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Trade policies and agricultural exports of Sub-Saharan African countries: Some stylized facts and perspectives

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Trade policies and agricultural exports of Sub-Saharan African countries: Some stylized facts and perspectives

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Abstract

It has long been consensual that limited market demand within poor African countries have hampered economic development of Sub-Saharan Africa and that countries therefore needed to rely on exports markets to spur economic growth. But despite benefiting from preferential agreements, Sub-Saharan African countries have been marginalized from global trade. Indicators of the exports of Sub-Saharan African countries are constructed to reflect their characteristics. Existing trade negotiating options are examined in the current context of agricultural markets. It appears that prospects at the regional level arise as well as at the global level, especially when looking at the opportunities from a policy coherence for development perspective. Regional prospects are even more acute in light of the global economic crisis affecting traditional trade partners.

JEL codes: O55, F13, and Q17.

Keywords: Africa, Trade policy, Agriculture

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1. Introduction

In spite of being among the most protected markets, Sub-Saharan African countries benefit from privileged market access to the rest of the world. Nevertheless, their participation in global trade has decreased in the last 50 years, even though they have stayed among the most trade dependent economies in the world.

A large strand of the international trade literature has focused on the prospects from further global trade liberalization and the potential positive or detrimental outcomes on Sub-Saharan African countries of the Doha Development Agenda (DDA) currently negotiated at the World Trade Organization (WTO). Recently, a Duty-Free Quota-Free (DFQF) market access towards LDCs was included in the Doha Round negotiations and is now used as a definitive argument that a successful conclusion of a Doha Round is bound to be highly beneficial for African countries (Lamy 2011).

But, Sub-Saharan African countries also have other trade negotiations on their agenda. For instance, there are involved in the Economic Partnership Agreements (EPA) with the European Union (EU), and some Sub-Saharan African countries that have refused to sign interim agreements which should have been concluded before 2007, have begun to experience an increase in the tariffs they face for their exports to the EU. The renewed political will to integrate at the continental level has led to efforts to rationalize the membership of African countries belonging to several regional economic communities, for instance, successfully leading to the creation of a common market from the previous custom union with a common external tariff (CET) for the EAC in 2010 and to the implementation of the Southern African Development Community (SADC) Free Trade Agreement (FTA) in 2008 (UNECA 2010).

What do the “stylized facts” about Sub-Saharan African agriculture and trade (i.e. simplified presentation of empirical trends) imply in terms of the current trade agenda outlined above? Why have Sub-Saharan African countries lost their share in global markets despite the many non reciprocal preferential schemes already granted? What could be the benefit from additional market access? What is the renewed attention at the regional level worth? What does the stagnation of the EPA negotiations mean?

Diverging “views” or normative interpretation of the stylized facts lead to distinct policy recommendations, many of them revolving about whether global or own trade reform are priorities for SSA. Some of the diverging predictions are also related to the fact that, for

the sake of simplicity or because of lack of data, it is often referred at “Sub-Saharan Africa” as if it was a homogenous group, when the region is composed of many different countries of various economic development stage and with potential diverse interest in agricultural trade.

Understanding the main stylized facts on Sub-Saharan African agricultural trade and the debate that sometimes surround them can contribute to explain the different policy prescriptions emerging from their interpretation and hopefully to highlight the key policy implications for Sub-Saharan African countries in their diversity.

The rest of this paper is organized as follow: Section 2 will sketch the main stylized fact of the participation of Sub-Saharan African countries in international trade with a specific focus on agricultural trade and try to underline the main explanations and debates surrounding them. Section 3 will turn to the regional and preferential trade agreements the region is involved in, once again outlining the main academic debates there are subject to. Section 4 will provide some key statistics and indicators regarding the extent of tariff barriers imposed by Sub-Saharan countries and faced by their exports and will highlight the debates surrounding the impacts of non tariff barriers and trade costs, especially on value-added exports. Eventually, section 5 presents the perspectives in terms of trade agreements negotiated, evolution of global markets and existing ex ante evaluation on the prospects of Sub-Saharan African countries on those issues, and section 6 concludes.

2. Sub-Saharan Africa in international trade

Sub-Saharan African countries face three challenges in their integration in international markets: their dependence to trade, their marginalization in international trade and the concentration of their exports.

2.1. The challenge of dependence

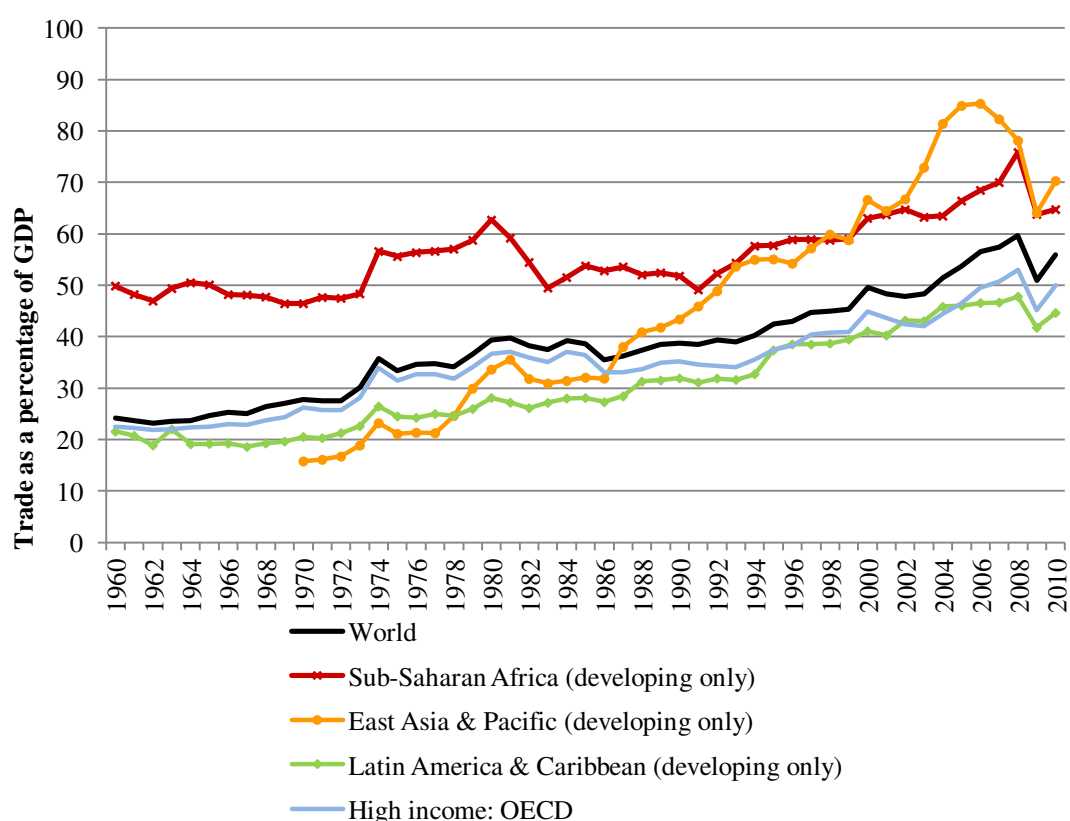
Sub-Saharan African countries are among the most trade dependent economies in the world, in terms of trade as a share of their GDP, of dependence of their government revenue on tax on international trade, but also of dependence upon primary exports.

2.1.1. *Is Sub-Saharan Africa “open” ?*

An indicator often reported in trade statistics is the Trade-to-GDP ratio, or “trade dependence”. For a single country, it represents the combined weight of exports and imports as share of the GDP.

This ratio is often called the “trade openness ratio” which may be somewhat misleading. Indeed the value is sometimes used to argue that Sub-Saharan African countries are “open” countries compared to global standard and interpreted as meaning that there is little more they can expect from further integration in world markets, as is argued for instance by Beavogui (2005). However, it is not because this ratio is high for a given country that this country can be considered “open” in the sense the trade barriers it imposes on its imports or the one its exports are facing are low. It is thus not possible to evaluate trade regimes as “open” or “closed” on the basis of this indicator alone. It is rather an index of dependence to trade and sensitivity to trade shocks.

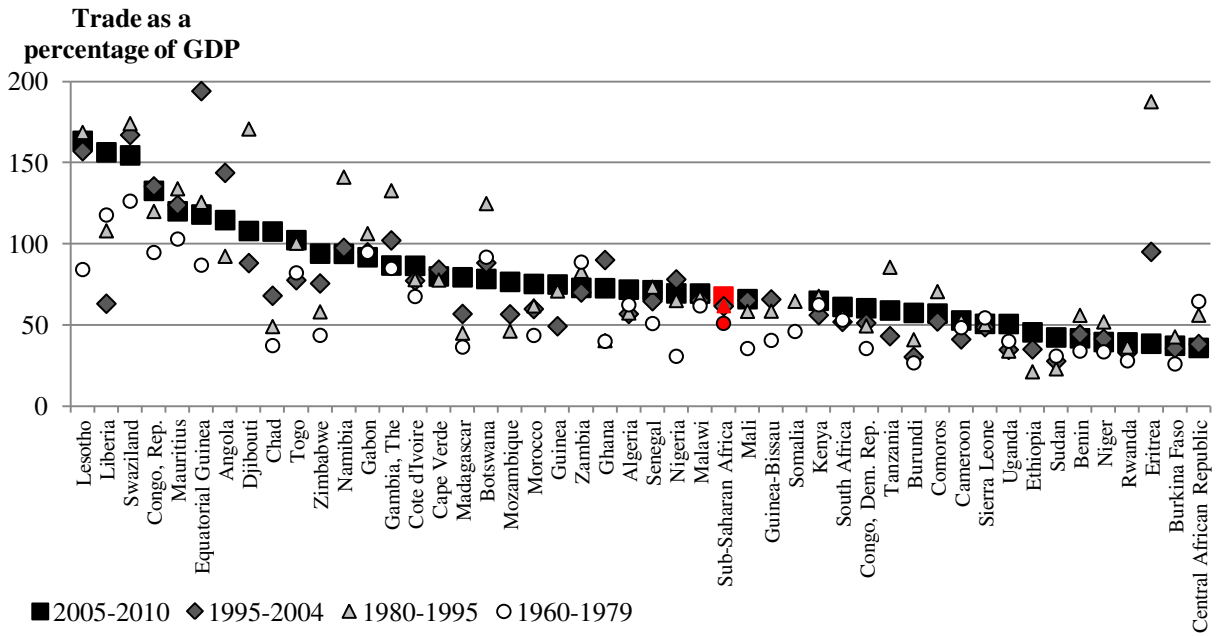
FIGURE I.1 — EVOLUTION TRADE-TO-GDP RATIO, 1960S-2010



Source: Author's calculation from the World development indicator database

Figure I.1 enables comparing the trend of the ratio of total merchandise trade on GDP of Sub-Saharan Africa to other regions of the world since the 1960s. It appears that the region has always had on average a higher dependence to trade than other regions of the world, including other developing regions. This is linked to the historical pattern of export oriented colonial economies that the Sub-Saharan African countries were left with at their independences in the 1960s. The global trend has been a steady growth of the trade to GDP ratio from 22 percent in 1960 to 55 percent in 2010, very similar to the trend of high income countries of the Organization for Economic Cooperation and Development. Comparatively the trade to GDP ratio of Sub-Saharan Africa fluctuated around fifty percent until the late 1980s with a temporary rise between the two oil shocks in the 1970s, until. Since the 1990s with the structural adjustment policies favored liberalization and integration to world trade the ratio for SSA started following world trend. Since the 1990s, the trade to GDP ratio of developing countries from East Asia and the Pacific has reached that of Sub-Saharan African countries and is now higher at around 70 percent.

FIGURE I.2 — TRADE TO GDP RATIO OF SUB-SAHARAN AFRICAN COUNTRIES 1960 TO 2010



Source: Author’s calculation from the African development indicator database

As apparent in Figure I.2, countries in SSA are heterogenous and this index ranges between 30 (Central African Republic) and 160 percent (Lesotho). Historical evolution at the country level has been much wider than reflected by the regional average.

The fact that most countries in SSA tend to have a high trade to GDP ratio means that they are relatively more sensitive to changes in the global trade context than the rest of the world. Additionally considering that Sub-Saharan African countries are among the poorest countries of the world, their higher trade to GDP ratio means that they are very dependent on imports for their consumption, and exports as a source of foreign exchange earnings and revenue at the national level, so they are likely to be not only sensitive but also much more vulnerable to trade shocks than other countries in the world.

2.1.2. *Dependence on revenue from tax on international trade*

Additionally, the share of tax on international trade as a share of revenue is particularly high for most Sub-Saharan African countries as compared to the rest of the world, even in other developing countries that have similar trade to GDP ratio such as East Asian developing countries, as apparent in Table I.1.

TABLE I.1 — TAX ON INTERNATIONAL TRADE AS A SHARE OF REVENUE

Country	Taxes on international trade (% of revenue) average 2006-2010
Lesotho	58
Swaziland *	48
Liberia	42
Namibia	41
Cote d'Ivoire	38
Madagascar	30
Cameroon*	29
Ethiopia*	29
Sierra Leone	26
Benin	21
Togo	19
Zimbabwe*	19
Burundi*	18
Ghana	18
Niger	17
Congo, Dem. Rep.	15
Cape Verde	13
Burkina Faso	12
Kenya	10
Uganda	9
Zambia	9
Congo, Rep.*	8
Mali	8
South Africa	4
East Asia & Pacific (developing only)	6
World	5
Latin America & Caribbean (developing only)	5
OECD members	0.3

Source: Author's calculation from World Development Indicator

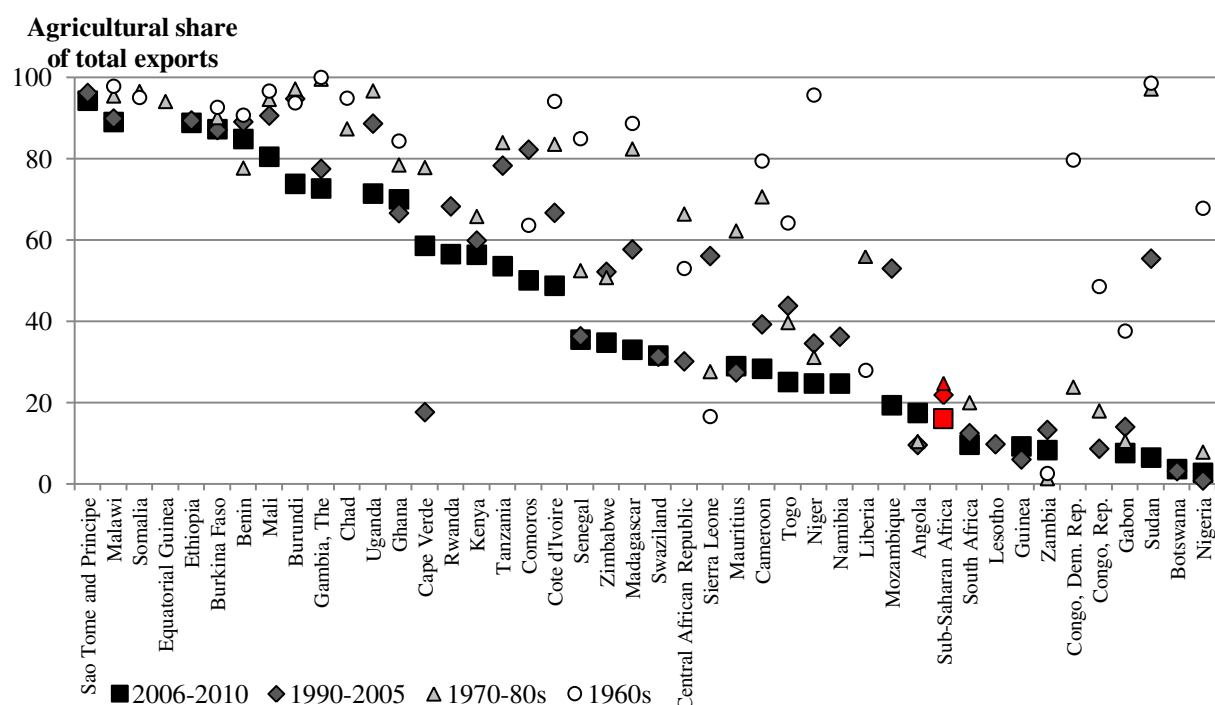
Note: * average value for 1995-2005.

