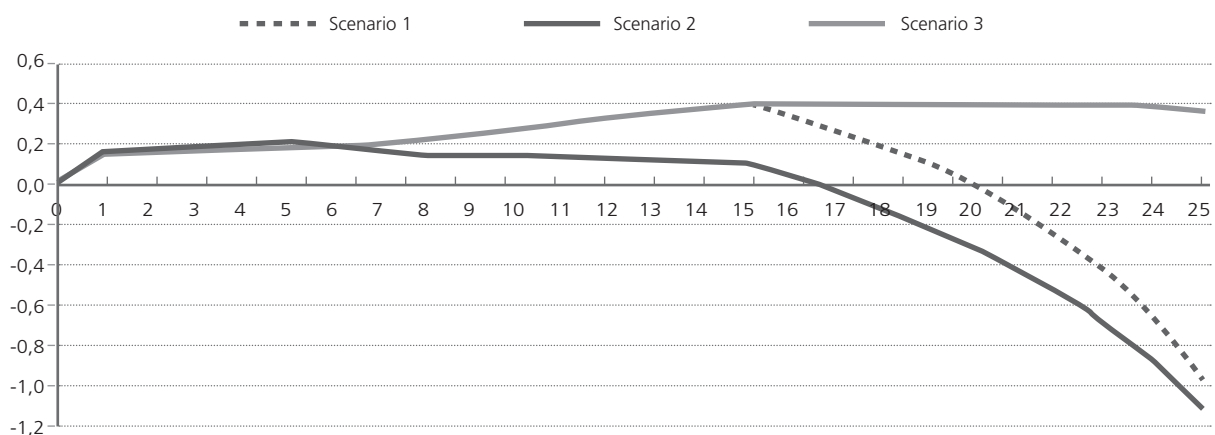
Source: Results of simulations

Graphs 3 to 5 bring out annual changes in GDP components. These components were firstly measured as a percentage of GDP, then the differences in ratios measured under scenario 1, 2 and 3 and that of continuity were presented. This pointed out that the loss of wealth suffered by economies in the sub region was mainly due to a widening of the trade deficit or a drop in net exports and to a lesser extent to a decline in investments following a reduction in national savings. This explains why GDP growth under scenario 3 was essentially attributed

to the improvement in the balance of trade while this declined considerably under scenario 1 and 2 and the reduction in investment remained relatively stable from one scenario to the other.

Lesson 4: *The worsening of the trade balance would be the main cause of a slowdown of GDP. An improvement in the trade balance by strengthening the competitiveness of the sub regional economy should be a major issue in the sub regional compensation programme.*

Graph 3: GDP Components, variation of ratios in relation to GDP under scenario 1 compared continuity (percentage point)
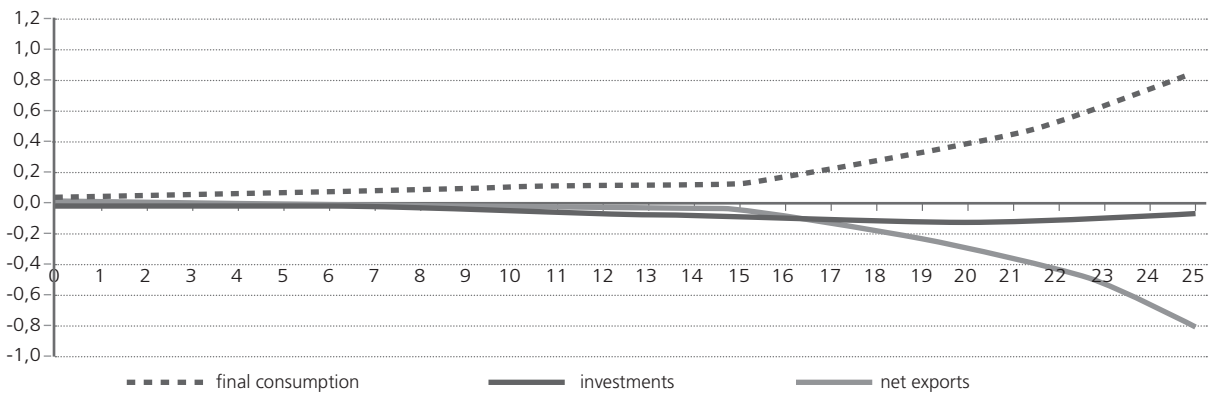
Source: Results of simulations

Graph 4: GDP Components, variation of ratios in relation to GDP under scenario 2 compared to continuity (percentage points)
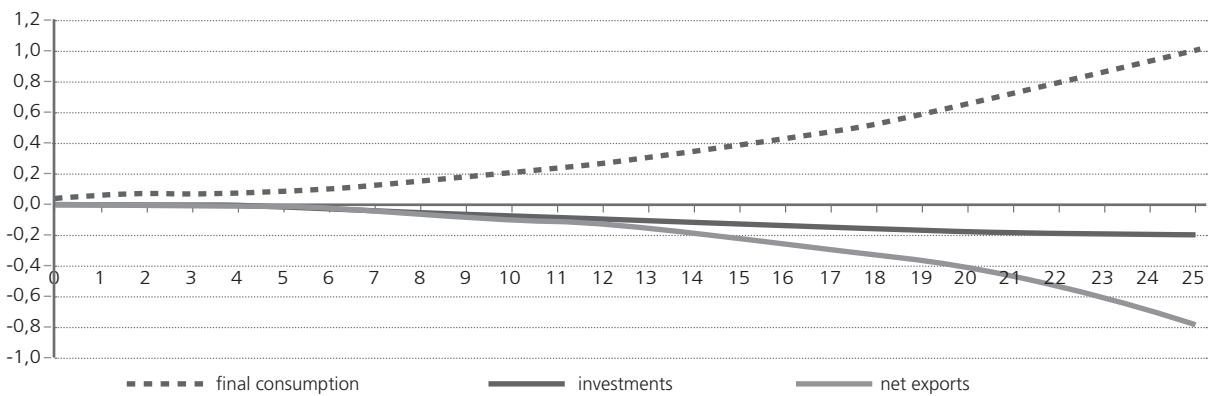
Source: Results of simulations

Graph 5: GDP Components, variation of ratios in relation to GDP under scenario 3 compared to continuity (percentage points).
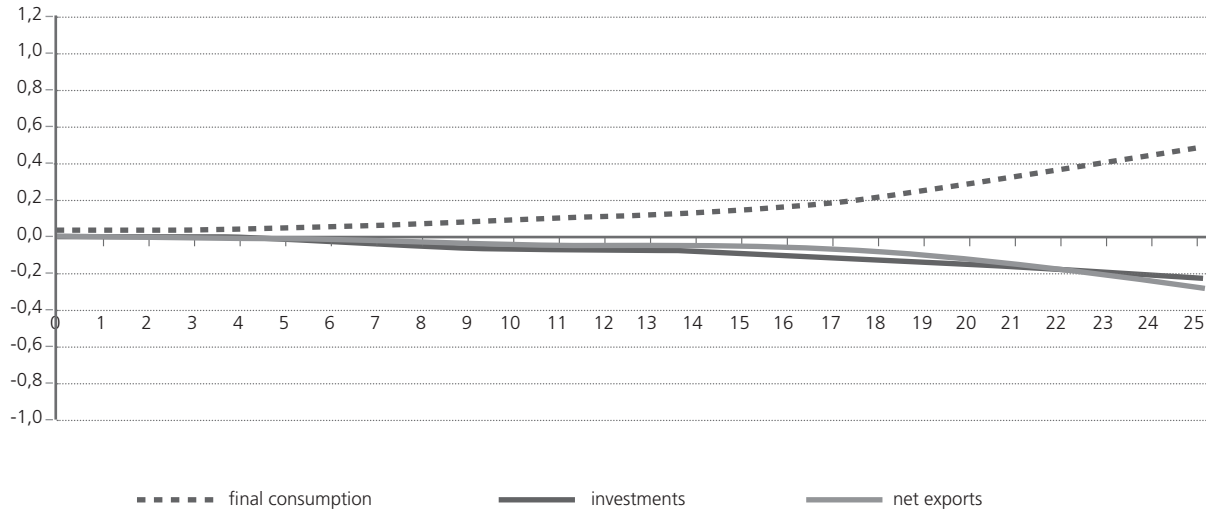
Source: Results of simulations

5.2. Trade

Lesson 5: *The increase in imports following a wider opening of the sub regional market to European products, especially Group C products would lead to increased competition with local products and to a minute extent with non European imports.*

A wider opening of the sub regional market to European products, especially those under Group C led to a significant increase in imports from the European Union. The rise in European imports compared to their level under continuity reached 9% at end of period under scenarios of a 70% liberalisation (scenario 1 & 2), representing a 3% increase in overall imports. Graphs 6 and 7 show that the increase in imports was accelerated earlier under scenario 2, meaning five years after the onset of the liberalisation while this process occurred much later in scenarios 2 and 3, or 15 years after the beginning of the liberalisation.

However, by choosing a relatively less significant liberalisation of 65%, growth in European imports in relation to the continuity scenario reached only 6% at end of period, indicating a difference of about 3 percentage points compared to the 70% liberalization. Total import growth was 1 percentage point less than that of scenario 3 compared to scenarios 1 and 2.

Besides, Graphs 6, 7 and 8 indicate that non European imports – from ECOWAS and the rest of the world – remained relatively constant in all scenarios considered. Consequently, the major impact of the growth in European imports, especially those of Group C was increased competition with local production and to a minute extent with non European imports.[10]

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10. An analysis of sensitivity to trade elasticity used in the study will be conducted to confirm the reliability of the results.

Graph 6: Sub regional imports, variation in relation to continuity under scenario 1 (%)
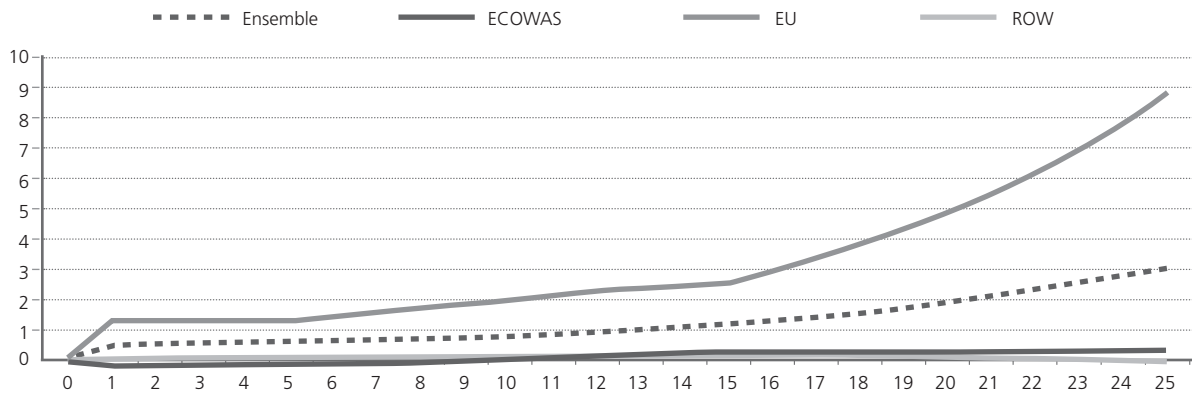
Source: Results of simulations

Graph 7: Sub regional imports, variation in relation to continuity under scenario 2 (%)
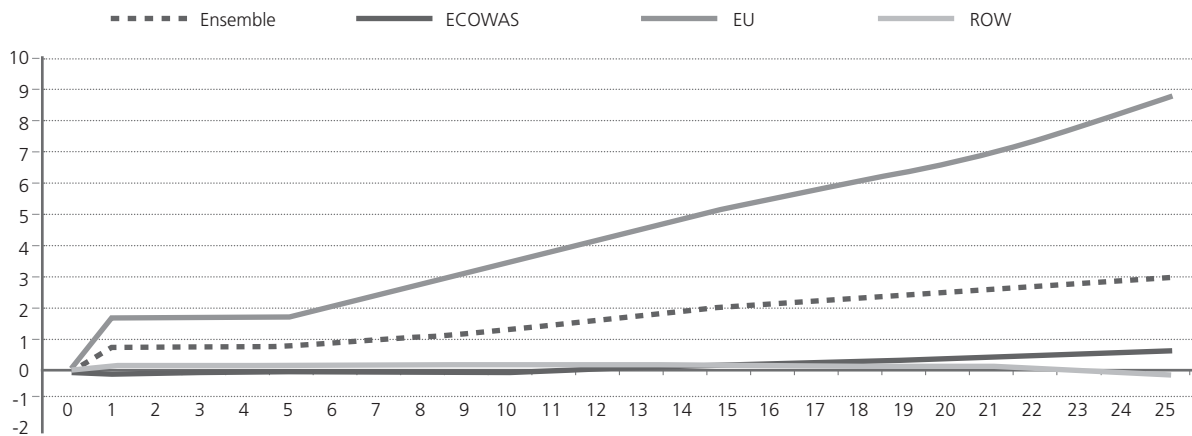
Source: Results of simulations

Graph 8: Sub regional imports, variation in relation to continuity under scenario 3 (%)
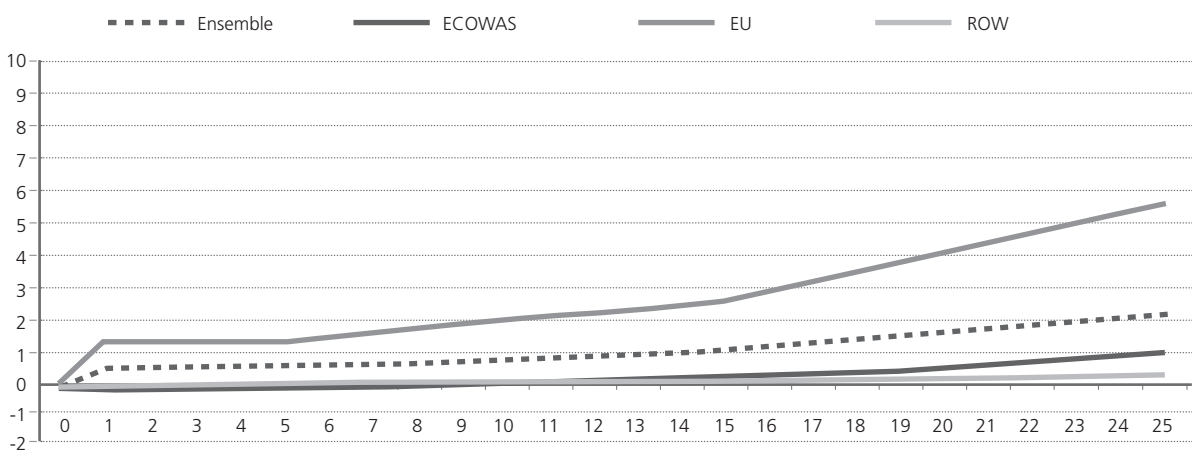
Source: Results of simulations

The growth in imports, especially during phase 3 corresponding to the liberalisation of group C products, increased the pressure on the real exchange rate of economies of the sub region – in other words the ratio of internal and external prices. The drop in this ratio improved the price competitiveness of the economy and encouraged exports. These increased in all scenarios considered. (Graphs 9 – 11)

Though a reduction in rates of customs tariffs on European products is expected to lead to a significant loss of tax revenues, the upsurge in imports and exports would rather contribute to their increase through the widening of the tax base. This aspect concerning taxation is addressed in the next section.

