

RENEGOTIATING THE LOME CONVENTION - TRADE POLICY SCHEMES AND THEIR EFFECTS FOR AFRICAN REGIONS

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Abstract

In this study we evaluate two different trade policy scenarios between European Union and African regions. The quantitative impacts of these policies are analysed by multiregional general equilibrium model (GTAP). In most African countries, the trade with the EU has been governed by the Lomé Convention, which has offered non-reciprocal duty-free access for most of their imports to the EU. With the new Cotonou Agreement, these relationships are aimed to be compatible with WTO rules by building economic agreements between partners. We analyze these agreements as free trade areas and study how they compare to GSP system, which is available for most of African countries. Supplementary data on GSP tariffs has been implemented to GTAP database using the TRAINS database produced by UNCTAD a source. Results show the negative effects of both free trade areas and the GSP system on GDP, although welfare effects in the free trade area case may turn positive when assuming the labor supply to adjust to the new situation. Negative effects are mainly based on declining price level of African commodities. The phasing out of the Multifibre Arrangement has been studied separately to analyze its importance to African countries.

Tiivistelmä

Tutkimuksessa arvioidaan kahta erilaista vaihtoehtoa kauppapolitiikalle Euroopan unionin ja Afrikan maiden välillä usean alueen yleisen tasapainomallin (GTAP) avulla. Useimpien Afrikan maiden ja Euroopan unionin välistä kauppaa on tähän asti säädelty Lomé-sopimuksella, jonka puitteissa suurin osa näiden maiden tuonnista EU:iin on ollut yksipuolisesti tullitonta. Uudessa Cotonoun sopimuksessa kauppasuhteet pyritään järjestämään WTO:n sääntöjen mukaisiksi luomalla alueellisia, taloudellisia sopimuksia osapuolten välille. Tässä tutkimuksessa näitä sopimuksia analysoidaan vapaakauppa-alueina ja verrataan niitä GSP-järjestelmään, jonka mukaiseen tullikohteluun useimmat Afrikan maat ovat oikeutettuja. GSP-tariffit on lisätty GTAP tietokantaan käyttäen lähteenä UNCTAD:in tuottamaa TRAINS-tietokantaa. Tulosten valossa BKT-vaikutukset sekä vapaakauppa-alue- että GSP-vaihtoehtoissa ovat negatiivisia. Hyvinvointivaikutukset voivat kuitenkin vapaakauppa-alueen tapauksessa olla positiivisia, jos oletetaan työn tarjonnan sopeutuvan uuteen tilanteeseen. Negatiiviset tulokset johtuvat pääasiassa afrikkalaisten tuotteiden hintatason laskusta. Tutkimuksessa on lisäksi erikseen analysoitu monikuitusopimuksen lakkaamisen vaikutuksia Afrikan maille.

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1 INTRODUCTION

The Lomé Convention has been the primary framework of the European Union's external activities with developing countries. The critical tool in the convention has been the preferential treatment for almost all imports from 70 African, Caribbean and Pacific (ACP) countries to the EU. Preferential treatment is one of the tools in this development policy. Other means of the development policy are direct assistance, training and stabilization funds. In 23th of June 2000, the European Union and ACP countries signed a new Partnership Agreement that is set to replace the Lomé Convention. Agreement is named the Cotonou Agreement according to the town in Benin, where it was signed. The agreement has the poverty reduction as the principal objective and the trade arrangements have an important role in this process. In this preliminary study trade-related areas of the new convention are evaluated.

The Lomé Convention has permitted almost completely duty-free access for most of the products from ACP countries. Some sensitive agricultural products, whose imports are regulated by protocols, are exceptions for this general policy. These commodities are beef and veal, sugar, bananas and previously rum, for which the quotas have now been abolished. In the new convention, the protocols for sugar, beef and veal have been maintained.

The Cotonou Agreement builds on integration of ACP economies into the world economy by enhancing their production and trading capacities and creating investments into ACP countries. One main guiding line has been to work in conformity with WTO rules. The agreement contains procedures for new trading agreements and the timetable of their negotiations. Formal negotiations will start by September 2002 at the latest and new trading arrangements should enter into force by 1st January 2008 at the latest. The purpose is also to liberalize almost all imports from all LDCs, to which most of the ACP countries belong, on the basis of Generalized System of Preferences (GSP).

The content of the economic partnership agreements is to remove the barriers to trade between the Parties, in accordance with the relevant WTO rules. On the Community side trade liberalization shall build on the *acquis* and shall aim at improving current market access for the ACP countries through *inter alia*, a review of the rules of origin. Negotiations of the economic partnership agreements will be undertaken with ACP countries which consider them in a position to do so. If not, the WTO compatible system of GSP is available. For those non-LDCs that cannot use the most preferable GSP tariffs, other alternatives are planned to be examined.

In this work, we analyze quantitatively two alternative trade policy schemes for Africa. These two schemes are a free trade area with European Union, and GSP tariffs. The work is organized as

follows. The chapter 2 is a short overview of the EU's policy with ACP countries in the multilateral connection and the economic theory behind regional trade initiatives. Some central concepts have also been introduced. Chapter 3 describes the data and model used as well as the policy experiments and how they have implemented with the model. The main data source, the GTAP database, has been accomplished by the information received from TRAINS database produced by UNCTAD. TRAINS database has especially been used for calculating the GSP tariffs for African countries. In the chapter 4, the results have been analyzed. Chapter 5 extends the analysis to abolishing the Multifibre Arrangement quotas as a one conditional factor related to the subject. Chapter 6 concludes and makes suggestions to extend the work.

This far we have not seen any other serious attempts to incorporate GSP treatments to applied trade policy analysis. Although there is reliable information on GSP treatments available in its own database TRAINS, the biggest effort lies in making this data compatible with the tariff data in GTAP database. We document this work in the appendix. GSP systems by different developing countries are a determinant factor in trade relations with developed countries. In this work we make a preliminary attempt in this area by building GSP tariffs of the EU to different African regions.

The results of the simulations show clearly the negative effects of both trade policy scenarios to African countries. Still, the free trade area for African countries may turn out to be positive if it succeeds in increasing the use of more domestic resources in the production. The motivation for letting the labor supply to adjust is based on the assumption of dual or fragmented labor markets. These ideas of unlimited labor supply at the subsistence wage date back to Lewis's classic paper (1954). In the GSP treatment the assumption of adapting labor force will instead magnify the negative outcome of the experiment. The primary source for the negative results is the declining prices for African products in the world market.

Results are in accordance with the few other studies related to the theme. The only general equilibrium analysis of the Lomé issue we know is Wolf (2000). She also discovers the negative effects of free trade area between West African Monetary Union (UEMOA) and EU. In her study, the effects come mainly from declining tariff revenues. These countries have also been in focus in a study by Decaluwé et al. (1998) evaluating the potential effects of a customs union among the UEMOA countries, without free trade agreement with EU. This study again shows a trade-off between welfare gain and loss of tariff revenues. The six impact studies produced by European Commission have also been summarized so that the LDCs have little to gain from Regional Economic Partnership Agreements (REPAs) with the EU (McQueen 1999).

2 EU'S TRADE POLICY WITH ACP COUNTRIES IN MULTILATERAL CONNECTION

In the objectives of the Cotonou Agreement to the Trade and Economic Cooperation it is stated that the ultimate objective of economic and trade cooperation is to enable the ACP States to play a full part in international trade. Economic and trade cooperation shall be implemented in full conformity with the provisions of the WTO. In this chapter, we shortly describe some of the relevant features of WTO rules and how the partnership agreement between EU and ACP countries is related to them.

2.1 WTO Rules and the Lomé Convention

The Most Favoured Nation (MFN) clause is the main principle in WTO agreements and it was already stated in the first article of WTO predecessor, GATT. It does not allow members of WTO to discriminate between their trading partners, e.g. when reducing their tariffs. In preferential trading agreements (PTAs), countries can still apply tariffs that are lower to some countries than for the others. Customs unions CU (e.g. EU) and free trade areas FTAs (e.g. NAFTA) are most used versions of PTAs. In Customs Union, all members charge the same sets of customs duty rates from non-members whereas in FTA, the trade within the group is duty free but each member can set its own duty rates on imports from non-members. These regional agreements violate the MFN clause but the Article 24 of GATT allows regional trading arrangements to be set up as a special exception when they help trade flow more freely among the countries in the group without barriers being raised on trade with the outside world. In free trade areas, duties and other trade barriers should be reduced or removed substantially in all sectors of trade in the group.

GSP (Generalized System of Preferences) is a system used by many developed countries to help developing nations to improve their financial or economic condition through exports. It provides for importation with reduced tariffs or completely duty free access of a wide range of products that would be subject to higher customs duty if imported from non-GSP-status countries. The GSP scheme of the European Union (EU) has broad country coverage including all the countries in the two African regions on the focus of this study. However, on the time being the scheme is not of practical interest for the concerned African countries as they benefit from more favorable preferences under the Lomé Convention in their trade with the EU.²

Apart from GSP system, WTO recognizes (WTO 1999b) also the Lomé convention as non-reciprocal trade preferences. The problem with the Lomé was still that it was also admitted to some

² A more thorough description of the EU GSP system is presented in the technical appendix.

countries that according the UNCTAD classification were not regarded as Least Developed Countries (LDCs). This is why the Lomé Convention needed a waiver in WTO.

Rules of origin are closely related to the free trade areas. They are simply the criteria used to define where a product was made. Without explicit rules of origin, it is possible to circumvent the higher tariffs by exporting the product through a country that has low external tariffs but belongs to the FTA. According to WTO agreement, rules of origin need to be transparent and there is aiming for harmonized rules of origin among all WTO members. Still, countries in free trade area are allowed to use different rules of origin for products traded under their free trade agreement.