As in most poor countries, governments have difficulties raising taxes, because of administrative constraints and a high level of informal economy, it is difficult for them to replace tariff revenue loss with other taxes (IFC 2009). This can explain that those countries can be reluctant to reduce their import tariffs.

2.1.3. *Dependence on agricultural trade*

As shown in Figure I.3, most countries in Sub-Saharan Africa export a large share of agricultural goods.

FIGURE I.3 — AGRICULTURAL SHARE OF SUB-SAHARAN AFRICAN COUNTRIES TOTAL EXPORTS, 1960S-2010



Source author's calculations from the African development indicator database

Although the regional average is not available for the 1960s, it is apparent that most countries were dependent on agriculture for more than 60 percent of their exports. But this share has tended to decrease with time since the 1960s, as agriculture decreased in the GDP of many countries but also as many of them exploited their natural resources. For instance, in the 1960s 68 percent of Nigeria's exports were agricultural products. But in the 1970s this share dropped to 1 as the country started exporting fuel which now composes 94 percent of its exports. Today most countries, still rely on agriculture for more than 20 percent of their exports and among them many such as Benin, Burkina Faso, Burundi, Ethiopia, Gambia,

Ghana, Kenya, Malawi, Mali, Rwanda, Somalia or Uganda still rely on agriculture for more than 50 percent of their exports. Most of them do not have access to large reserve of natural resources.

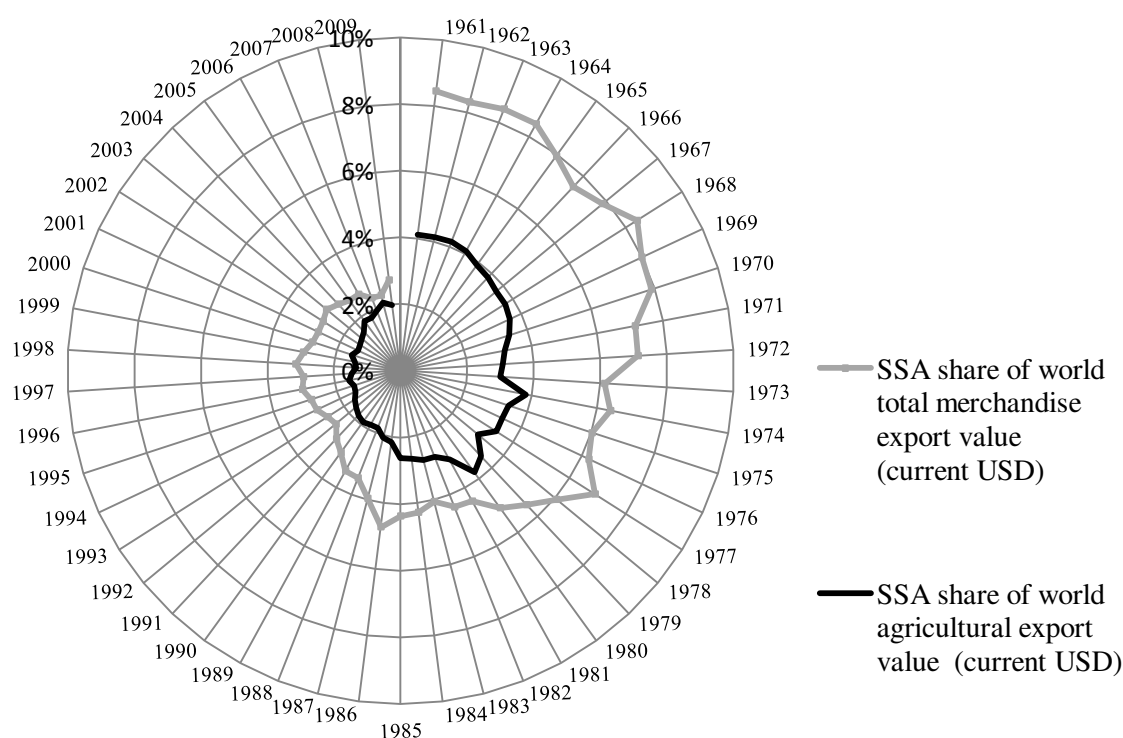
Sub-Saharan African countries tend to be more dependent on agricultural exports than the rest of the world, for which agricultural share of total trade has decreased from 30 percent in 1960s to 10 percent in 2010 according to the World Development Indicator database.

2.2. The challenge of marginalization

African agricultural exports represent less than 3 percent in total merchandise trade in 2009, with this share slowly increasing since 2008, and less than 2 percent share in agricultural trade with a decreasing trend since 2008. Considering the importance in the economies of Sub-Saharan African countries as shown above compared to this small participation in global markets, as Morrissey (2005) puts it “*exports are very important to African countries even if African exports are not very important in the world market*”.

Moreover, Sub-Saharan African countries participation in global merchandise and agricultural trade has decreased since 1960s, as shown in Figure I.4.

FIGURE I.4 — SHARE OF SUB-SAHARAN AFRICA IN TOTAL MERCHANDIZE AND AGRICULTURAL TRADE



Source: Author’s calculation from FAOstat

A large strand of the literature in international economics has analyzed that trend, and tried to explain it. Several key findings appear from the literature survey:

First, a large strand of the literature associates the poor participation in global trade to the region's poor economic performance and lagging development. Rodrik (1998), through a cross country econometric regression, and Foroutan and Pritchett (1993) through a gravity equation¹ find that the poor economic growth of SSA explains its poor export performance. Tentative normative interpretation of the stylized fact of low and decreasing participation of SSA in global trade from this strand of the literature is persistent. Subramanian and Tamirisa (2001) expose the terms of the debate. According to them, it is important to know whether SSA is "over" or "under" trading because diverging answers to the question will lead to distinct policy recommendations. For instance Sachs and Warner (1997) by looking at the determinants of the small economic growth of countries in SSA through a cross-country regression conclude that those countries "missed" their globalization because their policies were not open enough. According to the authors, the restrictions have cost Africa about 1.2 percent of growth per year on average. Subramanian and Tamirisa (2001) find that SSA is undertrading and thus particular emphasis should be put on "policy intervention to assist Africa better exploit its trade opportunities". While recognizing that views differ on the nature of such action, the authors recommend unilateral liberalization by countries in SSA. On the contrary, the proponents of the "view" that SSA has traded "normally" such as Rodrik (1998) put emphasis on improving the other drivers of economic growth than trade first, in his case mainly institutions. But pushing this debate further, Bouët, Mishra and Roy (2008) show that accounting for transport and communication infrastructure reduce the "undertrading" tendency of Africa in the gravity model framework. In some specifications, they find that the "under-trading" effect vanished altogether suggesting that considering the weak trade infrastructures in Africa, its low participation in global trade is "normal".

Second, another strand of the literature compare the evolution of Sub-Saharan Africa with that of competitors. Initial shares of Sub-Saharan African countries in global trade were displaced by Latin American and Asian countries because African exporters did not remain competitive even for their traditional exports, for which they used to be dominant providers on the global markets in the 1960 years (Ng and Yeats 2002, World Bank 2000). Anti-

¹ which explain the level of trade between two countries based on their respective GDP, their "distance" and a range of other variables.

agricultural and antitrade biases of past global and domestic policies in Africa (Anderson and Masters 2009) have been documented to have had a negative impact on the development of competitive export sectors in SSA but also on agricultural productivity growth. According to the distortion database of the World Bank, even if those distortions were reduced during the Structural Adjustment period, some still remain in many countries of SSA. Many studies assess that productivity growth has not resumed in Africa as much as in the rest of the world (Haggblade and Gabre-Madhin 2010, Haggblade and Hazell, Nogue and Staatz 2003, Block 2010). A large literature in microeconomics focuses on the supply-side constraints which prevent many farmers, especially the poor ones, from taking advantage of market opportunities that arise (see for instance de Janvry, Fafchamps and Sadoulet 1991). These constraints due to low levels of productivities of the farmers and their little technical or financial capacity to raise it on their own, but also to the inadequate transportation, storage and communication infrastructures in the countries. Additionally, compared to similar regions in Brazil and Thailand, it seems that the few agricultural export products for which African countries are competitive are unsustainably exploiting favorable agro-ecological features and cheap labour (Poulton *et al.* 2009).

Third, another strand of the literature focuses on the composition of the exports and the conditions of the global markets. Historical determinants explain the initial structure of external trade of African countries in the 60s which had been mainly determined by the colonial power who needed natural resources such as timber and minerals, and tropical agricultural crops (coffee, cocoa, cotton, etc...; Devèze 2008). It appears that the composition of the exports have not changed drastically since then. Morrissey and Mold (2006) look at the volume of exports, considering that previous studies have fixed too much attention to the value of African exports, something which, as primary commodity exporters, is largely beyond their control. Looking at UNCTAD data from 1980-2002, they find that despite a fall in export volumes during the crisis period in the 1980s, the volume of exports have subsequently expanded quite impressively, by around 80% over the period since 1990. But these gains have been largely offset by a significant decline in the terms of trade over around 20 percent over the whole period, leaving the value index of exports only 20% higher, which is significantly less than the expansion in exports value from other parts of the world. These figures hint at the extent to which gains from a supply-side response have been hidden by falling commodity prices and increased size of the global market.

Beyond competitiveness and economic growth it is interesting to look at characteristics of merchandize and agricultural trade of SSA in more details to try to determine what is exactly at stake.

2.3. The challenge of concentration

A stylized fact often heard is that countries in Sub-Saharan Africa are specific at the world level because they present a much higher concentration of their exports (e.g. in the case of LDCs Bouët and Laborde 2011).

Thanks to the trade data of the MAcMap database, an index of product diversification for 2004 is constructed based on Herfindhal equivalent number, which represents the number of markets of identical size that would lead the degree of export concentration exactly equal to the level observed². The index of product diversification of country r is NE_r calculated as follow:

$$NE_r = \frac{1}{\sum_i \left(\frac{X_{ri}}{X_r} \right)^2}$$

where

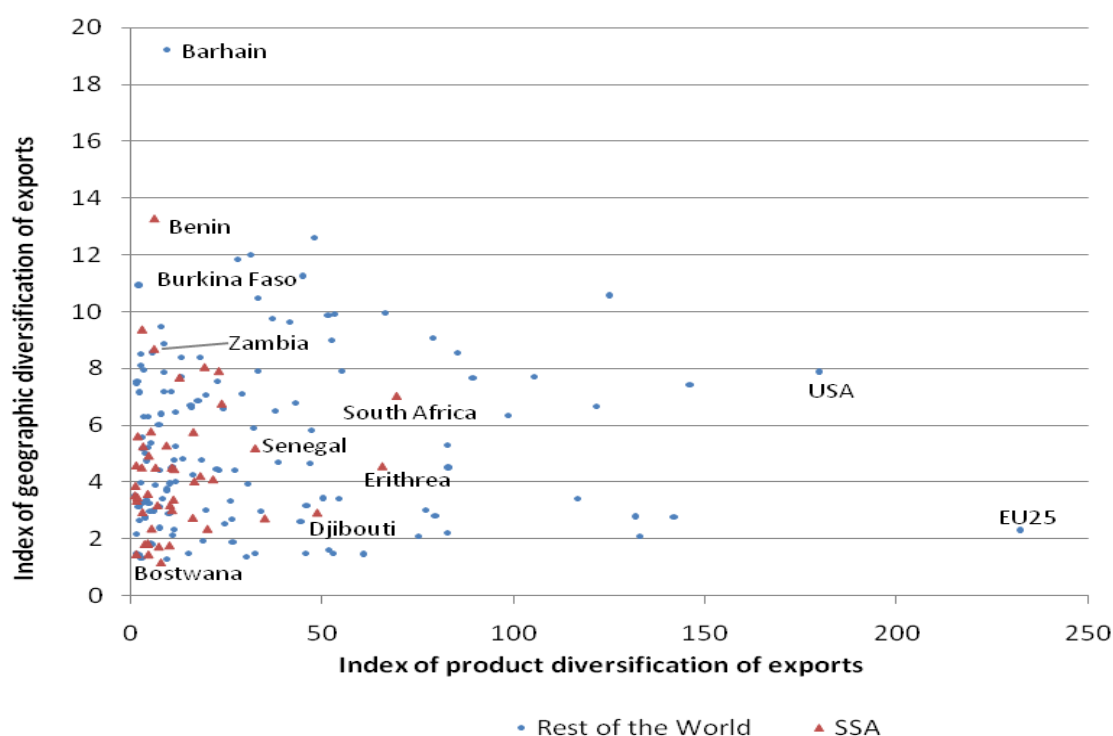
X_{ri} : Exports of product i by country r .

X_r : Total exports of country r .

Similarly, we compute an index of market diversification (replacing products with partners). The interpretation of those indices are straightforward: the higher those indices are, the higher the diversification.

² See OECD, 2005, International Indicators of trade and economic linkages.

FIGURE I.5 — PRODUCT AND DESTINATION DIVERSIFICATION INDEX



Source Author's calculation based on MacMAps 2004

Note: Sub-Saharan countries are represented by red triangles.

