

The Economic Partnership Agreements and Africa's integration and transformation agenda: the cases of West Africa and Eastern and Southern Africa regions

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Abstract:

Significant progress has been made recently by African countries towards signing the Economic Partnership Agreements (EPAs) with the European Union (EU), following twelve years of intense negotiations. Shifting from unilateral trade preferences to a WTO-compatible reciprocal –albeit asymmetric– agreement such as the EPAs has traditionally raised numerous concerns, notably on the potential impact on Africa's regional integration and development prospects. These questions are all the more relevant at the current juncture, characterized by the growing momentum towards the establishment of the Continental Free Trade Area (CFTA) by the indicative date of 2017.

In light of this, the present paper provides an empirical assessment of the EPAs based on the MIRAGE computable general equilibrium (CGE) model, to shed new lights on these issues, focusing on the cases of West African and Eastern and Southern Africa (ESA) regions.

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Simulation results show that if benefits are to be expected for both Africa and the EU – following the signing of EPAs– these will essentially be concentrated in non-LDC countries, and only in a handful of non-industrial sectors, as far as Africa is concerned. Moreover, EPAs may be detrimental to intra-African trade, on top of reducing tariff revenues for African governments as any other trade liberalization reform. Nevertheless, if African countries sequence the establishment of a CFTA before full implementation of the EPAs, this would not only preserve gains from EPAs but also reverse some of its potentially adverse effects. Indeed, intra-African trade would then be strongly stimulated, especially in industrial products, thereby offering positive perspectives for Africa’s structural transformation. The reduction of costs to trade across borders would enhance further the benefits of both the CFTA and the EPAs reforms. Therefore, Africa should seize the opportunity offered by the transitional period under EPAs to effectively deepen its regional integration process.

Keywords: Regional trade agreements, regional integration, Africa, European Union, Computable General Equilibrium model.

I. Introduction

After over twelve years of controversial discussions, in the recent months three African negotiating groups, namely West Africa, East African Community (EAC), and South African Development Community EPA group², have concluded the negotiations for the Economic Partnership Agreements (EPAs) with the European Union (EU). This implies that as many as 28 countries, which together accounted slightly more than half of Africa's consolidated GDP in 2012, have finalized the negotiation process with the EU. Such acceleration partly reflects the 1 October 2014 deadline, unilaterally set by the EU for the withdrawal of market access regulation MAR 1528/2007, and the ensuing threat for African countries not belonging to the least developed countries (LDCs) category to see their preferential access to the EU market discontinued unless EPA negotiations were concluded.

At this stage, negotiations are still on-going in the two remaining blocks of Central Africa, and Eastern and Southern Africa (ESA)³, where outstanding issues include market access, rules of origin, development assistance, as well as other more specific controversial subjects such as export taxes, special agricultural safeguards, export subsidies, and non-execution clause. It should be noted, however, that most countries in the Central Africa and ESA region which may have risked losing preferential access to the EU market with the expiration of the October 2014 deadline, had already signed and are provisionally implementing interim EPAs. That is the case of Cameroon, which signed the "interim EPA" in 2007, and of Madagascar, Mauritius, Seychelles, and Zimbabwe, which did the same in 2009.⁴

The move from preferential arrangements to a WTO-compatible reciprocal –albeit asymmetric– agreement, such as the EPAs, has traditionally raised numerous concerns, notably on the potential impact on Africa's regional integration and development prospects. These questions are all the more relevant at the current juncture, characterized by the growing momentum towards

² The South African Development Community EPA group made up seven countries (i.e. Angola, Botswana, Lesotho, Mozambique, Namibia, South Africa and Swaziland) does not strictly match the Southern African Development Community (SADC) that has 15 member States (i.e. Angola, Botswana, Democratic Republic of Congo, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Swaziland, United Republic of Tanzania, Zambia and Zimbabwe), which is one of the eight regional economic community (REC) recognized by the African Union.

³ It is worth noting that countries from the North African region are not negotiating an EPA with the EU but are engaged into a similar process, namely the Euro-Mediterranean Partnership (EUROMED) which consists in a preferential and reciprocal trade agreement between the EU and 15 Southern Mediterranean, African and Middle Eastern countries.

⁴ Information related to the state of play of EPAs' negotiations is updated as of May 2015 and drawn from the European Union website (EU, 2015)..

the establishment of the Continental Free Trade Area (CFTA) by the indicative date of 2017. In light of this, and responding to the requests of several stakeholders, the present empirical study sheds new light on these issues, focusing on the case West Africa and ESA regions. The exclusive focus on West Africa and ESA regions is due to the impossibility of accessing sufficiently detailed information (i.e. common external tariffs, liberalization schedules and sensitive product lists) for the other African negotiating configurations. However, it should be highlighted that most of the findings are expected to generally hold for other African countries signing an EPA with the EU, given the relatively similar asymmetry in tariff structures and trade relations.

The paper is structured as follows. Section II will recap some considerations on the reform in Generalized System of Preferences (GSP) regime and on the prevailing pattern of trade relations between the West African and ESA regions and the EU; session III will present some evidence on the evolution of tariff structure implied by the EPA. Sessions IV and V will elaborate on the methodology utilized to assess the impact of the EPAs in the West African and ESA regions, and summarize key findings, respectively. Finally session VI will draw some conclusions and policy implications.

II. EPAs: what is at stake?

As with other trade agreements, the outcome of EPAs will be essentially driven by the interplay of two main elements: the changes in tariffs agreed by the two parties, and the structural features of trade relationships between African countries and the EU. Concerning the former element, the recent reform in the EU-GSP (EU regulation 978/2012) hinges on the following regimes:

1. Everything But Arms (EBA): offering duty-free quota-free market access to all products originating from LDC Countries, except arms and ammunitions;
2. GSP: available to 41 Low Income and Lower-Middle Income countries, and granting tariff reductions on roughly 66% of tariff lines;
3. GSP +: available to “vulnerable countries” implementing core conventions on human and labour rights, sustainable development, and good governance, which offers deeper tariff reductions, on the same tariff lines considered for GSP treatment;⁵ or

⁵ Countries are classified as “vulnerable” on the basis of two criteria: the lack of competitiveness in the EU market, as measured by an import share ratio lower than 2%, and the concentration of their export base, defined as a

4. MFN treatment or Preferential Trade Agreement for all other countries.

These distinct regimes can be thought of as defining some sort of “fall-back option”, defining the treatment African products would be granted by the EU regardless of the EPA process. In light of EU regulation 978/2012, the EBA regime is currently applicable to the 34 African LDCs; GSP regime to Congo and Nigeria; GSP+ to Cape Verde; MFN treatment to Gabon and Libya; whilst remaining countries would be subject to the specific provisions agreed in their preferential trade agreements with the EU. With the expiration of the 1st October 2014 deadline and lacking a conclusion of their respective EPAs, Congo and Gabon have indeed lost some preferential access to the EU market, returning to GSP and MFN regime respectively.⁶

Beyond tariffs, it is worth recalling that the economic relationships between the EU and African countries continue to be patently characterized by deep-seated structural asymmetries, not only in terms of economic size and level of development, but more fundamentally in terms of bilateral trade and relative negotiating power. Notably, whilst the EU nowadays accounts for roughly 40 percent (20 percent) of total merchandise exports from West Africa (ESA region), the latter purchase a mere 0.6 percent (0.1 percent) of total European exports. Moreover, notwithstanding many years of preferential market access, African exports to the EU remain concentrated in a narrow range of mostly primary products, whereas EU’s exports to Africa cover a much wider spectrum of goods.

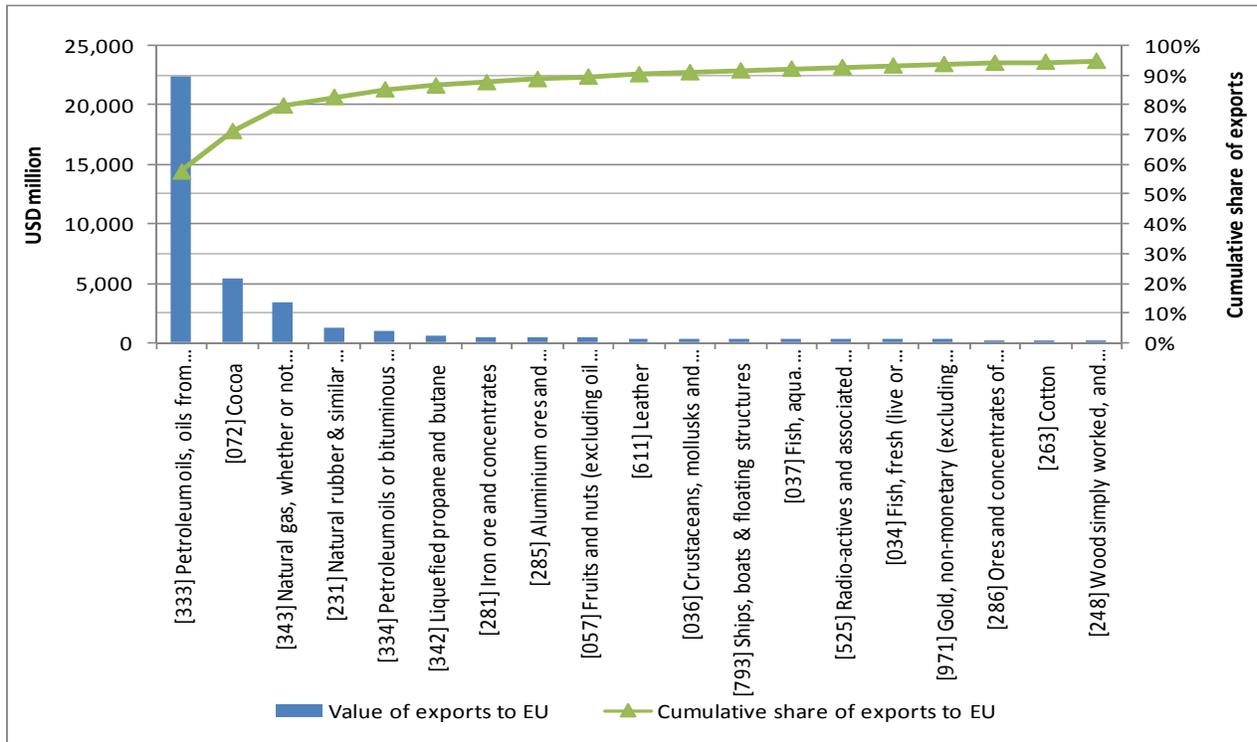
In the case of West Africa, as shown in Figure 1, crude oil constituted nearly 60 percent of merchandise exports to the EU in the 2009-2012 period, followed by cocoa (14 percent), and gum (9 percent); only three manufactured products feature in the top-20 West African exports: leather, ships and boats, radio-actives and associated materials. Conversely, EU’s exports to West Africa were more widely distributed across sectors, and predominantly skewed towards capital goods and manufactures. Nonetheless, it is worth noting that amongst the top-20 European exports to West Africa there were also refined oil (30 percent of the total), as well as milk, edible products, wheat, meat, and cotton fabrics (which together accounted for another 8 percent of total EU’s exports to the region).