The overriding purpose of the WTO is to help trade flow as freely as possible. A common consensus has also been accepted that the clear connection between free trade and growth prevails and this is the rule to be adopted also by developing countries.

There has been little systematic economic analysis of the way different rules of origin perform in practice. According to Falvey & Reed (1998), whatever rules of origin are employed, the producer response will lead to distortions in the allocation of resources if producers can qualify for favorable treatment of their output by adjusting their input mix to achieve a different country of origin. Thus, the potential and actual resource misallocation costs should be taken into account both in formulating rules of origin and evaluating preferential trading agreements.

Behind the building of WTO is of course the Uruguay round negotiations for multilateral trade liberalization. The Uruguay Round covers almost all trade and reductions in most trade barriers and MFN duties.³ Together with regional integration, the process has resulted in preference erosion for developing countries. Both factors have an effect of the position of developing countries in world markets but in this study we treat more explicitly only one of the biggest achievements in the negotiations, abolishing the MFA, Multi Fibre agreement, which has prevented the exports of textiles and clothing from developing countries.

Regionalism and free trade areas that European Union is building with several regions in the world also narrow the preferential treatment for ACP countries. These free trade areas are under negotiations between the EU and South Africa, Mediterranean Countries, Mercosur and Eastern and Central European Countries. Even if ACP countries would accept the GSP tariffs, they would be higher compared to tariffs in free trade areas. These tariffs would also be very influential as developing countries are often competing in primary products and textiles with these countries.

³ As an easy-to-read presentation of the Uruguay Round Achievements, see WTO (1999a).

Finally, the negotiated tariff cuts in the Uruguay Round diminish the preference margins of ACP countries (EU 1999). Anticipated reductions in the prices of some agricultural products in Agenda 2000 diminish the export income for those products that ACP countries have imported to the EU under quota (beef and veal, sugar). Effects of Uruguay round negotiations on agricultural products has been studied partly with the same framework as ours e.g. in van Tongeren et al. (2000)

2.2 Economics of PTAs

The economics literature behind PTAs dates back to Viner (1959) who first introduced the notions trade creation and trade diversion. When building a free trade union leads to new trade between the members, we use the notion trade creation. When instead, trade union decreases trade, we speak about trade diversion. Whether PTA increases welfare or not is a question with different answers in economic literature.

Krugman (1991) shows, using a trade model with monopolistic competition, that world welfare is minimized with three trading blocs, so that allowing the formation of CUs ultimately blocks the attainment of global free trade. Bhagwati and Panagarya (1996) conclude that PTAs are overall welfare reducing, owing to the substantial amount of trade diversion that they engender. Bhagwati (1992) suggests that trade diversion can be reducing by ruling out FTAs where members maintain separate tariffs on non-member trade, and only allowing CUs. With similar arguments, Bagwell & Staiger (1997) state that preferential agreements pose a threat to the existing multilateral system. While principle of reciprocity can deliver an efficient multilateral trade agreement enabling countries to expand trade and achieve efficient outcome by avoiding inefficiency associated with the terms-of-trade externality from unilateral policy setting, this positive outcome is true only if tariffs also conform to the principle of non-discrimination. McLaren (1997) shows that free trade between a big and a small country may harm a small country under certain circumstances, namely if country's production requires irreversible investments, as the small country loses its bargaining power in trade negotiations if it becomes very dependent of the export sector.

On the other hand, political economics, (e.g. Ethier 1998), explain that regional integration would possibly be a direct consequence of the success of multilateralism. Regionalism is the means by which new countries enter the multilateral system and small countries already in it can exploit its success. Regional arrangements can give a small country a marginal advantage – over other similar small countries – in attracting direct investments because they obtain marginally more favorable access to large market than other, nonparticipating small countries. By this means, regionalism is creating new industrial groups with an interest in preserving the liberal trade order. Thus, the

regional agreements, by in effect internalizing a critical externality, help spread the benefits of the multilateral trading system around the globe and enhance its value to all participants, thereby reinforcing, rather than underbinding, support for multilateralism.

In a study on African regionalism, Mulat (1998) suggests that the argument that regional economic agreements are trade diverting is a description of a short-term phenomenon; in the long run, Africa's Regional Economic Communities (RECs) also create possibilities for sustained growth and improved welfare. This statement is based on expected dynamic effects of regional integration as well as assumption that the cooperation would increase political stability in the region and thereby hinder some current negative phenomena, such as illegal trade.

From EU's point of view, Sapir (1998) states that EU interest towards RTAs is motivated by discriminatory market access and regional stability. In the present configuration, the EU constitutes the hub in an expanding network of bilateral FTAs, which gives it two important advantages over spoke countries: preferential market access to all spoke markets compared to other spoke countries and an advantage in attracting investment over any other location in the network. The rules of origin accompanying the FTAs compound further the disadvantages incurred by spoke countries. Moreover, EU clearly has much to gain, economically and politically, from improved economic conditions promoted by regional stability.

3 THE MODELING FRAMEWORK AND DATA

The quantitative analysis in this study has been done with a global general equilibrium model and the database provided by Global Trade Analysis Centre at Purdue University⁴. General equilibrium (CGE) models are nowadays a standard tool for analysis where large economic shocks can have impact on both the production and price levels of the economy (See e.g. Francois and Shiells 1994 for NAFTA and Martin and Winters (1996) for Uruguay Round). The term “general equilibrium” refers to the economy as an entity where everything affects everything and economic shocks impacting on any one component can have repercussions throughout the system. Depending on the simulation experiment (closure) different variables may be regarded as exogenous (given to the model) or endogenous (solved within the model).

GTAP model is a quite standard general equilibrium model assuming perfect competition and constant returns to scale technology. As a special feature which makes it suitable especially for studies related to developed and developing countries is the demand structure which takes into account the elasticity of demand for different commodities to be dependent on the income level⁵. The foreign trade is described according to an Armington specification (i.e. imperfect substitutability between commodities of different origin).⁶ Simulation results depend partly on the original data and e.g. the input-output structure of the model. In the numerical model the price-responsive behaviour of actors (firms, households) also affect the results. The parameters or elasticities of the behavioral functions determine the magnitude of reactions of the economy. On the size of these parameters CGE models rely on outside information of econometric studies.

CGE models rely heavily on national input-output tables as their primary source of data. In GTAP data base version 4, input-output tables of 50 regions have been combined together with data on bilateral trade flows between each sector in each country. The number of sectors is 45. Bilateral trade flows make it possible to analyse changes in trade policy when reductions are occurring in only one country. That is why it suits this study in question very well. Apart from interlinking economies, GTAP database has a detailed structure of policy parameters, which have been implemented into the model by price-wedges between the competitive price and the market price. E.g tariff data is reported in ad valorem –format and depending on the original tariff data, different kind of adjustments have been made to make the data fit the requirements of the

⁴ <http://www.agecon.purdue.edu/gtap>

⁵ The nonhomothetic private household demand is calibrated by a constant difference of elasticities (CDE) functional form.

⁶ The model is documented in Hertel (1997) and the database in McDougall et al. (1998)

All databases have their limits, which users do have to accept or may try to correct. GTAP database has no information on the preferential treatment of Lomé countries by European Union. Another problematic features are related to the quality of tariff data of Rest of Subsaharan Africa (RSS)⁷, which is the region in our focus. The database does neither have information on GSP tariffs to developing countries. We have corrected the database with regards to Lomé and RSS tariffs and gathered supplementary information on GSP treatment of the EU. GSP tariffs have been calculated from the TRAINS database to potential imports from Rest of Subsaharan Africa and Rest of Southern Africa (RSA).

Another problem with the GTAP database is the aggregation level of Africa. In GTAP database, Africa is divided to 5 regions: Northern Africa and Morocco (NAF), Rest of SubSaharan Africa (RSS), Rest of Southern Africa (RSA) and Southern Africa (SAF). Both RSS and RSA are huge areas with 37 and 7 countries respectively (Table 1). Thus, the analysis with GTAP database cannot give results on the country level. The uneven distribution of gains and losses from free trade among a country group are revealed clearly e.g. in a study on UEMOA by Decaluwé et al. (1998). We have partly tried to overcome the problem by looking at additional information on trade flows between EU and African countries from the TRAINS database produced by UNCTAD (2000).

Table 1: Countries included in RSA and RSS

Rest of Southern Africa:		
Angola	Mozambique	Zambia
Malawi	Tanzania	Zimbabwe
Mauritius		
Rest of Subsaharan Africa:		
Benin	Eritrea	Niger
Burkina Faso	Ethiopia	Nigeria
Burundi	Gabon	Rwanda
Cameroon	Gambia	São Tome and Principe
Cape Verde	Ghana	Senegal
Central African Republic	Guinea	Seychelles
Chad	Guinea-Bissau	Sierra Leone
Comoros	Kenya	Somalia
Congo	Liberia	Sudan
Congo RP (Zaire)	Madagascar	Togo
Côte d'Ivoire	Mali	Uganda
Djibouti	Mauritania	
Equatorial Guinea	Mayotte	

⁷ Names of the regions refer to the GTAP classification.

3.1 Policy experiment

In any quantitative analysis there are gaps between the actual policy situation and the way the policy is implemented into the model. When negotiating about the economic agreements with ACP countries, many institutional factors have to be taken into account, like capability of the partners to negotiate. The recently signed convention is also a package where it is difficult to draw only one factor to the analysis, like trade policy between EU and ACP countries. For example, in the convention it is said that EU will aim in supporting regional initiatives between ACP countries. This is a fact we have ignored here.