Graph 9: Sub regional exports, variation in relation to continuity under scenario 1 (%)
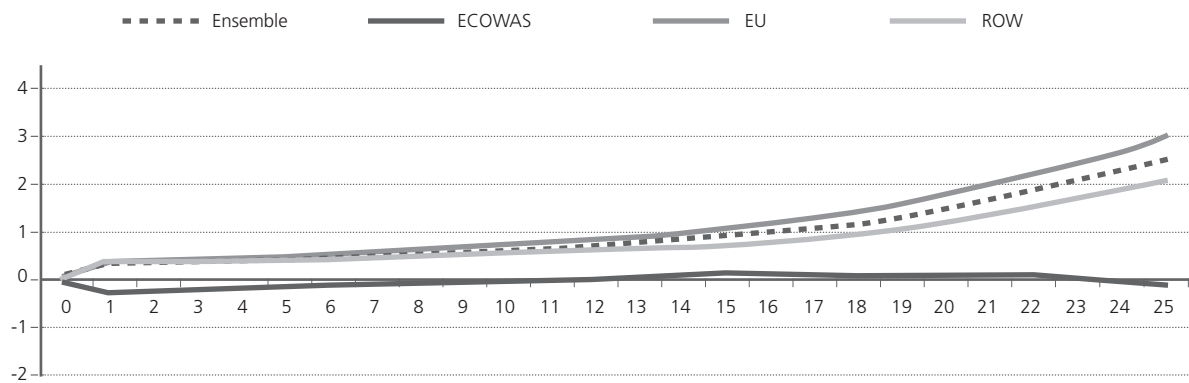
Source : Results of simulations

Graph 10: Sub regional exports, variation in relation to continuity under scenario 2 (%)
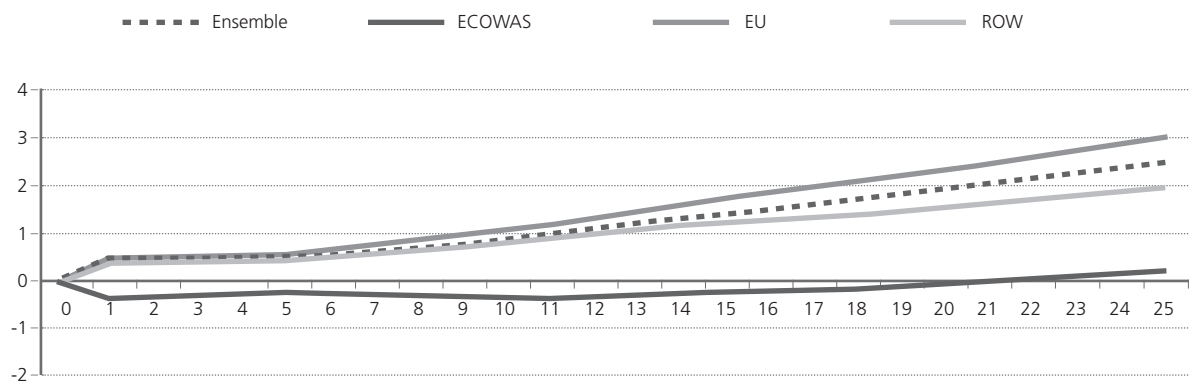
Source : Results of simulations

Graph 11: Sub regional exports, variation in relation to continuity under scenario 3 (%)
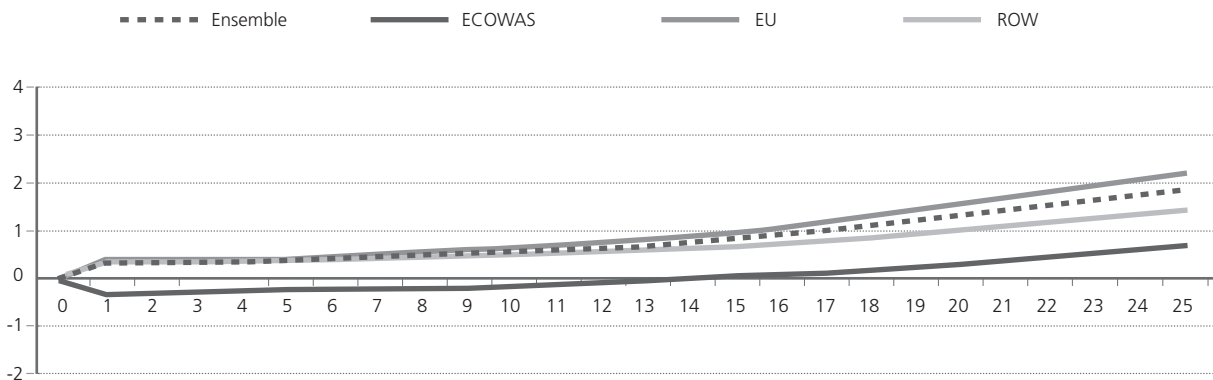
Source: Results of simulations

5.3. Taxation, revenues and savings of countries: sub regional analysis

Lesson 6: In case of a significant deceleration of economic growth, the loss of state revenue by other forms of taxation (direct taxes, consumption taxes and production taxes, etc) could be as considerable as those resulting from customs revenues.

The opening of the sub regional market to European products led to a loss of customs revenue, under the three scenarios considered (Graph 12). During the first five years of liberalisation, annual loss of customs revenues compared to the continuity scenario was about 3.5% under scenarios 1 and 3 and over 4.0% under scenario 2. Beyond this period, it grew rapidly to reach at 5.5% and 6.5% under scenarios 1 and 2 respectively. From the 15th year, the substantial growth in imports in scenario 1 and 2 mitigated the significant tax losses recorded in previous years to settle at between 4.0 and 5.0%. On the other hand, tax losses continued to increase under scenario 3 where the upward trend in imports was less intense.

Graph 12: Customs revenues, variation in relation to continuity (%)
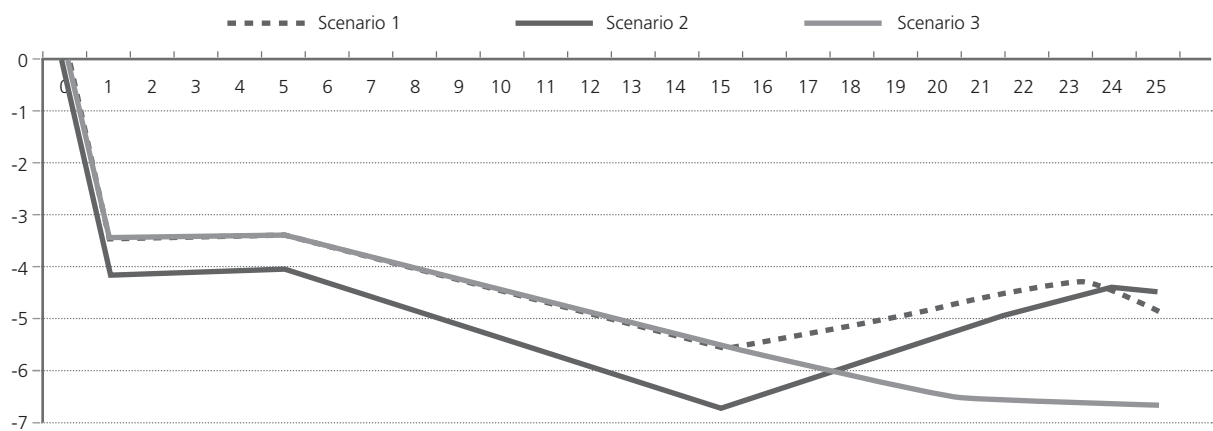
Source: Results of simulations

The share of customs revenues from European products accounts for only 5% of tax revenues of countries in the sub region (Graph 13). Consequently, the implications of the various market access offer scenarios to European products on the West African market should not be significant. Public revenues fell by a little over 0.4% under scenarios 1 and 3; the drop was over 0.8% in scenario 2, representing more than double the figure of the previous scenarios. The slowdown in economic growth, and for that matter, loss of other tax revenues seemed to have a significant impact on state revenue (Graph 12 and 13).

Graph 13: Structure of public revenue for the whole ECOWAS region
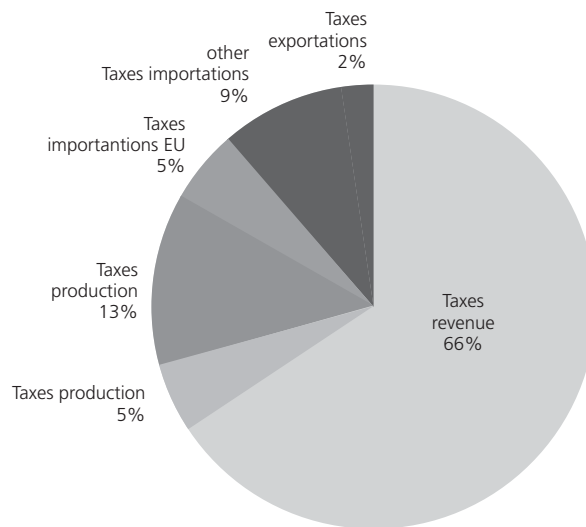
Source: Social Accounting Matrix of ECOWAS

Graph 14: Revenues for the entire ECOWAS region, variation in relation to continuity (%)
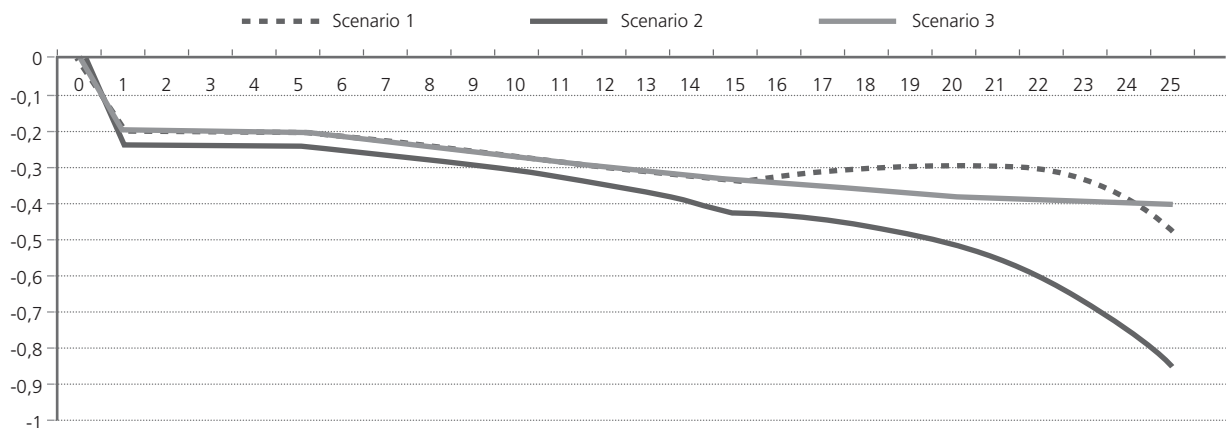
Source: Results of simulations

It is recalled that the study assumes that per capita public expenditures are fixed. Consequently, their total amount went up in accordance with the pace of sub regional population growth. With the decline in countries' revenues compared to the continuity scenario, primary public savings which initially accounted for 7.3% of GDP

dropped in the three scenarios (Table 10). The drop was two times more remarkable under the scenario of accelerated pace of customs tariffs removal (scenario 2). The decline in the primary state budget balance was the main cause of the downturn in overall savings, and for that matter overall investments in the sub region.

Table 10: Savings (%)

	GDP Ratio (beginning of the period)	Variation in relation to continuity (end of period)		
		Scenario 1	Scenario 2	Scenario 3
Overall savings	8.4	-1.3	-1.9	-0.5
Private savings	11.2	12.5	12.6	12.7
Public savings	7.3	-0.8	-1.4	-0.7
External account	-10.1	0.2*	0.1*	0.0

Source: SAM and results of simulations .
Note: * Widening of the deficit

5.4. Income, prices and real consumption of households

Lesson 7: *Liberalisation beyond 65% of imports of the sub region would benefit consumers through an increase in their purchasing power. On the other hand, this positive impact becomes negative when the competition pressure from European goods mounts as the liberalisation is scaled up to 70%.*

Household revenue inched up marginally thanks to accelerated economic growth during the first 15 years of liberalisation. It continued on this path under scenario 3 to reach 0.8% at the end of the period of liberalisation when compared to the continuity scenario. On the other hand, beyond the 15[th] year household revenue fell under scenarios 1 and 2. The decline continued and became slightly negative at 0.4% at the end of the period.

The price effect of the market access offer was favourable for consumers in the sub region. The fall in prices compared to those prevailing before the market access offer was between 0.3 and 0.7% depending on the sce-

nario (Graph 16). The drop in prices was also twice more significant in scenarios of 70% liberalisation compared to that of 65%.

Therefore, real household consumption went up to reach between 0.3 and 0.6% in the 15[th] year of liberalisation. On the other hand, it fell to 0.2% under scenarios 1 and 2.

