Will the Economic Partnership Agreements foster the Sub-Saharan African Development?

Romain Perez and Stephen Njuguna Karingi
United Nations Economic Commission for Africa[1]

Abstract

Since 2002, the Sub-Saharan African countries[2] embarked on the negotiations of free-trade agreements with the European Union (EU). As a result of these agreements, which will gradually replace the Cotonou/Lomé scheme, these countries will have to eliminate their tariffs on substantially all their European imports. Based on a general equilibrium analysis, this study estimates the potential effects of the EU-Sub-Saharan African trade liberalization. It underlines that an abrupt complete elimination of the tariffs on the African imports from the EU would pose severe challenges for Africa, as exemplified by the decline in welfare equivalent to USD 0.6 billion, as well as major fiscal losses and trade imbalances. Furthermore, the intra-African regional trade would be hit by the surge in European imports, weakening the regional integration process. The paper also investigates the impact of the EPAs, in the more realistic case where the African countries are entitled to reciprocate tariff elimination partially. It shows that the "standard" EU proposal, whereby the ACP countries cut their tariffs on 80% of their European imports, is not enough to maintain the fiscal, industrial and trade balances of the African countries. Only a higher level of asymmetry between the ACP and European commitments could preserve the African output, and, to a lesser extent, the fiscal revenues of the African government. However, this asymmetry will not completely avoid the trade imbalances, de-industrialization threat, or its undermining effect on regional integration as the EPAs will definitely divert intra-African trade.

Keywords: Sub-Saharan Africa; market access; preferences; reciprocity; CGE modeling.

[1] The views expressed in this paper are those of its authors and do not necessarily reflect those of the United Nations.
[2] Except South Africa, which already has a free trade agreement with the EU.

1. Introduction

In 2000, the European Union (EU) committed itself that its preference schemes with the ACP countries will conform to the WTO rules by January 1st, 2008[3]. The only option retained in the Cotonou agreement[4] with regards to the cooperation arrangement between the EU and the ACP countries is the transformation of the existing preferences to a free trade arrangement (FTA) between the EU and six Regional Economic Communities[5] (RECs) representing the ACP countries. As a result, the ACP countries will keep the benefits of the previous Lomé scheme, but will have to reciprocate the preferences on "substantially" all their imports from the EU[6]. Furthermore, the envisaged Economic Partnership Agreements (EPAs) should help the ACP countries to foster their integration in the international trade. By giving a contractual basis to the Lomé preferences, they should reinforce the predictability of the ACP economies, and the credibility of the ACP governments committed to economic reforms through the agreement. In the meantime, the cuts on domestic tariffs in the ACP economies are expected to pave the way to multilateral liberalization, to the profit of the ACP consumers, who will enjoy price cuts, as well as the most efficient ACP firms, which may improve their integration in the global supply chain.

However, the creation of FTAs between the EU and ACP countries raises some concerns for the African economies. First, the Sub-Saharan African exporters already enjoy a quasi-duty free access to the European markets[7]. Thus, European exporters are likely to increase significantly their sales in the African markets. A key question then is whether the ACP exporters will be able to do the same in the European markets. Besides, the market access issues are not the main obstacles for the African producers, which lie elsewhere given the level of transaction costs, and the supply sides rigidities they experience. Furthermore, if the gains of the EPAs for the African exporters are limited, the costs of the agreement could be high. Local and regional producers may lose significant market shares to the

[3] This commitment conditioned the waiver granted by the WTO members in 2000 to preserve the Lomé scheme until 2008.
[4] The Cotonou agreement, which was signed in June 2000 by the EU and the ACP countries, opened the way to the reform of the Lomé scheme.
[5] The Economic Community of Western African States (ECOWAS), the Common Market for the Eastern and Southern Africa (COMESA), the Southern African Development Community (SADC) and the *Communauté Economique et Monétaire de l'Afrique Centrale* (CEMAC) represent the Western, Eastern, Southern and Central African states in the EPAs negotiations.
[6] The Lomé preferences will then conform to the article 24 of the GATT, which permits reciprocal preferences under the condition "separate tariffs or other regulations of commerce are maintained for a substantial part of the trade of such territory with other territories".
[7] Through the Lomé scheme for non-LDCs ACP exporters, and via the Everything but Arms (EBA) initiative for LDCs.

profit of their European counterparts, resulting in a decline in output and shrinkage in the intra-African trade. The adjustment cost of the EPAs would be even more unbearable given the inevitable loss of the custom revenues currently being derived from the European imports. In this perspective, the EPAs may not "lock-in" economic reforms, nor reinforce economic certainties and governmental credibility if they are associated with major negative economic and social effects.

This paper aims at estimating the impact of the EPAs on the African economies. Based on a general equilibrium modeling, the analysis focuses on the changes in trade, welfare, industrial structures and prices, and fiscal resources induced by different scenarios of the EPAs. Different levels of asymmetry between the ACP and European commitments are tested, to figure out whether modulating reciprocity can help in optimizing the effects of the EPAs on the Sub-Saharan African economies.

The paper is organized as follows. After reviewing the literature on the assessment of the EPAs in the second part of the paper, attention is drawn in Section 3 on the methodological issues associated with the EPAs modeling under general equilibrium analysis. Section 4 gives the main results of the EPAs simulations, while the sensitivity of these results to the level of reciprocity is examined in Section 5. The paper concludes in Section 6.

2. Analytical and empirical evidence on potential impacts of EPAs on Africa

a) EPAs to exacerbate strain on fiscal systems in Africa

Most ACP countries have expressed their concerns regarding the fiscal implications of the EPAs. The possibility of major fiscal losses appear all the more challenging and unwelcome given that ACP countries need all the public resources currently available to finance the social and industrial adjustment reforms that could be induced by the EPAs, as well as finance the different programs required to help these countries reach the Millennium Development Goals by 2015. In that respect, quantifying the revenue impacts of the EPAs has been one of the preoccupations of the studies undertaken to assess them.

COMESA (2002) looks at the broad issues that its member countries would have to contend with in the EPAs negotiations. The study concluded that the costs of EPAs would be the loss of revenue to governments and the associated adjustment costs of developing alternative sources of government revenue. The broad finding was that if all EU imports came in free of duty, on the basis of trade statistics for 2000, governments in the COMESA region would lose about a quarter (25 percent) of their trade taxes, and about six percent of their total tax revenue. The

COMESA study, like other studies, notes that while a loss of six percent of tax revenue may not seem to be a huge amount of money to make up over an extended period, the precarious situation in which most fiscal systems in COMESA countries are in would present major adjustment difficulties. Tekere and Ndlela (2003) in addressing the EPAs question for SADC reach the same conclusions for this sub-region, showing that countries like Tanzania and Namibia could experience public revenue losses of 37 percent and 24 percent respectively.