The aggregation level of the Africa poses another problem. To consider a uniform trade policy with these areas and the European Union is of course an abstraction. Strategic commodities differ and institutional factors vary; a fact that in real life affects the possible negotiations. Former colonial relationships also affect the negotiations. In other contexts, regional groupings (free trade areas or any other blockings) have been seen as negotiating partners with European Union. For example, the Impact studies picked four groups of regional agreements to a closer look. These groups were EAC (East African Cooperation) consisting of Kenya, Tanzania and Uganda, SADC (Southern African Development Community) consisting of 14 southern African countries (also South Africa) and two french monetary communities (UDEAC-CEMAC in Central Africa: 6 countries and UEMOA – West African Monetary Union, 7 countries).⁸

The choice between two alternative trade policy scenarios offers an interesting case for a quantitative trade policy analysis. In theory, the free trade area diminishes distortions and protection and therefore should by presumption result in increasing welfare in the case it increases trade; if trade creation is bigger than trade diversion. The GSP policy instead would be a protectionist policy by EU against African countries in the current situation as it increases the tariff levels compared to the Lomé situation.

We implement both of the trade policy scenarios as changes in the tariff levels. The analysis is a static by its nature, it does not take into account the long run effects of capital accumulation that may be induced by trade policy changes (see e.g. Baldwin 1992). It calculates the distortions that increase or decrease in the trade policy changes and evaluates the changes that would result in production levels, factor prices and in commodity prices, both internationally and domestically. It has been estimated that some 5 years will take when changes in policy in the short run have gone

⁸ The clear impact on the trade performance of RSS and especially RSA comes evidently on the planned free trade area between EU and South Africa and its founding reveals the possibilities of free trade areas between other African

through the economy and the production structure has adapted. This assumes still that capital does not move between sectors. It is of course natural, that other things, like productivity growth, happen at the same time. So the question is: should these factors be taken into account. We believe that other changes in international policies can have similar effects on countries at their national development. That is why we justify the static framework ignoring any other changes in the environment. After this, we extend the analysis to take into account one conditional factor, this is the Multifibre Arrangement in chapter 5.

3.2 Trade between Africa and EU

As a database of 50 regions and 45 sectors is too large to be useful in computations, for our own purposes, we have aggregated the regions (Table 2) and commodities (Table 3). When aggregating the countries under study we have focused on the African regions and European Union. As preferential margins affect also on the trade between European Union and other countries, we have left one reference area, Rest of the Middle East (RME) that consists of Turkey and Rest of the Middle East to study the trade diversion effects. The focus in African Regions under study is especially Rest of SubSaharan Africa (RSS). For comparison we also look at the results for Rest of Southern Africa (RSA) in some cases. The remaining African Regions are also left as regions of their own; Northern Africa and Morocco (NAF) and Southern Africa (SAF). All the other countries have been aggregated to the Rest of the World (ROW).

The importance of Africa in global markets is very small, the aggregated share of their exports (SAF, RSA, RSS, NAF) to world markets is 2,2 % as EU's share is 40 %. It is also clear that whatever the policy schemes will be in the future in trade relations between EU and Africa, their importance to EU is marginal whereas it means much more to African countries.

One purpose of this study has been to identify the critical industries in negotiations with European Union. This has been the motivation in aggregating the 16 commodities out of the 50 commodities from the GTAP database (Table 3: Commodity Aggregation).⁹ The trade between EU and Africa is clearly of greater importance to African countries. Over two thirds of the exports from Rest of Sub Saharan Africa, RSS, goes to European Union in the following 7 industries in our study:

countries as well. Also the FTA between EU and South Africa has repercussions to Southern Africa (Lewis et al. 1999). We abstract also from these facts.

⁹ We are using the GTAP database version 4 together with TRAINS data version 7.0, which is based on HS Classification. Concordances between these classifications are available only between HS and GTAP Database 3, this is why we use both commodity classifications from GTAP. The clearest difficulty raises in previous class 4, Non grain crops that in the database 4 have been divided into 5 different commodities. We wanted to keep all 5 commodities as separate because their imports treatment varies a lot between commodities (e.g. sugar cane and fruits)

Vegetables, sugar, other crops, diamonds, food industry, wearing apparel and footwear. For Rest of Southern Africa, the importance of the EU is not so big, except in sugar, where the exports to EU count over 90 percent of the total. Other important industries in their orientation to the EU exports are food industry and wearing apparel. On the overall, the imports from Africa are concentrated on primary products, especially plants and fibres that have no substituting production in Europe (flowers, fruits, coffee, cocoa, etc.) Other important areas are imports of oils and textiles. The shares of imports by different industries can be seen in the Table 4.¹⁰ For European Union, of the African regions, RSS is of more importance in fibres (13 %) and other crops (17 %) and RSA in sugar (42 %).

Table 2: Regional Aggregation

1. European Union, EU	7. Rest of World, ROW
United Kingdom	Australia
Germany	New Zealand
Denmark	Japan
Sweden	Republic of Korea
Finland	Indonesia
Rest of European Union	Malaysia
	Philippines
2. North Africa, NAF	Singapore
Morocco	Thailand
Rest of North Africa	Viet Nam
	China
	Hong Kong
3. Rest of Subsaharan Africa, RSS	Taiwan
Rest of Sub Saharan Africa	India
	Sri Lanka
4. Rest of Southern Africa, RSA	Rest of South Asia
Rest of Southern Africa	Canada
	United States of America
5. Southern Africa, SAF	Mexico
South African Customs Union	Central America and Caribbean
	Venezuela
	Colombia
6. Rest of Middle East and Turkey, RME	Rest of Andean Pact
Turkey	Argentina
Rest of Middle East	Brazil
	Chile
	Uruguay
	Rest of South America
	European Free Trade Area
	Central European Associates
	Former Soviet Union
	Rest of World

¹⁰ Especially for RSS, the shares received from GTAP and TRAINS look a bit different. This is probably due to the base year (GTAP 1995, Trains 1998)

Table 3: Commodity Aggregation

1. Vegetables	14. Metals
Vegetables, fruit, nuts	Ferrous metals
	Metals nec
2. Oil seeds	15. Heavy industry
Oil seeds	Wood products
	Paper products, publishing
3. Sugar	Petroleum, coal products
Sugar cane, sugar beet	Chemical, rubber, plastic products
	Mineral products nec
4. Fibres	Metal products
Plant-based fibers	Motor vehicles and parts
	Transport equipment nec
5. Other crops	Electronic equipment
Crops nec	Machinery and equipment nec
	Manufactures nec
6. Other primary products	16. Services
Paddy rice	Electricity
Wheat	Gas manufacture, distribution
Cereal grains nec	Water
Bovine cattle, sheep and goats, horses	Construction
Animal products nec	Trade, transport
Raw milk	Financial, business, recreational services
Wool silk-worm cocoons	Public admin and defence, education, health
Forestry	Dwellings
Fishing	
7. Oil	
Coal	
Oil	
Gas	
8. Diamonds	
Minerals nec	
9. Processed food	
Bovine cattle, sheep and goat, horse meat prods	
Meat products nec	
Vegetable oils and fats	
Dairy products	
Processed rice	
Sugar	
Food products nec	
10. Beverages and tobacco	
Beverages and tobacco products	
11. Textiles	
Textiles	
12. Wearing apparel	
Wearing apparel	
13. Footwear	
Leather products	

Table 4: RSA and RSS imports to EU, tariffs under Lomé and GSP

RSA					RSS				
GTAP 3 commodity group	Average tariff under Lomé	Average tariff with GSP	Value of imports (1000 USD)	Share of total RSA imports to EU	GTAP 3 commodity group	Average tariff under Lomé	Average tariff with GSP	Value of imports (1000 USD)	Share of total RSS imports to EU
Pdr			0	0.0 %	pdr			272	0.0 %
Wht			0	0.0 %	wht			0	0.0 %
Gro			122	0.0 %	gro			3 281	0.0 %
Ngc	0.1 %	2.5 %	432 142	12.5 %	ngc	0.0 %	1.2 %	4 696 666	29.8 %
Olp			0	0.0 %	olp	0.0 %		726	0.0 %
Wol	0.0 %	2.3 %	12 665	0.4 %	wol	0.0 %	0.3 %	48 500	0.3 %
For	0.0 %	0.0 %	604	0.0 %	for	0.0 %	0.0 %	107 137	0.7 %
fsh	0.0 %	6.3 %	12 360	0.4 %	fsh	0.0 %	7.6 %	83 192	0.5 %
col	0.0 %	0.0 %	11 932	0.3 %	col	0.0 %	0.0 %	2 649	0.0 %
oil	0.0 %	0.0 %	236 241	6.9 %	oil	0.0 %	0.0 %	3 640 758	23.1 %
gas			65	0.0 %	gas	0.0 %	1.6 %	20 678	0.1 %
omn	0.0 %	0.0 %	439 684	12.8 %	omn	0.0 %	0.0 %	2 111 978	13.4 %
met			0	0.0 %	met			461	0.0 %
mil	4.9 %	20.6 %	43 302	1.3 %	mil	8.0 %	16.3 %	1 493	0.0 %
pcr			16	0.0 %	pcr			121	0.0 %
ofp	0.0 %	6.6 %	668 250	19.4 %	ofp	0.0 %	10.1 %	1 786 100	11.3 %
b_t	0.0 %	4.4 %	369 062	10.7 %	b_t	0.0 %	4.1 %	20 433	0.1 %
tex	0.0 %	4.8 %	76 458	2.2 %	tex	0.0 %	6.0 %	93 264	0.6 %
wap	0.0 %	11.8 %	702 444	20.4 %	wap	0.0 %	5.9 %	214 226	1.4 %
lea	0.0 %	3.2 %	19 691	0.6 %	lea	0.0 %	2.2 %	184 149	1.2 %
lum	0.0 %	0.2 %	11 570	0.3 %	lum	0.0 %	0.7 %	194 242	1.2 %
ppp	0.0 %		3 121	0.1 %	ppp	0.0 %		6 447	0.0 %
p_c	0.0 %	2.6 %	3 267	0.1 %	p_c	0.0 %	2.6 %	43 228	0.3 %
crp	0.0 %		7 929	0.2 %	crp	0.0 %	0.5 %	260 384	1.7 %
nmm	0.0 %		2 143	0.1 %	nmm	0.0 %		13 753	0.1 %
i_s	0.0 %	4.2 %	104 362	3.0 %	i_s	0.0 %	4.0 %	10 309	0.1 %
nfm	0.0 %	0.0 %	169 582	4.9 %	nfm	0.0 %	3.7 %	406 939	2.6 %
fmp	0.0 %		6 749	0.2 %	fmp	0.0 %		3 969	0.0 %
trn	0.0 %	1.4 %	12 413	0.4 %	trn	0.0 %	1.2 %	352 321	2.2 %
ome	0.0 %	3.6 %	50 052	1.5 %	ome	0.0 %	1.0 %	88 453	0.6 %
omf	0.0 %	3.0 %	42 064	1.2 %	omf	0.0 %	4.7 %	23 247	0.1 %
Other ^a			6 799	0.2 %	Other ^a			1 330 518	8.4 %
Total			3 445 089	100.0 %	Total			15 749 894	100.0 %