Graph 15: Gross household revenue: variation in relation to continuity (%)
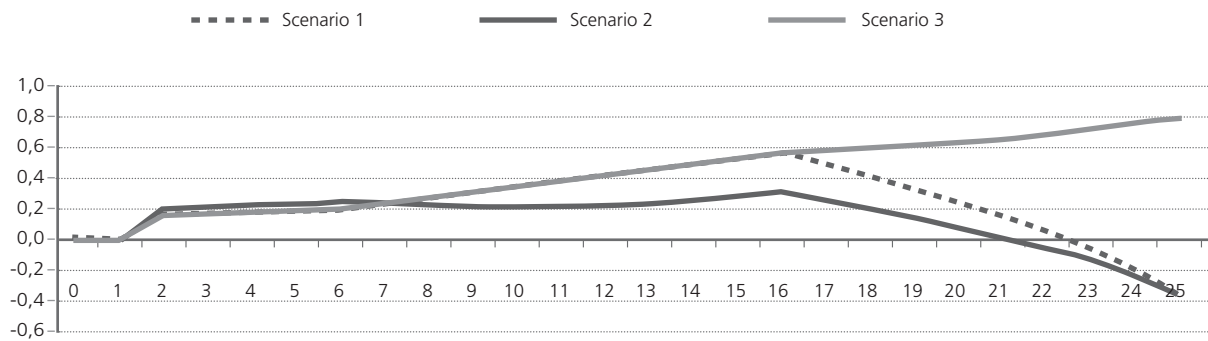
Source: Results of simulations

Graph 16: Consumer price index: variation in relation to continuity (%)
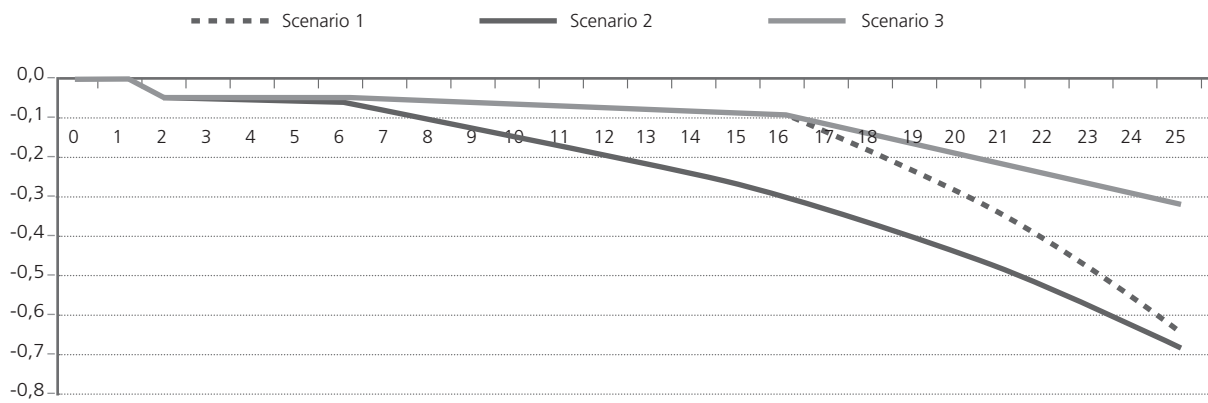
Source: Results of simulations

Graph 17: Final consumption of households, variation in relation to continuity (%)
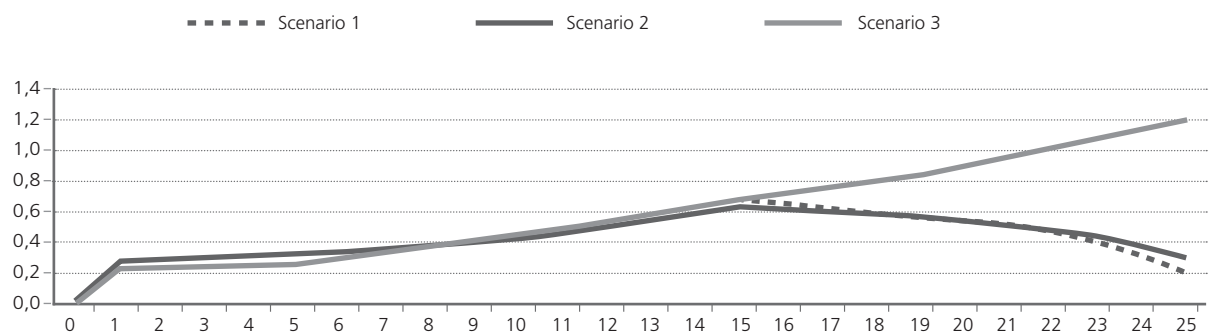
Source: Results of simulations

5.5. Impact on poverty

The analysis of effects on poverty covered 12 countries[11] in the sub region for which we had information on household surveys. The population of all these countries is estimated at 234,951,220 inhabitants, representing

90% of the total population of ECOWAS. By considering a national official poverty threshold, we reproduced for each country the poverty rate for the base year. The effects of the MAO on poverty were analyzed by comparing the number of poor people in the reference scenario with that of the simulation. Table 11 presents for each country poverty thresholds and incidence as well as the population of the base year.

11. These are Benin, Burkina Faso, Côte d'Ivoire, Cap Verde, Ghana, Guinea-Bissau, Guinea, Mali, Niger, Nigeria, Senegal and Togo.

Table 11: Poverty threshold and incidence of ECOWAS Member States

Country	National poverty rate (in %) (individual level)	National Poverty Threshold (in fcfa)	Population (in Thousands)	Share of the total population
Burkina Faso	46.39	82,672	11,400,000	4.85
Benin	36.36	82,224	6,488,423	2.76
Côte d'Ivoire	48.94	241,150	15,400,000	6.55
Cap Verde	36.69	257,024	470,687	0.20
Guinea-Bissau	64.68	216,000	1,181,641	0.50
Ghana	37.47	222,217	22,600,000	9.62
Guinea	50.04	387,692	8,510,468	3.62
Mali	47.8	149,037	12,300,000	5.24
Nigeria	56.68	81,073	126,000,000	53.63
Niger	59.53	150,933	13,400,000	5.70
Senegal	50.76	261,181	12,000,000	5.11
Togo	61,7	242094*	5,200,000	2.21
All the 12 countries			234,951,219	100.00

Source: National Households Surveys Reports

Lesson 8: _The liberalisation of products in group A and B would be beneficial for poverty reduction in the sub region in the first 15 years under the three market access offer scenarios. However, that of group C products could lead to increased poverty from the 20th year when the liberalisation hits 70% of imports. This increase in poverty was very significant when the pace of liberalisation was more sustained (scenario 2)._

The combined revenue, price and real consumption effects determined the ultimate impact on poverty. The number of people living below national poverty thresholds reduced in the first 15 years of liberalisation (Graph 18). This trend persisted in scenario 3 to reach 1.6% at the end of the period in relation to the continuity scenario. On the other hand, under scenarios 2 and 1, the number of poor people reduced at a slower pace beyond the 13th and 15th year respectively to later rise starting from the 20th year till the end of the period.

Graph 18: Poverty trends, variation in relation to continuity (%)
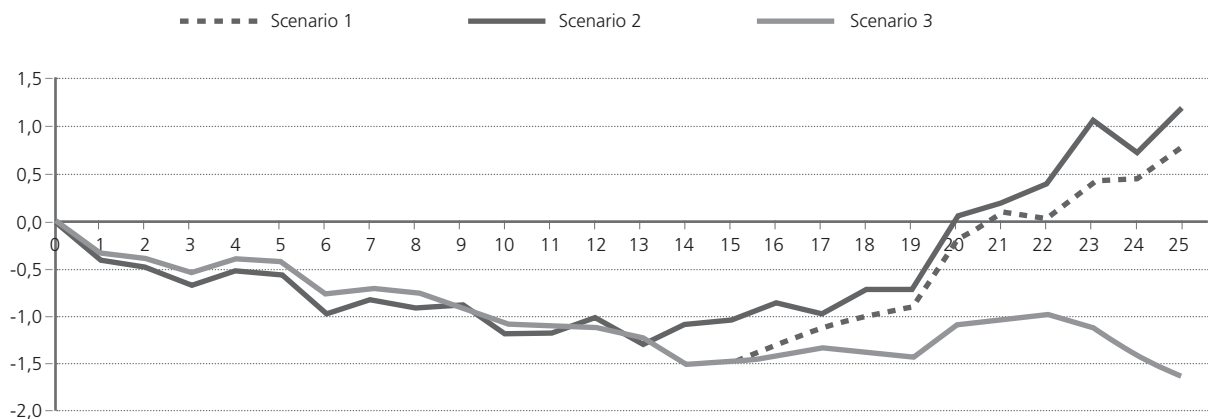
Source: Results of simulations

5.6. Distributive effects of regional market access offer scenarios

Lesson 9: _The liberalisation of group A products contributed to a slight acceleration in economic growth in the sub region. The liberalisation of group B products remained generally favourable for the region but created disparities between economies. The liberalisation of Group C products led to a slowdown in economic growth and widened disparities between economies_

The results presented in table 12 show that the simulated market access offer scenarios have quite disparate impacts on countries of the sub region in terms of wealth creation.

The simulation revealed that the liberalisation of Group A products contributed to the acceleration of wealth cre-

ation compared to the continuity scenario in countries covered by study. For the scenarios simulated, economic growth went up slightly for most countries and significantly for Niger and Côte d'Ivoire.

The liberalisation of Group B products, though generally favourable to the region, began to create disparities between economies. It was mainly favourable for Côte d'Ivoire, Ghana and Niger and detrimental to Senegal and Nigeria depending on the scenario.

The liberalisation of Group C products amplified the disparities in terms of wealth creation. Economies which benefitted from the shock through accelerated GDP growth were Côte d'Ivoire, Ghana and Niger and to a lesser extent Benin. Economies that recorded a marked slowdown in growth were Nigeria and Senegal and to a lesser extent Togo, Cape Verde and Guinea-Bissau.

Economic growth remained almost stagnant in Burkina Faso, Mali and Guinea in view of a decline in their GDP compared to the continuity scenario.[12]

The following sections provide a detailed analysis of the causes of disparity in economic performance among countries as a result of a greater liberalisation of trade with the EU. The analysis has been limited to six economies in view of their economic weight and importance of MAO effects on economic performance and people's welfare. These countries are Nigeria, Ghana, Côte d'Ivoire, Senegal, Niger and Togo.

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12. These changes could prove statistically insignificant.

Table 11: Poverty threshold and incidence of ECOWAS Member States

Country	Scenario 1			Scenario 2			Scenario 3		
	Year 5	Year 15	Year 25	Year 5	Year 15	Year 25	Year 5	Year 15	Year 25
Nigeria	0.0	-0.1	-2.8	0.0	-0.8	-3.2	0.0	-0.1	-0.9
Ghana	0.3	1.0	3.2	0.4	2.2	3.5	0.3	1.0	3.1
Côte d'Ivoire	1.2	2.9	8.0	1.6	4.6	8.8	1.2	2.9	7.7
Senegal	0.1	-0.8	-2.8	0.1	-1.0	-3.6	0.1	-0.8	-2.7
Burkina Faso	0.0	0.0	-0.4	0.0	0.0	-0.3	0.0	0.0	-0.3
Mali	0.0	-0.1	-0.3	0.0	-0.1	-0.4	0.0	-0.1	-0.2
Benin	0.2	0.3	2.1	0.2	0.4	2.1	0.2	0.3	1.7
Guinea	0.0	-0.1	-0.3	0.0	-0.1	-0.5	0.0	-0.1	-0.3
Niger	2.6	10.8	35.8	3.0	13.8	43.5	2.6	10.8	35.3
Togo	0.1	-0.2	-1.0	0.1	-0.2	-1.6	0.1	-0.2	-1.1
Cape Verde	0.2	-0.2	-0.9	0.2	-0.1	-1.6	0.2	-0.2	-0.9
Guinea-Bissau	0.1	-0.3	-1.1	0.1	-0.3	-1.6	0.1	-0.3	-1.1
All countries	0.2	0.4	-1.0	0.2	0.1	-1.1	0.2	0.4	0.4

Source: Results of simulations.

■ **Nigeria**

Lesson 10: Nigeria paid a heavy price for a greater liberalisation of trade with the EU especially under the scenario of 70% of liberalisation. It was essentially affected by growing competition from EU imports leading to a decline in tax revenues, incomes and purchasing power. Consequently, poverty increased in the country compared to the situation before the MAO. However, the negative effect was far less significant under the 65% liberalisation scenario compared to that of 70%.

The specific customs tariff applied on imports from the EU and other regions of the world stood at 4.9% on average at the beginning of the period (Appendix 1 Graph 22). This rate is below the average of 7.3% for the sub region. The liberalisation of trade with the EU was reflected in a 0.5 and 1.7 percentage point drop in the rate applied to European products at the end of the period under scenarios of 65% and 70% liberalisation. Thus, the shift from the 65% liberalisation scenario to that of 70% had serious effects on trade between Nigeria and the EU.

The simulation of scenarios of the regional market access offer revealed a decline in GDP according to trends described previously for the entire ECOWAS region (Appendix 1 Graph 28). The drop in GDP was marginal until the 15[th] year and became amplified later on under scenario 1 and 3. The decline in GDP was noted earlier under scenario 2.

The slump in GDP was due to the deterioration of the trade balance and for that matter, the serious competition from European products on the Nigerian market. The contribution of net exports, initially set at 14% of GDP, one of the highest in the sub region, was affected by growing European imports which reached 7% under scenarios 1 and 2 .On the other hand, imports from other regions fell slightly. In all, European imports representing a little over 30% of total imports (Appendix 1 Graph 23)

and rose by 1.5% compared to the continuity scenario. Exports to Europe and the rest of the world also went up by 1.0% as compared to the continuity scenario. On the other hand, exports to the ECOWAS region fell with a contraction in the demand for the importation of products from the sub region.

The growth in imports competed mainly with local production, leading to a reduction in revenues by nearly 3.0% compared to continuity under scenarios 1 and 2 (Appendix 1, Graph 29). The decline was about 1.3% under scenario 3. The drop in prices was less significant, 0.7% under scenarios 1 and 2, and 0.2% in scenario 3 (Appendix 1, Graph 30). Therefore, the purchasing power of households fell by nearly 2.5% in scenarios 1 and 2, and nearly 1.0% in scenario 3 (Graph 19).

Graph 19: Real household consumption in Nigeria, annual variation in relation to continuity scenario (%)
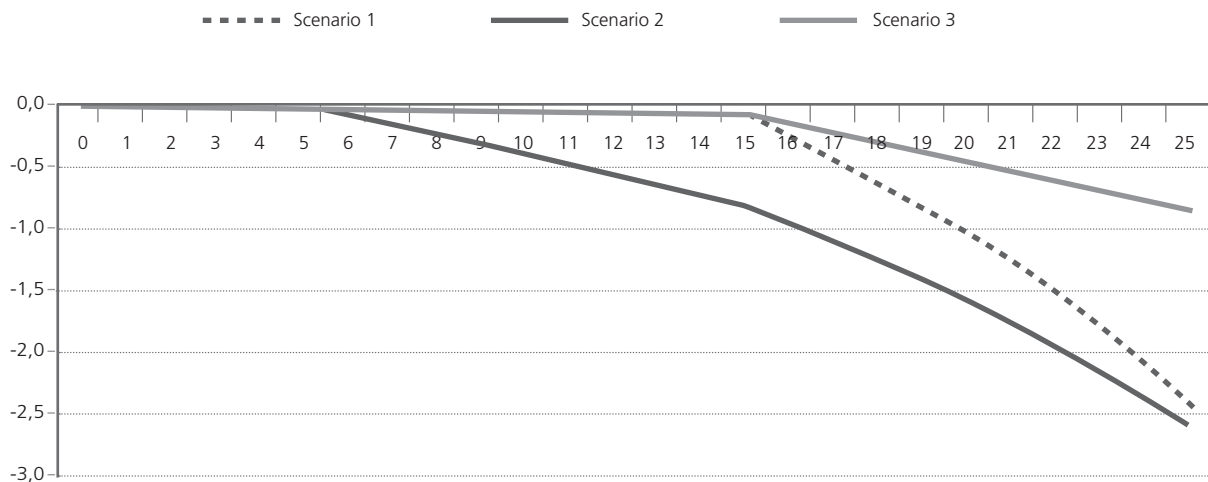
Source: Results of simulations

The number of individuals living below the poverty line increased in the three scenarios considered (F 20). During the first fifteen years of liberalisation, the effects on poverty with regard to the scenario of continuity were almost nil in scenarios 1 and 3, whilst the annual increase of the number of poor people was 0.4% in scenario 2. Beyond this period, poverty grew rapidly to an average of 2.3, 3.2 and 0.9% in scenarios1, 2 and 3 respectively.