Busse et al. (2004) studied the potential impacts of the EPAs on ECOWAS countries. Their study focused on the trade and budget effects. Applying a partial equilibrium methodology that follows the Viner model, Busse et al. examined the implications of different tariffs elimination scenarios. They found that in absolute terms, decline in import duties would range from US$2.2 million in Guinea-Bissau to US$487.8 million in Nigeria. Cape Verde and Gambia will be particularly affected, as total government revenue shortfalls could amount to 20% and 22%. Assuming no adjustment from the expenditure side, the budget deficits in these countries will worsen by 4.1 and 3.5 percent of GDP respectively.

The United Nations Economic Commission for Africa (2005), which conducted an exhaustive evaluation of the EPAs impact on the African countries using the partial equilibrium model SMART[8], estimated that the complete elimination of the tariffs on the European imports would induce public revenues losses amounting to USD 2.9 billion in Africa. The UNECA work is particularly startling for the ECOWAS sub-region, where the fiscal loss amounts to USD 980 million[9].

b) Undiversified economic structures in Africa to face unprecedented challenges

Busse et al. (2004) quantifies the potential trade effects of the EPAs, clearly bringing out the trade diversion elements of an EPA between the EU and ECOWAS countries. Overall, the study found that trade creation effects in ECOWAS will far outweigh trade diversion. However, at a more highly disaggregated level, some trade diversion effects were found to exceed trade creation effects, for petroleum oils in Ghana for instance. The study also established that a few product categories, such as apparel and clothing, footwear,

[8] The exposition of the WITS/SMART theory is presented in Laird et al. (1986). Trade creation captures the trade expanding aspects of liberalization that leads to the displacement of inefficient producers in a given preferential trading area (a free trade area for instance). It is assumed that there is full transmission of price changes when tariff or non-tariff distortions (ad valorem equivalents) are reduced or eliminated.

[9] These results are very close to the results (USD 853-943 million depending on the scenario) obtained by Busse et al. (2004), for this sub-region.

light manufactures in general, sugar and cereals are sensitive in almost all ECOWAS countries with respect to trade flows.

In a similar way, the UNECA study sheds more light on the trade and industrial implications of the EPAs. The study estimated that the European exports could grow by more than USD 4 billion in Africa, inducing USD 0.8 billion of trade displacement, while it focused on the analysis of the sensitive products for each sub-region. It also estimates the impact of the EPAs on the regional trade, revealing that USD 48 million of regional trade could be replaced by European imports.

Tekere et al. (2003) emphasize that the EPAs are likely to have dramatic and challenging effects on the weak and sensitive economic sectors of SADC countries. The concentration of SADC economies on primary and/or extractive sectors and low-technology processing industries will present great restructuring difficulties to these countries. Cereals, food processing, dairy products, textile and clothing were identified as sub-sectors that would be potentially adversely affected by the EPAs in SADC. Tekere et al. (2003) also adduced evidence that African exporters will lose markets shares on the SADC market to the benefit of the EU, and to the detriment of regional integration.

Similar findings with respect to sectoral impacts were reached analytically in the COMESA (2002) study. The study identified price and quality competition from EU-based industries to local manufacturers, especially given the lack of economies of scale and access to latest technologies for the latter, as a challenging aspect of the EPAs. COMESA (2002) unlike other studies, is however optimistic on the effects of the EPAs on the performance of key sectors. Specifically, the exposure of local industries to competition is perceived as a positive element, even though the study also identifies lack of economies of scale as an issue. Another positive aspect of the EPAs identified to likely benefit COMESA, is the dynamic effects of the EPAs given the non-reversal nature of the policies that will be locked-in the agreements. Yet, this study does not quantify these potential positive effects, or the sectoral losses induced by the EPAs.

c) Will the African consumers be the major beneficiaries from the EPAs?

Intuitively, the tariffs reductions on the European imports should be welfare improving, since African consumers are able to access products that are less expensive and probably of higher quality, and African firms become more competitive as they buy cheaper European inputs. However, these tariffs dismantlement may give non-economic advantage to the imports from the EU over the other parts of the world. As a result, the EPAs could lead to replacement

of an efficient producer from the rest of the world by a less efficient European exporter. This trade diversion phenomenon, as noted by Busse et al (2004), is welfare decreasing. Furthermore, these tariff reductions may not induce decrease in prices on the ACP markets. As underlined by Hinkle et al. (2004), the narrowness of the ACP markets and high transaction costs limit the substitutability among imports sources, and may actually egg on European exporters to increase their margins rather than cut their prices.

However, since trade creation effects have a general tendency to exceed the trade diversion effects in most partial equilibrium studies, these studies inevitably conclude that the EPAs between the EU and African countries are likely to be welfare improving, as underlined by Busse et al. (2004). Tekere et al. (2003) drew similar conclusions from their analysis on the SADC regions. The UNECA (2005) also forecasted significant consumers' improvement for all RECs, ranging from USD 26 millions in SADC to USD 240 millions in ECOWAS. The results of these studies were consistent with the findings of much earlier studies commissioned by the European Union and summarized in Gunning (1999) and McQueen (1999).

The failure of these analytical frameworks to capture changes in producer surplus, government revenue shortfalls, and sometimes trade diversion, requires a cautious interpretation of these welfare changes. Besides, as the COMESA (2002) study observes, consumers may welcome the variety and potentially lower priced goods, but the subsequent factory closures due to de-industrialization may dampen and possibly wipe out the welfare improvements achieved by the consumers who double up as the losers as they bear the brunt of industrial closures from the job losses. Hence, a general equilibrium analysis of the EPAs would enrich the perspective on potential effects of the EPAs.

3. Methodology

a) The GTAP model: theory and database

Trade policy analysis largely involves analysing implications of trade policy instruments on the production structure in economies at the national and global level. Trade policy instruments such as tariffs and quotas have direct and indirect effects on the relative prices of commodities produced in a given country. As the mix of goods and services produced changes, the demands for factors of production also change. Consequently, in any given economy, it is difficult to conceive a situation where the change in trade policy would affect only one sector. Due to the forward and backward linkages and their related strengths existing in a particular economy, the result is always one in which the relative mix

of sectoral outputs change. The general equilibrium methodology provides an analytical framework that allows these inter- and intra-sectoral changes in output mix and by extension the demand for different factors of production to be captured.