diversification ratio of 75% of more of a country’s exports to the EU for its seven largest chapters. So far, within Africa only Cape Verde has obtained the GSP+ status.

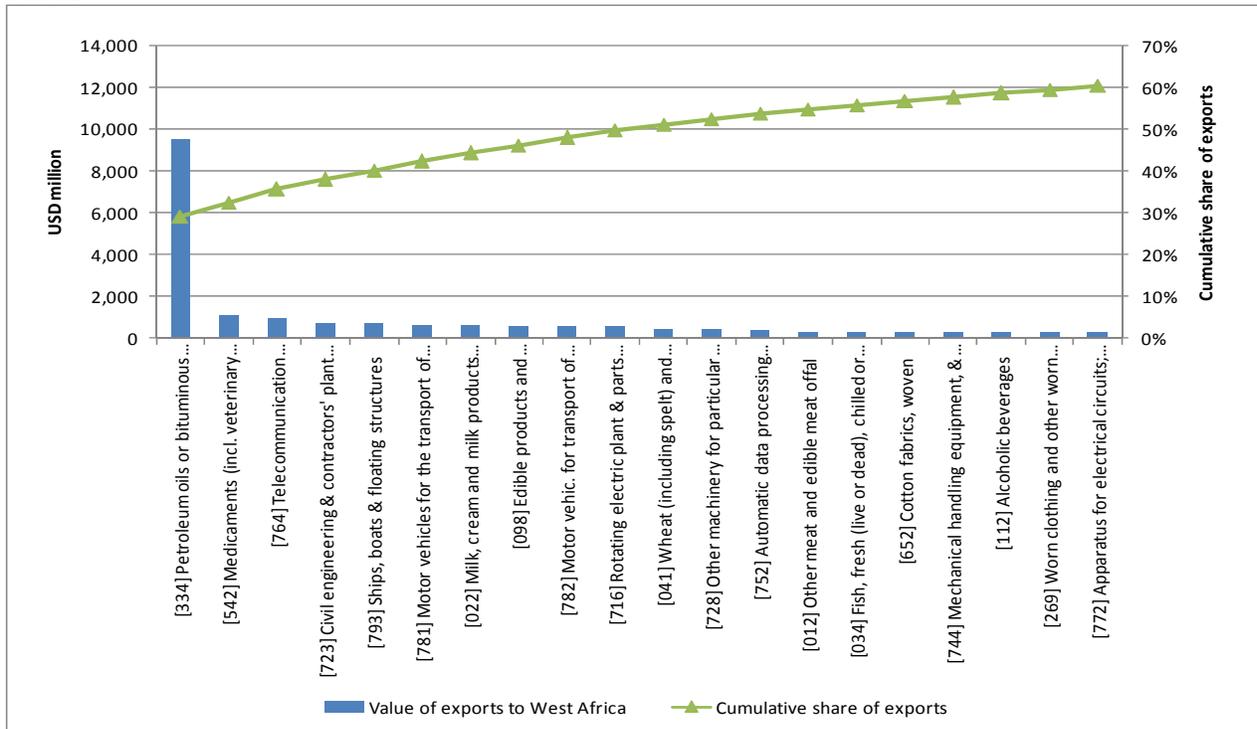
⁶ The East African Community concluded its regional EPA on 16 October 2014 but Kenya still lost some preferential treatment falling back to GSP regime from 1 October and for a few months until the situation was regularized. .

Figure 1: Top-20 West African exports to the EU (Panel A) and Top-20 EU exports to West Africa (Panel B); 2009-2012; SITC 3 digits

Panel A



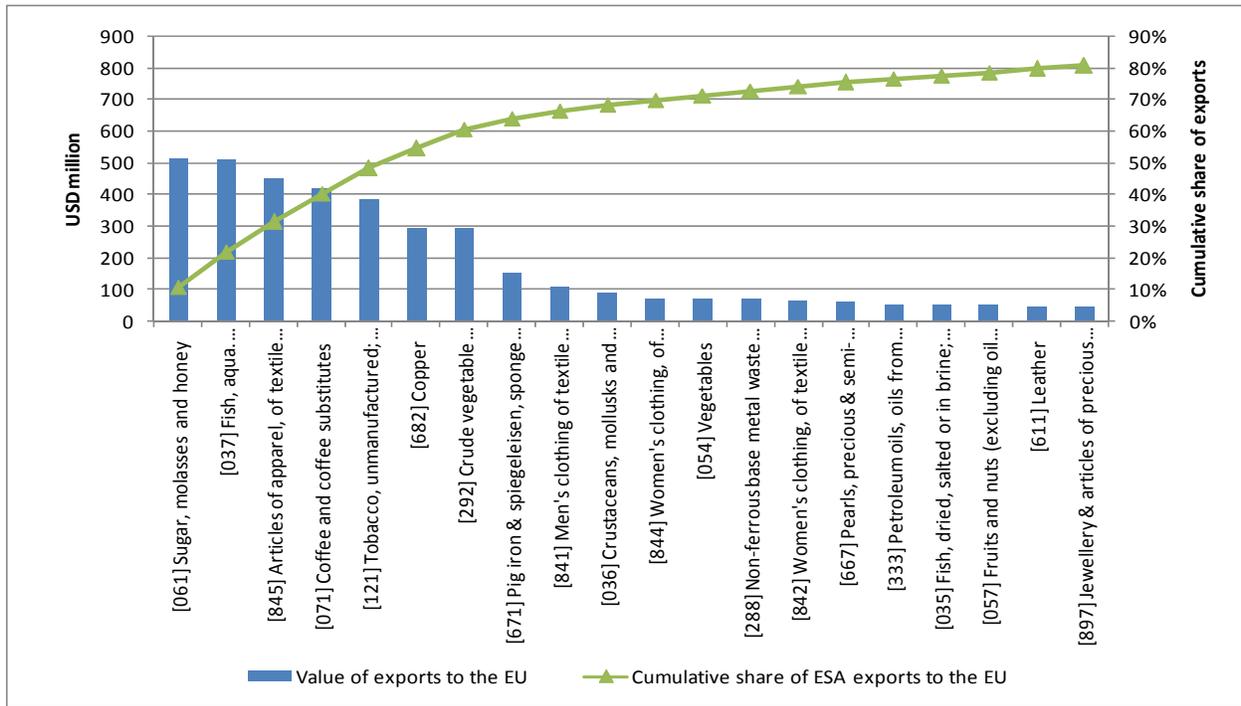
Panel B



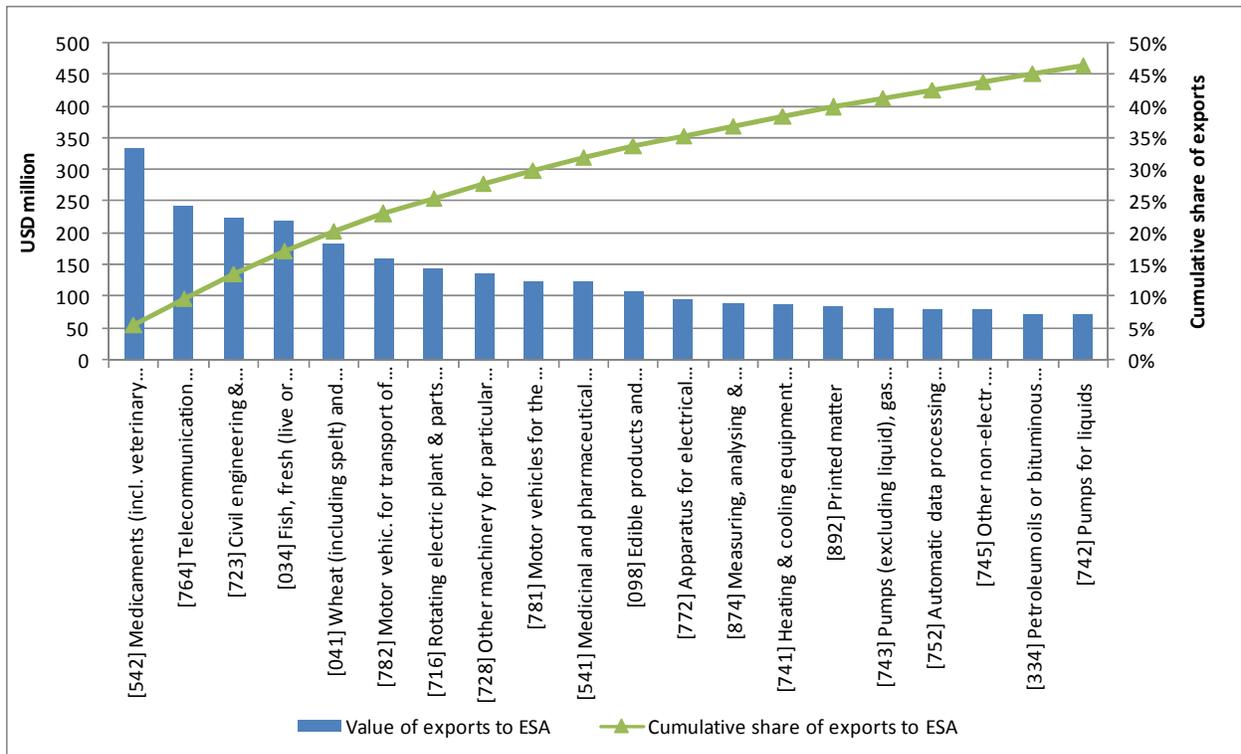
Source: authors' calculations based on UNCTADSTAT database (downloaded on 05/11/2014)