^a «Other»; commodities not included in any GTAP category. For RSS, contains mainly (94 %) commodities in HS class 44, «Wood and articles of wood; wood charcoal»

Legend	Pdr	Paddy rice	omn	Other minerals	ppp	Pulp paper etc
	Wht	Wheat	met	Meat products	p_c	Petroleum and coal
	Gro	Grains	mil	Dairy products	crp	Chemicals rubbers and plastics
	Ngc	Non grain crops	pcr	Processed rice	nmm	Nonmetallic minerals
	Olp	Other livestock	ofp	Other food products	i_s	Primary ferrous metals
	Wol	Wool	b_t	Beverages and tobacco	nfm	Nonferrous metals
	For	Forestry	tex	Textiles	fmp	Fabricated metal products
	fsh	Fisheries	wap	Wearing apparels	trn	Transport industries
	col	Coal	lea	Leather etc	ome	Machinery and equipment
	oil	Oil	lum	Lumber	omf	Other manufacturing
	gas	Gas				

Source: UNCTAD TRAINS database

In order to identify the critical industries, we also need to identify the actual commodities and their main producers. For this purpose, we have studied the commodities traded with EU and their source country. Appendix 3 shows the trade flows gathered from the TRAINS database for most important commodities (HS4 categories) imported to EU from RSA and RSS. The figures are presented for products critical either to an individual country (over 10 % of country's total exports to EU) or to the whole region (over 2 % of region's total exports to EU). For the regions, the total value (in USD) of imports and the commodity's share of region's total imports to EU are presented. For individual countries, only the share of country's total imports to EU is shown. The table reveals that there are, indeed, countries that are very dependent on a single commodity in their trade with European Union. For example, coffee, of which European Union imports 7.7 % from Africa, forms a major part of trade with EU for Burundi (96.8 %), Ethiopia (75.3 %), Rwanda (49.9 %), Uganda (72.9 %) and Togo (29.9 %). Moreover, some products like fish seem insignificant when the whole region is observed but still critical for some individual countries.

3.3 Tariffs in trade between EU and Africa

A short look at GTAP tariff data between EU and RSS countries appeared not to be very plausible as most of the figures for tariffs for imports from EU to RSS were negative. This might indicate that the imports from European Union to RSS was taking place below the market prices or it is a result of calibrating the data base so that RSS has been a kind of a residual area. The availability of tariff data is limited to some 3 countries in the region (see document on the GTAP4 Database). Also the Lomé treatment for imports from Africa to EU was not included in the data. The first step in the analysis was to correct the tariffs. When tariffs are corrected in a general equilibrium model by shocking the exogenous tariff variables, they necessarily result on resource allocation effects. To minimize these effects, software for correcting data has been made (Malcolm 1998) and it has been the first step in our study. Table 5 describes the GTAP tariffs and Tariffs after alterations (Altertax-tariffs).

Table 5: Original and corrected duties on imports in trade between EU and Africa

Duties on imports from EU

Imports to RSS			Imports to RSA		
Commodity group	Original duty	Altertax duty	Commodity group	Original duty	Altertax duty
Vegetables	-3.5 %	17.1 %	Vegetables	12.6 %	12.7 %
Oil seeds	-38.9 %	8.3 %	Oil seeds	20.0 %	20.0 %
Sugar	-81.5 %	20.0 %	Sugar	12.6 %	12.7 %
Fibres	-36.2 %	13.3 %	Fibres	12.5 %	11.8 %
Other crops	7.4 %	21.9 %	Other crops	12.7 %	12.6 %
Other primary products	-5.7 %	15.7 %	Other primary products	13.3 %	13.3 %
Oil	8.2 %	14.6 %	Oil	15.5 %	15.0 %
Diamonds	-7.7 %	8.1 %	Diamonds	8.1 %	8.1 %
Processed food	-10.8 %	13.5 %	Processed food	14.5 %	14.4 %
Beverages and tobacco	-30.1 %	19.6 %	Beverages and tobacco	-3.4 %	-3.4 %
Textiles	-2.7 %	16.2 %	Textiles	17.1 %	16.2 %
Wearing apparel	9.4 %	16.6 %	Wearing apparel	16.6 %	16.5 %
Footwear	2.1 %	14.8 %	Footwear	14.8 %	14.8 %
Metals	-0.1 %	13.2 %	Metals	13.8 %	13.6 %
Heavy industry	-3.5 %	8.4 %	Heavy industry	8.1 %	8.1 %
Services	0.0 %	0.0 %	Services	0.0 %	0.0 %
<i>Total</i>	-3.8 %	8.2 %	<i>Total</i>	7.2 %	7.2 %

Duties on imports to EU

Imports from RSS			Imports from RSA		
Commodity group	Original duty	Altertax duty	Commodity group	Original duty	Altertax duty
Vegetables	5.6 %	0.0 %	Vegetables	5.6 %	0.0 %
Oil seeds	0.0 %	0.0 %	Oil seeds	0.0 %	0.0 %
Sugar	76.6 %	76.5 %	Sugar	76.6 %	76.6 %
Fibres	50.0 %	0.0 %	Fibres	50.0 %	0.0 %
Other crops	2.1 %	0.0 %	Other crops	2.1 %	0.0 %
Other primary products	3.1 %	3.1 %	Other primary products	7.3 %	7.3 %
Oil	0.0 %	0.0 %	Oil	0.0 %	0.0 %
Diamonds	0.0 %	0.0 %	Diamonds	0.0 %	0.0 %
Processed food	10.6 %	9.7 %	Processed food	65.1 %	29.5 %
Beverages and tobacco	19.4 %	0.0 %	Beverages and tobacco	19.2 %	0.0 %
Textiles	5.9 %	0.0 %	Textiles	5.9 %	0.0 %
Wearing apparel	10.4 %	0.0 %	Wearing apparel	10.4 %	0.0 %
Footwear	5.1 %	0.0 %	Footwear	5.1 %	0.0 %
Metals	1.8 %	0.0 %	Metals	2.5 %	0.0 %
Heavy industry	2.9 %	0.0 %	Heavy industry	4.0 %	0.0 %
Services	0.1 %	0.0 %	Services	0.1 %	0.0 %
<i>Total</i>	2.9 %	1.7 %	<i>Total</i>	19.3 %	11.9 %

In correcting the tariffs (exl. Lomé tariffs) we relied on a study made by Francois and Strutt (1999) and applied the Post-Uruguay round tariffs to the database. This way we indirectly include the Uruguay Round to the study. So we don't actually study the effects of the Uruguay Round but assume them to be the tariff level in the beginning.¹¹¹² The major effect is that negative tariffs of RSS are corrected to be positive.

In the Lomé correction we took into account that some sensitive products, sugar, beef and veal and food processing industries, are protected in European Union and left the Post-Uruguay tariffs untouched.

3.4 Experiments

The effects of the Free trade area were studied by changing the import tariffs in the updated data. In the FTA Experiment we abolished most of the import tariffs from EU imports to RSA and RSS.

Duties were allowed remain in following sectors: Oil seeds, Sugar, Other primary products, Oil Diamonds and Food Processing. Both RSS and RSA are almost totally self-sufficient in the production of these commodities, so there is not actually any pressures for increased imports even when duties in these commodities were dropped. Duties were decreased between 7 and 17 percent. As the duties for imports from RSS and RSA to EU were already zero in most commodities, they were left intact. Due to assumed protocols, duties were expected to remain in sugar, other primary products and processed food. We assumed the beef and veal imports to happen both in raw meat as well as processed meat.

In the GSP Experiment we shocked the actual tariffs to result in GSP tariffs. Two different databases; TRAINS and GTAP were combined to build the GSP treatment. This is never a straightforward task. The procedures have been described in appendix 1. The results of the GSP treatment to GTAP 3 database level are described in Table 9.¹³ The GSP treatment for all African

¹¹ Hertel et al. (1998) have studied the effects of Uruguay Round on Africa and confirm the expectations that Africa is likely to be the only major region of the world to lose from UR implementation. Potential gains from Uruguay Round (UR) come from increasing agricultural productivity and lower transport costs. They find also that UR accelerates a resource-driven shift in Africa's comparative advantage towards agriculture (as opposed to mining or manufacturing) and towards trade with Asia (as opposed to Europe).

¹² It is arguable whether the negotiated Post-Uruguay round tariffs are actually implemented or not and should we rather use Pre-Uruguay round tariffs. According to e.g. Francois and Strutt, some tariff cuts have already been made and as for African countries, many applied tariffs are not binding, applying the post-Uruguay round tariffs won't have any bigger effect.