Graph 20: Trends in poverty in Nigeria, variation in relation to continuity (%)
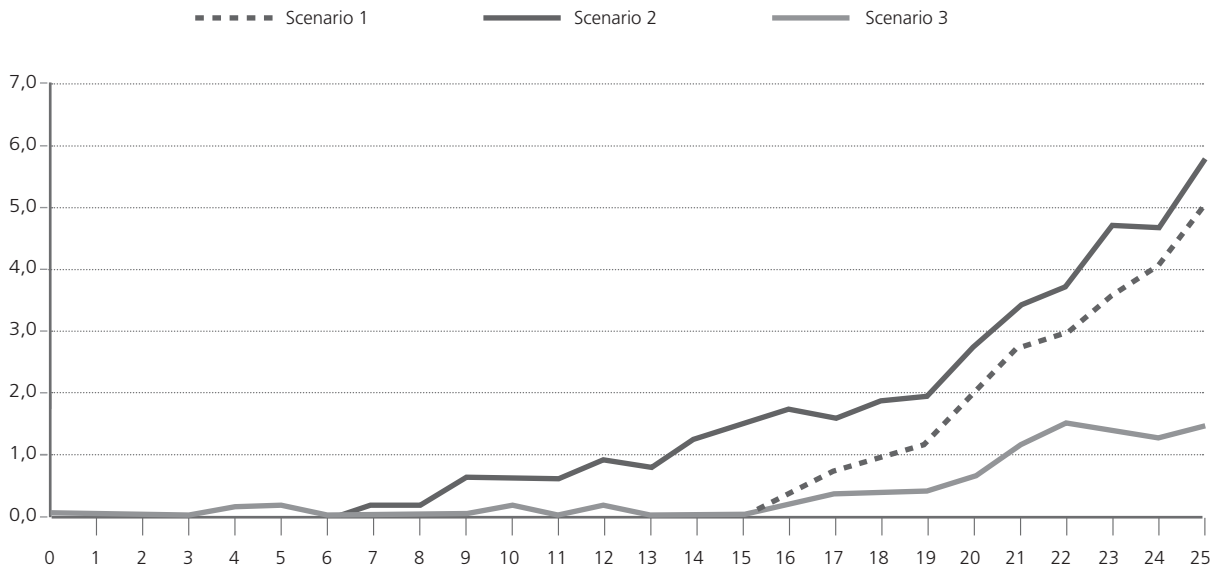
Source: Results of simulations

■ **Ghana**

Lesson 11: The simulation of a more liberalised trade with the EU was beneficial for wealth creation, improvement in purchasing power and poverty reduction in Ghana. The acceleration of economic growth was driven by the opening of the Ghanaian economy to international trade, in particular to European products. The country enjoyed a significant drop in domestic prices and, consequently, improvement of the price competitiveness of its economy resulting in a significant increase of its exports. Improvement of tax revenue on exports enabled the country to offset a large portion of the tax loss on imports. In contrast with Nigeria, greater opening to EU products, that is, moving from 65 to 70% of liberalisation, did not create any significant difference in the impact of the MAO.

The specific customs tariff rate which was initially 4.9% (Appendix 1, Graph 22) fell in the same order of magnitude as the regional average of 2.5 percent points. In contrast with Nigeria, there was no significant difference in the variation of specific tariff rates between scenarios 1, 2 and 3.

GDP growth varied between 3.0% and 3.5% in relation to continuity according to the scenarios (Appendix 1, Graph 31). This performance was attributable to an improvement in final consumption and to a lesser extent the deficit of the trade balance initially by 24%.

With the rate of liberalisation and the tendency to consume European products being relatively high (Appendix 1, Graphs 24 and 25), lower prices which were largely conducive to final consumption offset the additional competitive pressure created by further opening up to European products. On the other hand, the competitiveness of the economy improved considerably and boosted exports by between 4% and 7% increase with the exception of those meant for other ECOWAS countries. Exports to the sub region were only about 4% of the total value of the country's exports. Consequently, overall exports increased significantly to settle between 5% and 6%, while imports initially represented about 44% of total imports (Appendix 1, Graph 23). A significant improvement of European imports, between 10% and 11% was also observed. However, the increase in total imports was lower, about 5%.

Growth in exports helped to improve national production and income significantly (Appendix 1, Graph 32). Despite the near stagnation in prices, (Appendix 1, Graph 33), the purchasing power of consumers increased by about 4.0% at the end of the period (Graph 21).

Graph 21: Real household consumption in Ghana, annual variation in relation to continuity scenario (%)
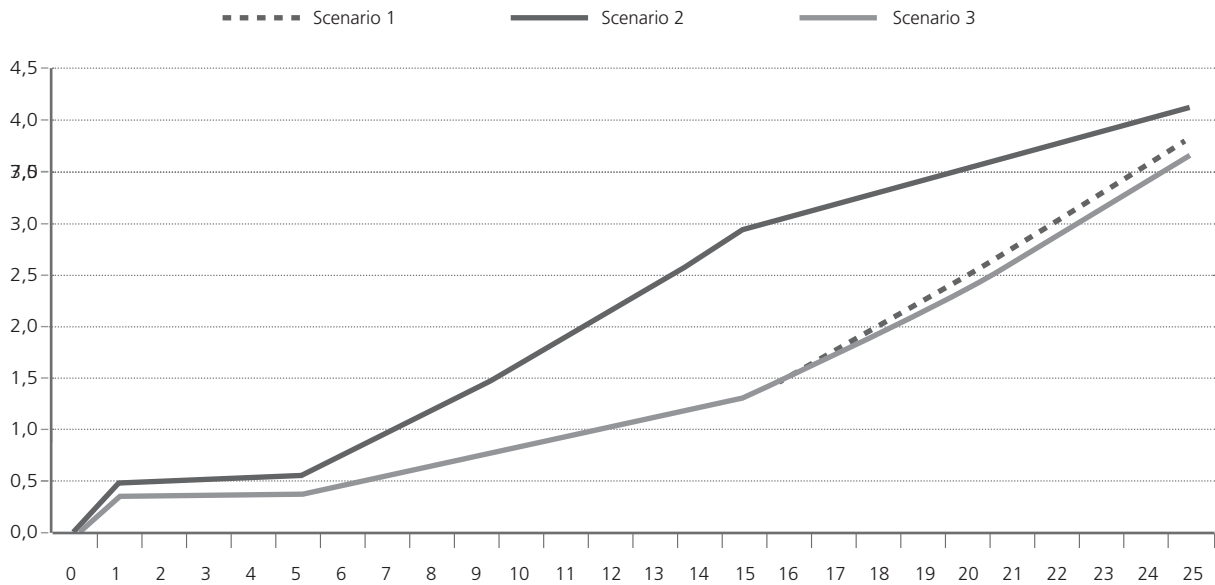
Source: Results of simulations

The improvement in incomes and purchasing power of households facilitated a decline in poverty in the three market access offer scenarios (Graph 22). Reduction in the number of poor was higher in scenario 3 than scenarios 1 and 2. The last two also had the same effects throughout the period.

Graph 22: Trends in poverty in Ghana, variation in relation to continuity (%)
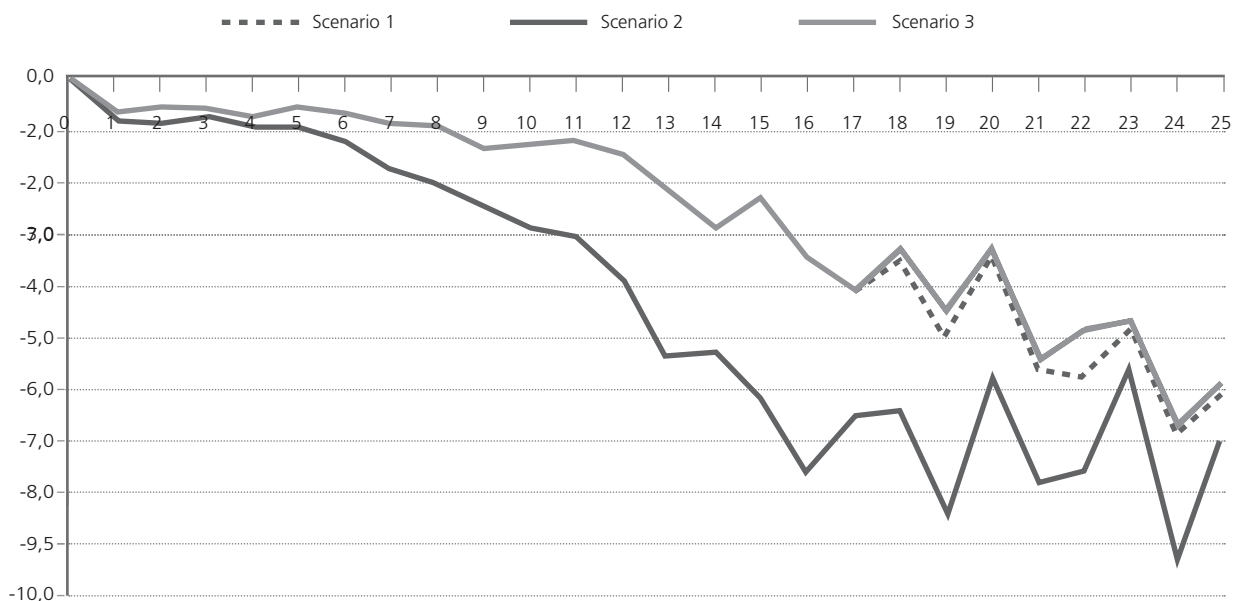
Source: Results of simulations

■ **Côte d'Ivoire**

Lesson 12: As in the case of Ghana, further opening up to products from the EU contributed to wealth creation, improvement of the purchasing power of the population and poverty reduction. Economic growth was also driven by lower prices induced by greater opening to European products thus improving the price competitiveness which resulted in a significant increase in exports. Just like Ghana, the loss of customs revenue was offset by taxation of exports. The improvement in revenues resulting from increased competitiveness in the economy generated more revenues and savings for the state, households and companies, thus contributing to increased savings and investments. Finally transition from 65 to 70% liberalization did not create a significant difference in the impact of the MAO.

The specific customs tariff rate dropped by about 6 percentage points without showing a significant difference between the three scenarios. The specific tariff rate and the tendency to import European products were relatively high in Côte d'Ivoire (Appendix 1, Graphs 22 et 25). GDP growth reached 8 to 9% with regard to continuity at the end of the period depending on the scenario (Appendix 1, Graph 34). The strong GDP growth was attributable to growth in final consumption during the first 15 years of liberalisation but increasing investments took over after this period. It must be noted that Côte d'Ivoire, like Ghana, had a rate of trade liberalisation which was relatively high (Appendix 1, Graph 24). Therefore, the decline in prices induced by the elimination of tariffs and increased domestic competition was favourable for final consumption during the first two phases of liberalization. In addition, improvements in revenues resulting from increased competitiveness in the economy generated more income and savings for households and companies, thus contributing to increased savings and investments at the end of the period.

There was a significant increase of nearly 8% in revenues (Appendix 1, Graph 35), a slight 1% drop in prices (Appendix 1, Graph 36) and 9 to 10% increase in actual consumption (Graph 23).[13]

Graph 23: Real household consumption in Côte d'Ivoire, annual variation in relation to scenario of continuity (%)
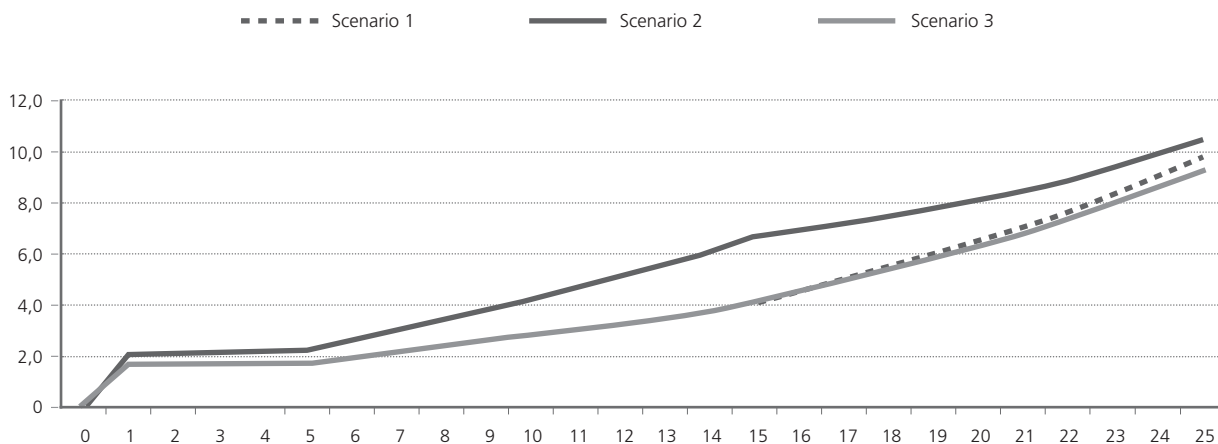
Source: Results of simulations

These positive effects on income and consumption contributed to a decline in poverty in the various scenarios of simulated market access offers (Graph 24).

13. Thanks also to the reduction in cost of transfers

Graph 24: Poverty trends in Côte d'Ivoire, variation in relation to continuity (%)
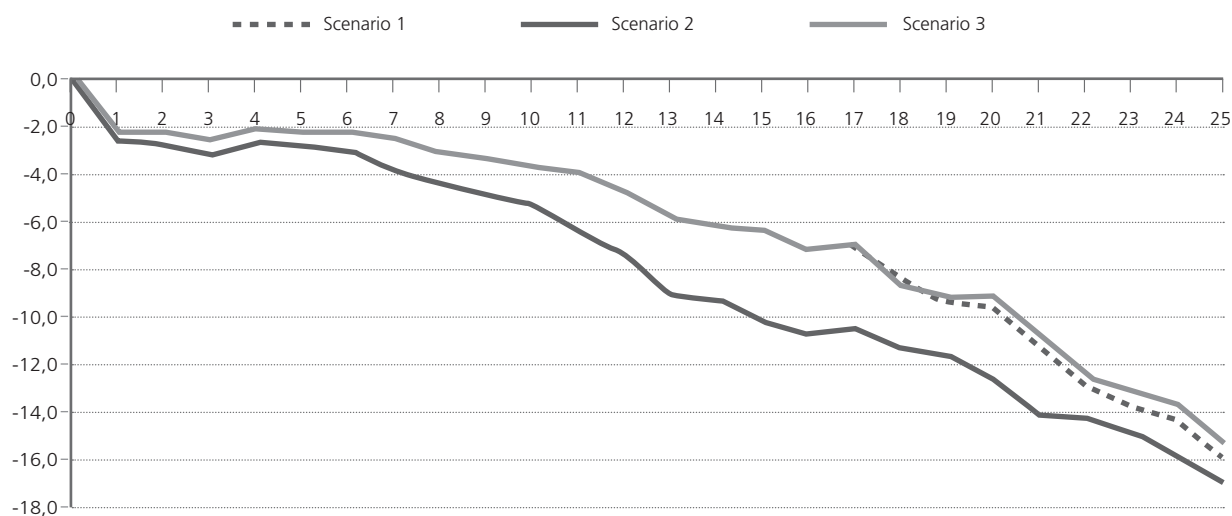
Source : Simulation results.

In contrast to Nigeria, further opening up to products from the EU – from 65 to 70% of liberalization – did not create any significant difference in the impact of the MAO. Thus, the accelerating pace of liberalization (Scenario 2) appeared to be relatively more conducive to wealth creation and improvement of purchasing power of the population in Côte d'Ivoire.