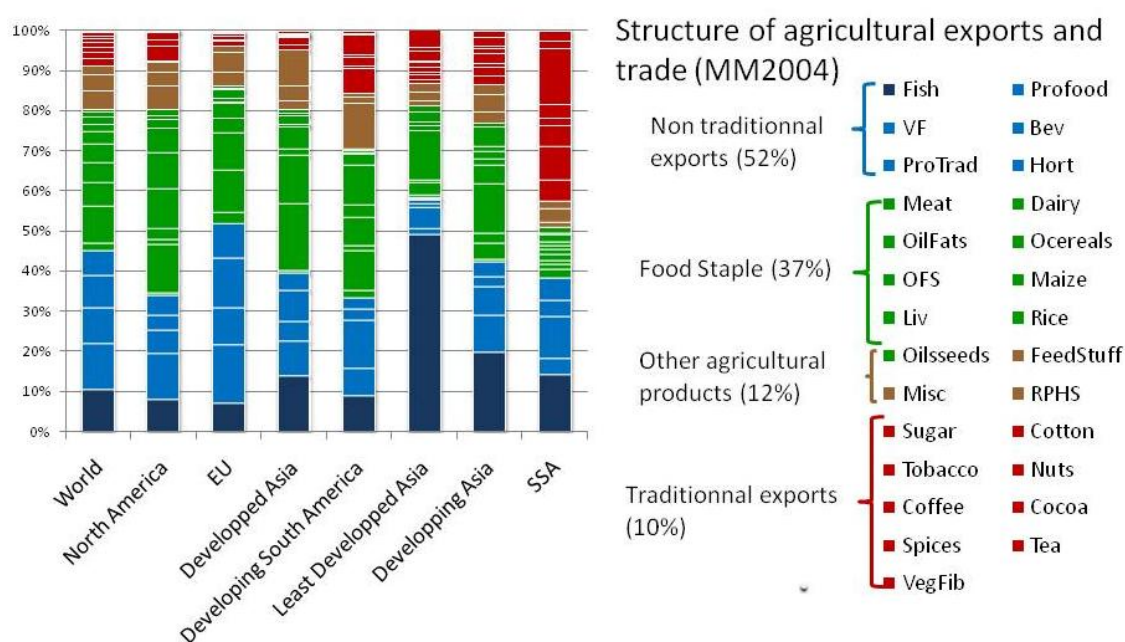
The results of diversification of products and markets are presented in Figure I.5. We can see that compared to the rest of the world, Sub-Saharan African countries (represented with the red triangles) generally have a more concentrated structure of exports, especially in terms of products. There is large variation between countries within SSA, with Benin for instance presenting a very large geographic diversification of export destination when Botswana has among the lowest index both of product diversification and geographic diversification. This poor diversification means that Sub Saharan African countries are very sensitive to external trade shocks.

In terms of destination, the EU and the USA are the main destinations for sub Saharan African exported goods, with respectively 45 percent and 5.20 percent of agricultural exports in 2004 (MAcMap 2004). The structure of exports excluding oil, metals and mineral products from Sub-Saharan Africa to the EU is dominated by agricultural products whereas it is dominated by textile and apparel towards the US. Emerging economies such as India or China only account for 10 percent of total trade and 5 percent of agricultural exports in 2004 but according to COMTRADE time series, the share has been growing over time.

Appendix A illustrates this concentration by giving the first three products in terms of share of total exports for most sub-Saharan countries. It appears that many countries rely heavily on a few specific agricultural products. Furthermore looking at bilateral data at the Harmonized System 6-digit level (which is the most precise international level of the Harmonized system) such as the BACI database developed by the CEPII, enables to identify extreme dependence to some agricultural products by some Sub-Saharan African countries. According to those data, 57 percent of agricultural exports of Burkina Faso is composed of one specific cotton at the HS6 line level, and 40 percent of agricultural exports of Malawi is made of one very specific HS6 type of tobacco. Another feature about the commodities exported from Sub-Saharan Africa, is that many countries have specialized in similar types of products: overall the composition of agricultural exports of most Sub-Saharan African country is dominated by one of the following five commodities: coffee, cocoa, cotton, hides and skins, and horticultural crops. Many studies have underlined the dependence of some African countries on a few commodities. For instance, Porto, Chauvin and Olarreaga (2011) undertake case studies on cocoa, a crucial foreign exchange generator both in Côte d'Ivoire and Ghana, where it raises between 20 and 25 percent of all export revenue, coffee, which exports account for more than 10 percent of the total exports in both Rwanda and Uganda, cotton which accounts for more than one-third of total exports in Benin and Burkina Faso, and tobacco which accounts for more than 70 percent of export earnings in Malawi.

Figure I.6 illustrates that the structure of Sub-Saharan Africa exports is quite distinct from that of other regions of the world and from the average composition of world trade.

FIGURE I.6 — STRUCTURE OF AGRICULTURAL EXPORTS



Notes: VF = Vegetables and Fruits; ProTrad = Processed Traditional Exports; ProFood = Processed food products; Bev = Beverages; Hort = Horticulture; OFS = Other Food Staples; Liv = Livestock; Ocereals = Other Cereals; Misc = Products not elsewhere mentioned; RPHS = Hide and skins; VegFib = Vegetal Fibers.

Source: Author's calculation from MacMaps 2004

Concentration of the trade structure is an issue since it related to slower economic growth especially at lower levels of development (Imbs and Wacziarg 2003). According to a recent study by ITC (2010), to much dependence on a few export products increased the vulnerability to trade shocks and exposes the developing country to income volatility. Hence diversification is seen as a necessary condition for growth as well as developing higher value-added products.

3. The multiplicity of trade agreements

Concerning international trade Sub-Saharan African countries are specific because of the historical large trade preferences they have been granted and the low level of internal trade recorded despite the multiplication of trade agreements in the region.

Advantages and drawbacks of preferential and regional agreements for Sub-Saharan African countries are still debated, but a striking feature is the low overall academic support (in economics) for those forms of trade integration compared to multilateral trade liberalization. Theoretically, the economic impacts of further trade integration at the regional level (preferential or not) are in the same lines of the gains to trade described in the static and

dynamic trade literature (allocation effects, scale economies, variety effects, location effects, productivity and growth effects, described for instance by Baldwin and Venables 1995). But in his extensive literature review, Baldwin (2008) shows that the academic thinking on regionalism has been framed by the predictions of Viner (1950)³ that the effects of regional trade integration are ambiguous, depending on whether the trade created among partner countries is additional or replace trade diverted from the rest of the world. Baldwin adds that an important effect missed by this framework is the impact on third countries, an effects all the more important that the economic literature since the 1990s has focused on whether trade preferences and regional agreements are “stumbling blocks” or “building blocks” (following Bhagwati 1991) toward the global objective of multilateral trade liberalization. For instance, Ozden and Reinhardt (2005) argue those countries that are granted preferences are slower in liberalizing at the multilateral level.

3.1. Regional economic integration

3.1.1. *The multiplication of regional initiatives*

Following the independence in the 1960s, regional cooperation and integration was considered by many African leaders a tool for promoting economic growth and sustainable development. Sub-Saharan Africa being characterized by the high number of very small, landlocked markets which are mostly dependent on their neighboring coastal countries for their trade flows, it could provide a rationale for the proliferation of regional agreements. But the main strategic objective was political, i.e. to fight the impact of colonialism and build a united Africa in a context of complex political issues (UNECA 2006).

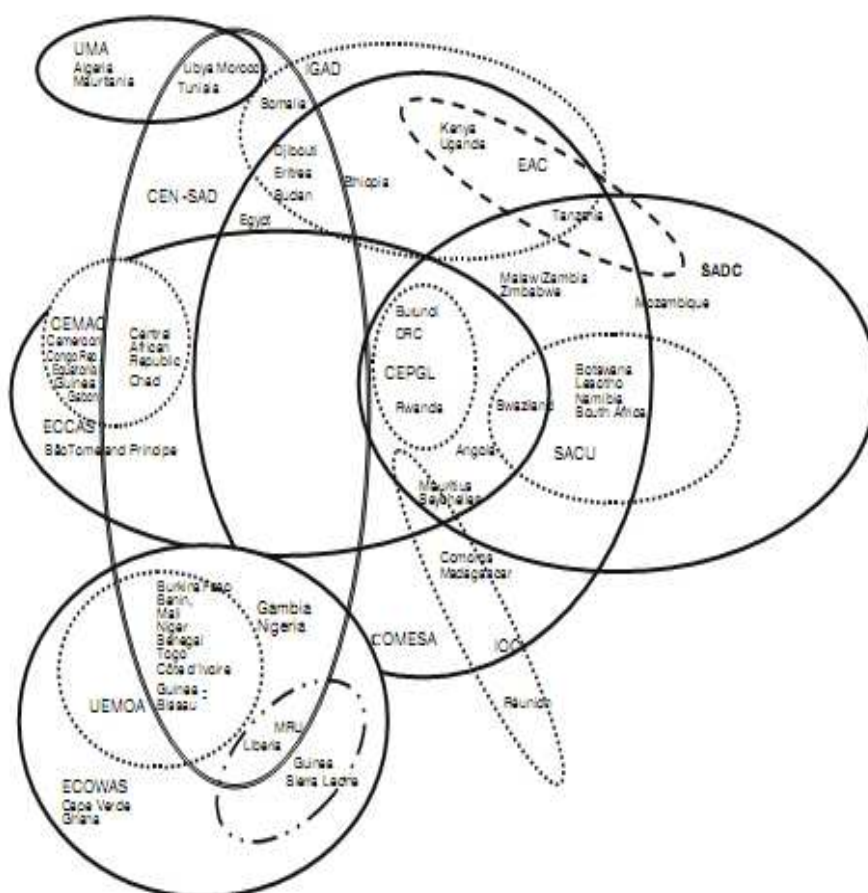
The first step towards promoting continental unity was the formation of Organization of African Unity (OAU) in 1963, changed in 2001 in the African Union (AU). It was followed by many initiatives, in the form of multiple blocs at the regional level, but the decisive political commitment to integrate at the continental level was the Abuja Treaty in 1991 which committed the continent to fully integrate in the African Economic Community (AEC) by 2027, with a common currency, full mobility of the factors of production, and free movement of goods and services. The AU oversees the New Partnership for Africa's Development (NEPAD) an anti-poverty blueprint promoting good political and economic practices

³ Baldwin (2008) highlights the limitations of the Vinerian framework and suggests that the trade creation/diversion terms probably persist in the economic literature because they are powerful tools to “focus policy makers’ attention on the ambiguous welfare effects of regional trade arrangements” (Panagaryia 1999).

designed in 2000 at the continental level to nurture further integration and attract aid and investment. NEPAD emphasizes regional and sub-regional approaches while encouraging African countries to pool resources to enhance growth prospects by taking advantages of economies of scale and to build and maintain international competitiveness.

As apparent in Figure I.7, by 2006, instead of the 5 regional economic communities envisioned as an intermediary step towards the AEC (North Africa, West Africa, Central Africa, East Africa, and Southern Africa), there were 14, almost all of them having full economic union as a target. Most had been established as trade blocs with, in some cases, some political and military cooperation, but with according to UNECA (2006) countries seem to have barely analyzed the economic rationale of belonging to a particular group, the main incentives behind the creation of new groups rather being externally motivated by economic and political destabilization periods.

FIGURE I.7 — ASSESSING REGIONAL INTEGRATION IN AFRICA



Source: UNECA, 2006.

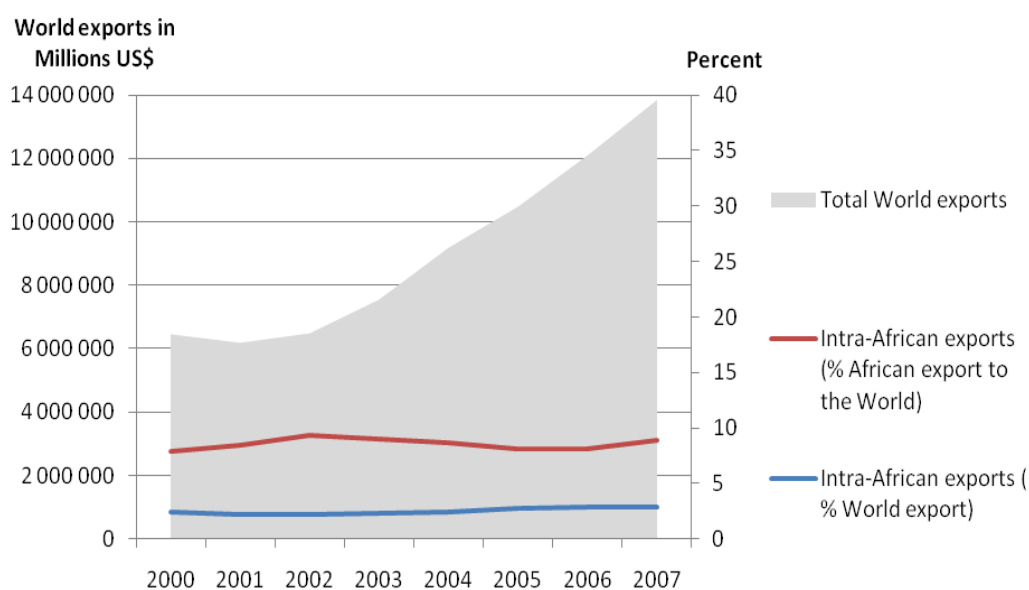
According to Fourth report Assessing Regional Integration in Africa of the UNECA (2010), the African Union (AU) together with member States have decided to put an embargo on the establishment of more RECs in Africa and rather focus on rationalizing the existing eight main RECs which are the AMU (Arab Maghreb Union), CEN-SAD (Community of Sahel-Saharan States), ECOWAS (Economic Community of West African States), ECCAS (Economic Community of Central African States), COMESA (Common Market of Eastern and Southern Africa), EAC (East African Community), IGAD (Inter-Governmental Authority on Development), and SADC (Southern African Development Community).

One of the main issue identified in Second report Assessing Regional Integration in Africa of the UNECA (2006) was the number of overlapping memberships of countries. Indeed 95% belonged to more than one agreement. The overlapping memberships are considered to have serious drawbacks and might have hindered regional integration rather than enhanced it because of the cost of duplicate efforts.

3.1.2. *Low intraregional share according to official statistics*

Additionally, despite the integration efforts aforementioned, intra-regional trade share of African countries is lower than other developing regions: intra-regional trade share represents less than 10 percent on average in 2004-06 of African countries total trade, when it is 20 percent for developing America and 47 percent in Asia according to UNCTAD (2010). According to Figure I.8, recent trends (UNECA 2010) show that intra-African trade has been growing more rapidly than African trade to the rest of the world for the last decade: intra African trade growth has been about 25 percent per year on average between 2000 and 2007, when growth in African exports to the rest of the world was 16 percent for that same period. Part of this trend is attributable to the overall better economic performance of African countries compared to the world in this decade.

FIGURE I.8 — EVOLUTION OF THE SHARE OF INTRA-AFRICAN TRADE



Source: Author's calculation from data from UNECA (2010)

3.1.3. *Historical low academic support in economics to regional integration*

Academic debates on whether African countries should pursue further trade integration have sometimes been based on the theory that integration will be beneficial only to the extent that it is pursued between countries that are “natural trading partners” which is mostly assessed based on indicators of initial trade volumes and transports costs between partners. This theory has been largely spread by Summers (1991) and Krugman (1991), and although it has been criticized by many others including Bhagwati, Lehman and Panagariya (1996), it is still referred to (UNECA 2006). It is based on that conception that critics to regional trade integration in African countries often argue that their production and export structure are often similar and their intra regional trade shares is low (UNECA 2006). But a limit to that analysis has been the fact that informal economy and informal trade undermines our knowledge of the exact extent of potential internal demand and intra-regional trade. Indeed, official statistics on which are based all the analysis do not take into account informal trade, but it is known to be important in Sub-Saharan African countries. For instance, informal cross border trade with Uganda's neighboring countries has been estimated at more than 80 percent of its official exports to those states (Lesser and Moissée-Leeman 2009). According to UNECA (2010), informal trade is the main source of job creation in Africa, providing between 20 per cent and 75 per cent of total employment in most countries. The informal economy might represent up to 40 per cent of the overall economic activity. Keeping in mind the fact that informal trade is

particularly important in bulk agricultural products, analysis based on official statistics not only tend to undermine the importance of the agricultural sector in the economy but also its regional perspectives.