The Global Trade Analysis Project (GTAP) model is a multi-region computable general equilibrium (CGE) model designed for comparative-static analysis of trade policy issues (Adams et al. 1997). It can be used to capture effects on output mix, factor usage, trade effects and resultant welfare distribution between countries as a result of changing trade policies at the country, bilateral, regional and multilateral levels. Since the GTAP model puts emphasis on resource reallocation across economic sectors, it is a good instrument for identifying the winning and losing countries and sectors under policy changes involving the trade aspects of the EPAs.

There is abundant literature discussing the underlying theory of the GTAP modelling framework. The theory of the GTAP model is documented in Hertel (1997), and graphically exposed in Brockmeier (2001). Essentially, it is captured in two types of equations. The key drivers of the model are the behavioral equations, which are based on microeconomic theory. There are behavioral equations for the consumers and also for the international trade (exports and imports). The behavioral equations capture the behavior of the optimizing agents such as the consumers that allows the derivation of the demand functions. The second type of the equations is the accounting relationships. These are essential in order to ensure that the behavioral equations solution occurs within a consistent macroeconomic framework. Thus, the accounting relationships ensure that the receipts and the expenditures of all the agents (consumers, producers, government, and rest-of-the-world) are balanced.

The GTAP model is used together with the GTAP database in this paper. In the paper's exposition, Version 6 of the database is utilized. It recognizes 87 regions, as well as 57 sectors and 5 factors of production. The base year for this version is 2001. Not all countries are individually captured in GTAP, however, all the world economies are part of the database, as they could be part of a given composite region or included as part of the rest of the world. Thus, global macroeconomic consistency holds. Unfortunately, only a small proportion of African countries are individually disaggregated in the Version 6 of the database. Majority of African countries are captured through one or other regional composite, which limits the accuracy and details of the results of the simulations, but still permits to picture the broad lines of the economic effects of the EPAs. The bilateral trade data used to put together the GTAP database are provided by the United Nations

COMTRADE database, while the protection data is sourced from the MacMaps database[10].

b) Closure, baseline and aggregation of the GTAP model and database

In the simulations analysed and reported in this paper, the standard closure of the model is utilized, which implies constant returns to scale, and pure and perfect competition. The baseline has been updated to take into account the enlargement of the EU to 25 members, as well as the phasing-out of the multi-fibre agreement. The geographical and sectoral aggregations are presented in Annexes 1 and 2.

c) *Scenarios*

Scenario 1: genuine FTA, with a complete elimination of the tariffs on ACP-EU trade.

According to the Cotonou Agreement, the EPAs aim at creating a free trade area between ACP countries and the EU. Thus, our first scenario simulates complete tariff elimination on the trade between these two groups of countries.

Scenario 2: ACP countries align their tariffs at the current level of the European tariffs.

Many uncertainties remain regarding the level of the commitment of the EU on the one side, and the ACP countries on the other side. After the tariffs cuts applied in the framework of the Lomé/Cotonou agreements, and the quasi-tariff elimination on the imports from the Least Developed Countries (LDCs)[11], one may wonder whether the EU is willing to reduce its tariffs further. Consequently, we consider a second scenario where the EU's tariffs remain unchanged, while ACP countries align their tariffs to the European tariffs.

Scenario 3: Deepened regional integration of the ACP countries.

All intra-RECs tariffs are eliminated, fostering the regional integration of the ACP countries, as recommended by the Cotonou agreement.

[10] The inclusion of the MacMaps database in the latest version of GTAP has been a sharp improvement, as it takes into account preferential tariffs as well as non ad-valorem tariffs. The details of this database are given by Bouët et al. (2004).

[11] In 2001, the "everything but arm" initiative was launched by the EU to the profit of the LDCs. It grants duty-free access to all the exports from the LDCs, except arms, and temporarily, sugar, beef and rice.

Scenario 4: Genuine FTA between the EU and the ACP countries, with the compensation of custom revenues losses by a consumption tax increase in the ACP countries.

The scenario is similar to the first one, except that the closure of the model has been changed, so that the level of the public revenues as a proportion of the GDP remains unchanged after the EPAs implementation. The loss in custom revenues is offset by a growth in domestic consumption taxes.

Scenario 5 and 6: Asymmetrical EPAs, whereby the ACP countries reciprocate tariff elimination on only 80% (s5) and 60% (s6) of their European imports.

The WTO rules clearly open the possibility of a partial liberalization of trade to the benefit of the developing countries in the context of a free trade agreement. Under the requirement that "substantially"[12] all the trade concerned by the agreement is liberalised, the developing partner may open less tariff lines than their developed partners. This principle justified the asymmetry of the European Union and South Africa commitments in the Trade, Development and Cooperation Agreement they signed in 1999[13]. It could be utilized in a similar way by the EU and ACP countries, so that EU commits to a high level of openness while ACP countries keep a significant amount of their tariff lines unchanged. In this perspective, we have tested two alternative scenarios where the EU eliminates 100% of its tariff lines, and the ACP countries only 80% (scenario 5) and 60% (scenario 6).

To determine the tariffs lines to be kept intact and those to be dismantled, tariffs have been sorted in descending order. The lowest tariffs corresponding to 80% of the ACP imports from the EU (scenario 5) and 60% (scenario 6) have been eliminated. This calculation has been applied for ACP Sub-Saharan, SADC, Pacific and Caribbean countries. The initial GTAP tariffs structures were then shocked to reflect these new tariff structures.

[12] See note 3.

[13] The EU and South Africa reached an agreement in 1999, planning the installation of a free-trade area by 2012. The Trade Development and Cooperation agreement will lead to the elimination of 94% of the European tariff lines on the imports from South Africa, and 86% of the South African tariff lines on the imports from the EU.

4. The gloomy perspectives of the EPA for the ACP African countries.

a) Asymmetrical gains for the Sub-Saharan African countries and the European Union

A free trade agreement aims at fostering the trade integration of its member states. It is expected to boost exports in the free trade zone, and lead to a rationalization of the production. Yet, the gains of these countries may differ greatly. For instance, the exporters of a country A have little interest to obtain a privileged access to the markets of country B, if they are supply-side constrained, and country B is already very open to the imports originating from country A. If country A on the contrary imposes high tariffs on its imports, and the exporters of country B are efficient, then country B may have much to gain from a free trade arrangement with country A, and the gains between these two countries are likely to be unequal.

While this theoretical analysis might appear simplistic, it seems to explain quite well the results indicated in Table 1 of the simulation of a free trade agreement between the EU and ACP African countries **(scenario 1)**. Due to asymmetrical initial tariff protections and economic efficiencies, the trade gains captured by these two groups of country differ significantly. The EU increases its exports to the ACP African countries by USD 17.6 billion, while in return, the ACP African raise their exports to the EU by USD 5.5 billion only. The growth in European exports induces a slump in the sales by local and regional producers on the ACP markets, and a regional trade shrinkage amounting to USD 2.8 billion in Sub-Saharan Africa.