Figure 2: Top-20 Eastern and Southern African exports to the EU (Panel A) and Top-20 EU's exports to East and Southern Africa (Panel B); 2009-2012; SITC 3 digits

Panel A



Panel B



Source: authors' calculations based on UNCTADSTAT database (downloaded on 05/11/2014)

The situation is only slightly different in the case of ESA, even though the lack of large oil exporters mirrors in a lower concentration of exports, compared to West Africa (Figure 2). Whilst oil does not feature as prominently as in the previous case, primary products – and notably agricultural commodities – still constitute the bulk of ESA’s exports to the EU market. One can notice, however, a more significant presence of manufactured goods, and in particular of textile, apparel and leather products, mainly originating from Mauritius, Madagascar, and to a lower extent Ethiopia. Again, EU’s exports to ESA are more evenly distributed across sectors, and mainly skewed towards capital goods and more sophisticated manufactures. Even in this case, however, it is worth observing that primary products such as fish, wheat, edible products and refined oil all feature prominently amongst the top-20 EU exports to the ESA region (and together account for some 9 percent of the total).

Against this backdrop, it is evident that despite the preferential regime granted by the EU to its African counterparts under the Lome Convention and the Cotonou Agreement, both West Africa and the ESA region have largely failed to redress their lopsided trade relations with the EU. In light of this, and considering the various options under EU’s recently reforms GSP, it is not surprising that the move to a reciprocal although asymmetric trade arrangement, as implied by full implementation of EPAs, would likely translate into uneven trade gains for the two parties, as further elaborated below.

III. The tariff structure implied by the EPAs

As an alternative to the four regimes implied by EU’s GSP reform, the EPA package offers complete liberalization of EU imports from negotiating countries (whether or not LDCs), in exchange for a gradual liberalization of the latter’s imports of EU goods, covering “substantially all trade”. For African LDCs, whose goods are anyway covered by the EBA, this basically implies no further improvement in their access to the EU market; whilst for other African countries – which are mostly eligible for GSP treatment – improvements may be significant, but are basically circumscribed to a rather small number of tariff lines, mainly on sensitive agricultural products. Conversely, EU would see its access to African markets significantly improved, at least at the end of the transition period, given the high levels of protection it currently faces when exporting to African counterparts.

A more detailed analysis of the implications of the proposed EPA package for West Africa and ESA countries can be summarized as follows.⁷ For what attains to West Africa and ESA countries' access to the EU market, the level of protection they currently faced on their exports to the EU is summarized in Figure 3: Current average tariffs faced by West Africa and ESA on their exports to the EU – by sectors – Percent

. As can be seen from the chart, in most sectors exporters from West Africa and ESA already face a minimal level of protection when entering the EU market, in line with the fact that most countries involved benefit from EBA treatment or other preferential schemes. Notable exceptions to this pattern are represented by some agricultural sectors that the EU still considers as sensitive, namely sugar, diaries, rice, meat, and to some extent vegetables and fruits. This implies that even if the EPAs grant 100 percent duty-free quota-free access to the EU market, the ensuing benefits for African exporters are likely to be limited to the sectors above, with no further improvements in the rest of the economy.

The situation is instead radically different for what pertains to the protection faced by EU on its exports to West Africa and ESA regions, as clearly depicted in Figures 2 and 3. In West Africa the EU currently faces a high level of protection, especially in sectors such as rice, vegetables, meat, other food, oil, wood products and textiles (Figure 4). The adoption of the 5-bands ECOWAS Common External Tariff (CET), which entered into force in January 2015, already implied that the EU benefited from some degree of liberalization (particularly pronounced in the sectors mentioned above, as well as in livestock mining and metal products). The EPA process, however, implies that throughout the transition period, the EU will gradually benefit from further liberalization (see Annex 1). Accordingly, after the full implementation of EPAs, the EU will face a significantly lower level of tariff protection, compared to the CET, in a number of sectors, ranging from cereal, fibres, and livestock, to mining, oil, energy products, fishing and capital goods sectors.

The situation is only slightly different in the case of the ESA region (Figure 5).⁸ More specifically, the adoption of the COMESA CET is expected to trigger a less clear-cut effect on the level of protection faced by the EU when exporting to the ESA countries. In some sectors –

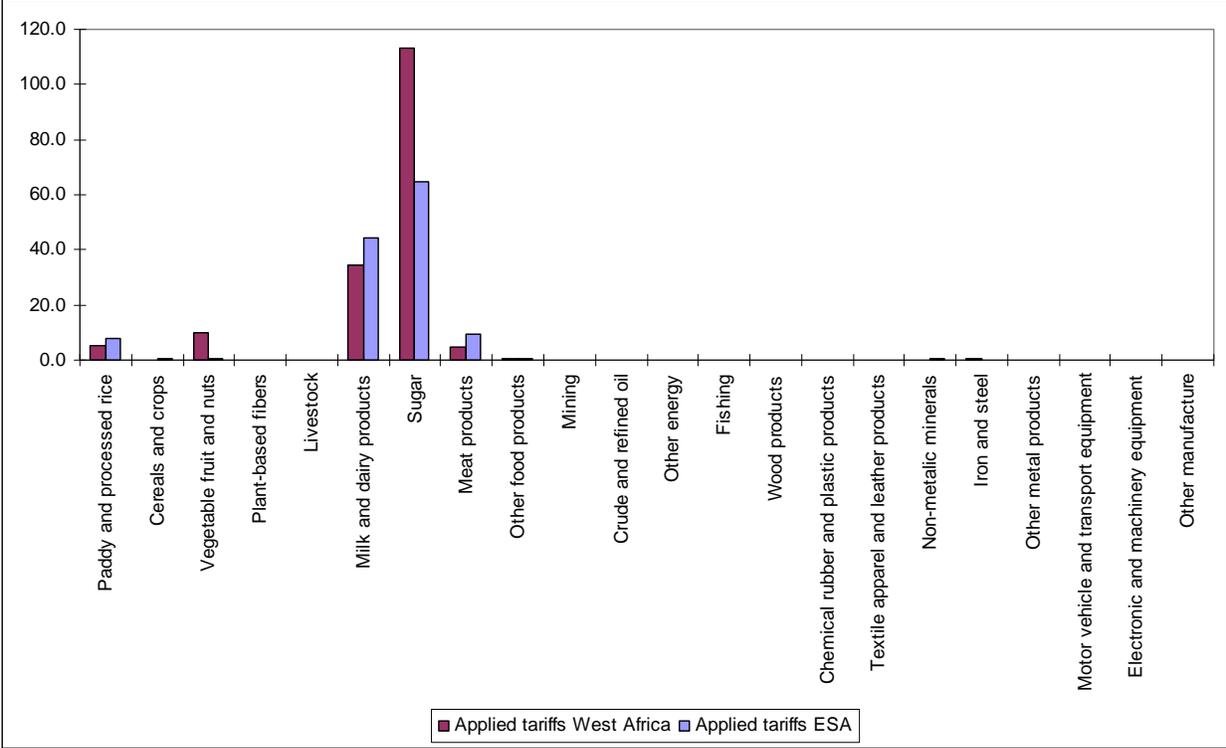
⁷ Throughout this section, the analysis of tariff structures relies on data on trade protections drawn from the MACMap-HS6 version 2 database, which provides exhaustive information on market access at the bilateral level for 220 exporter countries and 169 importer countries, and for as much as 5113 products. Data on protection levels are for the year 2004, but have been updated to reflect latest key trade agreements between the EU and Africa, as well as progress on Africa's regional integration front. Tariff barriers are aggregated at the level of sectors and countries/regions consistently with the study undertaken through the CGE modelling framework, using the "reference group weight".

⁸ At the time of writing, it is not yet clear when the COMESA CET structure will be in place. Moreover, ESA countries have not yet agreed a common tariff dismantling schedule vis-à-vis EU, nor a common list of sensitive products to be excluded from EPA-related liberalization.

notably cereals, fibres, livestock, oil, other energy products, textiles, chemicals, iron and steel – the adoption of the COMESA CET would entail some liberalization; conversely, in other sectors (such as rice, vegetables, sugar, and mining) it would imply a higher protection. This said, as in the case of West Africa, with the full implementation of the EPAs, EU exporters would face lower tariffs than the CET in a number of sectors, including notably fishing, textile, meat, non-metallic minerals, iron and steel.⁹

In light of the above, it is hence clear that unless further liberalization occurs across African Regional Economic Communities (for instance in the context of the Tripartite or Continental Free Trade Areas), in some sectors EU-originating goods may be granted a more favourable treatment than similar African products which instead qualify for CET treatment. To make a simple example, in 2035 a country such as Madagascar may end up charging a lower tariff on fish imports from Europe, than on the same products originating from, say, Senegal.