■   **Senegal**

Lesson 13: The simulation of further opening up of the market to EU products reduced wealth creation, purchasing power of the population and efforts to fight against poverty in Senegal. The slow down in economic growth was mainly caused by the loss of customs revenue and its adverse effects on savings and investments. Unlike Côte d'Ivoire and Ghana, Senegal does not tax its exports and therefore, changing the latter should provide the current status of additional revenue to the state. Also, transition from 65 to 70% of liberalization did not create any significant difference in the impact of the MAO in Senegal.

The drop in the specific customs tariff rate was particularly high in Senegal, representing between 8 and 9 percentage points at the end of the liberalisation period while the regional average stood at less than 3 percent-

age points. The specific tariff rate was higher in Senegal compared to the major economies in the sub region – Nigeria, Ghana and Côte d'Ivoire – and the average of ECOWAS (Appendix 1, Graph 22).

The Senegalese economy recorded a slowdown in economic growth from the second phase of liberalisation. The decline in GDP in relation to the scenario of continuity was between 2.5 and 3.5% at the end of the period (Appendix 1, Graph 37). The slack in economic growth was attributable to the decline in savings and investments.

Customs revenues, in particular those collected on imports from the EU formed an important source of revenue for the state. (Appendix 1, Graph 26). Their decline widened the primary deficit of the state and substantially reduced private savings for investment (crowding out effect).

National production and distribution increased initially and then declined as the liberalization process evolved (Appendix 1, Graph 38). With lower prices (Appendix 1, Graph 39), the purchasing power of households improved during the first two phases of liberalization and then decreased during the third phase with a significant slowdown in growth in relation to continuity (Graph 25).

Graph 25: Real household consumption in Senegal, annual variation in relation to continuity (%)
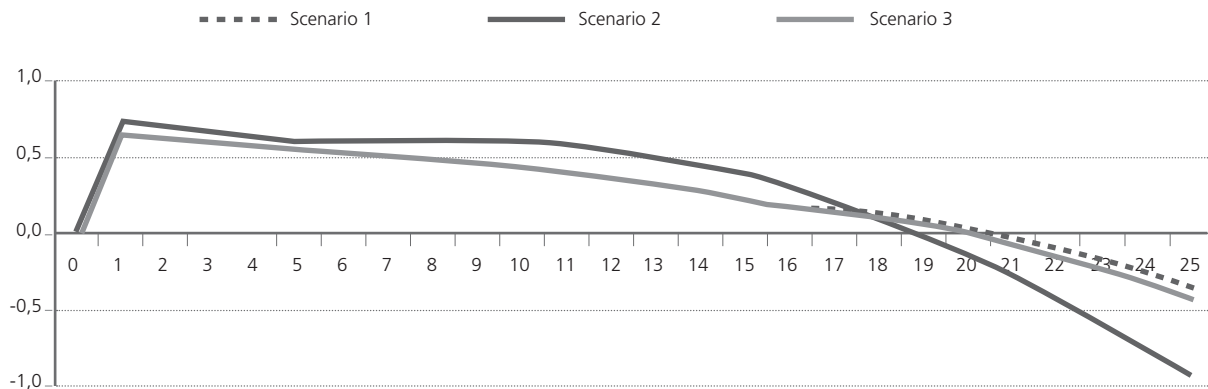
Source : Simulation results.

The effects on poverty varied depending on the period of liberalisation. The model results indicated a positive effect with regard to the scenario of continuity during the first two phases of liberalisation (Graph 26). This trend continued till the 19th year from which poverty rose by 0.2 % at the end of the period for scenarios 1 and 3, and 1.8% for scenario 2. Therefore further opening up to EU products did not create any significant difference in the simulation results. However, the accelerated pace of liberalization worsened the negative impact of the regional market access offer on poverty.

Graph 26: Poverty trends in Senegal, variation in relation to continuity (%)
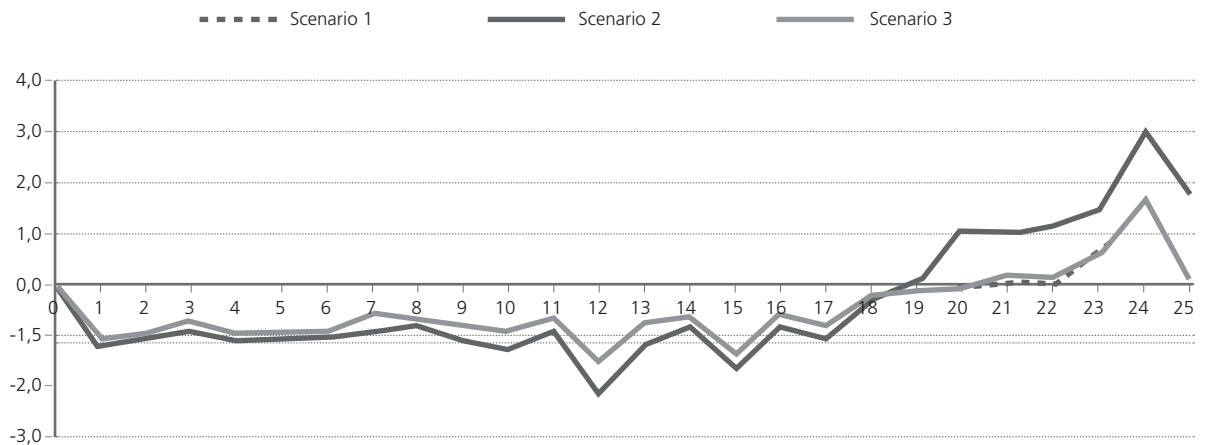
Source : Simulation results.

■   **Niger**

Lesson 14: The economy of Niger recorded a steady increase and significant GDP growth rate. The elimination of tariffs could increase competitive pressure on the domestic market, resulting in falling prices and improvement of the real exchange rate. Its positive implications on exports and consequently on tax revenue on exports were significant with positive repercussions on government deficit and improvement in domestic savings and investments.

The pace of tariff removal was quite similar in scenarios 1 and 3. However, that of scenario 2 differed from the other two simulations, that is an acceleration in the first and second phases and a slowdown in the third phase of liberalisation. The initial tariff rate of 12.4% of Niger was much higher than the 7.3% average of the sub region (Appendix 1, Graph 22). The latter fell by 3.5 percentage points at the end of period of trade liberalization with the EU.

Niger's economy recorded a steady and significant increase in GDP growth rate i.e. around 35% with regard to continuity (scenario without MAO) at the end of the period. This rate was even higher, slightly below 45%, with the acceleration of the pace for elimination of tariffs on European products.

The performance of Niger's economy was largely explained by the improvement in net exports and investments whose relative shares in GDP increased at the expense of final consumption. However, it should be noted that all the components of GDP increased in absolute terms, with a trend towards higher net exports and investments.

It must be recalled that the specific customs tariff rate and the share of European products in total imports were 12.4% and 29.2% respectively for Niger. The average of the countries in the sub region was 7.3% and 36.3% respectively. Therefore, the elimination of tariffs could increase competitive pressure on the domestic market, resulting in falling prices and improved real exchange rate. Its positive implications for exports and consequently tax revenues on exports were significant. It should be noted that Niger is one of the few countries in the sub region (with Côte d'Ivoire, Ghana and Mali) that tax their exports.[14] This tax system helped to offset the loss of income caused by lower import revenues and improved the revenue of the state. The improvement of the latter with exogenous spending impacted positively on the state deficit and improved savings and investments in the country.

While the consumer price index remained relatively stagnant (Appendix 1, Graph 42), the substantial increase in revenue (Appendix 1, Graph 41) improved real consumption and wellbeing of the population (Graph 27).

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14. Referring to base years represented by SAM

Graph 27: Real households consumption of households in Niger, annual variation in relation to continuity (%)
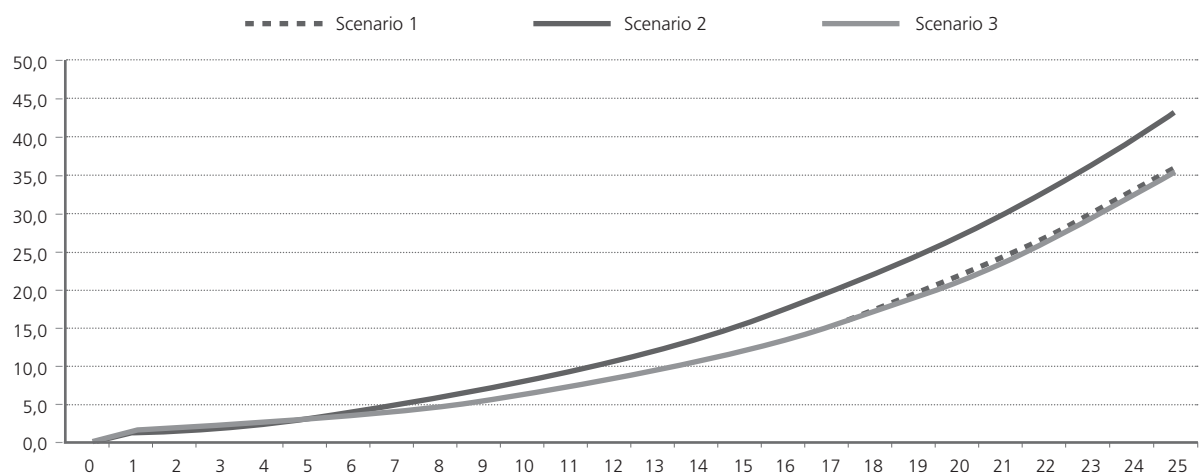
Source : Simulation results.

■ **Togo**

Lesson 15: *Like Nigeria and Senegal, Togo is one of the countries which recorded low economic performance following the simulation of the MAO. The Togolese economy recorded a slowdown in economic growth due to lower tax revenues and, for that matter lower state revenues and savings.*

Reduction in specific customs tariff rate of 2.7 percentage points at the end of the liberalisation period was around the regional average. The specific customs tariff rate was relatively low, 5.4% compared to the average in the sub region which stood at 7.3% (Appendix 1, Graph 22).

Like the Senegalese economy, the Togolese economy recorded a slowdown in economic growth from the second phase of liberalisation. At the end of the period, GDP declined by about 1.0 to 1.5% in relation to the scenario of continuity (Appendix 1, Graph 43). Once

again, the slowdown in economic growth was mainly due to lower investments.

While the share of customs revenue from EU imports within the tax system of countries in the sub region represented an average of 5%, that of Togo was 14%, constituting an important source of revenue for the state (Appendix 1, Graph 26). The decrease of 6 to 7% of government revenue due to liberalisation widened the primary state deficit and substantially reduced private savings for investment (crowding out effect).

Household revenues rose during the first two phases and dropped from year 15 (Appendix 1, Graph 44). With the slight drop in prices (Appendix 1, Graph 45), the change in the purchasing power of households was mostly driven by these income effects. Therefore, the real consumption of households improved during the first two phases of liberalisation, and then decreased during the third phase with a significant slowdown in growth with regard to continuity (Graph 28).

Graph 28: Real household consumption in Togo, annual variation in relation to continuity (%)
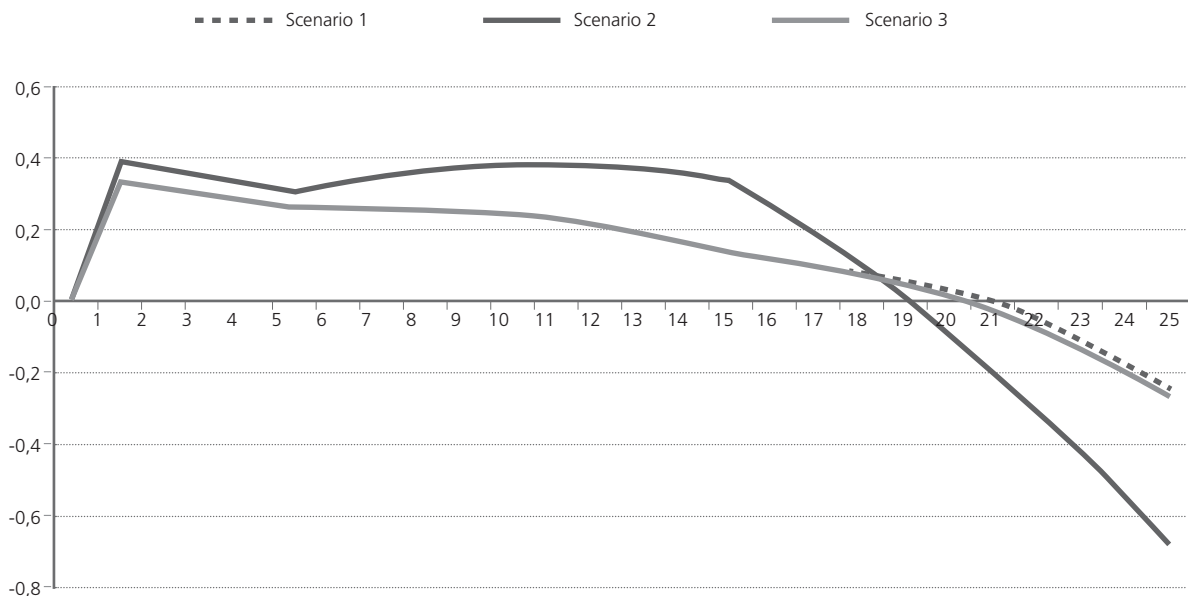
Source: Results of simulations

Conclusion

The economic and social impact of opening the ECOW-AS market to European Union (EU) products has been analysed through economic modelling. More particularly, its effects on economic growth, trade, tax revenues and revenue distribution as well as poverty under three trade liberalisation scenarios with the EU were explored in this study.

A multi-country sequential, dynamic Calculable General Equilibrium model was developed in order to capture inter-linkages between economic sectors and economic agents of several geographical entities. Economies of the region were projected over a period of 25 years in order to take into account the liberalisation scheme within the framework of an EPA.

The CGE modelling has some advantages that make it an appropriate tool for analysing the market access offer. These include the consideration of inter linkages between economic sectors on one hand, and between these sectors and several economic agents on the other hand; the assessment of both direct and indirect effects, and identification of structural economic constrains within which economic agents operate.

The first peculiarity of the study lies in the consideration of the 12 economies within the ECOWAS space for which macroeconomic information is available. To these economies were added three economic regions or partners which are: the other three ECOWAS Member States, EU and the rest of the world. A CGE model was developed for each of the 12 ECOWAS economies. This replicated in detail production, trade and consumption activities within each economy as well as interrelations with other economic entities through trade flows, mobility of factors of production (labour and capital) and private transfers.

A second peculiarity of the study is the analysis of effects on poverty through the inclusion of microeconomic modules in the CGE model for 10 countries for which microeconomic information was available. The microeconomic modules which provide economic information on several thousands of real households derived from surveys representative of populations in countries concerned helped in assessing the impact on poverty.

The third peculiarity of the study is the simulation of three realistic scenarios of market access offers by ECOWAS. The first scenario involved a 70% liberalisation of imports from EU over a period of 25 years, with 45% over the first 15 years. The second scenario assumes 70% liberalisation of imports from EU over a period of 25 years, with 64% during the first 15 years. Finally, the third scenario concerns 65% liberalisation of imports from EU over a 25 year period, with 45% during the first 15 years.