This process should be associated with a switch of the European sales from the intra-European markets (USD –8 billion), and the rest of the world (USD -2.3 billion) to the ACP markets (+USD 23.1 billion). This switch of sales on the European markets is to the profit of the non-ACP partners of the EU, which boost their exports on these markets by USD 9 billion, while the switch of the European sales from the non-ACP markets boost the exports of the ACP African countries (USD +0.8 billion). Overall, the balance of trade of the ACP African countries deteriorates by USD 1.8 billion after the implementation of this EPAs scenario.

Table 1: The trade impact of a complete free trade area (scenario 1), (USD million)

Exports to: From:	ACP Africa	South Africa	EU	Rest of the world	Total
ACP Africa	-787	-175	**5,531**	824	**5,393**
South Africa	-1,657	0	581	949	-126
EU	**17,605**	-305	-8,035	-2,326	**6,939**
Rest of the world	-7,737	-216	8,966	-313	701
Total	**7,424**	-696	**7,043**	-865	12,906

Source: GTAP 6.0 and authors' computations

Even though the African terms of trade slightly improve, the trade effects of the EPA could significantly alter the African economies, with a drop in GDP volume and welfare by respectively –0.2% and minus USD 0.6 billion. The situation is even more disturbing if one disaggregates the results by group of countries. While the SADC countries benefit from an increase of welfare by USD 0.9 billion due to an improvement of their terms of trade, the non-SADC African ACP countries undergo a welfare loss of USD 1.5 billion, in addition to a fall in GDP value of 3.4%.

The effects of the EPAs could be worse in the case where the EU does not modify its tariffs on its imports from the ACP countries as shown in Table 2, while these countries align their tariffs on the European counterparts (**scenario 2**). Even though the tariff cuts by the ACP African countries are less large than in the scenario 1, the results in terms of trade impacts for the EU and these countries are more contrasted. The EU increases its exports to the ACP African countries by USD 14.6 billion, while the ACP African countries raises their exports to the EU by only USD 2.4 billion. This latest increase results mostly of the European switch of sales from the intra-European and non-ACP markets, as observed in the scenario 1.

Table 2: The trade impact of a free trade area where ACP African countries align tariffs to existing EU preference rates (scenario 2) (USD million)

	ACP Africa	South Africa	EU	Rest of the world	Total
ACP Africa	-559	122	**2,410**	1,884	**3,857**
South Africa	-1,672	0	642	954	-76
EU	**14,582**	-387	-4,965	-6,510	**2,720**

Rest of the world	-7,915	-298	7,498	1,019	304
Total	**4,436**	-564	**5,586**	-2,652	6,805

Source: GTAP 6.0 and authors' computations

Thus, the scenario 2 provides the most disquieting results for Africa as seen in Table 3, since it leads to a drop in the Sub-Saharan GDP volume equivalent to 0.3%, and a plummeting in the welfare of USD 1.6 billion. The negative impact of aligning the ACP tariffs to similar ones in the European markets is largely due to the deterioration of the African terms of trade. These results emphasize the importance of tariffs concessions by the EU in an EPAs framework. Of particular significance, most of the gains associated with these concessions should be captured by non-LDC countries, as LDCs countries already benefit from a quasi-duty free access to the European markets.

Table 3: Main macroeconomic results of the scenario 1 and 2

	Scenario 1		Scenario 2	
	ACP Africa	EU	ACP Africa	EU
Welfare (USD million)	-584	2,683	-1,629	3,001
GDP volume (%)	-0.20%	0.02%	-0.27%	0.00%
Terms of trade (%)	0.14%	0.05%	-1.04%	0.10%
Balance of trade (USD million)	-1,841	73	-1,373	-491

Source: GTAP 6.0 and authors' computations

b) The industrial aftermath of the EPAs

The creation of a free trade zone between the EU and the ACP African countries will require the dismantlement of the tariffs the European exports face in these countries. The current structure of tariffs of these ACP African countries as presented in Table 4 highlights that the industrial sectors are among the most protected in Africa. In this regard, given the vulnerability of the Sub-Saharan African industries, it is not certain that EPAs will help Africa to achieve its industrialization goals.

Table 4: Tariff structure faced by EU exporters in the African ACP countries

SADC		Rest of ACP Sub-Saharan Africa	
Livestock	44%	**Agroprocess**	23%
Agroprocess	38%	Vegetables	22%

Lightmanufactures	21%	Sugar	21%
Oilseeds	21%	**Lightmanufactures**	21%
Industry	15%	Livestock	15%
Cereals	8%	**Industry**	13%
oCrops	8%	Oilseeds	11%
Vegetables	7%	oCrops	10%
Natresources	2%	Cotton	9%
Cotton	1%	Natresources	7%
Sugar	0%	Cereals	6%

Source: GTAP 6.0

Thus, if a genuine free trade agreement were signed (**scenario 1**), the ACP African industrial output would decline on average by 3%, and by 9% for the heavy industrial production. As Table 5 shows, the results are particularly disturbing for the countries that are not part of SADC, as their industrial output could plummet by as much as 5.4%. The EPAs would therefore reinforce the African agricultural specialization, and among the different industrial sectors, would lead to the transfer of activity from heavy and light manufacturing to the agro-processing sectors.

Table 5: Production structure changes after the EPAs implementation (scenario 1)

	South Africa	ACP Africa
Agriculture	0.1%	1.1%
All Industries	-1.0%	-2.9%
Agroprocess	-2.1%	4.8%
Light industry	-1.2%	-8.2%
Heavy Industry	-0.7%	-8.8%

Source: GTAP 6.0 and authors' computations

These reallocations of activities should induce a reallocation of endowments, with a large movement of workers from the light and heavy industries to the agricultural and agro-processing activities. The capital endowment is reallocated in the same way (see Table 6).

Table 6: Endowments allocation changes in ACP African countries after the EPAs implementation (% deviation in endowments demand from baseline)

	Light and heavy industry	Agroprocessing	Agriculture	Services

Unskilled Labor	-1.1%	0.4%	0.7%	0.0%
Skilled Labor	-0.6%	0.3%	0.0%	0.1%
Capital	-1.1%	0.6%	0.4%	0.2%

Source: GTAP 6.0 and authors' computations

c) The EPA would deeply alter the regional integration efforts through trade in Africa

Regional integration is a pillar of the EPAs negotiations. It is also a pillar in Africa's long-term development strategy. The European Union, which has been funding the main regional economic communities (REC) in the last decades, emphasizes the crucial role of the regional integration process in the African development. Hence, the negotiations between the EU and the ACP countries are taking place at the sub-regional level, with every ACP country being represented through a REC, which should strengthen the integration of the regional institutions of the ACP group.