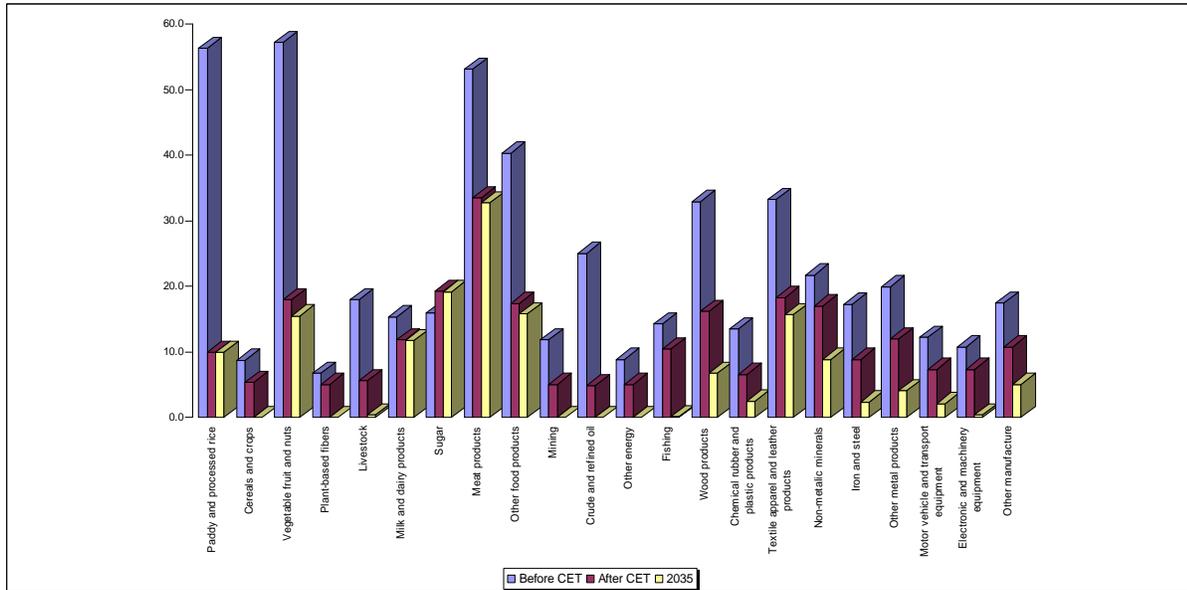
Figure 3: Current average tariffs faced by West Africa and ESA on their exports to the EU – by sectors – Percent



⁹ Given the lack of an agreed list of sensitive products in the ESA region, the selection of the 20 percent of sensitive products to be excluded from EPAs liberalization was made according to the methodology developed by Jean, et al. (2008). In a nutshell, this methodology defines an index of sensitivity taking into account three dimensions: (i) high initial tariffs; (ii) the relevance of trade in each product; and (iii) the magnitude of tariff reduction that would take place under the negotiated liberalization schedule. Accordingly, here and in the CGE simulations, the products corresponding to the highest value of the index, and accounting for 20 percent of ESA’s imports from the EU are excluded from liberalization under the EPA.

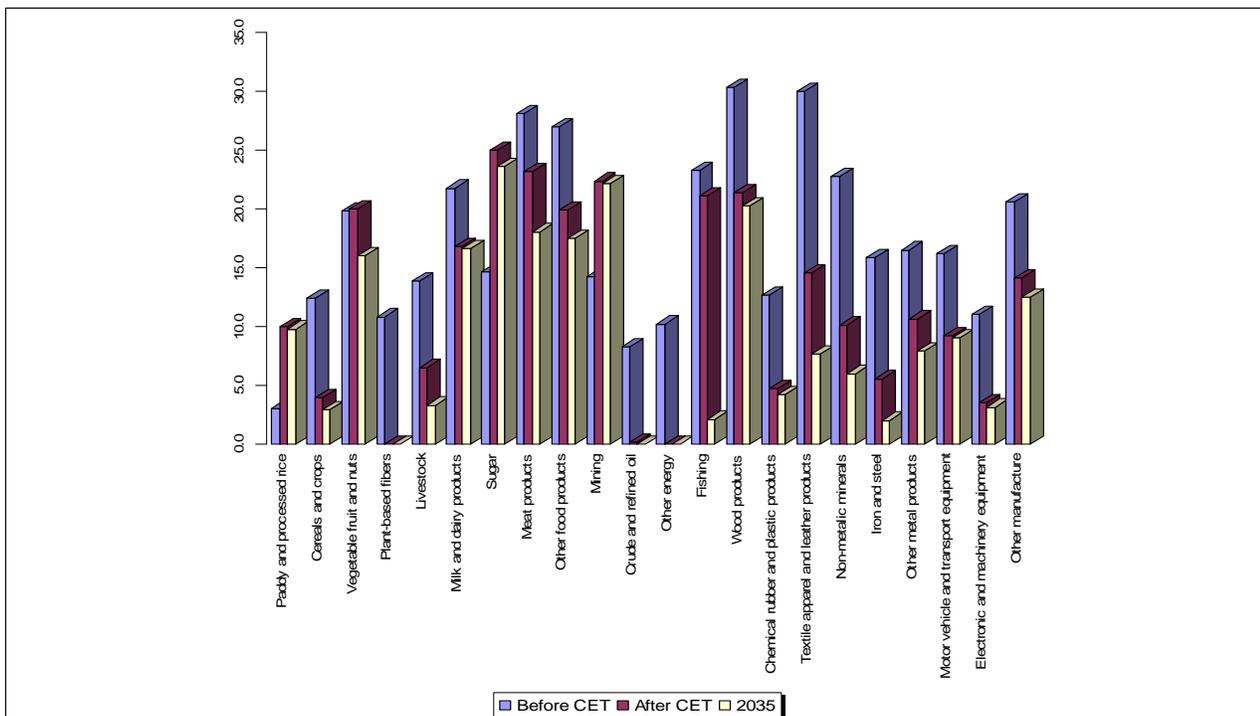
Source: authors' calculations based on the MACMap-HSv2 and GTAP version 8.1 database

Figure 3: Average tariffs faced by the EU on its exports to West Africa before and after CET as well as after full EPA implementation – by sectors – Percent



Source: authors' calculations based on the MACMap-HSv2 database

Figure 4: Average tariffs faced by the EU on its exports to ESA before and after CET as well as after full EPA implementation – by sectors – Percent



Source: authors' calculations based on the MACMap-HSv2 database

IV. Methodology overview and envisaged policy reforms

To assess the macroeconomic and sectoral impact of EPAs beyond the mere change in tariff structure, the Modeling International Relationships in Applied General Equilibrium (MIRAGE) multi-country multi-sector computable general equilibrium (CGE) model was used in its dynamic version (see annex 2 for main standard features of the model)¹⁰. CGE models require detailed data¹¹ to describe interactions taking places within and between economies. Although they represent the world economy imperfectly, CGE models have the key advantage to capture feedback between the different markets of the economies –contrarily to partial equilibrium models that look at each market in isolation– and therefore, can provide very useful insights to policy makers on expected effects from complex reforms.

Data for calibration of the CGE model is obtained mainly from the Global Trade Analysis Project (GTAP) database in its version 8.1¹². To allow for a more refined analysis, bilateral tariff information at harmonized-system 6 digit (HS6) level of products is instead taken from the Market Access Map (MAcMap-Hs6) version 2¹³; and then aggregated at the level of countries/regions and sectors defined for the analysis (see annex 3) using the reference group weight methodology¹⁴. Detailed information about common external tariff (CET) structures, liberalization schedules and sensitive product lists was instead provided by ECOWAS Commission and COMESA¹⁵.

The baseline or reference scenario takes the CET structures as the starting point to trade liberalization reforms envisaged under EPAs. In that sense, and in order to be able to capture the economic implications of EPAs in isolation from any changes implied by CET reforms, it was assumed that ECOWAS and ESA are fully functioning free trade areas and have their respective

¹⁰ Modeling International Relationships in Applied General Equilibrium (MIRAGE) CGE model was utilized; see Decreux and Valin (2007) for details about the technical description of the model.

¹¹ Data used for calibration of the CGE model are essentially from GTAP 8.1 database, while protection information is based on MAcMap-HS6v2; see Narayanan et al. (2012) for GTAP 8.1 and Boumellassa et al. (2009) for MAcMap-HS6v2.

¹² See Narayanan et al. (2012).

¹³ See Boumellassa et al. (2009).

¹⁴ See footnote 5 and Boumellassa et al. (2009).

¹⁵ If CET and trade liberalization schedule with exclusion list under EPAs were provided by ECOWAS Commission, only CET structure was obtained from COMESA and used for ESA. Tariff liberalization schedule for ESA is assumed as a linear reduction from CET rates to 0 between 2015 and 2035, except for sensitive products for which CET tariff rates remain unchanged. As indicated in section III, in the case of ESA, the 20% of sensitive products (which have not yet been agreed at regional level) were determined following the methodology proposed by Jean, S., Laborde, D. and Martin W. (2008). Accordingly, sensitive products were identified through the computation of an index combining the following three criteria: 1) initial tariff of a product; 2) traded value of the product; 3) magnitude of tariff reduction that would take place if the product was to be liberalized. Products are then ranked based on the value of computed index; highest values corresponding to most sensitive products such as top 20% is excluded from liberalization with the EU by ESA.