¹³ Different versions of GTAP database have had different commodity and regional classification. We had to use the GTAP 3 classification due to lacking information of concordances between HS classification and the database 4.

countries within the regions was supposed to be possible. Tariffs inside the two regions were not expected to disappear.

Table 6 below evaluates the importance of the FTA experiment in the sense of missed tariff income from EU imports. In the model we assume that all the tariff revenues will accrue to the host country.

Table 6 : Change in value of EU import tariffs when building a FTA, in Mio USD (1995)

	Before	After	Decrease	GDPbefore	% of GDP
RSS	1564.55	261.42	1303.13	183484.7	0.71
RSA	324.14	57.65	266.49	19306.04	1.38

The first guess of the effect of the experiment would be that building a FTA would decrease the GDP of RSS by 0.71 percent and the GDP of RSA by 1.38 percent.

The effect of GSP experiment can not be described in the similar manner, as the increased tariffs will benefit EU instead of Africa. The costs of the increase of tariffs will be based on the losses in export revenues. In our experiment the average tariff for imports from RSS to EU increases from 0.009 percent (almost zero) to 0.014 percent. The final effect depends on the model solution; the demand for African products.

The standard closure with GTAP assumes the economy to be in initially in the long run equilibrium where all the factors of production; land, labor and capital are fully utilized. So their supply cannot adapt to increases or decreases in demand. We may call this closure a Heckscher-Ohlin closure since as the result, all the results can be derived from demand equations. For alternative experiment we allowed the labour supply to be flexible and to adapt to changes in demand. Instead, we kept the real wages fixed. This closure might be called as a short run closure as it still assumes the capital to fixed in each industry.

4 RESULTS

As stated above, the Cotonou Agreement builds on integration of ACP economies into the world economy by enhancing their production and trading capacities and creating investments into ACP countries in conformity with WTO rules. Our simulations can help in analysing how different trade policy options affect these variables. We compare first the effects on trade between both experiments, then move to macroeconomic results and finally look at the effects at the industry level. The sensitivity on aggregate results has been studied by changing the closure of the model.

Results in our model are reported as percentage changes in variables. From the percentage change it is of course possible to calculate the respective dollar value of the change or the values of variables after the simulation. Only when reporting welfare results we use dollar value equivalents to report the results.

4.1 Trade

When comparing in general the differences between experiments FTA (Free trade area) and GSP, it can be seen that the volume of world trade in FTA experiment increases whereas in GSP it decreases. Also the magnitude in the experiments vary a lot, the effect on the volume of trade is ten times bigger in FTA in aggregate level. Trade results for RSS, RSA and EU and the whole world have been presented below in Table 7.

Table 7: Effects of FTA and GSP on trade (standard closure)

	FTA			GSP		
	RSS	RSA	EU	RSS	RSA	EU
Export volume	3.82	1.45	0.03	-0.12	-0.18	-0.01
Export price index	-0.89	-0.27	0.06	-0.21	-0.24	0
Value of exports	2.89	1.18	0.09	-0.33	-0.42	0
Import volume	4.68	3.41	0.09	-0.50	-0.67	0
Import price index	0.01	-0.07	0.01	0.00	-0.01	0
Value of imports	4.69	3.34	0.10	-0.50	-0.68	0
Volume of world trade	0.05			0.00		

The result is in accordance with the theory. Removing barriers of trade when building a free trade union increases trade between these regions through lower prices and increased demand. Unilateral raising of tariffs by EU in GSP case increases the price of African commodities in EU, decreases demand and results in lower exports and imports for African countries.

The results show also that even though tariffs were abolished only on imports from EU when establishing a FTA, exports from RSS and RSA also rise. Still exports increase less than imports. Removing the barriers from trade from EU imports to Africa, decreases the price and increases the imports. In the new market situation African producers have only an opportunity to export more which will lower the prices of exports relatively more than prices of imports have decreased. This happens especially in RSS.¹⁴ As a result the balance of trade deteriorates and the relative price between exportables and importables.

4.2 Macroeconomic results

The value of the applied general equilibrium analysis lies in pointing out winners and losers in any policy shock. This is why we also need to evaluate to aggregate level results to consider whether the policy is sensible to implement or not. The most common way of looking at the aggregate results is to divide the changes in gdp to its components in the expenditure side: consumption, investments, public expenditures, exports and imports. Weighted changes in these variables approximate the total change in gdp. Another important measure is the change in welfare. The standard way for calculating money-measure welfare change in GE-model is the equivalent variation (EV). In microeconomic international trade theory, the profitability of foreign trade is measured by the terms of trade, which describes the relative prices between exportables and importables. Improved terms of trade describe long-term price competitiveness.

Simulation results and their magnitude can be very sensitive to the parameters used. This is shown especially in the Armington elasticities used. These elasticities describe the response of foreign demand for changes in the prices of exported goods. If the elasticities are low, price reactions to changes in supply are large. If the elasticities are very high instead, prices remain fixed despite of the production changes. In our experiment, which uses the standard elasticities for GTAP model, elasticities are relatively low which describes the market power of African producers to African commodities.

Assuming differentiated products by countries is actually the most important explanator for the kind of results we derive. When firms in Africa meet a downward sloping demand curve they are not only price takers in the world market. In a world with perfectly competitive markets, removing barriers of trade would result in a positive outcome.

¹⁴ The percentage change in the value of exports and imports is the sum of percentage changes in volume and price indexes.

Table 8 below summarizes the macroresults for RSS and RSA.

Table 8: Macroresults

RSS	FTA	FTA-sr	GSP	GSP-sr
Nominal gdp	-1.64	-0.94	-0.33	-0.41
Real gdp	-0.04	0.49	-0.02	-0.11
Private consumption	-1.62	-0.84	-0.34	-0.43
Consumer price index	-1.37	-1.24	-0.28	-0.26
Private welfare	-0.25	0.41	-0.07	-0.17
Government utility	-0.45	0.20	-0.07	-0.18
Investments supply	2.21	4.81	-0.26	-0.45
Terms of trade	-0.90	-0.62	-0.21	-0.22
Changes in Mio USD (1995)				
Balance of trade	-635.86	-1278.03	56.43	98.93
Welfare measured in EV	-416.03	673.35	-112.00	-282.69
of which due to TOT	-381.84	-260.95	-86.48	-90.34
of which due to eff.	-69.14	98.68	-30.61	-53.70
of which due to inv.	35.20	28.23	5.08	4.85
of which due to labour supply		807.30		-143.49
World welfare	115.90	4305.75	5.42	122.73
RSA				
Nominal gdp	-0.76	0.23	-0.44	-0.53
Real gdp	0.00	1.32	-0.05	-0.23
Private consumption	-0.67	0.51	-0.47	-0.58
Consumer price index	-0.65	-0.82	-0.23	-0.17
Private welfare	-0.02	1.34	-0.25	-0.42
Government utility	-0.58	1.00	-0.19	-0.41
Investments supply	10.04	14.43	-1.25	-1.51
Terms of trade	-0.20	-0.30	-0.23	-0.20
Changes in Mio USD (1995)				
Balance of trade	-271.77	-381.20	31.81	38.22
Welfare measured in EV	-23.85	216.20	-38.92	-70.46
of which due to TOT	-26.51	-39.55	-29.69	-26.01
of which due to eff.	0.06	41.35	-9.90	-14.75
of which due to inv.	2.62	2.19	0.68	0.44
of which due to labour supply		212.25		-30.12

Abbreviations “sr” describes the alternative closure where we assumed that labour supply could adjust to changes in demand. Despite the assumption, in all the experiments the nominal gdp declines. Compared to the guess of the magnitude by the pure decrease in tariff revenues, the actual decline is almost twice as big for RSS and actually smaller than expected to RSA¹⁵. It is clear that changes in the international price levels have had an impact on the outcome.

¹⁵ Guesses were -0.78% for RSS and -1.38 for RSA

In the short run closure, the real gdp increases. By relaxing the assumption of fixed supply of factors of production we can show that the actual effects have an opposite effect both on gdp and welfare. If the domestic producers have an opportunity to demand more labour relatively cheap, they can compete with the cheaper European imports. The conclusion might be that in the case of building a free trade union with African countries it is necessary to provide the capacity building at the same time. This capacity building will response to the new demands of global markets.

Despite of the smaller magnitude of GSP experiment, its outcome seems actually worse when thinking of the future. In no case does it increase gdp or welfare. The only positive effect comes thorough improved balance of trade. In the short run case, the labour supply response makes the negative outcome even more negative. When we assume that the realwages do not adjust, the supply of labour is the factor that balances the commodity markets.

By decomposing the welfare results we can look at more closely, what is behind the results. Most of the effects come from negative terms of trade effects. Declining prices for export goods drives the outcome. Increase in investments can be seen as positive results, especially as our model does not take into account the effect that comes through capital accumulation in the future throught investments. Allocative efficiency measures the changes in the total amount of distortions, i.e. taxes. When the figure is negative, the distortions increase and vice versa.

In the global scale, both experiments increase the welfare by diminishing the distortions and moving production to a more efficient use. It is only that Africa is not the area to benefit of these policy changes.

Despite of the decline of GDP in FTA case, we can see that the private welfare does decrease less or even turns to be positive in the short run closure. The decline in the price level benefits consumers and decreases their consumption level only relatively little.

4.3 Supply and production responses

By looking at the industry results (Table 9) we can anticipate how the production structure will change due to the policies. This would in real world help in ancipating the demand for labor in different sectors. For simplicity and as a choice of strategy¹⁶, we look at the results only in the case of building the FTA for RSS and RSA in the short run closure. Besides the production we look at the effects on exports in industry level.

¹⁶ If any of the policies would have to be chosen, we would choose the one with most positive prospects.