As stated above, since the 1990 years the interest in regional trade integration in the academic economic literature has rather been in a comparative perspective with multilateral integration, and the trend has been to consider that multilateralism is bound to be superior to regionalism based on the view that multilateralism does not entail the risk of trade diversion, and that in any case dynamic gains from trade will be superior if developing countries trade with developed countries. This trend is apparent in the conclusions of Schiff and Winters (2003) summarizing World Bank research on regional integration and development.

Nevertheless, a consensual finding has always been that linking physical infrastructure such as roads and harmonizing quality standards could increase intra-regional trade and trade with the rest of the world, contributing to the growth of African economies.

3.2. The long standing –non reciprocal- preferences for African countries

The trade patterns described above have been shaped by those historical links but also through the preferential market access, provided through tariff advantages and/or tariff rate quotas to which they have been entitled since their independence.

3.2.1. *Historical preferences for African-Caribbean-Pacific countries in the EU market*

Sub-Saharan African countries are specific at the global level because they have benefitted from "*the long standing preferences for African countries*"⁴ of the EU and from other specific preferential schemes.

Historically, African countries have had strong trade ties with Europe. The process of cooperation between Europe and its former colonies formally started when the first Yaoundé Agreement was signed in 1963 to foster economic cooperation with French-speaking African countries. With the accession of the United Kingdom into the European Economic Commission (EEC), the agreement was widened to include 46 Africa–Caribbean–Pacific (ACP) countries, and the Lomé Convention replaced the earlier agreement and was extended

⁴ Grand-Baie Declaration of June 20th, 2003 by the Ministers of Trade of the Member States of the African Union

in 2000 to the Cotonou Partnership Agreement (CPA) that granted non reciprocal duty free market access to many Sub-Saharan African products. The CPA has been attacked at the World Trade Organization which has compelled the EU to reform it. It is now in the process of being transformed into reciprocal Free Trade Agreements between the EU and ACP main regions within the Economic Partnership Agreements (EPAs) negotiations. But in 2007 the WTO waiver for the Cotonou Agreements ended, without the expected conclusion of the EPA being successfully signed. Initiated as regional negotiations were pursued until 2008 on a bilateral basis between each ACP country and the EU, leading to only some country to sign Interim Economic Partnership Agreements which were supposed to be the first step towards the conclusion of the EPA.

3.2.2. *The multiplication of preferential schemes*

Together with other developing countries, most Sub-Saharan African countries also benefit from the Generalized System of Preferences (GSP)⁵ set up in 1968 which is an umbrella that comprises the bulk of preferential schemes granted individually by industrialized nations to developing countries, with corresponding specific schemes for least developed countries. The GSP schemes grant specific reduced tariff modulated according to the degree of sensitivity of the products, excluding a substantial number of agricultural products. The preferential schemes designed for least developed countries that are the most important for Sub-Saharan African least developed countries are the European “Everything But Arms” (EBA) initiative set up in 2001, granting all eligible least developed countries duty-free, quota-free access for all products but arms (implementation for sugar, rice and bananas was delayed until 2009); and the North American “African Growth Opportunity Act” (AGOA) set up in 2000 also granting duty free quota free access to many tariff lines but excluding more “sensitive products”, among which most agricultural products.

But there are constraints on participation to these schemes. All the GSP schemes except the EBA are temporary and renewed every few years. Furthermore countries eligibility are unilaterally decided by granting countries and not definitely negotiated, and most of them

⁵ In 2009 there were 11 national GSP schemes notified to the UNCTAD secretariat (these GSP schemes are granted by Australia, Belarus, Canada, the European Community, Japan, New Zealand, Norway, the Russian Federation, Switzerland, Turkey and the United States of America).

impose rules of origin (ROOs) which are used to determine whether a good qualifies for preferential treatment when exported from one member state to another.

3.2.3. *Literature review on preferential agreements*

Preferential schemes have benefitted from more support than African regional integration in the economic literature.

Indeed, the fact that these policies are set by foreign, not domestic government, is viewed as an advantage by Collier and Venables (2007) since they are relatively immune from recipient country political economy problems and are fiscally costless to African governments (as long as they do not compete with aid). Additionally, Rodrik (2003) argues that the fact the beneficiary firms are required to face the discipline imposed by international competition can prove an important positive factor, underlying the success of East Asian export oriented strategies, as compared to the failure of past import substitution in Africa. Coherently with the new trade theory, preferential initiatives have the virtue of encouraging production for the export market, which are supposed to be more conducive to learning and spillovers of knowledge, in contrast with the traditional infant industry protection which encouraged protection for the domestic market.

Theoretically, the static benefits of trade preferences come from a transfer of the rent from the granting country (equivalent to the tariff revenue the granting country would gain without the preferential agreement) to the exporters of the recipient countries, and from the supply response mechanism generated by the increased prices which could create increased employment and increased wages. Additionally, it is also hoped that trade preferences can have a dynamic catalytic role on productivity. According to Collier and Venables (2007) nevertheless, trade preferences will only perform this role if imports of complementary inputs is facilitated and in countries with the skills and infrastructure near the threshold of global competitiveness. The success story of preferential policies is the famous Mauritius, the only African country to have decisively penetrated global markets in manufacturing and transformed itself from a poor sugar island to one of Africa's richest economies. According to Subramanian and Roy (2003) economic success is mostly due to manufacturing export-led growth, triggered by duty-free inputs for manufactured exports and the temporary trade preferences in garments through the multi-fibre agreement granted by OECD countries until 2004, which gave a crucial privileged access to OECD markets relative to established Asian producers.

As stated above, since the 90s, a central concern in the international trade literature has been that the future erosion of the preference rent might lead to adjustment costs and justify resistance to further global trade liberalization. In that sense, the existence of preferences has been identified since Krishna (1998) and Freund (2000) as one important stumbling block to multilateral trade liberalization. The fact that compared to Mauritius, it has been rather consensual that Sub-Saharan African countries had been rather unsuccessful in promoting export-led growth, only fuelled the position of the opponents to trade preferences.

But the preferences are found to have had an influence on the trade structure of beneficiaries (Collier and Venables, 2007, Elliott 2010). Evenett (2008) estimates from a comprehensive literature survey that the EU GSP has induced a increase by 30 to 60 percent of exports from beneficiary countries. Considering that effect, another concern is that preferential access to protected markets might “lure” Sub-Saharan Africa to concentrate their efforts in changing their dynamic comparative advantage towards the production of goods for which it does not have a global comparative advantage. According to that narrative, not only, would they suffer from a decline in MFN tariffs and preference margins erosion which would induce significant adjustment costs, but they might be even worse off because of the foregone opportunities to learn-by-doing in areas where they do have a comparative advantage (Ianchovichina, Mattoo and Olarreaga 2001). The fact that most trade preferences granted by the EU and the USA are motivated by political objectives rather than economic ones (explicitly justified on the basis of international solidarity, anti-drug or anti-terror policies, Baldwin 2008, ITC 2010) is a rather strong proponent for the view that they are not designed per se to help country change their structure of production and export in a way that benefit them the most.

But in order to determine what would be the impacts of future trade agreements, preferential or not, on Sub-Saharan African countries, we need to turn to a more precise analysis of the effect of the existing schemes.

4. The state of protection and market access

Two of the most asserted stylized facts related to global tariffs are that agriculture is the most protected sector and Africa the most protective region. But the extent to which Sub-Saharan African countries benefit from preferential access and whether it is beneficial or not to them is much debated. We will look at each of those facts in turn.

4.1. Protectionist agriculture and African region

Looking at the ad valorem tariffs of the Market Access Maps database (MAcMapHS6, Bouët *et al.* 2008) in Table I.2, we find that on average agriculture is the most protected sector worldwide and Sub-Saharan African among the most protective region on imports from other regions. The Sub-Saharan African region is also the most protective on intraregional trade. Hence much still can be done to increase trade integration in the region. Comparatively tariff barriers are already pretty low on average for SSA to other markets.

TABLE I.2 — WORLD WIDE PROTECTION PATTERN

Importer	Sector	Exporter				
		Developped countries	Emerging Economies	Other developing countries	North Africa	Sub-Saharan Africa
Developped countries	Agriculture	0.14	0.17	0.12	0.11	0.10
	Agro-industrial products	0.18	0.17	0.16	0.11	0.14
	Fish	0.04	0.04	0.05	0.04	0.05
	Other	0.03	0.04	0.03	0.03	0.02
Emerging Economies	Agriculture	0.13	0.13	0.11	0.09	0.19
	Agro-industrial products	0.24	0.21	0.25	0.18	0.32
	Fish	0.14	0.11	0.13	0.10	0.20
	Other	0.08	0.11	0.09	0.06	0.07
Other developing countries	Agriculture	0.12	0.20	0.17	0.20	0.15
	Agro-industrial products	0.19	0.32	0.21	0.25	0.22
	Fish	0.22	0.21	0.21	0.14	0.21
	Other	0.07	0.11	0.08	0.07	0.09
North Africa	Agriculture	0.21	0.25	0.26	0.17	0.12
	Agro-industrial products	0.40	0.26	0.37	0.18	0.82
	Fish	0.25	0.26	0.26	0.11	0.25
	Other	0.14	0.18	0.17	0.07	0.16
Sub-Saharan Africa	Agriculture	0.11	0.16	0.13	0.16	0.18
	Agro-industrial products	0.26	0.24	0.23	0.34	0.28
	Fish	0.16	0.11	0.10	0.05	0.15
	Other	0.10	0.16	0.12	0.12	0.14

Source: Author's calculation from MAcMapHS6 2004, reference group weighted aggregators

The ad valorem tariffs from the tables are equivalent measure of tariff duties and tariff rate quotas accounting exhaustively for preferential trade agreements that were calculated for each country at the HS6 level thanks to the MAcMapHS6 database.

4.2. Decomposing the preferential margin of SSA

Since countries in SSA are involved in many preferential agreement, it is expected that they should be advantaged compared to most countries in global trade and that they ought to benefit from a “preferential margin” compared to the tariff barriers that other countries face.

But analysis of the “preferential margin” require substantive amount of data on the level of tariff they should face compared to what they actually face, together with the level of trade actually involved. This includes specifically the Most Favoured Nation (MFN) bound, applied tariffs but also the preferential applied duties, which had not been available until the development by the CEPII and the International Trade Center (ITC) of the MAcMapHS6 database representing the full structure of protection cited above at the HS6 and bilateral level including the preferential tariffs⁶.

4.2.1. A decomposition taking into account the composition of exports

The “preferential margin” can be defined differently depending on what it is compared to. By comparing the average protection faced by the exports of each country to the world average MFN applied duty, Bouët, Fontagné and Jean (2006) compute what they call an “apparent margin”, AM_i defined for a given exporting country i as:

$$AM_i = \frac{\sum_r \sum_s \sum_h w_{s,r}^h t_{s,r}^h}{\sum_r \sum_s \sum_h w_{s,r}^h} - \frac{\sum_s \sum_h w_{s,i}^h t_{s,i}^h}{\sum_s \sum_h w_{s,i}^h}$$

where s are all the importing countries, h the exported products, r the exporting countries, $t_{s,r}^h$ the applied ad valorem equivalent duty imposed by country s on product h exported by country r , and $w_{s,r}^h$ is the value of products h exported by country r to country s .

This apparent margin is highly heterogeneous among countries as the result of two different effects: a composition effects and a “true” preferential margin. The composition effect depends on the composition of exports, hence on the specialization of countries and their geographic destination, CE_i for country i is defined as:

$$CE_i = \frac{\sum_r \sum_s \sum_h w_{s,r}^h MFN t_s^h}{\sum_r \sum_s \sum_h w_{s,r}^h} - \frac{\sum_s \sum_h w_{s,i}^h MFN t_s^h}{\sum_s \sum_h w_{s,i}^h}$$

⁶ Rules of origin are not taken into account and thus preferences are supposed to be fully used, even though there is some evidence that developing countries are not able to fully take advantage of those preferences.

where $MFNt_s^h$ is the Most Favored Nation duty imposed by country s on product h . It is the difference between the average MFN duty faced by the world and the average MFN duty faced by country i . Since for each importing country s MFN duties are by definition the same across exporters r , the average MFN duty faced by exporter i is a measure of the composition of its exports.

The “true” preference margin captures more precisely the preferential margin the country has managed to negotiate thanks to the trade regimes it has been conceded. It is the difference between the apparent margin and the composition effect and thus the difference between the country’s and the world’s average preferential margin, defined as the weighted average across products of the difference between the MFN and the applied rate.

Table I.3. presents the decomposition of the apparent, composition effect and true margin computed for each Sub-Saharan country in 2004 based on the MAcMapHS6 database following Bouët, Fontagné and Jean (2006). The average MFN applied duty is 4.3 percent at the global level.