Using the same aggregation and modeling as in the previous scenarios, it is possible to quantify the potential benefits of regional integration on the ACP African region (see Table 7). These benefits seem to be real; unfortunately, they are unlikely to fully offset the negative consequences of the EPAs where they arise, particularly on the welfare of the ACP African countries.

Table 7: The impact of deepening regional integration through intra-African trade liberalisation on ACP Africa (scenario 3)

	Full regional integration
Welfare (USD million)	270
GDP volume (%)	0.00%
GDP value (%)	0.42%
Terms of trade (%)	0.34%
Intra-regional trade (USD million)	2,383
Balance of trade (USD million)	-491

Source: GTAP 6.0 and authors' computations

Furthermore, the trade component of the EPAs negotiations does not offer favourable prospect for the African regional integration process. Theoretically, a free trade agreement between the ACP countries and the EU could have an ambivalent impact on the regional integration. On the one hand, it should strengthen the African supply capacity through a larger market access to the EU,

which in return increases the African regional markets. On the other hand, it may divert the African regional trade to the profit of the European exporters. As the tariffs on the European imports will be reduced, the European products should become more competitive, compared to the local products. In a nutshell, the more integrated the ACP African countries are with the EU, the less integrated they will be at the continental level.

Unfortunately, as reflected in Table 8, the second effect clearly outweighs the first one in the empirical estimations of the EPAs. The intra-ACP African trade could shrink by 18% according to the results of the first scenario. Besides, this trade shrinkage does not concern the ACP African countries only, but Sub-Saharan Africa as a whole, as the trade between South Africa and the rest of Africa will also be afflicted by the EPAs.

Table 8: Intra-regional trade shrinkage induced by the EPAs

	Scenario 1	
	USD	%*
Intra-African trade diverted (ACPAfrica only)	-787	-18%
Intra-African trade diverted (all Sub-Saharan Africa)	-2,619	-16%

** Percentage of the current intra-regional trade*
Source: GTAP 6.0 and authors' computations

Eventually, the type of specialization induced by the EPA raises concerns about the ability of ACP African countries to benefit from the regional integration process. As these economies will end up focusing more on the agricultural production, they will give up the most dynamic markets and the easiest products to transport. Thus, the EPAs, unless there were serious mitigating measures, could weaken the main engine of the African regional integration, meaning the trade in industrial goods.

d) The EPAs would require a major reform of the African fiscal systems

The European Union is the main supplier of the Sub-Saharan African countries. Hence, the imports from Europe are the main source of custom revenues for these countries[14]. Given that custom revenues are an essential source of fiscal revenue

[14] The custom revenues stood for 27% of the public revenues in Sub-Saharan in 1995, according to the World Development Indicators of the World Bank (2005).

in many of these countries, the potential impact of the EPAs could be high. According to the first scenario results, it could amount to USD 3.5 billion equivalent to 1.7% of the ACP Africa GDP.

These significant fiscal losses may be offset by an increase in the aid from the EU as a short-term measure. However, the ACP African countries will have to deal with the structural reforms necessary in their fiscal systems in the long run if their spending programmes are to be sustained with the level of ambition required to address the development challenges in each of the countries. As a possible option for some countries, we have added to the first scenario the hypothesis of a replacement of custom taxes through a consumption tax, so that the level of public resources out of GDP remains unchanged[15].

The economic effects of a consumption tax are likely to be heavier than a trade tax (customs revenue) as a consumption tax affects also the demand for local products, and therefore the level of national output. Yet, scenario four tends to underline that the deterioration of the national output and welfare are not significant after the change in the GTAP closure to include tax replacement as can be seen in the results summarized in Table 9.

In the meantime, as local prices increase due to the consumption tax, the local purchasing power decreases, which affects the imported goods. Hence, the trade deficit induced by the EPA is reduced by USD 0.3 billion compared to the results observed in the first scenario.

Table 9: The effects of tax replacement on the results of the first scenario.

	Changes in the results of the first scenario after tax replacement
GDP volume (%)	-0.04%
Welfare (USD million)	-33
Balance of trade (USD million)	341

Source: GTAP 6.0 and authors' computations

5. Lesser commitments of the ACP African countries would soften the impact of the EPAs on their economies.

[15] This new hypothesis can be criticized in the sense that a consumption tax tend to be more regressive compared to import taxes, meaning that the incidence of their burden is heavier for the poorest people, who consume less imported goods than the upper classes. But this hypothesis given the methodology being applied seems to be a realistic way to introduce a replacement tax.

a) Mitigating trade asymmetries

The unfavorable results of the EPAs simulations are linked to the inequality in the sharing of the trade gains likely to be derived from this agreement. If African ACP countries were to have lower reductions in their tariffs, the trade gains realized by the EU and the ACP African countries may be more balanced. This principle of asymmetry, which is recognized in the Cotonou agreement as a cornerstone of the current negotiations on the EPAs, has been tested in the fifth and sixth scenarios.

In the first asymmetrical liberalisation simulation, the ACP African countries are allowed to maintain 20% of their tariff lines unchanged (**scenario 5**). The effect of the EPA on the trade gains as seen in Table 10 would be more balanced between the EU and the ACP African countries. However, the global trade balance induced by this scenario amounts to USD 1.8 billion, which is equivalent to the trade imbalance observed in the first scenario, whereby the ACP African countries eliminate all their tariffs on the European imports. In terms of volume of production, ACP Africa experiences a decline of 0.1%, particularly in the industrial sectors.

Table 10: Bilateral trade changes (scenario 5) (USD million)

	ACP Africa	South Africa	EU	Rest of the world	Total
ACP Africa	-532	-293	**3,501**	-457	**2,219**
South Africa	-927	0	285	489	-153
EU	**11,144**	-127	-4,957	113	**6,174**
Rest of the world	-4,812	-69	5,786	-710	196
Total	**4,874**	-488	**4,615**	-564	8,436

Source: GTAP 6.0 and authors' computations

Of particular significance for the ACP countries in this scenario are its price implications. As earlier noted, the highest tariff rates of the ACP African countries are applied on the industrial imports. Thus, these countries are likely to keep most of the protection unchanged on their industrial imports in this scenario, and cut their tariffs on the agricultural imports[16]. As a result, the prices of raw agricultural products like sugar (+0.21%), oilseeds (+0.14%), livestocks (+0.06%) and cotton (+0.03%) grow while the industrial products prices drop slightly. Most ACP African countries being exporters of these agricultural products, their terms of trade improve by 0.9%. This price effect more than offset the volume effect in

[16] See annex 3, the changes in the ACP tariffs as a result of the different ACP proposals.

the ACP countries, particularly in the SADC sub-region, as they record welfare gains of USD 0.2 billion, and USD 0.9 billion in the case of the SADC countries.