Table 9: Industry Results

	EU		RSS		RSA		SAF
	Production	Exports	Production	Exports	Production	Exports	Production
Unskilled labor	0.07		0.86		2.60		-0.43
Skilled labor	0.08		1.54		4.24		-0.47
Vegetables	-0.02		0.28	3.92	0.62	1.31	0.02
Oil seeds	-0.08	-0.15	0.34	2.87	0.78	-1.74	0.10
Sugar	-0.03	-0.17	0.48	2.63	0.34	-0.37	0.07
Fibres	-0.08	-0.11	0.69	1.77	0.35	-0.14	0.03
Other crops	-0.06	0.03	0.77	2.08	0.42	0.46	-0.02
Other prim.prod.	-0.02	-0.13	0.45	2.29	0.74	-1.94	0.05
Oil	-0.01	-0.09	0.03	0.70	0.03	-0.40	0.07
Diamonds	-0.02	-0.04	0.29	0.42	0.39	-0.12	0.09
Food industry	-0.02	-0.13	1.00	3.43	1.10	1.02	-0.06
Bev. And Tobacco	0.09	0.25	-2.06	-16.33	1.38	3.31	-0.13
Textiles	0.24	0.56	-1.01	6.09	0.56	4.08	-0.18
Wearing apparel	-0.01	0.07	0.09	17.94	6.81	8.73	-0.19
Footwear	0.08	0.20	1.22	14.89	4.00	12.84	0.04
Metals	0.08	0.16	-2.03	10.98	1.12	2.49	0.12
Heavy industry	0.07	0.13	-1.32	8.88	0.07	5.72	-0.39
Services	0.05	-0.18	1.11	3.49	2.45	1.46	-0.31
Capital goods	0.08		4.81		14.43		-1.06

For RSS the production structure moves towards primary goods production and away from light and heavy manufacturing. Surprising are the results where the production hardly increases or even decreases and still there are large positive changes in the exports. Behind the results is the enormously increased exports of these commodities from Europe to Africa. It might even be claimed that abolishing the trade barriers of Africa, it would become a destination of those European commodities that cannot be sold out elsewhere. This would deteriorate the Africa's capacity to provide itself of the production of these commodities. Especially the food and beverages sector will suffer from the free trade area. Africa will specialize in agriculture.

5 TEXTILES AND CLOTHING IN TRADE POLICY AND IN MULTILATERAL CONNECTION MFA

In the simulation results shown in Table 9 (previous chapter), the results suggested that European Union would start exporting textiles to Africa if a free trade area between European Union and Rest of Sub-Saharan Africa. Textiles and clothing are indeed industries where long lasted battles of the production opportunities have been fought between developed and developing countries.

Until the end of the Uruguay Round the imports of textiles and clothing have been governed by the Multifibre Arrangement (MFA). This framework for established quotas limiting imports into countries whose domestic industries were facing serious damage from rapidly increasing imports. As a result of the Uruguay Round, the sector is to be fully integrated into normal GATT rules by 2005. In the period on 10-years, the quotas will come to an end, and importing countries will no longer be able to discriminate between exporters. Countries involved with the agreement were over 40 but in the last year of the arrangements the following countries were applying for quotas: Austria, Canada, EU, Finland, Norway and United States.

MFA was used almost exclusively to protect against imports from developing countries. The most important textile importers for EU are many Asian and Northern African countries like China, Turkey, Honkong, India, Tunisia, Poland and Morocco. ACP countries import less than 10 percent of EU's imported textiles. None of the African countries have significant sector in aggregated textiles sector.

Our primary source for implementing MFA with a GTAP model is documented by Yang, Martin and Yanagishima in Hertel (1997). Their study on evaluating the benefits of abolishing the MFA in the Uruguay Round package finds the welfare gains from MFA reform to be over one-third of the total gains from a complete Uruguay Round trade liberalization scenario. For Asian textile and clothing exporters the reform is of special importance but it is not harmful for Europe or United States either.

MFA quotas have been implemented into the GTAP database as export tax equivalents that are shocked to remove the taxes. In the Yang et al. study, the version 2 database of GTAP was used. It has a base year 1992, the time when the applied quotas were much higher than in 1995, in the current database. Other wise we have implemented the MFA phase-out in a similar manner. Yang and al. point out that in the UR package of MFA, the quotas were only one element apart from tariffs to textiles and clothing. When correcting the database, we applied the post-Uruguay Round

tariffs that should reflect the current situation. So the shocks implemented were much smaller than in the previous studies.

Table 10 below presents the results of the pure MFA. Partly due to our aggregation we cannot distinguish the interactions inside the Rest of the World ROW, the area where both the restrictors and restricted countries belong. Abolishing the export taxes in the exports of clothing and textile will result in increased trade and positive welfare gains for European Union and the Rest of the World. Losers are Northern Africa NAF and the Rest of the Middle East. Effects for Southern African regions are very marginal.

Table 10: Effects of phasing out MFA

	Welfare in (Mio USD)	Export volume change in %
European Union	1060.17	0.03
Northern Africa	-138.03	-0.05
Rest of SubSah Africa	-3.19	-0.01
Rest of South Africa	-20.61	-0.12
South Africa	-1.04	-0.02
Rest of the MiddleEast	-154.36	-0.02
Rest of the World	124.47	0.10
The volume of world trade		0.07
Global welfare in MioUSD	867.41	

Of the two external policies, which one is of more importance to African Regions RSS and RSA. According to our simulations the effect of FTA is clearly of more importance to RSS and RS. In the welfare calculations the effect of MFA compared to FTA is of meaning of one hundreth.

6 CONCLUSIONS

In this study we have limited the trade policy scenarios of the Cotonou Agreement, that is the new framework with relations between the EU and ACP countries, to two different alternatives. These alternatives for most African countries are a free trade area with the European Union and the GSP system. These two scenarios have been quantified and their effects analysed with a multiregion general equilibrium model GTAP.

The major contribution of the work has been in quantifying the GSP treatment of the EU in a way that is compatible with GTAP database (version 4). As a source data we have used the TRAINS database version 7.0 produced by UNCTAD. Calculating the tariffs needed to be done with the same aggregation level as the GTAP database where African regions are divided to two large areas, Rest of SubSaharan Africa (RSS) and Rest of Southern Africa (RSA). As far as we know, any other serious attempts in this field has not been done.

One direction to continue this work would be in evaluating the GSP treatment of the European countries to other developing countries in GTAP database as well. The same method could also be used to evaluating the GSP treatment of other developed countries. It is obvious that in the applied trade policy analysis as well as in the agenda of WTO, the trade relations between the developed and developing countries will play a dominant role. The need for coherent approach with GSP treatment with other approaches and databases should be obvious.

Our results of the negative effects in the aggregate level of both the free trade area and the GSP system are in conformity with other studies (McQueen 1999, Wolf 2000) and they enlighten the often negative attitude of ACP countries to the changes in the current system. The previous Lomé Convention has shown its positive effects of creating market access to the products from ACP countries even though it is often acclaimed that it has not created any permanent growth opportunities.

The positive effects of the free trade areas between the European Union and ACP countries definitely lie in dynamic effects and whether these agreements can create investment opportunities and possibilities for growth. The need for compensation for ACP countries when creating a free trade area has also come to focus. In our framework this would need extending the work to areas which would take the whole developing country policy of the EU into the general equilibrium analysis. The structural funds and the transfers should be applied to the framework. This kind of work would need a dynamic framework for the proper treatment of investments and their

contribution to growth. In the Eastern European Enlargement context this kind of work has been done by Vaittinen (2000).

Many factors in our study like commodities and their source countries as well as tariffs have been evaluated in a very aggregated level. The reason is not that there wouldn't be a more detailed information available but that working with a large database always needs compromises when going into details. In this direction there would be a great deal of work to do the tools and databases we have here. Also the institutions and political factors could be taken along to the discussion. The importance of revenues from customs duties is much more important to African countries than to the EU. The adoption of a more liberal trade policy is not straightforward. Cutting the tariffs would directly diminish the revenues of the government, for some countries they may cover some 60 % of the government's revenue.

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APPENDIX 1: GSP TARIFFS USED IN SIMULATIONS

A. European Union's GSP Scheme

GSP (Generalized System of Preferences) is a system used by many developed countries to help developing nations to improve their financial or economic condition through exports. It provides for importation with reduced tariffs or completely duty free access of a wide range of products that would be subject to higher customs duty if imported from non-GSP-status countries.

The GSP scheme of the European Union (EU) has broad country coverage including all the countries in the two African regions on the focus of this study. However, on the time being the scheme is not of practical interest for the concerned African countries as they benefit from more favorable preferences under the Lomé Convention in their trade with the EU.

The EC GSP scheme, since the revision in 1995 of its overall structure, revolves around three key features, namely, tariff modulation, country-sector graduation and special incentive arrangements. A great number of agricultural products falling within HS 1-25 are covered by the GSP. The scheme also covers almost all processed and semi-processed industrial products, as well as ferro-alloys, falling within HS chapters 25-97. However, many primary products (in HS chapters 25 – 52 and 72 – 81) are excluded from preferential treatment.

Instead of the quantitative limitation of GSP imports in the earlier schemes, reduced rates of duty classified according to four categories of *product sensitivity* are implied. For very import sensitive products in relation to the EC market, the GSP rate is 85 per cent of the MFN rate (15 % preferential margin). The GSP rate for sensitive products is 70 per cent of the MFN rate (30 % preferential margin) and for semi-sensitive products 35 per cent of the MFN rate (65 % preferential margin). For non-sensitive products, duty-free entry is granted (100 % preferential margin).