Like the other models, CGE modelling is based on assumptions which facilitate the reading of results achieved when they are highlighted. Among these assumptions, the competitiveness of products market inherent in this type of model lead to optimistic results and findings. The analysis assumes that the commercial margins of intermediaries do not change with a greater liberalisation of ECOWAS markets for EU products; where appropriate, findings of the study on revenue distribution and poverty reduction could prove optimistic. On the other hand, it is worth noting that a greater trade liberalisation could speed up the adoption of more efficient technologies leading to an improved productivity of factors. With the omission of effects of market access offer on productivity of factors, the study arrived rather at pessimistic findings and results.

Based on the assumptions, the main findings of the study are summarized as follows:

1. The liberalisation of a maximum of 65% of imports in the sub region contributed to the acceleration of economic growth in the sub region. Beyond this threshold, there is a risk of a deceleration in the overall economic growth of the sub region.

2. However, this general positive impact of the sub regional market access offer concealed significant disparities between economies: four countries, namely Côte d'Ivoire, Ghana, Niger and Benin came out as gainers; five countries including Nigeria, Senegal, Togo Cape Verde and Guinea-Bissau came out as losers while the effect is almost neutral on the three other countries covered by the analysis, namely Burkina Faso, Mali and Guinea.

3. Nigeria' economy paid the highest price for a greater opening up to EU products, meaning moving from 65% to 70% of liberalisation. A faster pace of tar-

iff reductions from 45% to 65% during the first 15 years of liberalisation under a 70% opening widened disparities between economies of gainers and those of losers.

4. The liberalisation of group A products contributed to a slight acceleration in economic growth in the sub region. The liberalisation of group B products remained generally favourable for the region but created disparities between economies. The liberalisation of Group C products led to a slowdown in economic growth and amplify disparities between economies

5. The liberalisation of products in group A and B contributed to poverty reduction in the sub region in the first 15 years under the three market access offer scenarios. However, that of group C product led to increased poverty from the 20[th] year when the liberalisation hit 70% of imports. This increase in poverty was very significant when the pace of liberalisation is more sustained.

6. The analysis showed that the deterioration of the trade balance was the main cause of GDP decline in the sub region. Improvement in the trade balance trough improved competitiveness of the sub regional economy should be a major issue in the sub regional compensation programme. Increased imports as a result of a wider opening of the sub regional market to European products, particularly those of group C led to increased competition with local products and to the least extent with non European imports.

7. In case of a significant slowdown in economic growth, loss of state of revenue due to other taxes (direct tax, consumption tax, production tax etc.) could be as substantial as those caused by customs revenue. A liberalisation beyond 65% of imports of the sub region was in the interest of consumers through an increase in their purchasing power. On the other hand, this positive impact was almost nullified when the competition pressure from European goods mounted as the liberalisation was scaled up to 70%.

In the light of the findings summarized above, the main recommendations drawn from the study are as follows:

1. The market access offer which will be beneficial for the sub region should not exceed 65% of imports.

2. In the case where the MAO involves a 70% threshold, the option of an accelerated pace of removal must be avoided.

3. The market access offer will be favourable for the West African sub region if the liberalisation is limited to Group A and B products and this over both 15 and 25 year periods.

4. In the case where group C products need to be liberalised, upgrading of industries producing these goods must begin as soon as possible to enable them to deal later with greater competition from European products.

5. In view of the upgrading of industries involved in the production of Group C products, which requires resources and time from countries in the sub region, it is not advisable to accelerate the pace of tariff removal.

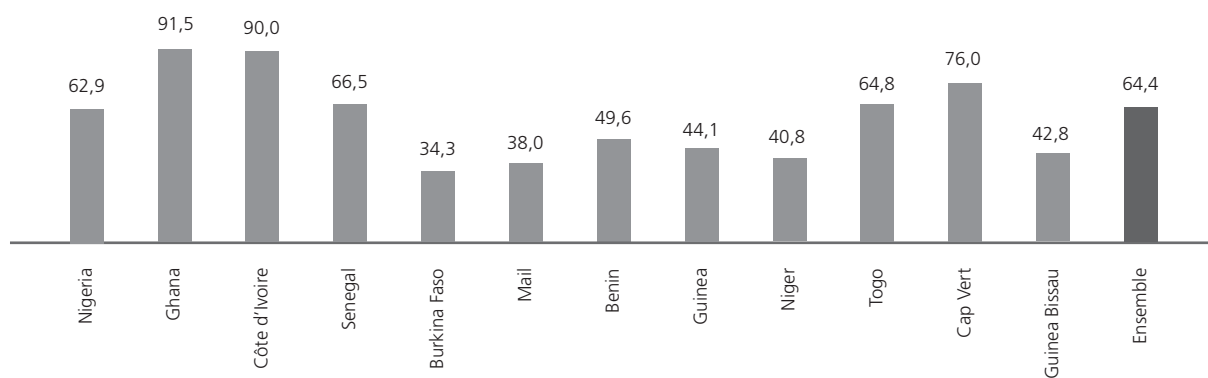## Appendix 1: Other graphs

Graph 22: Specific customs tariff for each country at the beginning of the period (%)
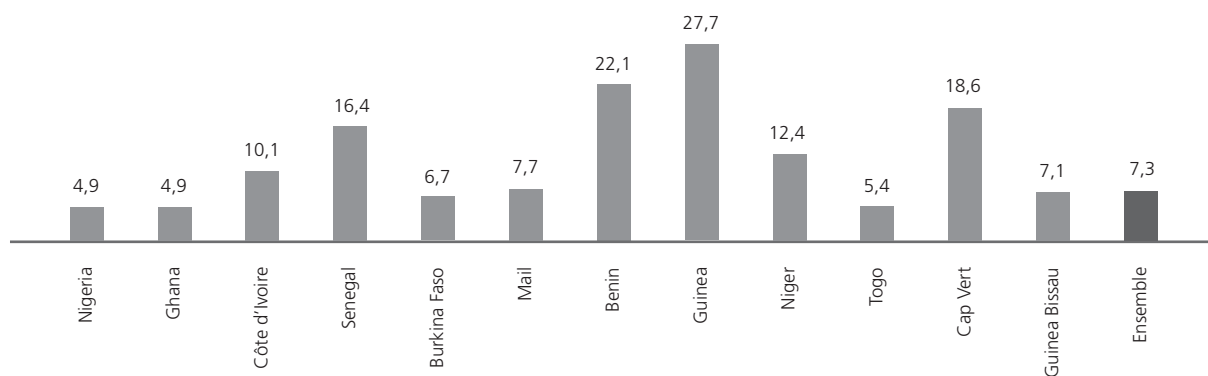
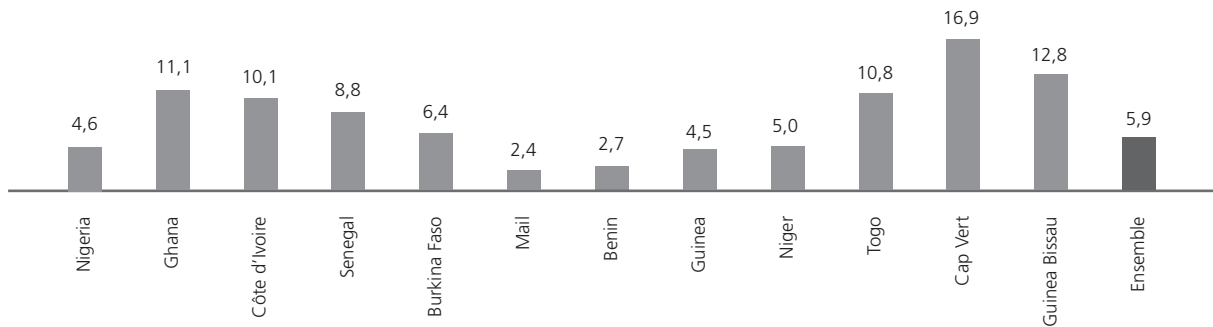### Graph 23: Initial share of EU products in total imports per country (%)
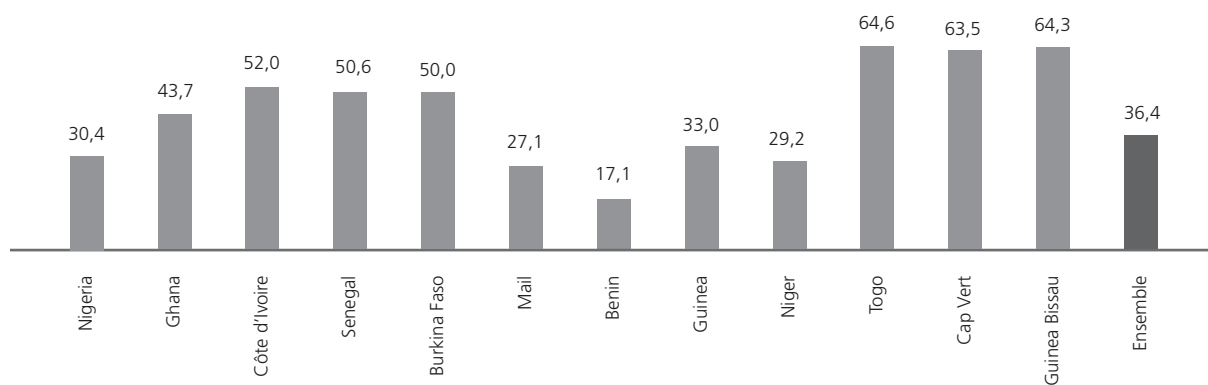
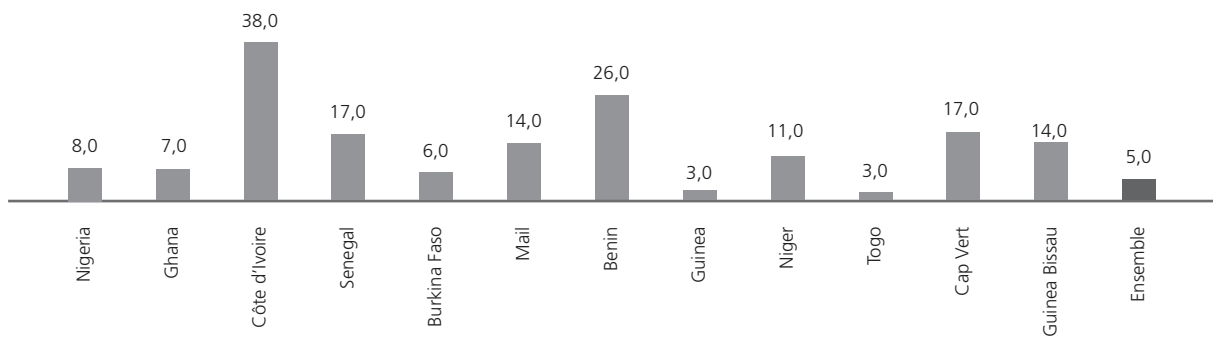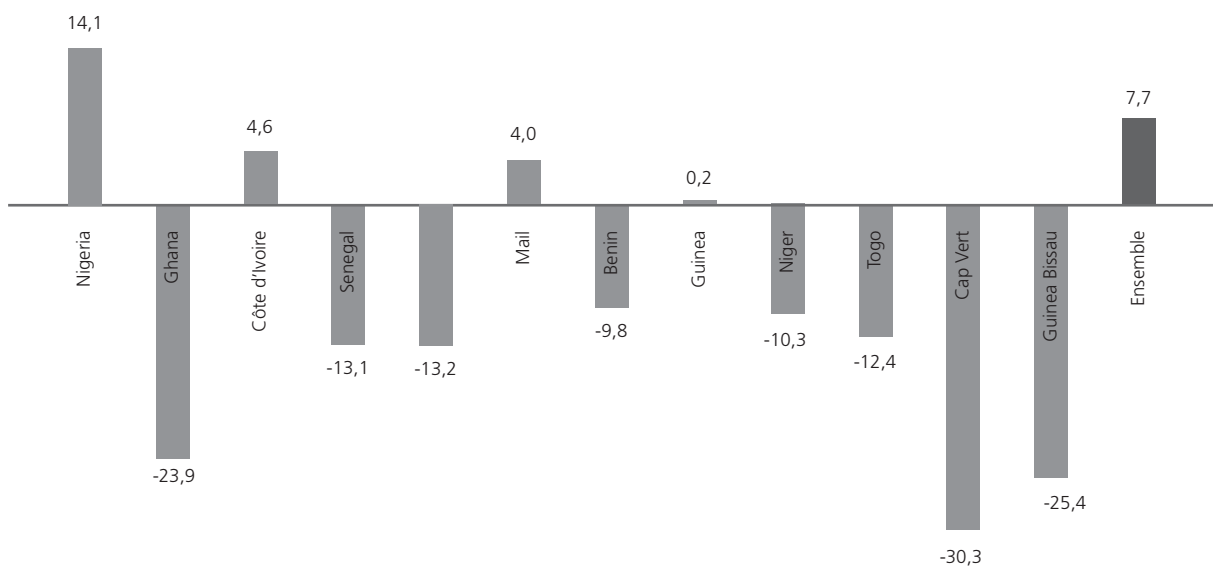### Graph 24: Initial opening rate per country (%)

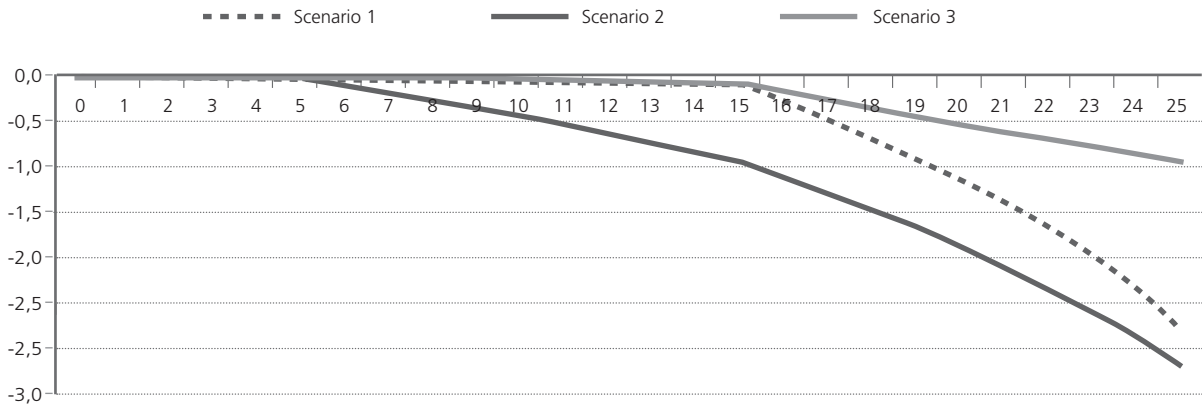## Graph 25: Propensity to import per country at the beginning of the period (%)

	Nigeria	Ghana	Côte d'Ivoire	Senegal	Burkina Faso	Mail	Benin	Guinea	Niger	Togo	Cap Vert	Guinea Bissau	Ensemble
	4,6	11,1	10,1	8,8	6,4	2,4	2,7	4,5	5,0	10,8	16,9	12,8	5,9

Graph 26 : Share of customs revenues on European import in countries' tax revenues