However, the results of the ACP African countries that do not belong to the SADC remain alarming, even at an asymmetry level of 80%. With a plunge in welfare of USD 0.7 billion, fuelled by a deterioration of their terms of trade (-0.35%) and a trade imbalance of USD 1.1 billion. Hence, these countries are likely to face a major adjustment cost as a result of the EPA implementation.

b) Out of the WTO framework?

The European Union and the ACP countries are committed to liberalize "substantially" all their trade, to conform to the article 24 of the GATT. This article does not mention precisely the percentage of trade that is required to be fully liberalised. The international trade community interpretation of the article seem to converge on the 90% ratio, which permits asymmetrical commitments, but limits to 80% the maximum flexibility to which ACP countries are entitled[17]. In this last scenario, we consider the case where ACP countries would have to eliminate their tariffs on 60% of their European imports. Given the relative ambiguity regarding the interpretation of article 24 of the GATT, we assume that the international trade community could agree[18] on an increased flexibility in favour of highly asymmetrical FTA between developed and developing countries. In taking this assumption, we note that increased asymmetry both in the depth of liberalisation and the transition periods in favour of developing countries could constitute developmental aspects of the EPAs. This would be in line with the EU's pronouncement that the EPAs will be used as developmental tools for the ACP economies.

If one considers a larger asymmetry level, with ACP African countries allowed to keep 40% of their tariff lines unchanged while the EU opens up all its tariff lines to the ACP African imports (**scenario 6**), the results as shown in Table 11 are much more favorable for the African countries, even though the external imbalances induced by the EPAs remain a concern. The asymmetry between the African and European gains is significantly reduced compared to the previous scenarios. African exports increase (+USD 3 billion) representing roughly 42% of

[17] This is under the assumption that the EU eliminates the tariffs on 100% of its imports from the ACP countries.

[18] Paragraph 29 of the Doha Declaration gave mandate for negotiations under the current Doha Round which will have direct implications for regional trade agreements such as the envisaged EPAs. It is possible that the new disciplines to govern RTAs could include developmental aspects as called for in the Doha Declaration and further recognized in Annex D related to Paragraph 28 of the Declaration at the 6th WTO Ministerial Conference in Hong Kong.

the European exports growth (+USD 7 billion), versus only 17% in the second scenario for instance.

Table 11: Trade gains under asymmetry (USD million)

	Scenario 1	Scenario 2	Scenario 5	Scenario 6
EU exports to ACP Africa (a)	17,605	14,582	11,144	7,026
ACP Africa exports to EU (b)	5,531	2,410	3,501	2,974
Bilateral trade balance (b)-(a)	-12,074	-12,172	-7,643	-4,052
Exports coverage (b)/(a) (%)	31%	17%	31%	42%

Source: GTAP 6.0 and authors' computations

Associated with an improvement of their terms of trade (+1.2%), this more balanced trade impact of the EPA enables the ACP African countries to maintain their volume of output practically unchanged, and enjoy a growth of the value of this output by 1.1%. In the meantime, the fiscal losses of the ACP countries would be equivalent to just one-third of the losses in the first scenario, representing for only 0.5% of the GDP in the case of the sixth scenario (see Table 12).

Table 12: Main macroeconomic results of the asymmetry assumptions under scenarios 5 and 6

	Scenario 5		Scenario 6	
	ACP Africa	EU	ACP Africa	EU
Welfare (USD million)	211	1,491	759	586
GDP volume (%)	-0.11%	0.02%	0.04%	0.02%
Terms of trade (%)	0.93%	0.00%	1.18%	-0.03%
Balance of trade (USD million)	-1,816	724	-1,433	869
Fiscal losses (USD million)	-2,103		-1,0.38	
Fiscal losses (% GDP)	-1%		-0.5%	

Source: GTAP 6.0 and authors' computations

These more favorable results, which lead to an improvement of welfare by USD 0.8 billion in the region, must however be interpreted with caution for various reasons. First, these results remain uneven, and unfavorable in terms of output and welfare for the African ACP countries that do not belong to the SADC region. Besides, they are still associated with major external imbalances, as the ACP African countries could face a deterioration of their balance of trade by USD 1.4

billion as a result of the implementation of this sixth scenario. In the final analysis, strong asymmetry only partly protects the intra-African trade and by extension the regional integration efforts, as 10% of the ACP African trade could still be wiped out by this type of very asymmetrical EPAs as indicated in Table 13.

Table 13: Intra-African regional trade shrinkage induced by the EPAs

	Scenario 1		Scenario 2		Scenario 5		Scenario 6	
	USD	%*	USD	%*	USD	%*	USD	%*
Intra-African trade diverted (ACPAfrica only)	-787	-18%	-559	-13%	-532	-12%	-415	-10%
Intra-African trade diverted (all Sub-Saharan Africa)	-2,619	-16%	-2,109	-13%	-1,752	-10%	-1,043	-6%

** Percentage of the current intra-regional trade*
Source: GTAP 6.0 and authors' computations

Furthermore, introducing asymmetry in the EPAs as assumed in scenario 6 does not completely avoid or eliminate the risk of de-industrialization of the ACP Africa region as can be seen in the results summarized on Table 14. SADC countries for instance could undergo an industrial output plummet of 21% in the heavy industries and 17% in the light industries. The introduction of a strong asymmetry in commitments clearly softens the observed de-industrialisation trends from earlier scenarios, but it does not change the overall analysis: the ACP African countries are likely to face a shrinkage in their industrial activities, a transfer of resources from light and heavy industrial activities to the agro-processing business as well as a reinforcement of their agricultural specialization. Of note, South Africa is not part of the EPAs negotiations process, but the consequences of these agreements for its industries are significant, particularly in the case of a genuine free trade arrangement between ACP countries and the EU. This kind of agreement would negatively affect a[illegible]e industrial sectors of this country, with an industrial output drop of 1%.

Table 14: Production structure changes after the EPAs implementation (% of the initial value)

	Scenario 1		Scenario 6	
	South Africa	ACP Africa	South Africa	ACP Africa
Agriculture	0.1%	1.1%	0.6%	1.8%
All Industries	-1.0%	-2.9%	-0.6%	-0.4%

Agroprocess	-2.1%	4.8%	0.8%	10.5%
Light industry	-1.2%	-8.2%	1.2%	-3.2%
Heavy Industry	-0.7%	-8.8%	-1.4%	-10.9%

Source: GTAP 6.0 and authors' computations

Almost all the capital and labor outflow from the light and heavy industries is reallocated to the agro-processing activities, which confirms that an asymmetrical scenario would be more favorable in terms of industrialization than a genuine free trade arrangement. Yet, as Table 15 demonstrates, the threat remains significant for the light and heavy industries in the African countries, even if they reciprocate tariff elimination on only 60% of their European imports.