CET structures in place by 1 January 2015. This situation corresponds to the baseline to which policy reforms are compared.

The policy simulation exercise carried out in this paper is constructed around three policy reform scenarios, which build on each other, and namely:

- A. Firstly, full and progressive implementation of West Africa-EU and ESA-EU EPAs between 2015 and 2035 is assumed, such as the EU immediately grants 100 percent duty-free quota-free on its imports from West African and ESA countries, while West African and ESA countries progressively provide 75 percent and 80 percent DFQF access to EU's exports on their markets, respectively¹⁶.
- B. Secondly, it is foreseen that African countries implement the CFTA alongside the EPA reforms. This is in line with the African Union action plan to “Boosting Intra-African Trade and Establishing the Continental Free Trade Area” by the tentative date of 2017. The action plan was endorsed by African Heads of State and Government at the January 2012 AU Summit. In other words, this scenario implies that African countries would be able to effectively use the transitional period offered under EPAs, to sequence trade liberalization first at continental level, through the CFTA, and then towards the EU as enshrined in the EPAs.
- C. Thirdly, it was envisaged that costs to trade across borders would be reduced worldwide in parallel to the establishment of the CFTA, and ahead of complete implementation of ECOWAS-EU and ESA-EU EPAs. More specifically, it was assumed that current actual costs related to customs procedures, port handling and inland transport of merchandises would progressively be cut and halved by 2017, in line with the increasing attention paid by the international community to trade facilitation reforms. These costs are modelled as iceberg costs (i.e. not all the goods that are exported reach their final destination) and obtained by crossing information: on average number of days to import and export by country (from the World Bank, 2013)¹⁷, and on import/export weighted average time costs provided by exporting and importing countries at GTAP level of sectors (from Minor and Hummels, 2011).

¹⁶ See annex 1 for detailed liberalization scheduled implemented in the case of ECOWAS. In the case of ESA, lacking a regionally-agreed tariff liberalization schedule, liberalization was implemented linearly with tariff cuts made every year, so as to reach 80% of EU-originating imports DFQF at the end of the transition period..

¹⁷ Data from World Bank Doing Business 2013 report (i.e. data year 2012) is used throughout the baseline scenario.

Unless otherwise indicated, all results presented thereafter are obtained by comparison between each of the above three scenarios and the baseline in the year 2040.¹⁸

V. Key findings from envisaged policy reforms

A. EPA reforms only

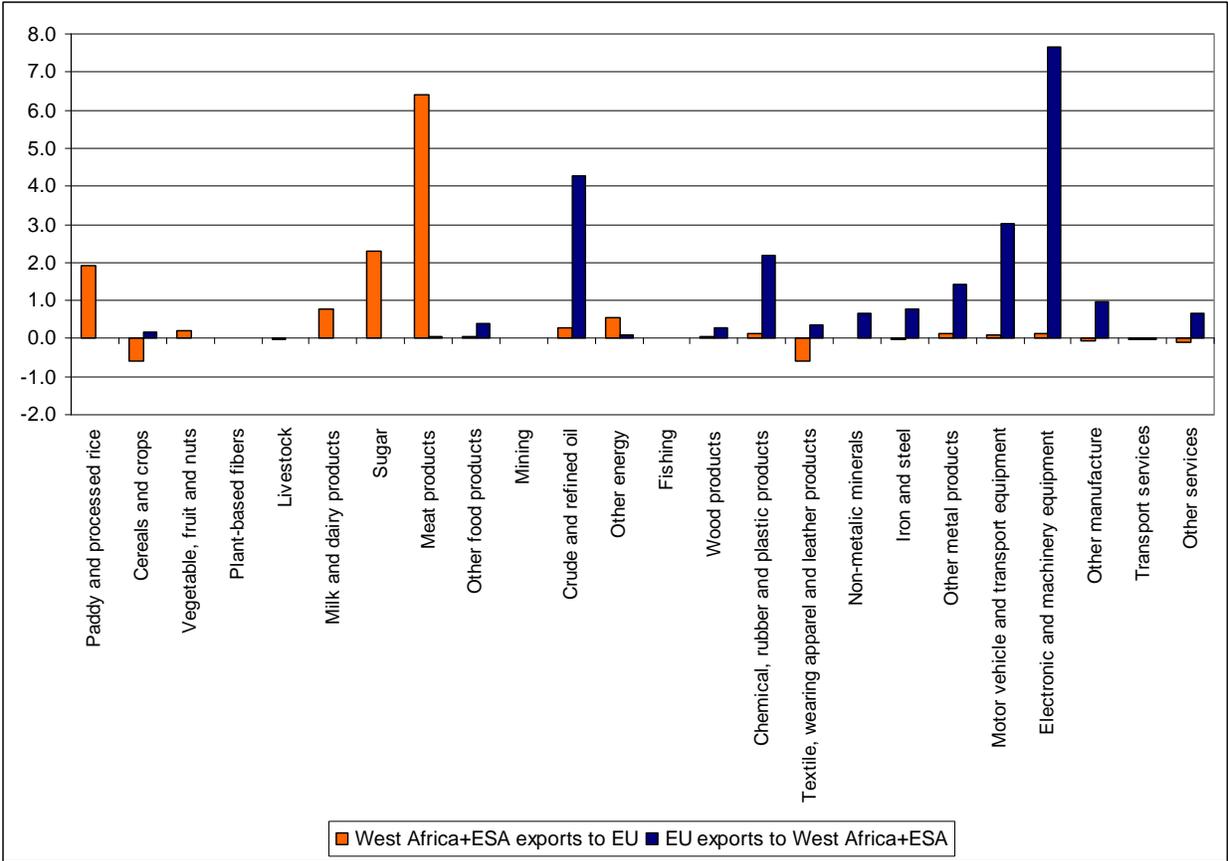
Following full implementation of EPAs, the two-way trade between the EU and its African counterparts (i.e. West Africa and ESA) would expand substantially. However, consistently with the previous analysis of the implied changes in the tariff structures, the EPAs translate into uneven trade gains. In absolute terms, EU's exports to West Africa and ESA together would increase nearly twice as much as West Africa and ESA's exports to the EU; with EU exports to West Africa and ESA increasing by USD 23.1 billion, and West Africa plus ESA's exports to the EU enhanced by USD 11.8 billion, in 2040, under EPAs and as compared to the baseline (see Figure 5). Third countries, outside of the EPA reforms, would suffer some degree of trade diversion, and see their exports slightly decreasing.

Moreover, while the expansion in EU's exports towards African counterparts would be distributed across roughly all sectors¹⁹ (with highest gains in industry), West Africa and ESA's export gains to the EU would be concentrated in just few agricultural sectors (i.e. rice, sugar, milk and meat; see Figure 4) and benefit strictly non-LDCs (i.e. Cape Verde, Cote d'Ivoire, Ghana, Nigeria from West Africa and Mauritius, Seychelles and Zimbabwe for ESA). Since LDCs already enjoy nearly free access to the EU market thanks to EBA initiative, if anything they might see their preferences somewhat eroded under EPAs. Indeed, they register quasi null or even negative export variations following the full implementation of EPAs, due to increased competition with West African and ESA non-LDCs. Additionally, it is worth noting that export gains obtained in agricultural commodities could be slightly overestimated as these products are often subject to trade restrictions (e.g. sanitary and phytosanitary measures, standards and other rules and regulations) which are not considered in the modelling exercise. Finally, as trade gains for African countries are essentially circumscribed to agricultural products, it appears unlikely that EPAs will play a role in unlocking the potential for export diversification and industrialization in Africa.

¹⁸ Each scenario is assumed to be fully implemented by 2035 but variables in the model need time to fully adjust to the shocks.

¹⁹ In percent terms, increases superior to 10 percent are found in all main sector categories (i.e. agriculture and food, mining and energy as well as industry); however, this does not appear clearly in Figure 5 showing absolute variations in USD billion as when significant increases in percent terms are registered for relatively low values (for example in agricultural sectors) then it does not translate into large variations in absolute terms.