Table I.3 — COMPOSITION OF PREFERENTIAL MARGIN IN 2004, LIST OF SUB-SAHARAN AFRICAN ORDERED

Countries	Applied duty faced on exports	AM	CE	TM
Dem. Rep. of Congo	1,0	3,3	4,6	-1,2
Equatorial Guinea	1,2	3,1	4,6	-1,5
Comoros	1,2	3,1	2,6	0,5
Liberia	1,3	3,0	3,5	-0,5
Lesotho	1,4	2,9	-5,6	8,5
Angola	1,4	2,9	4,4	-1,5
Chad	1,6	2,7	3,8	-1,1
Botswana	1,9	2,4	3,7	-1,2
Gabon	1,9	2,4	3,8	-1,3
Central African Republic	2,0	2,3	3,3	-1,0
Guinea	2,4	1,9	3,1	-1,1
Congo, Republic of the	2,4	1,9	3,0	-1,2
Nigeria	2,6	1,7	3,1	-1,4
Madagascar	2,7	1,6	-3,3	4,9
Sierra Leone	2,8	1,5	1,7	-0,2
Mozambique	3,2	1,1	-1,6	2,7
Sao Tome and Principe	3,7	0,6	0,7	-0,1
Cape Verde	3,9	0,4	-2,0	2,4
Cameroon	4,1	0,2	0,0	0,2
Sudan	4,3	0,0	0,8	-0,7
Mali	4,4	0,0	0,5	-0,6
Niger	4,4	-0,1	0,0	-0,1
Ghana	4,5	-0,2	-0,4	0,2
South Africa	5,0	-0,7	-0,1	-0,6
Zambia	5,5	-1,2	-2,0	0,8
Mauritania	5,5	-1,2	-1,7	0,5
Eritrea	5,8	-1,5	-3,3	1,8
Seychelles	5,8	-1,5	-5,2	3,7
Rwanda	6,5	-2,2	-1,4	-0,8
Cote d'Ivoire	6,5	-2,2	-3,0	0,8
Burundi	6,6	-2,3	-1,7	-0,7
Uganda	7,3	-3,0	-6,1	3,1
Tanzania	7,7	-3,4	-4,8	1,4
Namibia	8,2	-3,9	-4,8	1,0
Ethiopia	9,1	-4,8	-4,6	-0,2
Senegal	9,4	-5,1	-6,0	1,0
Somalia	10,2	-5,9	-9,0	3,2
Gambia, The	10,5	-6,2	-7,8	1,6
Zimbabwe	10,9	-6,5	-10,1	3,5
Djibouti	11,1	-6,8	-9,7	2,9
Guinea-Bissau	11,5	-7,2	-6,4	-0,8
Mauritius	11,5	-7,2	-13,0	5,8
Kenya	12,0	-7,7	-9,3	1,6
Burkina Faso	12,2	-7,9	-8,8	0,9
Togo	14,4	-10,1	-10,2	0,1
Malawi	14,4	-10,1	-23,3	13,2
Benin	14,6	-10,3	-10,5	0,2
Swaziland	22,9	-18,6	-25,5	7,0
HICs	3,9	0,4	0,0	0,4
MICs	5,1	-0,8	0,1	-0,8
Least Developed Countries	4,6	-0,3	-1,5	1,2

Source Author's calculations based on MacMaps hs6v2

Note: AM : Apparent Margin, CE: Composition effect, TM: True margin

Table I.3 shows that only 20 out of the 48 countries of Sub-Saharan Africa actually have a positive apparent margin. What is striking is that 30 African countries indeed face highly negative composition effect of their exports, because it is skewed towards protected goods, with 15 of them having a composition effect lower than -5. For some countries exporting highly protected goods such as agricultural goods for which developed countries still have tariff peaks, the negative composition effect can more than compensate a very positive true margin: this is the case for Malawi which relies on tobacco, and sugar for more than 70 percent of its exports revenue, two goods that are highly protected at the global level. On the contrary, natural-resource rich countries exports almost unprotected products and can compensate very low true margins: for instance, by exporting mainly petroleum (90 percent) and diamond (7.5 percent), Angola benefits from a positive composition effect and faces overall a very low protection on its exports. Hence, the situation of sub Saharan countries in terms of preference margin is far from being homogeneous even when they are granted similar preferences, and much caution is needed to interpret average tariff data.

4.2.2. *Taking into account competitors*

Other definition of the “preferential margin” further shed light on some specific features of the preferential agreements. Low *et al.* (2005) suggest that preference margins should be “adjusted” by the countries competing in the same market rather than the average MFN. Indeed, when the granting region extends the preferential access to new trading partners, as has been the case of the EU when it created the GSP schemes and extended preferences to other developing countries than the initial ACP countries, the original preference receiving countries, the ACP, had to compete with new exporters. Hence their “adjusted” preference became less than the apparent margin computed above suggest. By computing those “adjusted” preferential margin, Carrere and De Melo (2010) actually show that margin of least developed countries is about 3 percent in the EU market, and that, in spite of preferences under AGOA, least developed countries are actually discriminated against in the US market.

By combining the two approaches above, it appears that the “true adjusted” margin of Sub-Saharan African LDC is equivalent to the preferential margin of the other LDCs granted EBA in the EU, but it is worth much more than the margin of the developing countries granted GSP. Additionally, the “true adjusted” margin of the Sub-Saharan African non LDCs

countries is much more important than for other non LDC developed countries, even those who are granted the GSP.

This has considerable impacts in the EPA negotiations, since it is linked to the fact that the Cotonou Partnership Agreement offered much better preferences than the GSP schemes do. This explains why the non LDCs in SSA have stronger incentive to accept the Economic Partnership Agreements than the LDC do, since non LDCs would have much more to lose if they were transferred to the GSP scheme.

4.2.3. *The utilization rates*

Since actually benefiting from the preferential schemes requires complying with several requirements, technical, administrative, or rules of origin, which are costly and complex, the benefit of preferential agreements cannot be considered as automatic, costless nor unconditional (Candau and Jean 2005, DeMaria, Drogue and Matthews 2008). Many studies have tried to look at the extent to which the preferential schemes were used by the exporting countries, but the lack of detailed data and the complexity of their analysis has restricted the actual measure and many debates still remain open. Brenton and Manchin (2003) argue that exporters are systematically under-utilize the GSP EU preferences scheme, but they do not take into account the fact that ACP countries could rather have used the CPA, especially since the rules of origin under CPA were less stringent. Estevadeordal and Suominen (2003) estimate that administrative costs of compliance to benefit from EU preferential arrangements range between 2.0 and 5.7 percent of the value of exports. This is consistent with the findings from Manchin (2006) and the mid-term review of the EU GSP scheme (Gasiorek *et al.* 2010) that preferences margins less than 3 to 5 percent tend to be ignored by exporters, who under these circumstances tend to pay the MFN tariff. In addition, the analysis suggests that given the export structure of the majority of GSP countries, the preference margin under GSP is rather small compared to MFN rates. It explains why they do not find much higher gains when they simulate the full utilization of GSP preferences.

Taking stock of the necessity to simplify and harmonize their rules of origin, most granting countries are discussing it at the Committee on the Rules of Origin of the World Trade Organization, although progress has been slow (De Melo and Cadot 2008).

4.2.4. *Impact on the concentration of exports*

Gasiorek *et al.* (2011) look at the utilization rates of the EU GSP preferences scheme according to the preference margin per product exported and the GDP per capita and level of development (as measured by the UN Human Development Index and Human Poverty Index) of exporters. A striking result is that growth in exports within the preference scheme is largely due to growth in existing export products rather than in new types of exports, hence the EU GSP scheme does not lead to diversification of exports.

According to the ITC (2010) analysis, some selective trade preferences with strong benefits, such as the sugar production that the EU imported from ACP countries at price well above international market prices as development aid can even have created historically a “forced dependency” leading those countries to specialize in the export of those specific commodities.

According to Gasiorek *et al.* (2011) the lack of diversification can also be related to the remaining tariff peaks in semi-processed and/or finished goods which hamper the local value addition of raw products and the existence of numerous ‘sensitive products’ being excluded from the EU GSP scheme. It is likely that this result can be generalized to all GSP scheme, not only the EU one. Often, many agricultural products are classified as ‘highly sensitive’ even though they represent the main export products of poor countries, and many Sub-Saharan African countries as we have seen above.

4.3. Tariff escalation on value added and processed agricultural products

The actual extent of market access for value added agricultural products from sub-Saharan countries is a particularly relevant issue. A “stylized fact” of tariffs worldwide is the fact that countries usually maintain higher tariffs on value-added products, compared with tariffs on raw commodities (Bouët and Laborde 2009). Looking at the MacMaps database, we find that at the applied MFN level, there is generally a substantial tariff escalation on transformed products compared to raw products, both in agriculture and other products, but more significant in agriculture. Considering that many sub-Saharan countries are exporters of raw agricultural products, but also in textiles and clothing, tariff escalation in those sectors are of specific concern.

In the agricultural value chain, tariff escalation could enable food processing sectors in many countries to benefit from relatively free access to international sources of inputs while

sheltering domestic processed products from foreign competition. But if importing countries escalate their tariffs, it makes it more difficult for countries producing raw materials to process and manufacture value-added products for export. Indeed, in the “policy coherence for development” debate, which looks at the impacts of policies from developed countries on developing countries, tariff escalation is suspected to some extent to have hampered the export-led industrialization possibilities of developing countries (Matthews 2003) since only a limited part of the value added-actually stays in producing countries. Van Berkum (2009) shows that although the number of commodities attracting escalating tariffs has been declining in the EU, tariff escalation is still prevalent in many commodities in which African countries are specialized, particularly cocoa, tomatoes, palm oil, soya, leather and cotton.

The concern is that tariff escalation might lock developing countries in the place of raw commodities exporters (Gasiorek *et al.* 2010). This issue is sufficiently recognized that it was added to the Doha negotiations and specific tariff cuts are negotiated.

Nevertheless, divergent results are found, depending on the tariff considered, the commodities and specific destination markets. For instance, Vlahantoni-Tikof (2005) point out that much of the initial debate on the subject has been created by looking at the MFN applied rates, but that sub-Saharan countries actually are actually not suffering from tariff escalation when exporting to the EU at the applied level when preferential market access are taken into account thanks to the CPA. But tariff escalation is an integral feature of the barriers to other markets.

4.4. Non-Tariff Measures

Many other types of barriers impede trade. Non-Tariff-Measures (NTM) regroup a vast array of heterogeneous regulatory instruments restricting trade with the exception of tariff barriers. The extent to which those barriers actually restrict the access to some markets for Sub-Saharan African export is debated since it is hard to quantitatively estimate their impacts, but it is rather consensual that they can considerably restrict trade for some specific products and destinations (Mold 2005, Gourdon and Cadot 2011).

4.4.1. *Technical Non Tariff Measures*

The two types that are considered by the WTO so far are sanitary and phytosanitary (SPS) and technical barriers to trade (TBTs) measures, often referred as the “technical” NTM,

which are particularly restrictive for agricultural products specifically for value added and processed.

For long, because of the lack of data, most analysis focused on barriers to developed countries markets. Existing studies show for instance, in the case of the beef exports to the EU, the increasing cost of compliance with the EU food-safety and SPS regulations (and decreasing EU beef market price) has had a deterrent effects on Sub-Saharan African exports, and in 2010⁷ only Namibia and Botswana were still exporting to the EU despite the preferential access. Based on detailed analysis of EU food import law and its application to livestock products coming from East Africa, Geboye Desta (2010) argues that these otherwise generous preferential schemes have been deprived of any effect by the stringent sanitary and phytosanitary requirements that are beyond the capacity of the many producers in these countries to satisfy. Similar results are found by Disdier, Fontagné and Mimouni (2007). Those NTMs are considered to be more stringent for value added products such as horticulture, fisheries and processed food products.

Another issue is the private sector standards. According to Memedovic and Iapadre (2009), the process of corporate concentration in the commodity sector in a context of vertically coordinated agri-food chains, have led the private standards, although not legally binding, to become de-facto requirements. Consequently it is essential to develop strategies to enable African agro-food enterprises of all sizes, to participate in global value chains (Vorley, Lundy and MacGregor 2009).

The consensus had thus rather been that since these technical barriers were prevalent mostly for exports towards developed countries, they tended to render exports towards other developing countries, especially other Sub-Saharan African ones more interesting (Poulton *et al.* 2009). But new recent data collection undertaken jointly by the World Bank, UNCTAD and the African Development Bank provide new estimates of NTMs including in SSA. Combining these data with price data collected as part of the World Bank's International Comparison project, a new research has estimated the price-raising effect of NTMs on African food staples using econometric methods. Preliminary results presented in Gourdon and Cadot (2011) suggest that the ad valorem equivalents of SPS and TBTs on African cross-border trade in food are actually very high, because of a high number of measures.

⁷ <http://agritrade.cta.int/en/Commodities/Beef-sector/Executive-brief#1>

This result contrasts with the expectations that low-income countries with low monitoring and testing capabilities would be able to handle fewer measures, than high income countries. They suggest however that in SSA SPS measures seem to be designed and implemented in a way that makes them cumbersome and costly due to lack of harmonization, poor design, and haphazard enforcement, raising the price of foodstuffs by 15 to 25 percent. Indeed, looking at the WTO Trade Policy Reviews of several Sub-Saharan African countries reveals that licensing is necessary for most agricultural and livestock products on the ground of human health protection and parasite attacks prevention.

Nevertheless, the extent of those technical barriers varies across food commodities, and the extent to which the regulation is actually applied varies greatly, specifically for live animals and coarse grains whose cross border trade is mostly informal and escapes controls.

4.4.2. *Rules of origin as barriers to value added agricultural exports*

Rules of origin present often one of the most contentious issues of the negotiations of trade agreements, whereas preferential or not, according to Estevadeordal and Suominen (2003) due to “*their lack of transparency, the difficulties of assessing their impact on trade and investment flows, their potential use for protectionist purposes by powerful economic lobbies and the complexity associated with their administration*”. Public economics have long considered that rules of origin were captured by powerful lobbies in the processing industries and used as protectionist measures (De Melo and Cadot 2008).

Because the complexity in determining the origin of the product increases with the more processed it is, it can be considered that most rules of origin have a negative impact on the development of the processing industry preventing beneficiary countries from gaining from the export of higher value and processed products (Guerin *et al.* 2011), particularly for processed agricultural products which are subject to seasonal shortage of raw material inputs and need to import from the world market to keep their mills and canneries rolling, but risk being denied export under preferential terms to their partners during that period (UNECA 2010).

Recognizing this issue, a new regulation by the European Commission revising the rules of origin for products imported under GSP was adopted and new simpler rules and procedures came into effect on the 1 January 2011. Those new rules allow LDCs to outsource up to 70 percent of input in their exports and still claim origin. This measure is likely to encourage export diversification and regional integration (Guerin *et al.* 2011).

4.4.3. *Quantitative restrictions*

Gourdon and Cadot (2011) suggest that the use of quantitative restrictions (QRs) have been largely reduced in SSA, at least on the books. This is coherent with their phasing out as part of the implementation of the structural adjustment plans, and their higher regulation within the WTO framework for WTO members (although in line with Article XI of GATT 1994 developing countries are allowed to use them temporary under specific circumstances, for instance in case of specific revenue needs, or to protect an infant industry, ensure food security, protect the environment or for industrial development needs).

Looking at the WTO Trade Policy Reviews of several Sub-Saharan African countries reveals that quantitative restrictions are commonly applied tools to protect domestic agricultural and agroindustrial sectors. For instance, in Namibia imports of white maize, wheat, pearl millet and their milled products are subject to seasonal prohibition (WTO 2009a). In Niger, exports of milled rice, millet, sorghum, maize, cassava flour and cattle feed have been banned periodically in case of serious food crisis, and in Senegal imports of rice, maize, bananas, potatoes, onions, tomatoes for processing, sorghum and millet are seasonally banned (WTO 2009b). Even though most countries have committed to reduce their use and to switch to alternative trade policy instrument, it is stated in the case of Nigeria that the use of quantitative restrictions is still necessary even for SPS or TBT objectives because of the current lack of institutional and technical capacities (WTO 2011).

Gillson (2011) notes numerous instances of temporary bans, especially on exports. In particular, recently many countries have tried to insulate their domestic markets from the volatility on international markets, by putting exports bans in export products when price increased in order to maintain internal prices lower than international prices and imports controls or bans on imported products in countries that were trying to stimulate their local production, especially of staple products, such as Malawi, Tanzania, or Zambia.

4.4.4. *Other trade costs*

Physical and administrative trade costs have been identified as a crucial problem in Sub-Saharan African countries (Platteau 1996). Transport infrastructure, whether by road, sea or air, are of low quality, costly and generally inefficient, significantly increasing trade transaction costs, hampering competitiveness of exports and depressing trade opportunities. According to UNECA (2010), only 30 percent of roads are paved and as a consequence shipping a good from Côte d'Ivoire to Ethiopia is 3.5 more costly than from Japan to Côte

d'Ivoire. Africa's maritime port's productivity is estimated to be only 30 percent of the international norm, which is likely linked to the fact that 7% of the ports (in Egypt and South Africa) handle 50 percent of the trade.