The criteria for *country-sector graduation* are based on an open policy of graduation. For products classified in certain HS chapters, grouped in 22 sectors in the case of industrial products and in 12 sectors for agricultural, certain countries are excluded from GSP treatment. Exclusion criteria are based simultaneously on country's export specialization and development level. The specialization is measured by an index based on the ratio, where beneficiary country's share of total European Community imports in a given sector is divided by the country's share of total European Community imports. Similarly, a development index of beneficiary countries is calculated on the basis of a country's per capita income and the level of its exports, as compared with those of the Community. There are also additional clauses for the graduation based on the importing country's

share of total GSP imports in a given sector, but none of the countries in the focus of our study is affected by these criteria.

The *special incentives* operate on the basis of an additional margin of preference granted to beneficiary countries that comply with certain requirements related to labor standards and environmental norms. The provisions for agricultural products are almost identical to those for industrial products.

The *least developed countries* (LDCs) are granted duty-free access on products covered by the EC industrial scheme. Preference-receiving LDCs are granted duty-free access on a substantial variety of agricultural products, too. Although, like with standard GSP preferences, the additional preferences are more relevant to LDCs that are not parties to the Lomé Convention, for some individual commodities the LDC preferential treatment is more favorable than ACP treatment. Countries eligible for EU's GSP preferences for LDCs are presented below in Table 11.

B. Approximating tariffs for HS6 commodities

We have calculated the tariffs for RSA and RSS imports to European Union under GSP treatment using the information on trade and customs duties extracted from the TRAINS database. The aggregation procedure is not straightforward because the data on trade and tariffs is not given at same level of detail.

The information on import and export flows between countries is on Harmonized System 6-digit level commodities (ca. 2 000) and shows present (year 1998) value and volume of trade as well as exporting countries' shares of each commodity's total imports to the importing country (in this study, European Union). On the other hand, the MFN, GSP and GSP for LDC preferential customs duties are presented separately for each national tariff line (ca. 16 000) which corresponds to HS 10 digit level commodities. Furthermore, not all the duties are directly ad valorem but some are imposed on quantity of the imported commodity. For some commodities, there are also non-tariff barriers, like import quotas.

In the first phase, we have simplified calculation by selecting 127 most important commodities (HS 6 level) out of the total 2000 in terms of their share of total imports from the focused regions to the EU. The number of tariff lines is reduced to 705 respectively. The selected products represent

about 94 % of the total imports from the regions to the EU. Considering the level of aggregation of our model, this simplification should not have any effect on the results.

Secondly, an approximate tariff for each HS 6 commodity has been calculated. For the commodities including only tariff lines with a raw ad valorem tariff, we compute the tariff approximate as plain arithmetic average of the presented ad valorem tariffs. We compute the tariffs separately for ordinary GSP scheme and for "Super GSP" available for the least developed countries (LDC).

If, for a particular HS6 commodity, there is one or more national tariff lines presenting the duty on volume (per kilograms, litres, tons etc.), an ad valorem equivalent is achieved as follows: The average import price per unit commodity is first calculated by dividing the total value of imported commodity by the total import volume of the same commodity. This unit price is then used to compute the ad valorem equivalent tariff by dividing the tariff on volume unit by unit price. Finally, the tariff approximate for the HS6 commodity is calculated as above.

The third step in the procedure is achieving HS6 commodity tariffs specific for each country group (RSA and RSS). This has been calculated as average of LDC and non-LDC tariffs weighted by present value of commodity's imports originating from group's LDC and non-LDC countries respectively.

It should be noted that for some commodities, namely the agricultural products regulated through protocols, there are also quantitative trade barriers affecting the effective ad valorem equivalent tariff rate. However, in this exercise, the effect of import quotas and other such quantitative trade control mechanisms has been ignored.

Finally, with the obtained approximate tariffs for each HS6 commodity, we calculate the GSP tariff for each GTAP3 commodity group. We compute these tariffs as averages of said HS6 tariffs weighted by the present values of corresponding commodities' imports from each region.

Approximate average tariff $\hat{t}_{c,r}$ for GTAP commodity group c for imports from GTAP region r to the EU can be presented with formula

$$\hat{t}_{c,r} = \sum_i M_i [\lambda_i \theta_i + (1 - \lambda_i) \tau_i] / \sum_i M_i$$

where:

M_i is the total value of imports of HS 6 level commodity i , falling to GTAP commodity group c , from region r to EU,

λ_i is the LDCs' share of total imports of commodity i from region r to EU,

τ_i is the average ad valorem tariff for imports of commodity i from countries entitled to GSP treatment to EU, and

θ_i is the average ad valorem tariff for imports of commodity i from LDC countries to EU.

Table 11: Least-developed countries: duty-free entry

Rest of Sub-Saharan Africa	Rest of Southern Africa
Benin	Angola
Botswana	Malawi
Burkina Faso	Mozambique
Burundi	Tanzania
Cape Verde	Zambia
Central African Republic	
Chad	South African Customs Union
Comoros	Lesotho
Congo (Kinshasa)	
Djibouti	Rest of Middle East
Equatorial Guinea	Yemen*
Eritrea	
Ethiopia	Rest of South Asia
Gambia	Bangladesh*
Guinea	Bhutan*
Guinea Bissau	Maldives*
Liberia	Nepal*
Madagascar	
Mali	Central America and the Caribbean
Mauritania	Haiti
Niger	
Rwanda	Rest of the World
São Tome and Principe	Afghanistan*
Sierra Leone	Kampuchea*
Somalia	Kiribati
Sudan	Laos*
Togo	Myanmar*
Uganda	Samoa
	Solomon Islands
	Tonga
	Tuvalu
	Vanuatu

*Note: The majority of the least developed countries are beneficiaries of the Lomé Convention, but there remain several countries who benefit from the special GSP provisions for least developed countries (marked with asterisk).

APPENDIX 2: HARMONIZED SYSTEM CODE LISTING (2-DIGIT LEVEL)

Animals & Animal Products

- 01 - Live animals
- 02 - Meat & edible meat offal
- 03 - Fish, crustaceans & aquatic invertebrates
- 04 - Dairy produce, bird eggs, honey & other edible animal products
- 05 - Other products of animal origin, NESOI

Vegetable Products

- 06 - Live trees, plants; bulbs, roots; cut flowers & ornamental foliage chicory
- 07 - Edible vegetables & certain roots & tubers
- 08 - Edible fruits & nuts; citrus fruit or melon peel
- 09 - Coffee, tea, mate & spices
- 10 - Cereals
- 11 - Milling products; malt; starch; inulin; wheat gluten
- 12 - Oil seeds, etc; misc grain, seed, fruit, plant, etc
- 13 - Lac; gums, resins & other vegetable sap & extracts
- 14 - Vegetable plaiting materials & other vegetable products

Animal or Vegetable Fats

- 15 - Animal or vegetable fats/oils/waxes/etc

Prepared Foodstuffs

- 16 - Edible preparations of meat, fish, crustaceans, mollusks or other aquatic invertebrates
- 17 - Sugars & sugar confectionery
- 18 - Cocoa & cocoa preparations
- 19 - Preparations of cereals, flour, starch or milk; bakers wares
- 20 - Preparations of vegetables, fruit, nuts or other plant parts
- 21 - Miscellaneous edible preparations
- 22 - Beverages, spirits & vinegar
- 23 - Food industry residues & waste; prepared animal feed
- 24 - Tobacco & manufactured tobacco substitutes

Mineral Products

- 25 - Salt; sulfur; earth & stone; lime & cement plaster
- 26 - Ores, slag & ash
- 27 - Mineral fuels/oils/products of their distillation; bitumen substances; mineral wax

Chemical Products

- 28 - Inorganic chemicals; compounds of precious/rare-earth metals, radioactive elements/isotopes
- 29 - Organic chemicals
- 30 - Pharmaceutical products
- 31 - Fertilizers
- 32 - Tanning/dyeing extracts; tannins/derivatives/dyes/etc; paint/varnish; putty/other mastics; inks
- 33 - Essential oils/resinoids; perfumery/cosmetic/toilet preparations
- 34 - Soaps/waxes/polishes/candles/modeling pastes/dental preparations with plaster base
- 35 - Albuminoidal substances/modified starches/glues/enzymes
- 36 - Explosives/pyrotechnic products/matches/pyrophoric alloys/certain combustible preparations
- 37 - Photographic/cinematographic goods
- 38 - Miscellaneous chemical products

Plastics & Rubbers

- 39 - Plastics & articles thereof
- 40 - Rubber & articles thereof

Hides & Skins

- 41 - Raw hides, skins (exc furskins), leather
- 42 - Leather articles; saddlery/harness; travel goods/etc; articles of animal gut (exc silkworm gut)
- 43 - Furskins & artificial fur; products thereof

Wood & Wood Products

- 44 - Wood & articles of wood; wood charcoal
- 45 - Cork & articles of cork
- 46 - Products of straw/esparto/other plaiting materials; basketware & wickerwork

Wood Pulp Products

- 47 - Pulp of wood or of other fibrous cellulosic material; waste & scrap of paper & paperboard
- 48 - Paper/paperboard/articles thereof; paper pulp articles
- 49 - Printed books, newspapers, pictures/other printing; manuscripts, typescript parts/plans

Textiles/Textile Articles

- 50 - Silk, incl yarn/woven fabric thereof
- 51 - Wool/animal hair, incl yarn/woven fabric thereof
- 52 - Cotton, incl yarn/woven fabric thereof
- 53 - Other vegetable/paper fibers, incl yarn/woven fabric thereof, NESOI
- 54 - Manmade filaments, incl yarns/woven fabric thereof
- 55 - Manmade staple fibers, incl yarns/woven fabrics thereof
- 56 - Wadding, felt/nonwovens; special yarns; twine, cordage, ropes/cables/articles thereof
- 57 - Carpets/other textile floor coverings
- 58 - Special woven fabrics; tufted textile fabrics; lace; tapestries; trimmings; embroidery
- 59 - Impregnated/coated/covered/laminated textile fabrics; textile articles for industrial use
- 60 - Knitted/crocheted fabrics
- 61 - Apparel articles/clothing accessories, knitted/crocheted
- 62 - Apparel articles/clothing accessories, not knitted/crocheted
- 63 - Other textile articles, NESOI; needlecraft sets; worn clothing/textile articles; rags