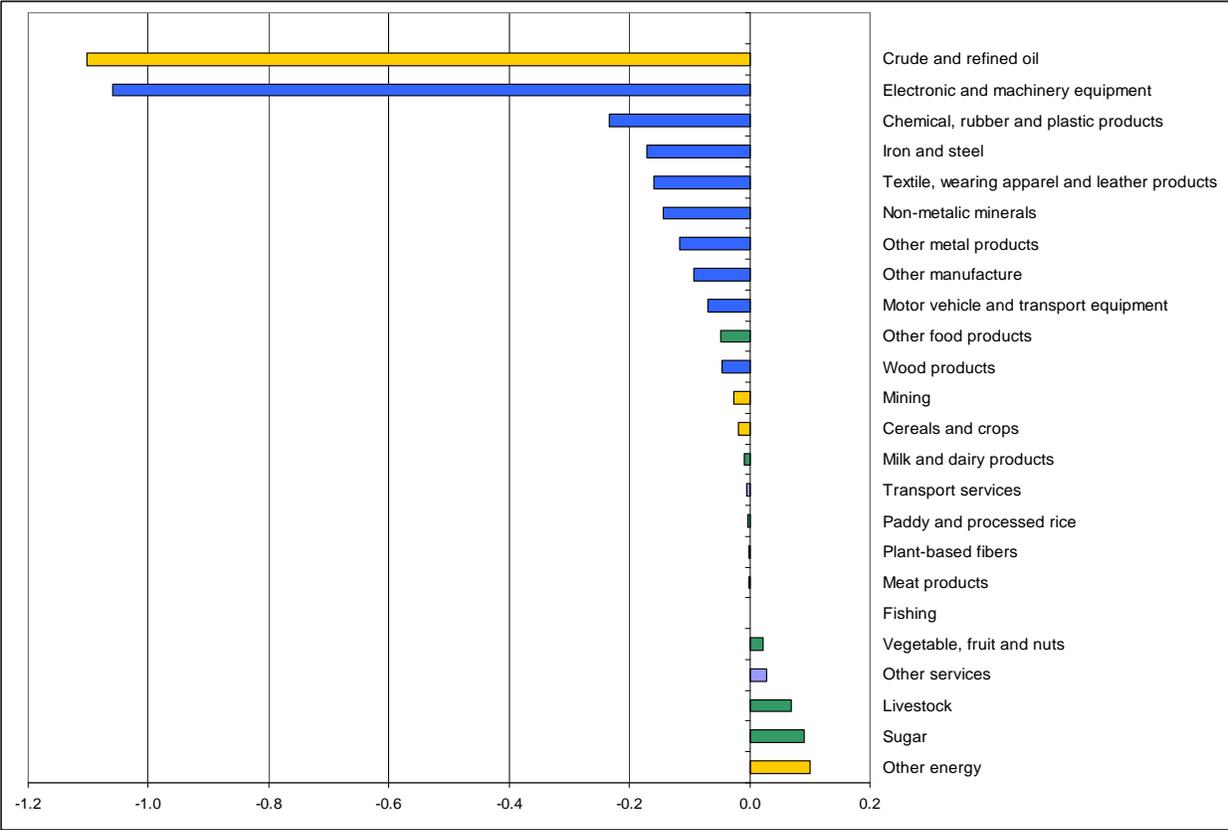
Figure 5: Changes in West Africa+ESA’s exports to the EU vs. changes in EU’s exports to West Africa+ESA, following implementation of West Africa-EU and ESA-EU EPAs – By main sectors – USD Billion – 2040



Source: authors’ calculations based on the MIRAGE model

It should also be highlighted that following full implementation of EPAs, intra-African trade would be reduced by \$ 3 billion owing to two main reasons. On the one hand, EU-originating exports to both ESA and West Africa could displace similar products from other African countries, in so far as they receive more favourable treatment than the CET. On the other hand, non-LDCs from West Africa and ESA are diverting some of their exports from African partners to the EU. Indeed, consistently with the findings of Section II and III on the prevailing pattern of trade and on tariff changes implied by the EPAs, one-third of the decrease in intra-African trade is imputable to crude and refined oil and nearly, whist all the rest (i.e. roughly two-third) to manufacture sectors thereby undermining industrialization of intra-African trade (see Figure 7).

Figure 7: Changes in intra-African trade, following implementation of West Africa-EU and ESA-EU EPAs – By main sectors – USD Billion – 2040



Source: authors' calculations based on the MIRAGE model

As far as the impact of EPAs on real incomes is concerned, most West African and ESA countries would register a slight decrease, essentially due to the reduction in tariff revenues following lower average tariffs imposed on their imports from the EU (See Table 1).

Mauritius and to a lesser extent Zimbabwe represent two notable exceptions to the above general trend, as they witness an increase in their tariff revenues and real incomes following EPA reforms. This outcome is explained by the closure of the model used for the analysis, which assumes that the real exchange rate in each country/region adjusts so as to keep constant the current account balance (see Annex 2). In concrete terms, the improved position of Mauritius and Zimbabwe can be explained by the fact that they are the only African countries (from ESA or West Africa, respectively) for which the EPAs imply a greater improvement in the access to the EU market than the concessions granted domestically to the EU; on average, EPA reforms translate into a reduction of Mauritius and Zimbabwe’s average protection imposed on their imports from the EU by 1.4 and 1 percent-point respectively, while their average protection faced when exporting to the EU is expected to decrease by as much as 13.9 and 4.8 percent-

points respectively. In other words, Mauritius and Zimbabwe would benefit from high decrease in tariffs for key exported products (e.g. sugar for Mauritius) with their exports to the EU increasing considerably more than their imports from the EU²⁰.

Table 1: Changes in tariff revenues, following implementation of West Africa-EU and ESA-EU EPAs – Percent – 2040

| Country/Region | Change in tariff revenues - % |
|----------------------------|-------------------------------|
| Cote d'Ivoire | -33.4 |
| Ghana | -21.3 |
| Benin | -8.3 |
| Burkina Faso | -28.5 |
| Guinea | -27.4 |
| Togo | -8.7 |
| Nigeria | -22.5 |
| Senegal | -28.0 |
| Rest of West Africa | -16.3 |
| ECOWAS total | -19.3 |
| Ethiopia | -2.1 |
| Madagascar | -2.4 |
| Malawi | -0.8 |
| Mauritius | 26.9 |
| Zambia | -0.6 |
| Zimbabwe | 10.0 |
| Rest of ESA | -1.5 |
| ESA total | 1.8 |
| European Union (28) | -1.8 |

Source: authors' calculations based on the MIRAGE model

B. EPAs in the context of an African CFTA

If Africa's trade liberalization efforts are sequenced so that the CFTA is in place by the time EPAs are fully implemented, the strict effects on bilateral trade between West Africa/ESA and the EU will not be significantly altered (see Table 2). EU's exports to both West Africa and ESA would increase by USD 21.0 billion (as compared to USD 23.1 billion without CFTA), whereas West Africa plus ESA's exports to the EU would increase by USD 9.0 billion (as compared to USD 11.8 billion without CFTA).

²⁰ From a technical point of view, this leads to an appreciation of Mauritius and Zimbabwe's real exchange rates to maintain current account fixed in the model with positive implications on the countries' real incomes and tariff revenues.

Table 2: Changes in exports by key destinations, following implementation of West Africa-EU and ESA-EU EPAs with or without CFTA reform – Percent – 2040

| Origin\Destination | EPAs only | | | EPAs + CFTA | | |
|--------------------|----------------|-------------------|----------------|----------------|-------------------|----------------|
| | European Union | West Africa + ESA | Rest of Africa | European Union | West Africa + ESA | Rest of Africa |
| European Union | | 23.1 | -0.6 | | 21.0 | -10.4 |
| West Africa + ESA | 11.8 | -1.5 | 0.1 | 9.0 | -1.3 | 23.1 |
| Rest of Africa | 0.9 | -1.7 | 0.0 | -8.3 | 19.0 | 119.2 |

Source: authors' calculations based on the MIRAGE model

Nevertheless, impacts on trade relationships outside of EPAs are considerably modified.

EU's exports towards the rest of Africa (i.e. outside West Africa and ESA) would severely drop, decreasing by USD 10.4 billion (as compared to only USD -0.6 billion without CFTA) in 2040, compared to the baseline (see Table 2). This also clearly reinforces the EU's interest in having a maximum of African countries to implement EPAs (since EU exports towards EPA signatories are strongly stimulated, as indicated earlier), especially as Africa engages into deeper regional integration.

Conversely, the CFTA reform would reverse the drop in intra-African trade ensuing from the EPA-only scenario, triggering a strong net increase in continental trade (see Table 2; sum of cells within red borders). Indeed, whereas trade flows within African countries would decrease by USD 3 billion (or -1.0 percent) under the sole EPA reforms, they would increase by as much as USD 160 billion (or +55.3 percent) when the CFTA is established before EPAs are fully implemented. Furthermore, more than two-third of intra-African trade expansion would take place in industrial sectors (see Figure 9), potentially providing opportunities for structural transformation of African economies. It should also be noted that if intra-West African and intra-ESA trade would still be slightly reduced after the CFTA reform, it is owing to the fact that some intra-regional trade is being replaced by trade with other African partners; whereas intra-regional trade was displaced by more exports towards the EU in the case of strictly EPAs.

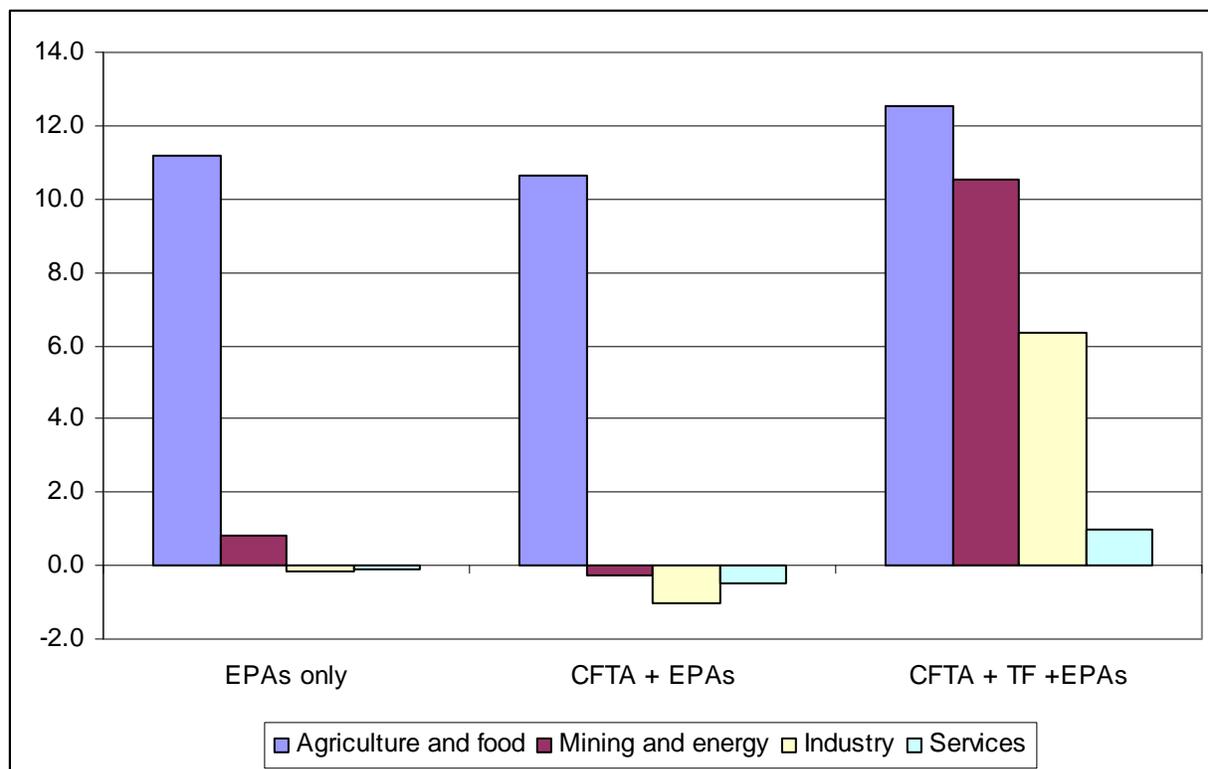
Even in this scenario, the real income of African countries would still decrease as CFTA reforms would imply a further reduction in tariff revenues. However, it is important to note that these losses could potentially be offset through other fiscal reforms made possible by the increase in trade volume and economic activity within the African continent.