Table 15: Endowments allocation changes in ACP African countries after the EPAs implementation (% of the amount of available endowments)

	Light and heavy industry		Agroprocessing		Agriculture		Services	
	Scen. 1	Scen. 6	Scen. 1	Scen. 6	Scen. 1	Scen. 6	Scen. 1	Scen. 6
Unskilled Labor	-1.1%	-1.2%	0.4%	0.7%	0.7%	0.6%	0.0%	0.0%
Skilled Labor	-0.6%	-0.7%	0.3%	0.5%	0.0%	0.0%	0.1%	0.1%
Capital	-1.1%	-1.2%	0.6%	1.1%	0.4%	0.1%	0.2%	0.1%

Source: GTAP 6.0 and authors' computation

6. Conclusion

The simulations undertaken with the GTAP modeling underscore that the Economic Partnership Agreements are going to create highly asymmetrical gains between African and European producers. The former might not have much to gain as most of them already enjoy a quasi-duty free access to the European markets, and suffer from significant supply side constraints. The latter could on the contrary increase their shares in the ACP markets, tariff barriers still being major obstacles on these markets. As a result, the EPAs will lead to large trade imbalances in the African economies, as well as substitution of local and regional production by European imports. Duty-free access for all the African products to the European markets could soften the impact of the EPAs, but will not change the trends: Africa is going to experience a loss of welfare and an industrial crisis after the implementation of the EPAs.

Only a large level of asymmetry between the African and European commitments could reverse these trends. The "standard" European proposal, whereby the African countries grants duty-privilege to 80% of their European imports would

not be enough to leave the African output unchanged or limit the trade imbalances induced by the agreement. If African countries reciprocate tariffs elimination on only 60% of their European imports, the EPA would be neutral in terms of output, and could even increase their welfare, thanks to an improvement in their terms of trade. This high asymmetry also limits the fiscal burden of the EPAs, as well as the de-industrialization effect, the shrinkage of regional trade and the trade imbalances likely to be experienced by the ACP African countries. Yet, even though limited, these "second-round" effects of the EPAs remain a real concern for the ACP African economies.

Given the gloomy outlook of the EPAs for the African economies, it is imperative to reshape the EPAs initiative. First, a large level of asymmetry between the European and African commitments must be allowed. The WTO has not officially defined what "substantially" all trade implies in terms of minimum commitments, but it is clear that the 80% reciprocation will not be enough for Africa to preserve its trade, fiscal and industrial balance. Furthermore, the EU could also improve the outcome of the EPAs for the African continent by granting duty free access to all the imports from this continent, including the products from the African ACP non-LDCs. In addition, the potential negative impacts induced by the EPAs on the African trade integration processes has to be recognized. As a consequence, the integration of the intra-African markets, with the complete elimination of regional tariffs and the constitution of custom unions, must be a prerequisite for the EPAs implementation. For individual countries, it could still be important to further investigate the alternatives to the EPAs through objective benefit and costs analysis. Given the potential cost of the EPAs, for some countries, they may find it preferable, especially for the African LDCs to rely on the EBAs preferences. For the non-LDCs, the cost of losing part of their preferences by resorting to using the GSP scheme only, vis-à-vis opening up their markets for the EU under an EPA, has to be carefully weighed up. Besides, a marginal extension of the current GSP preferences could be enough to limit the preferences losses for the non-ACP African countries. However, these alternatives will be possible only if the EU commits itself to maintain the non-tariff benefits associated with the Lomé scheme, and is ready to give up the potential gains the EPAs could bring to the European firms.

Bibliography

Adams, P., M. Horridge, B. Parmenter, and X. Zhang, 1997, "Long-run Effects on China of APEC Trade Liberalization", Unpublished paper based on a report prepared for the East Asia Analytical Unit, Department of Foreign Affairs and Trade, Canberra, Australia.

Bilal S., Houée S., Szepesi S. 2004, "La dimension commerciale du partenariat ACP-UE: L'accord de Cotonou et les APE", Discussion Paper 60, Maastricht, ECDPM.

Bouët A., Decreux Y., Fontagné L., Jean S. and Laborde D., 2004, « A consistent, ad-valorem equivalent measure of applied protection across the world: The MAcMap-HS6 database".

Brockmeier, M., 2001, "A Graphical Exposition of the GTAP Model", GTAP Technical Paper No. 8, Revised March 2001.

Busse M., Borrmann A., Grossman H., 2004. "The Impact of ACP/EU Economic Partnership Agreements on ECOWAS Countries: An Empirical Analysis of the Trade and Budget Effects", Hamburg Institute of International Economics.

COMESA Secretariat, 2003, "Status of EPA Negotiations", Lusaka, mimeo, October.

European Commission, 1996, "Green Paper on relations between the European Union and the ACP countries on the eve of the 21st century - Challenges and options for a new partnership" (COM(96)570 final), Brussels, 20 November.

Hertel T., 1997, "Global Trade Analysis – Modeling and Applications", Cambridge University Press.

Hinkle L. and Schiff M., 2004, "EPA between SSA and the EU: A development perspective on their trade components".

Karingi, S.N., M. Siriwardana, and E.E. Ronge, 2002, Implications of the COMESA Free Trade Area and Proposed Customs Union: Empirical Evidence from Five Member Countries using GTAP Model and Database, COMESA, Lusaka Zambia.

Laird S. and A. Yeats, 1986, “The UNCTAD Trade Policy Simulation Model: A Note on the Methodology, Data and Uses”, UNCTAD Discussion Paper No. 19, Geneva.

Milner C., Morrissey O. and McKay A., 2005, “Some simple analytics of the trade and welfare effects of Economic Partnership Agreements”, Journal African Economies.

Stevens C., Kennan J. 2005, “Preparing for EPA, Trade Nalaysis Handbook”, May.

Stevens C., Kennan J. 2005, “EU-ACP EPA: the effects of reciprocity”, May.

Tekere M. and Ndlela D., 2003, “Impact Assessment of Economic Partnership Agreements on Southern African Development Community and Preliminary Adjustment Scenarios, Final Report”, Trade and Development Studies Centre, Harare, Zimbabwe.

UNECA, 2004, “Economic and Welfare Impacts of the EU-Africa Economic Partnership Agreements”, ATPC work in progress number 10.