	Nigeria	Ghana	Côte d'Ivoire	Senegal	Burkina Faso	Mail	Benin	Guinea	Niger	Togo	Cap Vert	Guinea Bissau	Ensemble
	8,0	7,0	38,0	17,0	6,0	14,0	26,0	3,0	11,0	3,0	17,0	14,0	5,0

Graph 27: Net exports at the beginning of period per country, ratio of GDP (%)

	Nigeria	Ghana	Côte d'Ivoire	Senegal	Burkina Faso	Mail	Benin	Guinea	Niger	Togo	Cap Vert	Guinea Bissau	Ensemble
	14,1	-23,9	4,6	-13,1	-13,2	4,0	-9,8	0,2	-10,3	-12,4	-30,3	-25,4	7,7

Graph 28: Nigeria's GDP, annual variation in relation to continuity scenario (%)

Graph 29: Households income in Nigeria, annual variation in relation to continuity scenario (%)
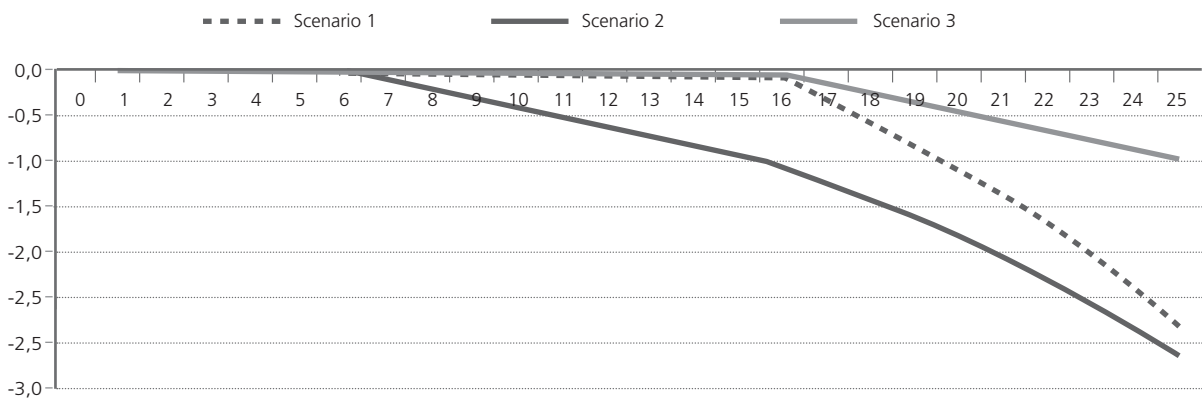
Graph 30: Consumer price index in Nigeria, annual variation in relation to continuity scenario (%)
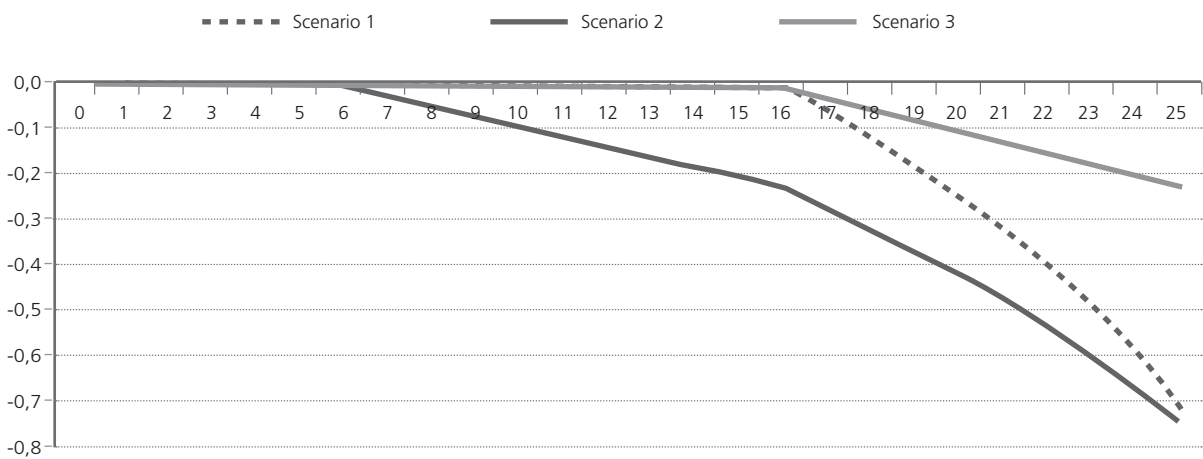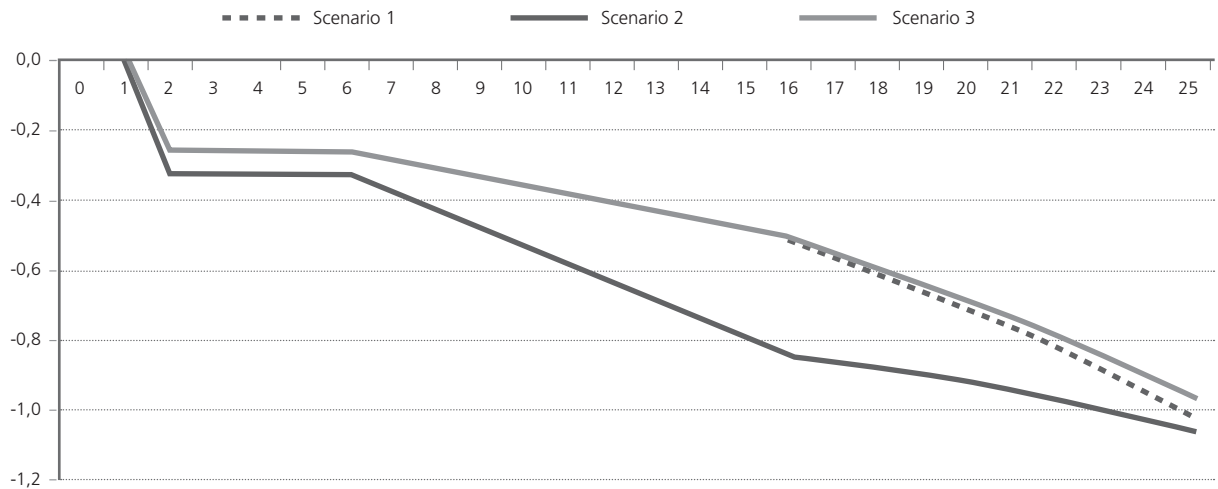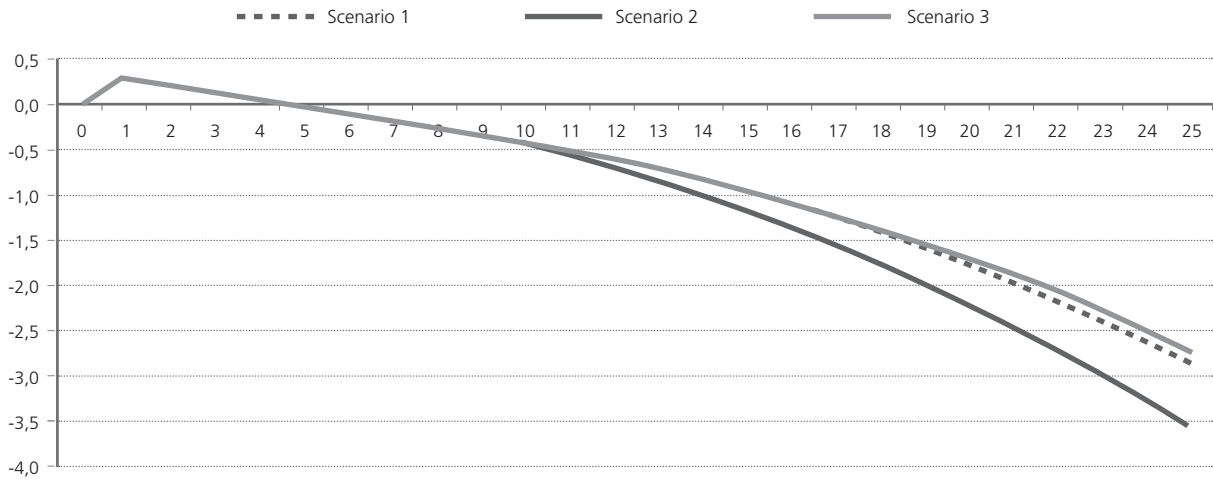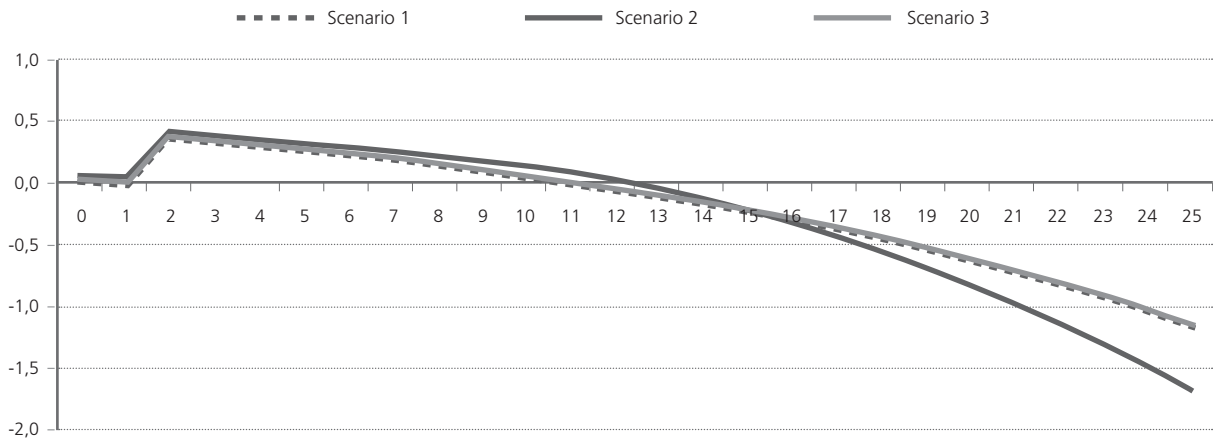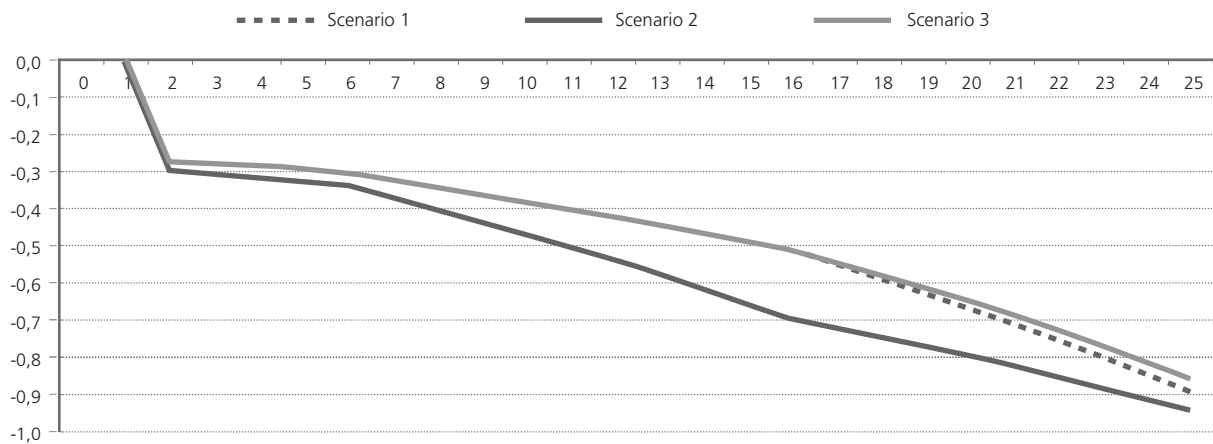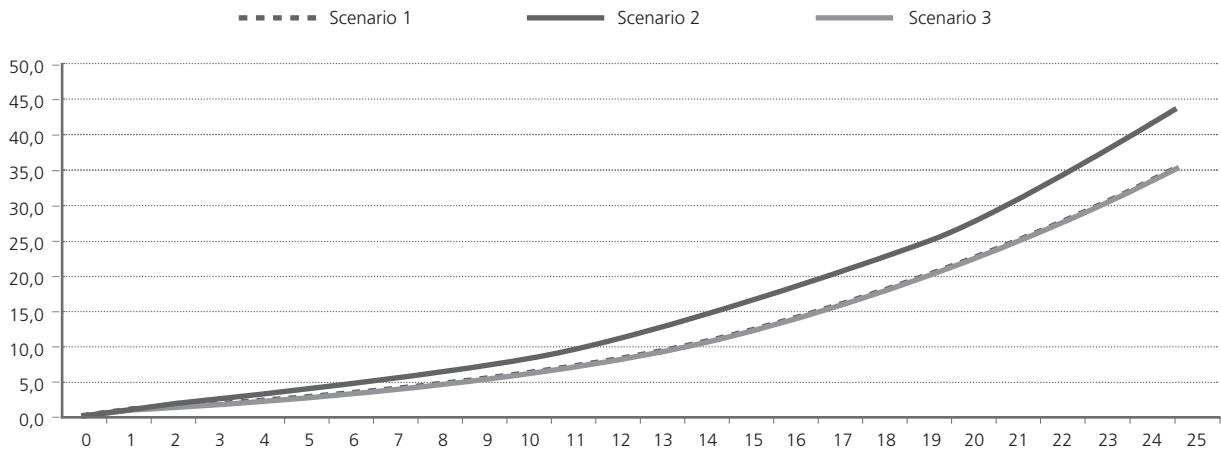
Graph 31: Ghana's GDP, annual variation in relation to continuity scenario (%)
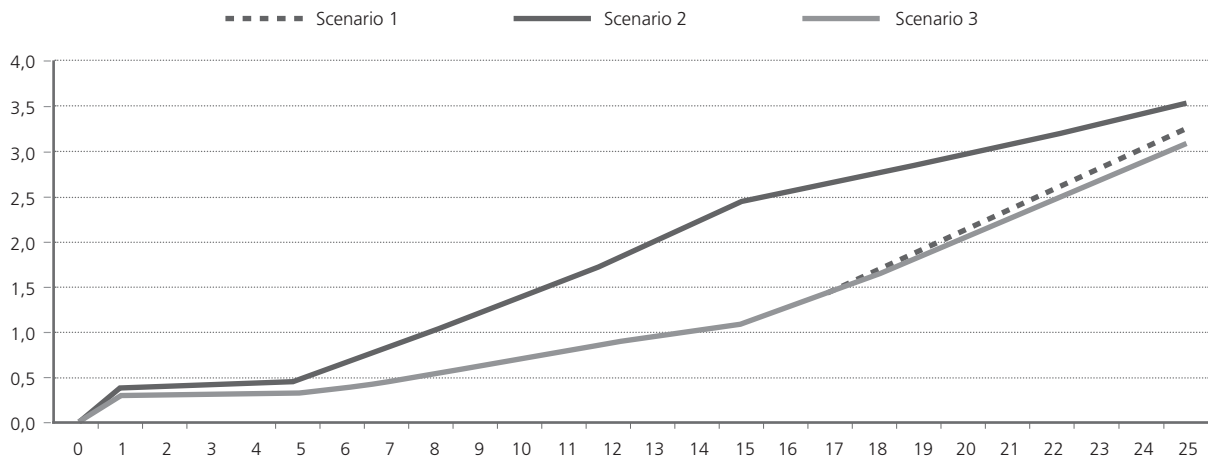
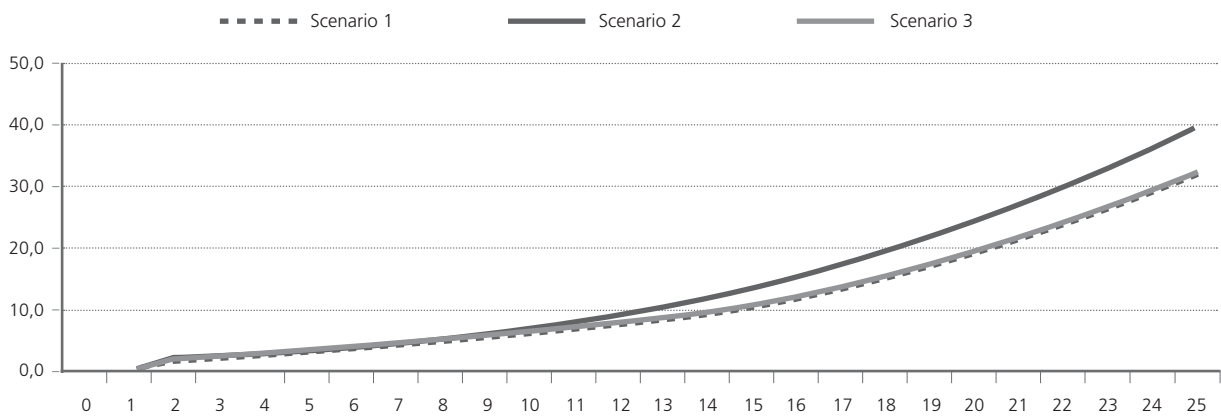Graph 32: Households income in Ghana, annual variation in relation to continuity scenario (%)
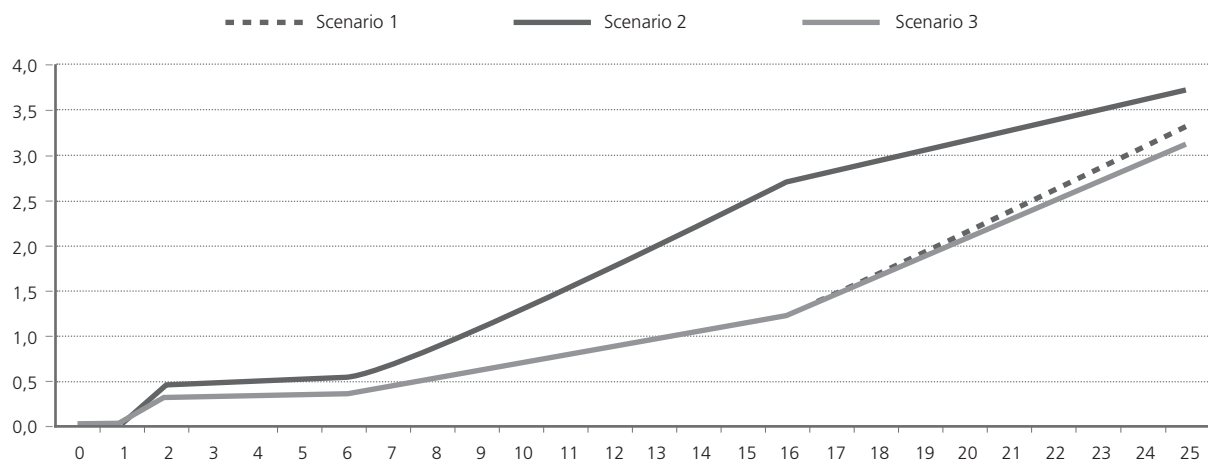
Graph 33: Consumer price index in Ghana, annual variation in relation to continuity scenario (%)
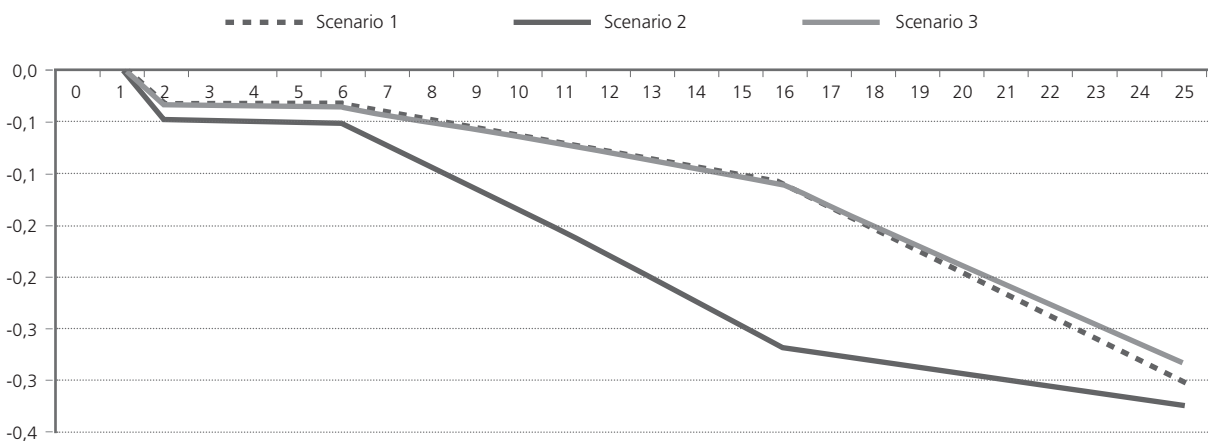
Graph 34: Côte d'Ivoire's GDP, annual variation in relation to continuity scenario (%)
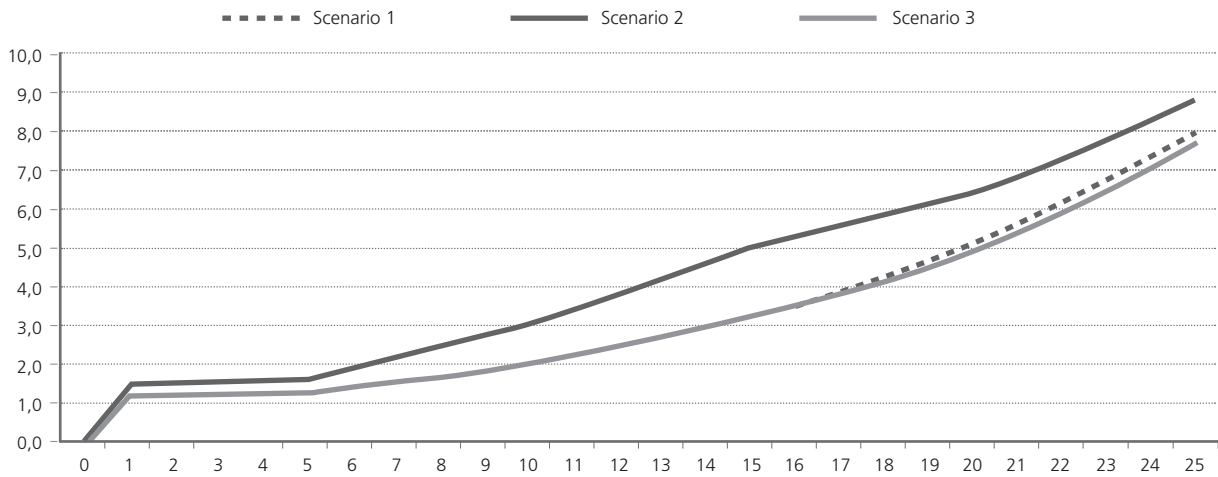
Graph 35: Households income in Côte d'Ivoire, annual variation in relation to continuity scenario (%)
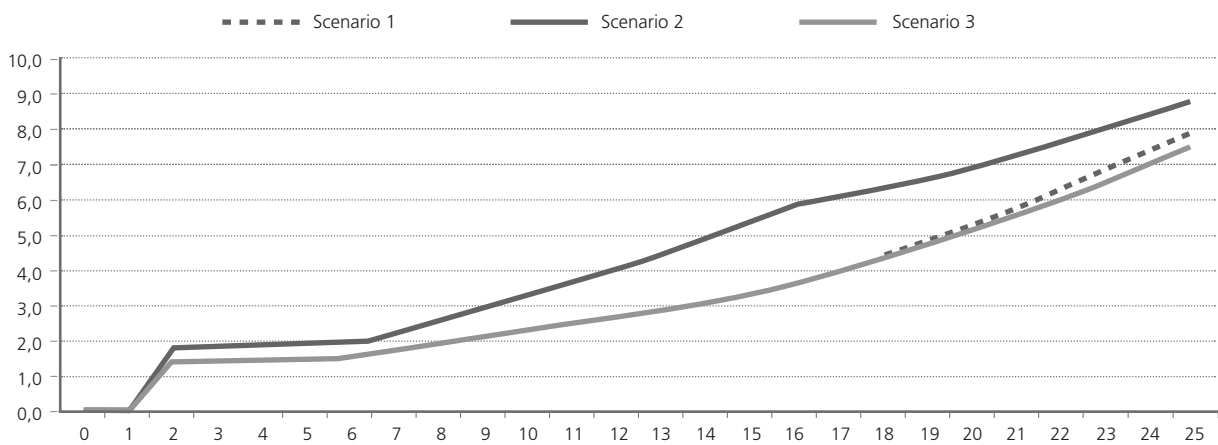
Graph 36: Consumer price index in Côte d'Ivoire, annual variation in relation to continuity scenario (%)