C. EPAs in the context of an African CFTA along with reduction of costs to trade across borders

In the case whereby EPAs are fully implemented after the CFTA has already been established and efforts to reduce costs to trade across borders²¹ has been made worldwide, all countries/regions (i.e. Africa, the EU as well as the rest of the world) would experience significant boosts to their exports.

As far as strictly West Africa and ESA trade with the EU is concerned, not only West Africa plus ESA's exports to the EU would still augment in key agricultural products (i.e. rice, sugar, milk and meat) as in the previous scenarios, but the reduction of trade-related costs would boost West Africa plus ESA's exports to the EU in energy as well as in industrial products (see Figure 8). EU's exports to West Africa and ESA would also expand in all main sectors following the decrease of costs to trade across borders.

Figure 8: Changes in West Africa+ESA's exports to the EU, following implementation of West Africa-EU and ESA-EU EPAs – By main sectors – USD Billion – 2040



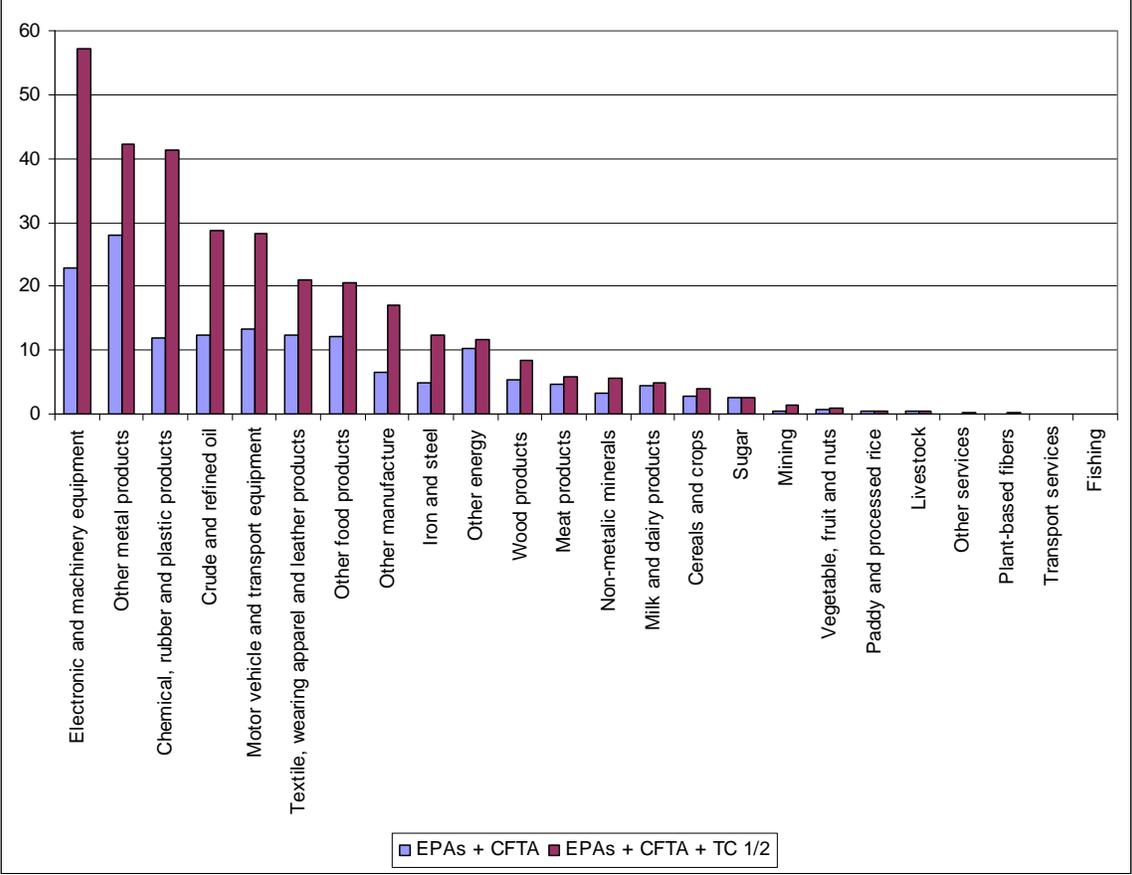
Source: authors' calculations based on the MIRAGE model

²¹ Here we assumed that customs procedures have become twice more efficient and that time to for inland transport and port handling has been reduced by half worldwide when the CFTA is fully implemented.

Turning to intra-African trade, as shown in Figure 9, it would double if costs to trade across borders were brought down to half in parallel with the establishment of a CFTA. The reduction of trade frictions would bring pronounced benefits to the competitiveness of the industrial sector, which would account for three-quarter of the expansion of intra-African trade.

Consistently with Africa’s disproportionately high trade costs, simulation results confirm that trade facilitation reforms would have a very positive impact on Africa’s export performance, and especially so for exports of industrial products. Moreover, the improved competitiveness of Africa’s industrial exports would be noticeable across all destination markets, be it within Africa, to the EU or to the rest of the world.

Figure 9: Changes in intra-African trade, following implementation of EPA reforms the context of CFTA vs. EPA reforms in the context of CFTA along with a reduction of costs to trade across borders – By main sectors – USD Billion – 2040



Source: authors’ calculations based on the MIRAGE model

Overall, the boost to African exports would be so pronounced that real income losses from EPAs and CFTA reforms would be fully offset if some of the non-tariff barriers to trade across borders are to be removed. In fact, income gains –most of the time very significant– would be registered by all African countries, pointing once again to the fact that trade facilitation represent a priority for Africa, as acknowledged by the 2012 African Union Action Plan for Boosting intra-African Trade.

VI. Conclusions and policy recommendations

Simulation results presented earlier suggest that EPAs implementation in both Western Africa and ESA region would bring about significant trade creation. In the African context, however, trade gains would essentially accrue to African non-LDCs, and be concentrated in a handful of agricultural sectors (i.e. rice, sugar, milk and meat), thus providing limited prospects for structural transformation in Africa. The EPAs would actually bring better distributed trade gains for the EU, which would see its exports to African counterparts increasing in nearly all sectors, and especially in industry. Moreover, there would be some costs associated with the implementation of the agreement such as a reduction in tariff revenues for African governments and a decrease in intra-African trade.

It should be acknowledge, however, that the EU Foreign Affairs Council, aware of some of the costs implied by EPAs –especially for LDCs– has committed in March 2014 to provide financial support to African countries. This assistance, under the Economic Partnership Agreement Development Programme, is to be disbursed by the European side between 2015 and 2020. Yet, it is very likely that such support will not be sufficient to offset all EPAs’ expected negative impacts on African nations, especially those relating to intra-African trade. Furthermore, the additionality of such funds vis-à-vis other development assistance (and more specifically other Aid for Trade) provided by the EU remains to be assessed.

Against this background, sequencing trade reforms in such a way that the establishment of the CFTA predates the implementation of the EPAs is probably the most promising policy option available to African economies in order to grasp the trade gains from EPAs while avoiding some of its adverse effects. As our analysis shows, deepening Africa’s integration through the establishment of the CFTA before implementing the EPAs could go a long way in boosting intra-African trade and supporting export diversification.

In this respect, it would be important to coordinate EPAs finalization across negotiating blocks and RECs, thereby making sure to minimize any obstacle EPAs may pose to Africa’s regional

integration agenda. This step would be especially critical in the context of countries with overlapping REC memberships. It is also imperative to use the finalization of EPAs to ensure that the most favourable provisions in any block would be extended to the others. The determination of relatively similar common external tariff structures across regional blocks would also be crucial to ensure that regional integration and industrialization efforts are not undermined. This last aspect will be critical with a view to facilitate the establishment of the African Customs Union, which as per the Abuja treaty is expected to follow the African CFTA. In setting their tariff structures, African countries will need to be strategic; for example, favouring imports of cheaper intermediate inputs to be used in the production process of industrial products (see ECA 2015).