Winters, L.A., 2002, “Post-Lomé Trading Arrangements: The Multilateral Alternative”, World Bank.

Annex 1: Geographical aggregation

No.	New Code	Comprising old regions
1	SouthAfrica	South Africa.
2	RestofSadc	Botswana; Rest of South African CU; Mozambique; Tanzania; Rest of SADC.
3	RestofSSA	Malawi; Zambia; Zimbabwe; Madagascar; Uganda; Rest of Sub-Saharan Africa.
4	ACPPacific	Rest of Oceania.
5	ACPCARICOM	Rest of FTAA.
6	EU15	Austria; Belgium; Denmark; Finland; France; Germany; United Kingdom; Greece; Ireland; Italy; Luxembourg; Netherlands; Portugal; Spain; Sweden.
7	EU10	Cyprus; Czech Republic; Hungary; Malta; Poland; Slovakia; Slovenia; Estonia; Latvia; Lithuania.
8	Othdeveloped	Australia; New Zealand; Japan; Singapore; Canada; United States; Switzerland; Rest of EFTA; Rest of Europe; Russian Federation.
9	Otdeveloping	China; Hong Kong; Korea; Taiwan; Rest of East Asia; Indonesia; Malaysia; Philippines; Thailand; Vietnam; Rest of Southeast Asia; Bangladesh; India; Sri Lanka; Rest of South Asia; Mexico; Rest of North America; Colombia; Peru; Venezuela; Rest of Andean Pact; Argentina; Brazil; Chile; Uruguay; Rest of South America; Central America; Rest of the Caribbean; Albania; Bulgaria; Croatia; Romania; Rest of Former Soviet Union; Turkey; Rest of Middle East; Morocco; Tunisia; Rest of North Africa.

Annex 2: Sectoral aggregation

No.	New Code	Comprising old sectors
1	Cereals	Paddy rice; Wheat; Cereal grains nec.
2	Vegetables	Vegetables, fruit, nuts.
3	Oilseeds	Oil seeds.
4	Sugar	Sugar cane, sugar beet.
5	Cotton	Plant-based fibers.
6	oCrops	Crops nec.
7	Livestock	Cattle,sheep,goats,horses; Animal products nec; Raw milk; Wool, silk-worm cocoons.
8	Natresources	Forestry; Fishing; Coal; Oil; Gas; Minerals nec.
9	Agroproc	Meat: cattle,sheep,goats,horse; Meat products nec; Vegetable oils and fats; Dairy products; Processed rice; Sugar; Food products nec; Beverages and tobacco products.
10	Lightmanuf	Textiles; Wearing apparel; Leather products; Wood products; Paper products, publishing.
11	Industry	Petroleum, coal products; Chemical,rubber,plastic prods; Mineral products nec; Ferrous metals; Metals nec; Metal products; Motor vehicles and parts; Transport equipment nec; Electronic equipment; Machinery and equipment nec; Manufactures nec.
12	Svces	Electricity; Gas manufacture, distribution; Water; Construction; Transport nec; Communication; Financial services nec; Insurance; Business services nec; Recreation and other services; PubAdmin/Defence/Health/Educat; Dwellings.
13	Trade	Trade; Sea transport; Air transport.

Annex 3: Changes in the ACP tariffs structures as a result of the different ACP proposals.

SADC	Volume of imports	Initial Tariffs On the EU imports	Tariffs after EPAs 80%	Tariffs after EPASs 60%
7 Livestock	9	44.1	44.1	44.1
9 Agroproc	496	37.8	37.8	37.8
10 Lightmanuf	325	21.2	21.2	21.2
3 Oilseeds	0	20.7	20.7	20.7
11 Industry	2,291	15.0	1.5	8.5
1 Cereals	18	8.4	0.0	0.0
6 oCrops	5	8.1	0.0	0.0
2 Vegetables	10	6.7	0.0	0.0
8 Natresources	10	1.8	0.0	0.0
5 Cotton	0	0.7	0.0	0.0
4 Sugar	0	0.0	0.0	0.0
12 Svces	1,632	0.0	0.0	0.0
13 Trade	525	0.0	0.0	0.0

SSA	Volume of imports	Initial Tariffs On the EU imports	Tariffs after EPAs 80%	Tariffs after EPASs 60%
9 Agroproc	2,400	23.4	23.4	23.4
2 Vegetables	66	21.6	21.6	21.6
4 Sugar	0	21.4	21.4	21.4
10 Lightmanuf	1,397	20.6	20.6	20.6
7 Livestock	22	14.6	14.6	14.6
11 Industry	14,754	13.3	0.7	4.9
3 Oilseeds	1	11.1	0.0	0.0
6 oCrops	80	10.1	0.0	0.0
5 Cotton	1	9.2	0.0	0.0
8 Natresources	53	7.1	0.0	0.0
1 Cereals	270	5.9	0.0	0.0
12 Svces	3,237	0.0	0.0	0.0
13 Trade	1,092	0.0	0.0	0.0

Pacific	Volume of imports	Initial Tariffs On the EU imports	Tariffs after EPAs 80%	Tariffs after EPASs 60%
9 Agroproc	145	35.0	35.0	35.0
6 oCrops	2	27.2	27.2	27.2
10 Lightmanuf	157	11.9	11.9	11.9
11 Industry	1,422	11.6	1.3	5.0
2 Vegetables	2	0.9	0.0	0.0
8 Natresources	3	0.2	0.0	0.0
1 Cereals	0	0.0	0.0	0.0
3 Oilseeds	0	0.0	0.0	0.0
4 Sugar	0	0.0	0.0	0.0
5 Cotton	0	0.0	0.0	0.0
7 Livestock	1	0.0	0.0	0.0
12 Svces	486	0.0	0.0	0.0
13 Trade	82	0.0	0.0	0.0

Caribbean	Volume of imports	Initial Tariffs On the EU imports	Tariffs after EPAs 80%	Tariffs after EPASs 60%
9 Agroproc	422	20.5	20.5	20.5
2 Vegetables	18	19.4	19.4	19.4
7 Livestock	4	11.4	11.4	11.4
10 Lightmanuf	383	11.1	11.1	11.1
3 Oilseeds	1	9.5	9.5	9.5
11 Industry	3,680	9.1	1.3	4.7
6 oCrops	15	8.7	0.0	0.0
8 Natresources	23	5.5	0.0	0.0
1 Cereals	1	0.6	0.0	0.0
4 Sugar	0	0.0	0.0	0.0
5 Cotton	0	0.0	0.0	0.0
12 Svces	1,750	0.0	0.0	0.0
13 Trade	552	0.0	0.0	0.0