Graph 37: Senegal's GDP, annual variation in relation to continuity scenario (%)

Graph 38: Households income in Senegal, annual variation in relation to continuity scenario (%)

Graph 39: Consumer price index in Senegal, annual variation in relation to continuity (%)
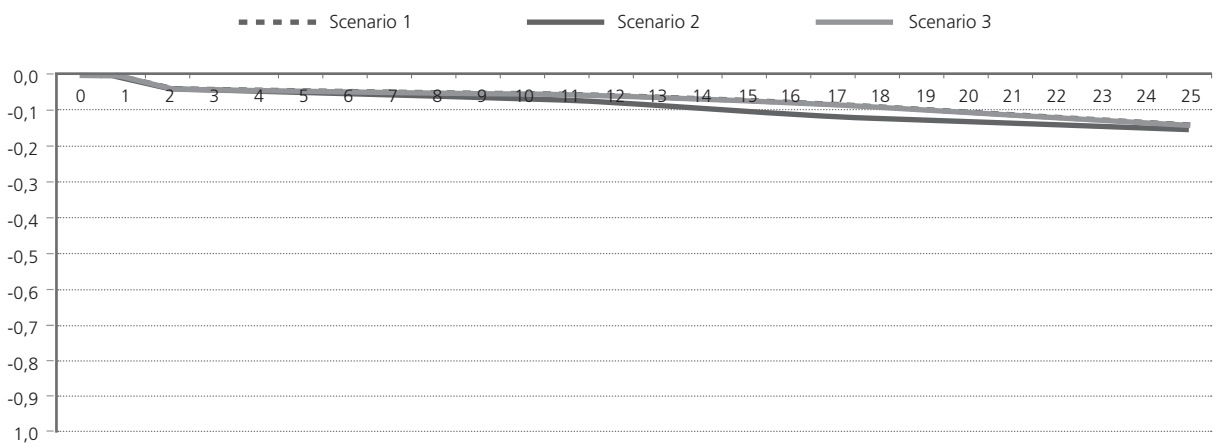
Graph 40: Niger's GDP annual variation in relation to continuity scenario (%)

Graph 41: Households income in Niger, annual variation in relation to continuity scenario (%)
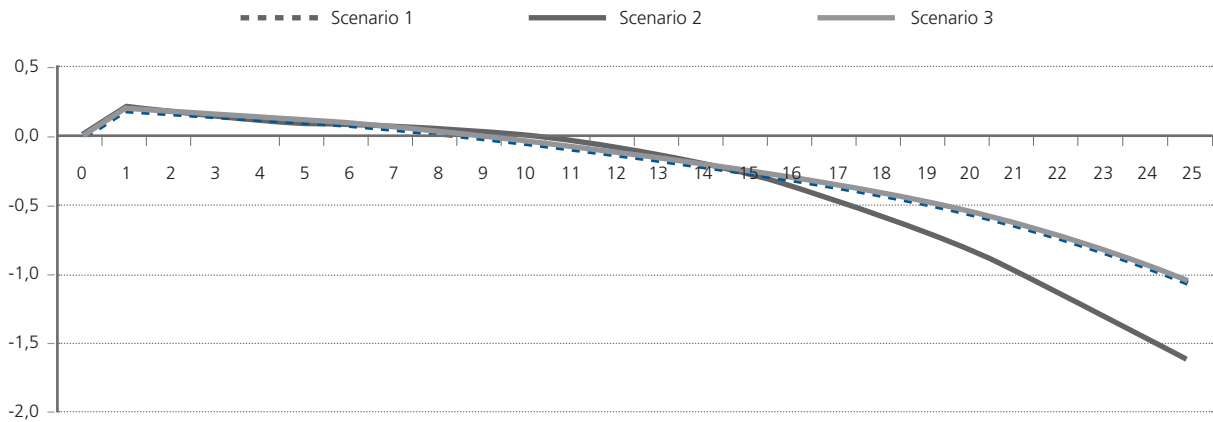

Graph 42: Consumer price index in Niger, annual variation in relation to continuity scenario (%)
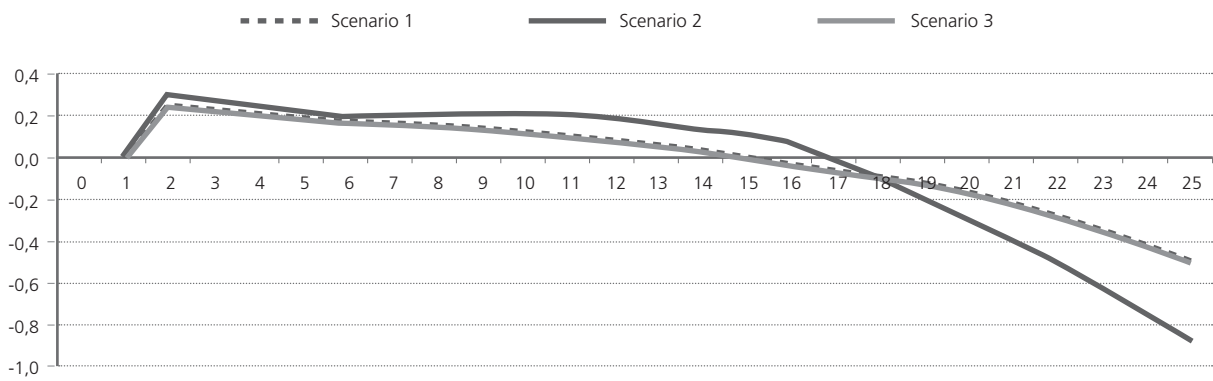
Graph 43: Togo's GDP, annual variation in relation to continuity scenario (%)

Graph 44: Households income in Togo, annual variation in relation to continuity scenario (%)

Graph 45: Consumer price index in Togo, annual variation in relation to continuity scenario (%)