Footwear, Headgear

- 64 - Footwear/gaiters/etc, parts thereof
- 65 - Headgear, parts thereof
- 66 - Umbrellas/walking-sticks/seat-sticks/riding-crops/whips, parts thereof
- 67 - Prepared feathers/down/articles thereof; artificial flowers; articles of human hair

Articles of Stone, Plaster, Cement, Asbestos

- 68 - Articles of stone/plaster/cement/asbestos/mica/similar materials
- 69 - Ceramic products
- 70 - Glass/glassware

Pearls, Precious/Semi-Precious Stones, Metals

- 71 - Natural/cultured pearls, precious/semi precious stones, precious metals/imitation jewelry/coin

Base Metals/Articles Thereof

- 72 - Iron/steel
- 73 - Articles of iron/steel
- 75 - Nickel, articles thereof
- 76 - Aluminum, articles thereof
- 78 - Lead/articles of
- 79 - Zinc/articles of
- 80 - Tin/articles of
- 81 - Other base metals; cermets; articles of
- 82 - Tools, implements, cutlery, spoons/forks of base metal & parts
- 83 - Miscellaneous articles of base metal

Machines/mechanical appliances

- 84 - Nuclear reactors, boilers, machinery/mechanical appliances; parts
- 85 - Electric machinery, equipment & parts; sound equipment; television equipment

Transportation Equipment structures

- 86 - Railway/tramway: locomotives/rolling stock/track fixtures & parts; traffic signal equipment
- 87 - Vehicles, (exc railway, tramway, rolling stock); parts/accessories
- 88 - Aircraft, spacecraft & parts
- 89 - Ships, boats/floating structures

Instruments - Measuring/Musical

- 90 - Optical/photographic/cinematographic/measuring/checking/medical/surgical instruments
- 91 - Clocks/watches & parts
- 92 - Musical instruments; parts/accessories thereof

Arms/Ammunition

- 93 - Arms/ammunition; parts/accessories thereof

Miscellaneous

- 94 - Furnishings: domestic, medical, office, lighting, holiday; prefabricated buildings
- 95 - Toys, games/sports equipment; parts/accessories
- 96 - Miscellaneous manufactured articles

Works of Art

- 97 - Works of art, collectors' pieces/antiques
-

Source: TradeNet's Export Advisor, <http://export.2rad.net/Company/Harmoniz.htm>

APPENDIX 3: THE MOST IMPORTANT COMMODITIES IMPORTED TO EU FOR RSA OR RSS REGIONS OR INDIVIDUAL COUNTRIES

Fish and Crustaceans

0302 - Fish, fresh/chilled (exc 0304)

Imports from RSS: USD 73 Mio (0.5 %)

Senegal (12.1 %)

0303 - Fish, frozen (exc 0304)

Imports from RSS: USD 37 Mio (0.2 %)

Guinea Bissau (42.7 %), Somalia (18.2 %),
São Tome and Principe (17.0 %)

0304 - Fish fillets & other fish meat (exc steaks), fresh/chilled/frozen

Imports from RSA: USD 32 Mio (0.9 %)

Imports from RSS: USD 57 Mio (0.4 %)

Tanzania (12.0 %)

0306 - Crustaceans, for human consumption

Imports from RSA: USD 86 Mio (2.5 %)

Imports from RSS: USD 225 Mio (1.4 %)

Mozambique (46.5 %), Somalia (19.2 %), Madagascar (14.4 %),
Senegal (11.9 %)

0307 - Mollusks & other aquatic invertebrates, for human consumption

Imports from RSS: USD 52 Mio (0.3 %)

Guinea Bissau (20.6 %)

Flowers

0603 - Prepared cut flowers/buds for bouquets/ornaments

Imports from RSA: USD 81 Mio (2.3 %)

Imports from RSS: USD 130 Mio (0.8 %)

Fruits

0803 - Bananas & plantains, fresh/dried

Imports from RSS: USD 234 Mio (1.5 %)

Somalia (33.4 %)

Coffee, tea and spices

0901 - Coffee; coffee husks & skins; substitutes containing coffee

Imports from RSA: USD 115 Mio (3.3 %)

Imports from RSS: USD 1 206 Mio (7.7 %)

Burundi (96.8 %), Ethiopia (75.3 %), Uganda (72.9 %), Rwanda (49.9 %),
Togo (29.9 %), Tanzania (23.9 %)

0902 - Tea

Imports from RSA: USD 29 Mio (0.8 %)

Imports from RSS: USD 197 Mio (1.3 %)

Malawi (9.6 %)

0905 - Vanilla beans

Imports from RSS: USD 17 Mio (0.1 %)

Comoros (41.0 %)

Oil seeds

1207 - Other oil seeds & oleaginous fruits

Imports from RSS: USD 28 Mio (0.2 %)

Benin (34.6 %)

Lac, gums and resins

1301 - Lac; natural gums, resins, gum-resins & oleoresins (balsams)

Imports from RSS: USD 32 Mio (0.2 %)

Sudan (11.4 %)

cont.

Vegetable oils

1508 - *Peanut (ground-nut) oils/fractions, not chemically modified*

Imports from RSS: USD 102 Mio (0.6 %)

Sudan (24.5 %), Senegal (12.1 %)

Edible preparations of fish

1604 - *Prepared or preserved fish; caviar & other fish eggs*

Imports from RSA: USD 41 Mio (1.2 %)

Imports from RSS: USD 493 Mio (3.1 %)

Seychelles (83.6 %), Senegal (14.6 %), Somalia (9.8 %)

1701 - *Cane/beet sugar/chemically pure sucrose, in solid form*

Imports from RSA: USD 450 Mio (13.1 %)

Mauritius (29.7 %)

Cocoa

1801 - *Cocoa beans, whole/broken, raw/roasted*

Imports from RSS: USD 1 813 Mio (11.5 %)

São Tome and Principe (68.2 %), Côte d'Ivoire (40.0 %),
Ghana (29.4 %), Togo (11.0 %), Cameroon (10.1 %)

Tobacco

2401 - *Unmanufactured tobacco/tobacco refuse*

Imports from RSA: USD 345 Mio (10.0 %)

Malawi (61.6 %), Zimbabwe (26.2 %), Tanzania (11.4 %)

Ores, slag and ash

2601 - *Iron ores/concentrates (incl roasted iron pyrites)*

Imports from RSS: USD 251 Mio (1.6 %)

Mauritania (72.2 %)

2602 - *Manganese ores/concentrates*

Imports from RSS: USD 95 Mio (0.6 %)

Gabon (16.2 %)

2606 - *Aluminum ores/concentrates*

Imports from RSS: USD 264 Mio (1.7 %)

Guinea (54.6 %)

Mineral fuels and oils

2701 - *Coal; briquettes/ovoids/similar solid fuels manufactured from coal*

Imports from RSS: USD 1 Mio (0.0 %)

Djibouti (18.9 %)

2709 - *Crude oils from petroleum/bituminous minerals*

Imports from RSA: USD 236 Mio (6.9 %)

Imports from RSS: USD 3 641 Mio (23.1 %)

Equatorial Guinea (83.4 %), Congo (Brazzaville) (40.2 %),
Angola (36.7 %), Gabon (34.2 %), Cameroon (30.5 %)

Radioactive elements

2844 - *Radioactive chemical elements/isotopes/compounds*

Imports from RSS: USD 174 Mio (1.1 %)

Niger (96.9 %)

cont.

Essential oils and resinoids

3301 - *Essential oils/concentrates/distillates/solutions*

Imports from RSS: USD 9 Mio (0.1 %)

Comoros (45.1 %)

Wood and articles of wood; wood charcoal

4403 - *Wood in the rough, incl stripped of bark/sapwood, or roughly squared*

Imports from RSS: USD 570 Mio (3.6 %)

Gabon (30.0 %), Cameroon (15.7 %), Congo (Brazzaville) (15.4 %)

4407 - *Wood sawn/chipped/sliced/peeled*

Imports from RSS: USD 491 Mio (3.1 %)

Cotton

5201 - *Cotton, not carded/combed :*

Imports from RSA: USD 77 Mio (2.3 %)

Imports from RSS: USD 378 Mio (2.4 %)

Chad (92.4 %), Mali (84.8 %), Burkina Faso (59.5 %), Benin (34.9 %),
Mozambique (15.7 %), Sudan (13.3 %)

Clothing and textile articles

6109 - *Knitted/crocheted t-shirts/singlets/tank tops/etc*

Imports from RSA: USD 174 Mio (5.0 %)

Mauritius (13.4 %)

6205 - *Men's/boys' shirts, exc knitted/crocheted*

Imports from RSS: USD 6 Mio (0.0 %)

Cape Verde (12.2 %)

Footwear

6406 - *Parts of footwear; removable insoles/heel cushions/etc;
gaiters/leggings/etc, parts thereof*

Imports from RSS: USD 6 Mio (0.0 %)

Cape Verde (32.0 %)

Precious stones and metals

7102 - *Diamonds, not mounted/set*

Imports from RSA: USD 354 Mio (10.3 %)

Imports from RSS: USD 1 348 Mio (8.6 %)

Gambia (82.3 %), Central African Republic (79.6 %),
Sierra Leone (70.1 %), Congo (Kinshasa) (64.0 %), Liberia (58.3 %),
Angola (54.5 %), Guinea (23.9 %)

7108 - *Gold, unwrought/in semimanufactured/powder form*

Imports from RSS: USD 70 Mio (0.4 %)

Rwanda (45.0 %), Burkina Faso (12.2 %)