Most of the available data come from World Development Indicators and the Doing Business index of the World Bank. A striking feature of the Doing Business index is that the African region is behind all the other ones for every single criterion taken into account. It is thus the most expensive region to trade with according to Doing Business 2011 (World Bank and IFC 2011). For instance, due to the inefficiencies specific to Sub-Saharan Africa, the time of transit, documentation, and ports and customs delays, for a container to reach a ship in the closest port from a factory and be ready to be exported, 116 days were needed from Bangui (Central Africa), 71 days from Ouagadougou (Burkina Faso), and 87 days from N'Djamena (Chad), when only 5 days were required from Copenhagen (Denmark) and 6 days from Berlin (Germany).

Several research have used those databases to show how much the higher African trade costs are hampering the region's participation in global trade, underlying the positive impacts of their reduction. Bouët, Mishra and Roy (2008) have been able to bring the debate on whether Africa is trading "as much as it should" a step further using both database, showing that Africa's low participation in global trade is "normal" considering the weak trade and communication infrastructures. But despite those database, trade costs are still difficult to take into account in global simulation work due to the lack of bilateral data. Preliminary work by Fontagné and Decieux (2009) find that the high trade costs in Africa would hamper Sub-Saharan African from taking advantage of any trade opportunity they might receive at the multilateral level.

Djankov, Freund and Pham (2010) estimate thanks to a gravity equation that reduction of trade costs could have relatively large effects on exports in Sub-Saharan Africa since reducing export times by 10 days would expand exports by about 10 percent on average. Using the same database and an improved gravity equation, Freund and Rocha (2011) find that the reducing trade costs in Sub-Saharan Africa is particularly beneficial since a one day increase in inland transit time is expected to reduce exports by 7 percent on average, even more negative impacts for time sensitive products such as agricultural ones.

The findings of those researches on non tariff measures imply that their reduction could have significant impacts on the trade volumes, which could be higher than the effects of

additional market access, especially for the Sub-Saharan African countries that already benefit from substantial market access. They results have important policy implications in light of the Aid for Trade policy agenda that has surfaced in official development assistance (ODA) to developing countries and in the Doha Round with the trade facilitation initiatives.

5. Perspectives

We are witnessing profound changes in domestic, regional and international markets. What are the new trade opportunities for Sub-Saharan African countries? What are the prospective impacts of the current trade negotiations? What is the state of research on those perspectives?

The objective of the following section is to look at the potential opportunities for Sub-Saharan African countries focusing on the demand side, which does not mean that we are oblivious of the supply-side constraints that Sub-Saharan African countries will need to overcome in order to take advantage of them.

5.1. How much adjustments are to be expected from the new global agricultural markets?

The predicted higher agricultural prices and increased price volatility on international markets (OECD and FAO 2011) present both opportunities for improved incentives in favor of agricultural production and challenges for the food security of the poors in Sub-Saharan African countries. Rising incomes, faster urbanization, foreign and domestic investment and technological advances are increasing demand for high-value commodities, processed foods and agro-industrial products in domestic, regional and international markets (Yumkella *et al.* 2011) which also present SSA with new agricultural exports opportunities.

5.1.1. The challenge of higher and more volatile international agricultural prices

Agricultural commodity prices on international markets have experienced an increasing trend since the early 2000s with a considerable volatility in recent years (OECD and FAO 2011).

According to the analysis of the OECD-FAO (OECD and FAO 2011), there has been important co-movement among primary commodity prices and increased variability since 2006 due to a combination of increasing demand, supply shocks and transmission of price

changes among markets. Indeed the higher cereals and rice prices in mid 2010 due to negative weather-related supply shocks transmitted to the markets of other food commodities such as meat with higher feed costs. Strong price increase in the dairy markets is rather due to a combination of stronger demand, particularly from emerging Asian countries in a context of constrained supply with the reduction of price support in the EU. Sugar prices, which have been found to be highly correlated to energy prices have been highly volatile since the 2006 peak with succession of peaks and downward corrections. The OCED-FAO outlook predicts that agricultural commodity prices in real terms are likely to remain on a higher plateau during the next ten years compared to the previous decade. Taking a closer look at the key forces driving price volatility, the report assumption is that many of the drivers of price volatility (weather, yields, stocks, energy prices) may themselves be more volatile in the future, because of a number of factors, including climate change and the close link between agricultural and oil prices as a result of the growing influence of biofuels production on agricultural markets. Hence both agricultural prices and agricultural price volatility are expected to remain at higher level than in the past.

But the pass-through of international prices to domestic markets has varied greatly across countries and commodities depending on the initial market conditions, the consumption patterns and policy reactions. For instance, Minot (2011) shows that the spike in maize has had comparatively less impact on SSA than for other commodities since imports from international markets accounting for only five percent of consumption for that commodity. The transmission of the 2008 international maize price spike has been even weaker in Eastern and Southern Africa because most of those countries fill their import needs through cross-border trade with regional white maize producers rather than from overseas. On the contrary, transmission of the price spike from international markets has been much higher in large rice importing countries such as Senegal.

According to the Global Monitoring Report 2012 (IMF and World Bank 2012), the Sub-Saharan African region is particularly sensitive to increases in food prices since the region imports about 45 percent of its consumption of rice and 85 percent of its consumption of wheat and many Sub-Saharan African countries have higher shares of food imports in total imports than the rest of the world. Furthermore, Sub-Saharan African households are more vulnerable than other regions of the world to agricultural price spikes since in most countries around 60 percent of the household spending is devoted to food. They are also likely to be less resilient to food price spikes considering that there are already high levels of

malnutrition specifically among the poor resulting in 38 percent of children being stunted. The situation is most perilous in the drought and conflict-stricken countries of the Horn of Africa, and in the Sahel region.

In the short term, according to the Global Monitoring Report 2012 many Sub-Saharan African countries have adopted targeted domestic policies such as quantitative export restriction or export bans, reduction of import tariffs and domestic taxes on food and cash transfers in order to mitigate the economic and social impact of high energy and food prices, which they did not necessarily have the time to rebuild before the 2011 price spike. Those price spikes episodes have increased their awareness on the usefulness to keep some tariff and consumer tax margins to dampen potential price increase, but also the necessity to find alternative longer term coping mechanisms.

However, on the longer term, higher agricultural prices increase incentive to invest in agriculture. Many countries in SSA have launched new investment programs aiming at increasing agricultural productivity, particularly based on input subsidies specifically targeted at smallholder farmers. According to the Global Monitoring Report 2012 (IMF and World Bank 2012) the increased cereal production has improved the continent's ability to cope with the food price spike of 2011, compared to the experience in 2008. The report recommends that Sub-Saharan African countries should focus on encouraging private investment in agriculture and providing direct support to the agricultural sector in order to further increase agricultural productivity. Since 2007–08 there has been a proliferation of long-term acquisition of farmland in Sub-Saharan African countries by other countries, many of them land and/or water-scarce, seeking to ensure their food supplies. But there are also been a large number of industrial (non food) projects such as for biofuels (FAO, IIED and IFAD 2009). Depending on how they are structured, agricultural investments may inject much-needed investment into agriculture and rural areas, deliver local benefits and include small-scale producers in value chains, but they also carry environmental and social risks that have increasingly raised concerns because they would fall disproportionately on local people. Many publications have indeed looked at the need to integrate smallholder farmers in agricultural markets to fight poverty and food insecurity (e.g. Barrett 2008).

Recommendations from the literature include ensuring that these land deals, and the environment within which they take place, are designed in ways that will reduce the threats and facilitate the opportunities for all parties involved (Hallam 2011). Even though negotiating "*Principles for Responsible Agricultural Investment*" is proving challenging

despite commitments towards an agreement by the FAO, IFAD, UNCTAD and World Bank, the recent successful conclusion of the “*Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the context of National Food Security*” (officially endorsed on 11 May 2012 by the Committee on World Food Security) is a positive first step.

5.1.2. *Modernization of the global agricultural value chains*

Global markets are changing rapidly. In the current phase of globalization, functional and spatial fragmentation of production and consumption have increased and trade in intermediate goods has grown faster than that in final goods, leading to a higher degree of interdependence among national production systems and higher exposure to external shocks, as shown by the recent global crisis (Sturgeon and Memedovic 2010). Task-based production is seen as an opportunity for countries to develop comparative advantages in particular segments of international value chains and to raise technological sophistication, as was the case of Chinese and Indian exports (Memedovic and Iapadre 2009).

Memedovic and Iapadre (2009) look at the evolution of the productive structure of the world economy in the last decades based on the UNIDO INDSTAT 2 2009 database, and find that the respective shares of agriculture has decreased from 10 per cent in 1970 to 3.6 per cent in 2005, and those of industry 38 to 29 per cent while the services sector was rising. But the trend since 2005 has been different with a slower growth in the value added in the service sector than in agriculture and industry, in part to the increase in the relative prices of agricultural, mineral products and energy. The marginalization in global trade of Sub-Saharan Africa can be explained by the fact that during that period, the African region further deepened its specialization in raw materials’ production to the detriment of manufacturing and services, whose combined share of total value added fell from 65 to 53 percent between 1995 and 2008. Building various index to test adequacy with global evolution, they find that African exports structure has become less consistent with the evolution in world demand. But the region has been much more responsive to the positive signals in agriculture since the beginning of the 2000’s to which it has answered by increasing agricultural production.

Focusing on agro-industrial products, it appears that 80 percent of the agricultural trade worldwide now undergoes processing in food and beverages (Wilkinson and Rocha 2008). The most striking feature is that while 60 percent of the demand comes from developed countries, growth in consumption is much faster in developing countries (Yumkella *et al.* 2011). This trend towards an increasing demand from processed products is suppose to

continue due to, among others, the growth in population and per capita consumption associated with changing diet, greater variety and improved quality of processed food products, urbanization, which increases the importance of food preservation and convenience, greater internationalization of retail outlets, which influence shifts in consumer behaviour and patterns, and demographic changes involving increasing female participation in labour markets.

Evolution of the Trade Performance Index—a sectoral benchmarking tool of export performance and competitiveness developed by the International Trade Centre (ITC)—for those products in African countries indicates that African countries have not yet managed to adjust the composition of their agro-industrial exports to fit the changing patterns of world demand (Yumkella *et al.* 2011). Indeed, in sharp contrast with the commodity composition of global agro-industrial exports, exports from Africa are still dominated by unprocessed commodities and the recent expansion have been mostly composed of unprocessed agricultural commodities. Memedovic and Iapadre (2009) show that African countries are considered to have the least developed downstream industries directly related to their resource-based products compared to other regions, because they have rarely diversified their industrial structure by exploiting vertical complementarities in value chains.

But according to Yumkella *et al.* (2011) the regional trend is encouraging since over the last two decades the fastest growth in intra-African trade has been achieved for processed commodities destined for final use (19.8 per cent a year), before semi-processed commodities destined for further processing (18.7 per cent a year), horticulture products (15.5 per cent a year) and unprocessed commodities imported for processing (9.7 per cent annually).

5.1.3. *Prospects from future regional agricultural demand growth*

First, it is important to realize that existing domestic agricultural markets are much larger than what trade figures suggest especially for food crops and livestock products. One of the most cited analysis is that of Diao *et al.* (2003) who show for instance based on FAO and COMTRADE data, that demand for the main cereals in SSA (maize, rice and wheat) has been on average four times larger than imports on the period 1996-2000. With the exception of traditional export crops such as cotton, coffee, cocoa, sugar or tobacco, the main destination of agricultural production is indeed domestic demand. On average only a small share of agricultural production is marketed in Sub-Saharan African countries, the majority of the food staple production is being own-consumed by the producing household. Of the marketed part,

most food crops and livestock products are traded domestically and with neighboring countries, with a large share of informal unreported trade which makes available data uncertain. These shares obviously vary greatly depending on the types of products, and for instance among staple foods, roots crops are usually much less traded than cereals, although they account on average for 20 percent of nutrition requirements.

Secondly, regional demand is mostly met by intra-regional trade and demand growth could be a driving force of overall economic growth. The prospects from increased market food demand to spur growth in Sub-Saharan African countries had already been highlighted by Diao *et al.* (2003) and following work, which showed that on the period 1996 to 2000 the value of regional (intra-African) exports of agricultural products has been more than three times those of exports to non-African markets, and that regional exports, particularly of staples, were likely to become the largest single source of demand growth for African agricultural and food exports over the next 20 years, based on simulations with the partial equilibrium model IMPACT, and a global CGE model. But recently several analysis of the evolution of agricultural demand have put forward that regional demand in SSA might even grow faster than demand from the rest of the world. Indeed, SSA will experience the highest population growth rates of the world (World Bank 2009), and has the potential to become the world's second-fastest growing region after East Asia, according to the Economic Report on Africa 2012 (UNECA and AUC 2012). It is also expected to experience rapid urbanization rates which, together with increasing income level will modify the composition of agro-industrial demand towards more rice, more meat and more processed food products (Yumkella *et al.* 2011).

Third, with the changing international price context, the scope for import substitution, both nationally and regionally has increased (UNECA 2010). Indeed given the geographic proximity of the countries and cultural affinity of the populations, in a context of higher international prices Sub-Saharan African countries themselves could be in a favorable position to take advantage of the increased regional demand (World Bank 2009). There are several positive signs on the regional trend, since not only has regional trade already starting to increase, but also intra-African agro-industrial trade has been less concentrated on specific commodities than trade to the rest of the world and has been faster to adapt its composition to changing demand (Yumkella *et al.* 2011). Nevertheless, there still much to be done since there are many supply side constraints, and the growing demand from the 1980s has been met by a substantial and growing reliance on food imports. Realizing the potential of intra-regional

trade growth might also be constrained by the relatively strong competitive position of actual and potential international suppliers to Africa (UNECA 2010). Analysis of the constraints to supply growth to meet regional demand identify as main limitations the fragmented markets, poor infrastructure and technology dissemination, and rather advocate for the development of regional value chains (UNECA and AUC 2009). By integrating markets of sub-optimal size, sizeable private investments in the different stages of the commodity chain could be encouraged (FAO 2007). Hence the idea has emerged that trade integration is key for the development of several strategic commodities, particularly those identified by the Abuja Food Security Summit of 2006 as being regionally or subregionally strategic. The Summit identified these commodities by their importance to the African food basket, significance to Africa's trade balance measured by contribution to export earnings or import substitution, and by having unexploited production potential in Africa. These commodities included rice, legumes, maize, cotton, palm oil, beef, dairy, poultry and fisheries products at the continental level and cassava, sorghum and millet at sub-regional levels.

5.2. The perspectives from current trade negotiations

Sub-Saharan African countries currently have many trade negotiations on their agenda (UNCTAD 2010), at the regional, bilateral level and multilateral level. We will look at them in turn in order to expose the current state of play, and review the literature estimating the potential prospects from successfully concluding the negotiations.