Moreover, complementing regional integration reforms through the implementation of trade facilitation measures (such as making customs procedures more efficient and building the infrastructure to speed up movements of goods and services) would not only help expanding further Africa's trade, but also positively stimulate real incomes. In the same vein, ensuring a high level of ambition for the regional integration process (for example by encompassing measures that facilitate trade in services and investment flows at continental level) could spur the emergence of regional value chains, thereby allowing to better support Africa's structural transformation agenda.

Finally, it is worth reiterating that the expected gains documented by this empirical analysis could only materialize if: 1) Commitments to embark on the envisaged CFTA are effectively and readily implemented on the ground, and hence lead to a reduction of tariff and non-tariff barriers throughout the African continent; 2) Adequate capacities to ease trade across borders are built and become rapidly operational; 3) African countries enhance their coordination in the conduct of trade and industrial policies, including for the determination of common external tariff structures. In that sense, the transitional period offered under EPAs –as African countries have a 20-25 year period to progressively grant preferential market access to the EU– must be seen as a window of opportunity that African nations should strategically exploit. Indeed, it provides the space for African economies to harness Africa's continental integration, in order to boost their competitiveness before EPAs are fully implemented, thereby grasping greater benefits as they open-up with the rest of the world.

References

- Ben Hammouda, H. and P.N. Osakwe (2006), “*Global Trade Models and Economic Policy Analyses: Relevance, Risks, and Repercussions for Africa*”, ATPC Work in Progress No.47, UNECA
- Bouët, A., B. Dimaranan, H. Valin (2010), “*Modeling the Global Trade and Environment Impacts of Biofuel Policies*”, IPFRI Discussion Paper No. 01018.
- Boumellassa, H., D. Laborde and C. Mitaritonna (2009), “*A Picture of Tariff Protection Across the World in 2004: MAcMap-HS6, Version 2*”, IPFRI Discussion Paper No. 00903.
- Decreux, Y., H. Valin (2007), “*MIRAGE, Updated Version of the Model for Trade Policy Analysis: Focus on Agricultural and Dynamics*”, CEPII, Working paper No 2007-15.
- ECA. 2015. “*Economic Report on Africa 2015: Industrializing through trade*”, United Nations Economic Commission for Africa. Addis Ababa.
- ECA. Forthcoming. “*Africa’s potential costs of not signing the Economic Partnership Agreements with the European Union*”.
- EU (2015), “*Overview of EPA Negotiations - Updated May 2015*”, EU, http://trade.ec.europa.eu/doclib/docs/2009/september/tradoc_144912.pdf
- Jean, S., Laborde, D. and Martin W. (2008), “*Choosing Sensitive Agricultural Products in Trade Negotiations*”, IPFRI Discussion Paper No. 00788.
- Minor, Peter and David Hummels (2011) “*Time as a Barrier to Trade: A GTAP Database of ad valorem Trade Time Costs*”, Latest version of the Research Report submitted to GTAP 11th Annual Conference, Helsinki, Finland.
- Narayanan, G., Badri, A. Aguiar and R. McDougall, Eds. 2012. *Global Trade, Assistance, and Production: The GTAP 8 Data Base*, Center for Global Trade Analysis, Purdue University.
- World Bank (2005). “*Global Economic Prospects 2005: Trade, Regionalism and Development*”.
- World Bank (2013) “*Doing Business: Trading Across Borders*”, 2013 Report.

Annex 1

ECOWAS tariff liberalization schedule under its economic partnership agreement with the European Union

| Group | Product category | CET rate (%) | Applied rate (%) in | | | | |
|-------|------------------|--------------|---------------------|------|------|------|------|
| | | | 2015 | 2020 | 2025 | 2030 | 2035 |
| A | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| A | 2 | 5 | 5 | 0 | 0 | 0 | 0 |
| B | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| B | 2 | 5 | 5 | 5 | 0 | 0 | 0 |
| B | 3 | 10 | 10 | 10 | 5 | 0 | 0 |
| C | 2 | 5 | 5 | 5 | 0 | 0 | 0 |
| C | 3 | 10 | 10 | 10 | 5 | 0 | 0 |
| C | 4 | 20 | 20 | 20 | 10 | 5 | 0 |
| D | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| D | 3 | 10 | 10 | 10 | 10 | 10 | 10 |
| D | 4 | 20 | 20 | 20 | 20 | 20 | 20 |
| D | 5 | 35 | 35 | 35 | 35 | 35 | 35 |

Source: Based on report from ECOWAS-EU-UEMOA Senior Officials' Meeting held in Dakar, Senegal, on 24 January 2014.

Note: Product categories are defined as follows. 1 is for “essential social goods, including essential medicines”, 2 represents “goods of primary necessity, raw materials and specific inputs”, 3 relates to “inputs and intermediate goods”, 4 is for “final consumption goods” and 5 refers to “specific goods for economic development”.

Annex 2

Key features of the MIRAGE CGE model.

On the demand side, the model assumes a single representative agent in each region, who allocates a fixed share of its income to savings, and spends the rest towards the consumption of goods. Agent's preferences across sectors are represented by a Linear Expenditure System–Constant Elasticity of Substitution (LES–CES) function. The model allows for horizontal (variety) and vertical (quality) differentiations in goods, such as goods produced by developed countries are assumed to be of relatively higher quality than the ones produced by developing countries (i.e. Armington hypothesis).

The supply side of the model relies on a Leontief function which assumes perfect complementarity between intermediate consumption and value added. Unskilled and skilled labor, capital, land, and natural resources are the five factors of production that contribute to the value added. It is worth noting that skilled labor and capital are supposed to be more substitutable between themselves than with other factors. Full employment of factor endowments is assumed through flexible wages that adjust so as to keep constant the level of activity in all regions. Whilst this assumption may appear unsatisfactory, especially in the context of African economies, it is motivated by at least three reasons. Firstly, the full employment assumption is arguably more coherent with the medium to long term analysis of trade policy shocks, as the ones analyzed here (see Bouët et al. 2010). Secondly, the reliability of unemployment (and under-employment) rates for African economies –when available– can be rather questionable. Thirdly, while assuming fixed nominal or real wages to incorporate the presence of unemployment in CGE models is a feasible option, it is not necessarily more credible than the full employment hypothesis especially in contexts where informal employment is pervasive. Indeed, postulating flexible wages could actually be more consistent with the wage determination's process in developing countries (see Ben Hammouda and Osakwe, 2006). Whereas in the case of unskilled labor there is imperfect mobility between agricultural and non agricultural sectors but the mobility is perfect among each group of sectors, skilled labor is perfectly mobile between sectors, Demographic forecast provided by the World Bank²² is used to exogenously set the rates of variations of the labor. Land is imperfectly mobile between sectors. Natural resources and capital are both sector-specific; with natural resources being constant and capital accumulative. Investment is the sole adjustment variable for capital stocks; such as the capital stock for the current year depends on the investment made for the same year

²² See World Development Indicators from the World Bank.

and the capital stock from the previous year which has depreciated. Additionally, GDP growth is forecasted affecting total factor productivity²³.

The current account of each region is maintained constant and fixed to its initial value to ensure the macroeconomic closure of the MIRAGE model; any possible disequilibrium of the current account is to be offset by an adjustment of the real exchange rate. Concretely, when trade is stimulated by a specific reform (e.g. reduction in tariff barriers) then the real exchange rates appreciate if exports increase more than the imports or depreciate when the exports increase less than the imports.

²³ See World Bank publication: “Global Economic Prospects 2005: Trade, Regionalism, and Development”.

Annex 3

Geographic and sectoral decomposition determined for the modelling exercise.

Geographic decomposition

| # | Country/Region | Main region |
|----|-----------------------------|-------------------|
| 1 | Cote d'Ivoire | West Africa |
| 2 | Ghana | West Africa |
| 3 | Benin | West Africa |
| 4 | Burkina Faso | West Africa |
| 5 | Guinea | West Africa |
| 6 | Togo | West Africa |
| 7 | Nigeria | West Africa |
| 8 | Senegal | West Africa |
| 9 | Rest of West Africa | West Africa |
| 10 | Ethiopia | ESA |
| 11 | Madagascar | ESA |
| 12 | Malawi | ESA |
| 13 | Mauritius | ESA |
| 14 | Zambia | ESA |
| 15 | Zimbabwe | ESA |
| 16 | Rest of ESA | ESA |
| 17 | Rest of Africa | Rest of Africa |
| 18 | European Union (28 members) | Rest of the World |
| 19 | United States | Rest of the World |
| 20 | Rest of the world | Rest of the World |

Sectoral decomposition

| # | Sector | Main sector |
|----|---|----------------------|
| 1 | Paddy and processed rice | Agriculture and food |
| 2 | Cereals and crops | Agriculture and food |
| 3 | Vegetable, fruit and nuts | Agriculture and food |
| 4 | Plant-based fibers | Agriculture and food |
| 5 | Livestock | Agriculture and food |
| 6 | Milk and dairy products | Agriculture and food |
| 7 | Sugar | Agriculture and food |
| 8 | Meat products | Agriculture and food |
| 9 | Other food products | Agriculture and food |
| 10 | Mining | Mining and energy |
| 11 | Crude and refined oil | Mining and energy |
| 12 | Other energy | Mining and energy |
| 13 | Fishing | Industry |
| 14 | Wood products | Industry |
| 15 | Chemical, rubber and plastic products | Industry |
| 16 | Textile, wearing apparel and leather products | Industry |
| 17 | Non-metallic minerals | Industry |
| 18 | Iron and steel | Industry |
| 19 | Other metal products | Industry |
| 20 | Motor vehicle and transport equipment | Industry |
| 21 | Electronic and machinery equipment | Industry |
| 22 | Other manufacture | Industry |
| 23 | Transport services | Services |
| 24 | Other services | Services |