Following the acknowledgement that non tariff barriers to trade and trade cost were significantly hampering countries from taking advantage of market access opportunities, much is currently being done to reduce them as part of the trade facilitation organized by the World Trade Organization, additional commitments to the ODA for Aid for Trade (mostly oriented to SSA) and additional trade corridors projects with the World Economic Forum (UNECA 2011).

5.2.1. The prospects from accelerating regional integration

As we have seen in the previous section, despite the existing regional agreements in place, there is still scope to decrease both tariff and non tariff barriers among Sub-Saharan African countries and take more advantage of the growing intraregional trade potential.

Based on analysis of the past constraints to regional integration (UNECA 2010) it appears that it is foremost the strong political will to effectively do so that has been missing.

But recently, there has been a renewed political interest in accelerating regional integration by all governments in SSA and some development agencies⁸. Even the WTO Director General (Lamy 2012) and Deputy Director (Rugwabiza 2012) are now advocating that greater regional integration is a priority for Africa. The main reason advanced is that considering the uncertainty of the prospects from global economic growth following the economic and financial crisis, comparatively African growth prospects are much more promising and robust (Lamy 2012). Beyond fostering its own development, they express the hope that the region could actually become a growth pole for the rest of the world.

The Economic Report on Africa (UNECA and AUC 2012) exposes how the development of regional commodity (especially agricultural) value chains could help Sub-Saharan African countries exploit economies of scale at all stages of the commodity value chains, increasing vertical coordination (among the different stages of commodity chains) and complementary diversification and specialization (among countries and sub-regional groupings based on their various resource endowments), provided the necessary investment related to infrastructure, technology and institutions are made. National and regional markets are not only seen as potentially profitable outlets, but also as training grounds, in which firms can upgrade their operations to eventually break into international markets for high-value products. Three case studies of regional value chains are provided, on cotton, meat and leather products.

Despite a large literature on regional trade integration in Sub-Saharan Africa, ex-ante quantitative estimates of the expected impacts from implementing the regional agreements currently negotiated are scarce. In a review of the literature te Velde (2008) finds that most ex-ante studies focus on a specific type of measure, usually investment, non tariff measure or trade costs, within one specific regional agreement or at a country or commodity level. This is due to the lack of reliable data to represent Sub-Saharan African economies, on the level of informal, unreported trade but also on the bilateral tariffs and non tariff barriers between Sub-Saharan African countries.

The most cited ex-ante analysis looking at the decrease in trade costs at the Sub-Saharan African level is Diao *et al.* (2003). It shows that efforts to decrease marketing costs by improving the productivity of the transport sector by 30% in South Africa and by 50% in

⁸ See the Outcome Statement of the “Joining up Africa: Regional Integration” conference agreed in London, United Kingdom on March 4th 2010 by representatives from the African Development Bank, the World Bank, the European Commission, the WTO and the Department for International Development (DFID). See also the declarations at the 18th African Union Summit on “Boosting Intra-Trade” on 23-30 January 2012 in Addis Ababa, Ethiopia.

all other African countries could boost Africa's total agricultural exports by 28% and intra-regional trade by 22%. But it does not look specifically at the reduction in tariffs and non tariff measures linked with regional agreements.

Seck *et al.* (2010) look at the impact of reducing non tariff measures within ECOWAS on agricultural trade with a gravity model. ECOWAS membership is found to have resulted in net trade creation. But no information is given on the relative magnitude of the effects.

Comparing the ex-post impacts of COMESA in SSA, the ASEAN Free Trade Agreement (AFTA) and MERCOSUR in South America on agricultural trade in the different continents with gravity modeling, Korinek and Melatos (2009) find an increase in the bilateral trade of COMESA countries since its implementation in 2000 but also some trade diversion away. In comparison to AFTA and MERCOSUR, trade creation within COMESA is relatively low, probably because of the relatively higher trade costs and lower complementarity of natural endowments and smaller markets in COMESA.

Simulating the potential ex-ante effects of SADC on agricultural trade with a partial equilibrium analysis, Nin-Pratt *et al.* (2008) find a small but positive net trade creation effect and welfare effect in SADC countries. They explain these small impacts with already low level of tariffs on agricultural products between SADC countries and the low level of complementarity in their export structure.

The only continent-wide ex-ante assessment of the tariff reduction from regional integration to our knowledge can be found in Douillet (2011), but it only simulates total elimination of tariffs under two hypothetical regional integration scenarios (four simultaneous free trade agreement in Western Africa, Central Africa, Eastern Africa and Southern Africa, and one Sub-Saharan African Free trade agreement). For lack of data, it does not consider the effect of non tariff measures, nor of trade costs, and still does not account for all the countries in Sub-Saharan Africa. Similarly to other multicountry studies of regional integration, whether ex-post regressions or ex-ante simulations, Douillet (2011) finds that the distribution of the gains of regional integration among participating countries is unequal. For instance, Venables (2003) had already highlighted that under the protection of the East African Community tariff in the 1960-1977 period, Kenya successfully engaged in structural transformation and developed its manufacture but it was at the expense of manufacturing sectors in Tanzania and Uganda. Douillet (2011) show that South Africa and the "Western African" region would reap most of the gains from the regional integration schemes.

Considering the renewed interest in regional integration at the continental level, new ex ante quantifications of the potential impacts from reducing tariff and non tariff barriers are still lacking. Considering their political sensitivity, specific attention should be given to the impacts on tariff revenue loss, the issue of overlapping memberships and the distributional effects at across, countries, sectors, and households.

5.2.2. *Economic Partnership Agreements*

The EPA negotiations with all ACP countries were launched in 2003 at the regional level. The EU signed its first regional EPA with CARIFORUM in October 2008 but regional negotiations with Sub-Saharan African countries were not successful and continued on a bilateral basis (Guerin *et al.* 2011).

It is recognized that the EPA negotiations have polarized the continent with the LDC having much less interest in advancing the negotiations than non LCDs. However, some stakeholders have raised concerns over the capacity of Sub-Saharan African countries not only to implement the agreements but also to negotiate them (Guerin *et al.* 2011) since they are carried out by Regional Economic Communities (RECs) which are recognized to lack capacity as institutions (Kuhlmann, 2010). Overlapping regional memberships have caused conflicting requirements as each region has its own set of commitments (Collier and Venables 2007).

Most countries that have signed Interim EPA (IEPA) so far are non LDC African countries highly dependent for a very concentrated part of their exports on their preferential access to the European market: Ivory Cost (banana and cocoa), and Ghana (cocoa) for Western Africa, Cameroon (banana) for Central Africa, Bostwana, Swaziland, Zimbabwe (cattle) and Mozambique for Southern Africa, Kenya (textile) and Seychelles (fish) for Eastern Africa. Some African LDCs such as Burundi, Rwanda, Tanzania, Uganda, Mozambique, Madagascar and Lesotho also signed. All countries whose governments initialed the IEPA (such as the ones previously signed plus Namibia) have benefited from the maintenance of traditional trade preferences. But since January 1 2008, all countries that have refused to sign interim agreements have been transferred to the GSP schemes. The LDCs such as Benin, Burkina Faso, Gambia, Guinea, Guinea Bissau, Liberia, Mali, Mauritania, Niger, Senegal, Sierra Leone and Togo export under the EBA initiative, which only means more restrictive rules of origin. But the non LDCs such as Gabon, Congo, Nigeria have changed

status from Cotonou preferences receiver to normal GSP receivers and now faces higher tariffs on their exports to the EU. The current state of play leaves all possibilities open for the realization of the EU-ACP FTAs.

The transformation of non reciprocal CPA into reciprocal FTA have fuelled concern that ACP countries might loose from trade diversion from more efficient third country suppliers to EU exporters, that more competitive EU imports would undermine local industry and agriculture production and the loss of tariff revenue on EU imports would hamper the provision of government services and, in general, that it would exacerbate rather than reduce overall poverty levels (Boysen and Matthews 2009).

Since the beginning of the EPA negotiations, there have been several studies that have tried to assess ex-ante the economic impact of EPAs (see Cali and te Velde 2006 for a survey). Quantitative simulations point to the fact that for Sub-Saharan Africa to experience a positive welfare effect of the EPAs, regional integration needs to be achieved (see for instance Wolf 2000, Keck and Piermartini 2005, Berisha-Krasniqi *et al.* 2008, Tekere and Ndlela 2002, Perez and Karingi 2007, Karingi *et al.* 2005, and Fontagné *et al.* 2008).

From a comprehensive literature review, Guerin *et al.* (2011) estimate that the convergent findings are that at the regional level West Africa, Central Africa, the Common Market for Eastern and Southern Africa (COMESA), and the Southern African Development Community (SADC) might benefit from trade creation and increased welfare, but welfare effects would be small and negative for EAC. At the country level, the agreement could have positive impacts on Ghana, Nigeria, Cameroon, Gabon, DR Congo, Kenya, Mauritius, Sudan, Ethiopia, South Africa, Zimbabwe but Cape Verde, Gambia and Swaziland could lose.

5.2.3. *The Doha Round*

The November 2001 declaration of the Fourth Ministerial Conference of the World Trade Organization (WTO) in Doha, Qatar, provides the mandate for negotiations known as the “Doha Round”. The Doha Development Agenda (DDA) was to take into account the specific needs of developing countries. Since the agreement on the July 2008 package, no substantial achievement to conclude the Doha Round has been made. Hence, as negotiations on specific provisions are still ongoing, ex-ante simulations of the potential impact of the DDA differ by the assumption they make for instance on the tariff reduction formula and the flexibilities.

Several studies have estimated the potential gains from the conclusion of the Doha Round. But Bouët (2008) reviews the literature and shows that existing empirical assessments of trade integration differ by the data, behavioral parameters, or theoretical features and cannot be considered comparable. Considering that the extent to which Sub-Saharan Africa, as a region could gain is still largely debated, needless to say that the same goes for the individual countries considering the heterogeneity of the region (Thorbecke 2009).

An issue which has attracted much attention has been the potential effect of the reduction of agricultural “distorsions” in developed countries (domestic support and export subsidies), particularly in the EU. Indeed, in order to maintain a reasonable standard of living for workers employed in guaranteed prices were set high enough that even the least efficient producers could still make a living (Trebilcock and Howse 2005) and the EU has been buying agricultural products whenever prices fell below specified support levels, and giving production subsidies which have artificially kept EU food prices higher than world prices over the years. This gave the incentive to EU farmers to increase production in excess of domestic demand. As a result, the EU was faced with huge quantities of surplus production (milk, meat, butter, cereals) which were exported thanks to export subsidies (Guerin *et al.* 2011). According to Krugman and Obstfeld (2009) without this policy, the EU would rather have been a net food importer, hence the distortions have been driving down world price of the agricultural products exported by the EU while maintaining internal price higher than market price. According to Anania (2009), all the countries that have had preferential access to the EU market benefit from the higher EU prices for their exports while benefitting from the lower world prices for their imports. It is expected that as a consequence of agricultural policy reform removing those distortions, international price would increase and internal EU price would decrease. Under this narrative, the countries benefiting from preferential market access to the EU will see these benefits eroding, while seeing the price of their imports increase. On the other hand, net-exporters that do not have a preferential access to the EU agrifood market such as India or Brazil are expected to benefit from the reform. Panagariya (2005) was among the first to highlight the detrimental effect of the removal of developed countries agricultural support could have on poor net food importing countries, but the extent to which this will effectively be the case and the classification of which countries would be detrimentally affected is still debated (Bouët 2008).

By reducing tariffs worldwide, a DDA would entail additional market access for all countries. Developing countries would have reduced commitments and LDC would be

exempted. It is a consensus that the reduction of existing tariff barriers would reduce the preferential margins of Sub-Saharan African countries. The debate lies on whether they would be able to take advantage of the new market access to compensate for the lost preferential margin (Bouët, Fontagné and Jean 2006). Different models and scenarios assumptions lead to different results in the existing literature. Douillet(2011) shows how the aggregate impact for Sub-Saharan Africa which is found to be overall positive, hides strong disparities between countries, since the gains found are in reality concentrated on the most competitive ones such as South Africa and Nigeria. Considering the uncertainty regarding the quality of those data, and the limited availability of country level data and data on the others barriers to trade it should not be relied directly on those results to determine which countries and sectors would gain or lose from the trade agreements. The more important implications is that country to country impacts will differ, thus requiring particular attention and additional analysis.

5.2.4. *Duty Free Quota Free*

Recognizing that LDCs could be offered more in the DDA, it was agreed at the 2005 WTO Ministerial that all developed countries would offer a Duty Free Quota Free access to their markets for LDCs. Since 2001, some Organization for Economic Cooperation and Development (OECD) countries have already started implementing DFQF access to some LDCs. A number of emerging countries (Turkey, Korea, and China) have also put in place preferential market access albeit covering fewer products (Elliott 2010).

Some ex-ante analysis have studied the impacts of the preferential multilateral integration of Sub-Saharan Africa, in the form of fully unrestricted access to all the Quad developing countries (Canada, the European Union, Japan, United States) in Ianchovichina *et al.* (2001). Berisha-Krasniqi, Bouët and Mevel (2008) and more recently Bouët *et al.* (2010) and Bouët and Laborde (2011), using a general equilibrium model and partial equilibrium models, find that there is little to expect for LDCs from an additional DFQF market access if this market access does not cover 100 percent tariff lines and is not extended to as many preference-giving countries as possible, including emerging markets economies.

The extent to which Sub-Saharan African LDC will be able to take advantage of this increased market access will depend on the exact conditions of the agreements, specifically regarding Rules of origins and standards, and on Sub-Saharan African LDC competitiveness with other countries granted the same preferences. Douillet (2011) nevertheless highlights the fact that this agreement risk pushing Sub-Saharan African countries further into specializing

in the export of raw agricultural products, to the detriment of an increase of the value added captured domestically and the diversification of their export base.

5.2.5. EU GSP reform

As seen in previous section, most Sub-Saharan African countries benefit from the GSP scheme of the EU, and will probably turn to it if the EPA negotiations fail. From Yumkella *et al.* (2011), it appears that a few exports products, namely sugar, bananas and tobacco, were generating most of the value added returns on Sub-Saharan African, because of highly protective domestic policies on those products and specific import schemes for ACP countries. But the value of these benefits has fallen as the EU has reformed its domestic sugar policy and its banana import scheme.

Additionally, the latest reform of the GSP scheme, which will be applied starting in 2014 will tend to impose more stringent graduation rules from GSP scheme for non LDC countries (countries “graduate” out of the scheme under lower development standards and for lower threshold of products) according to Guerin *et al.* (2011). Those reforms are intended to increase the “adjusted” preferential margin from GSP for the countries that benefit from it. But in reality, some countries and products face graduation out of the GSP, such as Namibia and Botswana since both are classified as an Upper Middle Income Country, and Kenya will face new tariffs on several key exports (Stevens *et al.* 2011). It might also erode existing preferences for Sub-Saharan countries currently under either EBA or an EPA if powerful competitors such as Pakistan become eligible for GSP. The aforementioned ODI research suggests that in the end gains risk being small and focused on a few states and products, such as Senegal for fish and Kenya for green beans.

In light of the other multilateral negotiations, including the Doha Round and the Duty Free Quota Free Proposal, the benefit from such preferential schemes is bound to decrease.

5.2.6. On comparative analysis with CGE

From the previous literature review we find that comparative ex-ante approach on those different policy reforms from the point of view of one individual country are rarely if ever done, despite its usefulness to help clarify policy options for Sub-Saharan African countries regarding the different trade policies options they have. As simulation results based on different models and scenarios assumptions are difficult to compare (Bouët 2008), Douillet (2011) has tried to provide some comparative results based on one coherent global CGE

framework, making clear the assumptions made, the data and parameters used and how they limit such study. It appears that most supply side constraints are not well represented in CGE models. Despite some assumptions on imperfect mobility of factors, most CGE models rather assume (“unrealistically“ according to Dorward et al. 2004) that economic agents, including the majority of smallholder farmers, are able to respond to new price incentives by substantially increasing their supply. Additionally because of the lack of data, trade costs and other barriers to trade, especially internal barriers between the producers and the domestic markets will not be integrated into such type of analysis, whereas there is large evidence that smallholder farmers are linked to inadequate transportation, storage and communication infrastructures, have low levels of productivities and little technical or financial capacity to raise it on their own might in reality prevent many of them, and especially poor farmers within them, from taking advantage of any opportunities that arise (e.g. de Janvry, Fafchamps and Sadoulet 1991). In this end it is justified to consider that the assumptions of such CGE models do not reflect Sub-Saharan African countries reality. As a consequence, the results should be considered as illustrating the potential demand for Sub-Saharan African products that could arise provided all those supply side constraints were relieved.

That being said, the most important result of this research comes from the finding that for Sub-Saharan African countries as a whole an ambitious regional trade integration could deliver as much as multilateral integration in terms of gross domestic product (GDP), welfare growth (defined as equivalent variation of the utility of the representative agent), and agricultural exports volumes. Given the simplifying theoretical assumptions and missing and uncertain data for Africa, the main interest of this result is to comfort the intuition from the analysis of this paper that economic gains from regional integration are far from being negligible and could under some assumption be equivalent to that of multilateral integration.

This research also highlights the differences in the distributional aspects of growth, and finds that even in a scenario combining the Doha Development Agenda and the Duty free Quota Free, developed countries are expected to reap most of the gains from trade liberalization.

It further illustrates that the patterns of agricultural export growth differ between trade integration schemes. The outcome of trade integration depends on the initial trade patterns and are driven by the relative competitiveness of other exporters granted the same market access. As a consequence, the multilateral integration scenarios are found to encourage further specialization of the Sub-Saharan African region in the export of unprocessed agricultural

exports. This trend is not coherent with the view that countries in SSA should not only diversify their export products and destinations, but also capture more value-added on their exports as indicated in this paper. On the contrary, deeper regional integration is found to foster the processing of agricultural exports.

The policy implication of those results is that in order for a multilateral integration, even preferential such as the generous Duty Free Quota Free to be coherent with the stake of agricultural-led industrialization, countries in SSA need to first increase their competitiveness. Regional integration could be a way to do so, since it would enable most countries to combine increased exports volume and increase transformation of agricultural exports and enable learning by doing. Another option would be for the granting countries to help Sub-Saharan African countries to reduce their trade costs, comply with the sanitary and phytosanitary and technical standards, increase their competitiveness and upgrade in the value chains. But since agricultural products are often sensitive products for the importing countries, the 100 percent Duty Free Quota Free is not likely to be politically feasible, and the agricultural processed products are the most likely to be excluded from it. Obviously, it should not be forgotten, that specific accompanying measures are preconditions in order to ensure that countries and households within these countries are able to take advantage of the new market opportunities that have been talked about in this paper.

6. Conclusion

This paper has presented some of the main stylized facts on Sub-Saharan African agricultural trade and has tried to highlight the challenges and opportunities from the changing global agricultural markets and the trade agreements currently negotiated.

The Sub-Saharan African region as a whole and a majority of countries within it are among the most trade dependent economies in the world, in terms of trade as a share of their GDP, of dependence on tax on international trade for their government revenue, but also of dependence upon primary exports. Considering that Sub-Saharan African countries are among the poorest countries of the world, the dependence on imports for their consumption, exports as a source of foreign exchange earnings and revenue at the national level, means that not only are they relatively more sensitive to changes in the global trade context than the rest of the world, but they are also much more vulnerable to trade shocks than other countries in the world. Their heavy reliance on tax on international trade as part of their government revenue

could explain some reluctance in reducing their import tariffs. The prospects of more volatile agricultural price drives thus legitimate concerns for the region considering the concentration of exports on agricultural products for a majority of countries but at the same time the fact that they are also expected to stay at higher level could be an opportunity.

The review of the literature finds little support for preferential and regional agreements, which until recently had been mainly analyzed in order to determine whether they were “building blocks” or “stumbling blocks” towards multilateral liberalization. But recently three elements have contributed to change that trend. First, the renewed political commitments to make regional integration in Africa a priority by African governments has been supported by several economic analysis in favor of the development of regional value chains taking advantage of economies of scale, developing trade in task, and building complementary infrastructure. Secondly, it is also considered that in view of the high agricultural prices on international markets an increasing part of the agricultural demand growth in Africa could be met by regional production. Third, the context of the global economic recession has considerably shifted interest towards the African continent as a future leading growth pole.

But it appears that the trade agreements Sub-Saharan African countries have been pursuing regionally and the preferences they have been given historically by the EU more recently by the USA have been driven more by political than economic reasons. As a result, there a been a multiplication of overlapping regional initiatives and regional trade flows have stayed very low and tariff barriers on regional trade very high by international standards. Despite substantial trade margin on average, Sub-Saharan African countries face very different tariffs, with mineral and natural resource exporters benefiting from lower tariffs than the agricultural exporters, which face highly negative composition effect of their exports, skewed towards goods that are still protected overall. Indeed every region of the world consistently apply higher tariffs on agricultural imports than on other types of imports, with on average substantial escalation on more processed products. Hence looking at tariffs, there is still scope to substantially reduce them both at the multilateral and regional level for Sub-Saharan African exports, with the exception of the EU, the only partner to which Least Developed Countries from SSA already benefit from a duty free quota free access.

Several types of non tariffs measures and trade have been growingly recognized as significantly hampering trade. Recently, new databases with estimates of some of those costs have led to findings implying that their reduction could have significant impacts on the trade volumes, which could be higher than the effects of additional market access, especially for the

Sub-Saharan African countries that already benefit from substantial market access. They results have important policy implications in light of the Aid for Trade policy agenda that has surfaced in official development assistance (ODA) to developing countries and in the Doha Round with the trade facilitation initiatives.

As the EU grants preferential market access to an increasing number of countries, Sub-Saharan African countries are slowly experiencing an erosion of their preference. Further multilateral liberalization would only increase more those preferences. Existing simulations of further multilateral liberalization (both Doha Development Agenda and Duty Free Quota Free market access proposal) show that the net effect on each Sub-Saharan African country really varies, depending on the extent of this erosion and on whether they are successful in taking advantage of the new market access. Countries and sectors in SSA are expected to be impacted heterogeneously. One cannot but notice that there is a lot of uncertainty on the distributional impacts of most trade negotiations, in particular on regional integration.

In the end, it can never be overstated how improving small holder farmers access to the domestic markets is a precondition in order to ensure that countries and households within these countries are able to take advantage of the new market opportunities discussed in this paper.

APPENDIX A: Top exports of Sub-Saharan African countries

TABLE I.A.1 — TOP THREE EXPORTS OF SUB-SAHARAN AFRICAN COUNTRIES

Country	Product (Share of total exports)	Number of products accounting for 75 percent of total exports
Angola	Petroleum oils and oils from bituminous minerals, crude (96.3)	1
Benin	Cashew nuts, in shells (29.5), Cotton, not carded or combed (28.7), Copper waste and scrap (6)	6
Botswana	Diamonds, nonindustrial, unworked or simply sawn or cleaved (27.9), Nickel mattes (19.9), Diamonds, nonindustrial, not mounted or set, not elsewhere specified (8.6)	16
Burkina Faso	Cotton, not carded or combed (52.1), Gold, semi-manufactured, including platinum plated, nonmonetary (19.6), Sesamum seeds (9.1)	3
Burundi	Coffee, not roasted, not decaffeinated (76.1), Black tea (fermented) and other partly fermented tea (9.3)	1
Cameroon	Petroleum oils and oils from bituminous minerals, crude (39.6), Cocoa beans, whole or broken, raw or roasted (18.7), Bananas, including plantains, fresh (8.4)	5
Cape Verde	Tunas, yellowfin (16.4), Fish, whole or in pieces (13.5), Men's and boys' trousers and shorts, of cotton, not knitted (10.4)	9
Central African Republic	Logs, tropical hardwoods, not elsewhere specified (25.8), Diamonds, not mounted or set, unsorted (25.4), Logs, tropical wood specified in Subhe (16.7)	4
Chad	Petroleum oils and oils from bituminous minerals, crude (90.9), Petroleum oils and oils from bituminous minerals, noncrude (5.6)	1
Comoros	Cloves (whole fruit, cloves and stems) (32.1), Vessels and other floating structures for breaking up (26.8), Essential oils, not elsewhere specified (18.6)	3
Congo	Petroleum oils and oils from bituminous minerals, crude (87.8)	1
Congo, Dem. Rep.	Cobalt ores and concentrates (20.7), Petroleum oils and oils from bituminous minerals, crude (16.6), Copper ores and concentrates (14.1)	6
Cote d'Ivoire	Cocoa beans, whole or broken, raw or roasted (36.3), Petroleum oils and oils from bituminous minerals, crude (14.6), Cocoa paste, not defatted (8)	7
Equatorial Guinea	Petroleum oils and oils from bituminous minerals, crude (72.7), Liquefied natural gas (22.2)	2
Eritrea	Prefabricated buildings (19.3), Sheep, live (14.2), Men's and boys' shirts, of cotton (6.9)	19
Ethiopia	Coffee, not roasted, not decaffeinated (31), Sesamum seeds (24.9), Cut flowers and flower buds, fresh (10.9)	7
Gabon	Petroleum oils and oils from bituminous minerals, crude (69.9), Manganese ores and concentrates (9.8), Logs, tropical hardwoods, not elsewhere specified (7)	2
Gambia, The	Cashew nuts, in shells (44.5), Petroleum oils and oils from bituminous minerals, crude (), Titanium ores and concentrates ()	4
Ghana	Cocoa beans, whole or broken, raw or roasted (49.7), Manganese ores and concentrates (8.5), Cocoa butter, fat and oil (5.6)	7
Guinea	Aluminum ores and concentrates (62.9), Aluminum oxide not elsewhere specified (11.2), Coffee, not roasted, not decaffeinated (4.3)	3
Guinea-Bissau	Cashew nuts, in shells (92.2)	1
Kenya	Black tea (fermented) and other partly fermented tea (14.3), Cut flowers and flower buds, fresh (13.8), Coffee, not roasted, not decaffeinated (5.9)	54
Lesotho	Diamonds, nonindustrial, unworked or simply sawn or cleaved (33.3), Men's and boys' trousers and shorts, of cotton, not knitted (13.8), Pullovers, cardigans, and similar articles, knitted of cotton (11)	6
Liberia	Cargo vessels and other vessels for transport of goods or persons (42.1), Tankers (19.3), Petroleum oils and oils from bituminous minerals, crude (13.3)	4
Madagascar	Shrimps and prawns (9.3), Women's and girls' trousers, overalls, breeches, and shorts, of cotton (6.7), Vanilla (5.6),	31
Malawi	Tobacco, partly or wholly stemmed (63), Dried leguminous vegetables, shelled, not elsewhere specified (8.8), Black tea (fermented) and other partly fermented tea (6.3)	3

TABLE I.A.1 continued

Country	Product (Share of total exports)	Number of products accounting for 75 percent of total exports
Mali	Cotton, not carded or combed (39.3) , Mineral or chemical fertilizers containing nitrogen, phosphorus, potassium (12.5), Sesamum seeds (8.1)	8
Mauritius	T-shirts, singlets, and other vests, knitted of cotton (13.4), Cane sugar, raw (12.2) , Tunas, skipjack, and bonito (11.2)	36
Mozambique	Aluminum, unwrought, not alloyed (38.1), Electrical energy (10.5), Light oils and preparations (9)	8
Namibia	Natural uranium and its compounds (16.4), Unwrought zinc, containing by weight 99.99 percent or more of zinc (14.5), Uranium ores and concentrates (13.3)	7
Niger	Natural uranium and its compounds (70.5), Light oils and preparations (23.8)	2
Nigeria	Petroleum oils and oils from bituminous minerals, crude (86.3), Liquefied natural gas (7.5)	1
Rwanda	Coffee, not roasted, not decaffeinated (29) , Niobium, tantalum, and vanadium ores and concentrates (20.6), Tin ores and concentrates (11.2)	5
São Tomé & Príncipe	Cocoa beans, whole or broken, raw or roasted (47.1) , Wristwatches, other than automatic winding (12.3), Aircraft, unladen weight of 2,000–15,000 kilograms (9.7),	4
Senegal	Phosphoric acid and polyphosphoric acids (25.5), Fish, fresh and chilled, not elsewhere specified (6.8), Fish, frozen, not elsewhere specified (6)	19
Seychelles	Tunas, skipjack, and bonito (59.2), Tunas, bigeye (Thunnus obesus) (7.3), Skipjack and stripbellied bonito (5.4)	4
Sierra Leone	Diamonds, nonindustrial, unworked or simply sawn or cleaved (21.5), Titanium ores and concentrates (11.8), Cocoa beans, whole or broken, raw or roasted (8.5)	22
Somalia	Goats, live (28.3), Sheep, live (24.3), Live bovine animals (21.6)	4
South Africa	Platinum, unwrought or in powder form (9.3), Gold, unwrought, nonmonetary (6.4), Iron ores and concentrates, nonagglomerated (5.6)	103
Sudan	Petroleum oils and oils from bituminous minerals, crude (91.3)	1
Swaziland	Cane sugar, raw (15.7), Mixtures of odoriferous substances for the food or drink industries (13.4), Food preparations not elsewhere specified (10.6)	25
Tanzania	Coffee, not roasted, not decaffeinated (9.6), Tobacco, partly or wholly stemmed (9.2) , Precious metal ores and concentrates, other than silver (8.3)	31
Togo	Cocoa beans, whole or broken, raw or roasted (47.1), Groundnuts (8.3) , Gold, unwrought, nonmonetary (7.7)	5
Uganda	Coffee, not roasted, not decaffeinated (35.4) , Fish fillets and other fish meat, fresh or chilled (8.8), Tobacco, partly or wholly stemmed (7.5)	15
Zambia	Refined copper, cathodes and sections of cathodes (49.8), Copper, unrefined, and copper anodes for electrolytic refining (16.5), Copper ores and concentrates (7.8)	4
Zimbabwe	Tobacco, partly or wholly stemmed (22.9) , Ferro-chromium containing by weight more than 4% carbon (9.1), Cane sugar, raw (8.3)	19

Note: Include only products that account for more than 4 percent of total exports.

Source: African Development Indicator database

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