3

Intra-African Trade Integration

Sunday Odjo, Fousseini Traoré, and Chahir Zaki

3. Introduction

Regional integration arrangements have proliferated across Africa over the last 40 years. The most clearly stated objective of this quest for integration is to expand intraregional trade, as it is believed that the harmonization of regulations and policies will help reduce trade costs and facilitate economies of scale. This trend is now being accelerated as African policy makers are pushing for broader integration to realize the long-held desire for pan-African unity in the form of a continental free trade area. This chapter explores how effective regional trade arrangements (RTAs) have been in promoting intraregional trade in Africa. To do this we examine several indicators, since one single indicator cannot capture the multiple dimensions and determinants of trade integration (Bouët, Cosnard, and Laborde 2017).

Section 2 of this chapter reviews Africa's regional integration initiatives and focuses on new developments brought recently to the efforts toward creating broader integration. Section 3 presents the cost of trading in Africa and analyzes to what extent trading blocs are integrated. Section 4 examines the diversification of African regional economic communities (RECs) at geographical and sectoral levels, as well as in its intra-industry trade. We conclude with our findings in Section 5.

Regional integration initiatives in Africa: Where do we stand?

Africa encompasses several RTAs, which are also known as regional economic communities (RECs). The membership of these RECs overlaps, making the tasks of harmonizing and coordinating policies and regulations within the RECs more complex. Table 3A.1 lists the member countries of the main RECs. In West Africa, the membership of the Economic Community of West African States (ECOWAS) overlaps with that of the West African Economic and Monetary Union (WAEMU), where 8 of 15 ECOWAS member states form WAEMU. In Central Africa the Economic Community of Central African States (ECCAS) has 11 members, of which 6 are also members of the Central African Economic and Monetary Community (CEMAC). Similarly, the Common Market for Eastern and Southern Africa (COMESA) comprises 20 members including 3 ECCAS members, 8 of the 15 members of the Southern Africa Development Community (SADC), 1 of the 5 members of the Southern Africa Customs Union (SACU), and 1 of the 5 members of the Arab Maghreb Union (AMU). Further, all 5 members of SACU are part of SADC, and all members of the East African Community (EAC)—except for Tanzania—are part of COMESA.

According to the Abuja Treaty signed by African Heads of State in 1991 and which entered into force in 1994, the different RECs should have completed a gradual removal of tariff and non-tariff barriers affecting intra-community trade by 2007; and free trade areas and customs unions should be established in the RECs by 2017. These measures were intended to enable the coordination and harmonization of tariff and non-tariff systems among RECs with a view to creating a continental customs union by 2019, a common market by 2023, and an African economic community by 2028. However, only EAC has reached the stage of having a common market. ECOWAS has a customs union. COMESA, SADC, and ECCAS have only established free trade areas; and AMU has yet to form a free trade area (ECA 2016).

There are critical issues associated with the overlapping memberships of COMESA, SADC, and EAC, given that COMESA and SADC aim to form a customs union and that some of their member countries will have to choose one of these two RECs. This section reviews new developments in regional integration that may help overcome the dilemma of overlapping memberships across RECs.

There have been significant changes in the regional integration landscape recently. Many initiatives have emerged, shaping a new panorama, and we focus here on the three main ones.

The Tripartite Free Trade Area (TFTA)

The TFTA is a free trade agreement among three RECs: COMESA, SADC, and EAC. It covers 27 countries belonging to the three RECs.[1] However, only 22 of the 27 members have signed the agreement, and of these only Egypt, Kenya, South Africa, and Uganda have both signed and ratified. The TFTA, if fully implemented, will represent the second largest free trade area in Africa,[2] comprising almost half of African countries with a population of 683 million people and a total gross domestic product (GDP) of US$1.2 trillion (Mold and Mukwaya 2017). It is expected that the TFTA will constitute a strong basis for the African continental free trade area (AfCFTA).

The TFTA negotiations have two phases. Phase I negotiations concerned tariff concessions, trade remedies, and rules of origin. During Phase II, trade in services and trade-related areas (such as competition, cross-border investment, and intellectual property rights) will be covered. This phase, which should have started in June 2016, has been delayed because of ongoing discussions on tariff offers under Phase I negotiations (TRALAC 2019).

ECOWAS and North Africa

Two events occurred recently in the West Africa region, launching a new era for ECOWAS extension: the signing of an association agreement with Mauritania and the will expressed by Morocco to join the community.

Despite being a founding member of ECOWAS in 1975, Mauritania left the community in 2000 before coming back in 2017. The economic partnership agreements (EPAs) negotiated between Mauritania and ECOWAS, and the European Union, were completed in 2014 and the final agreement was signed by Mauritania in September 2018. Mauritania signed an association agreement with ECOWAS in 2017. In doing so, Mauritania accepted the ECOWAS trade liberalization scheme and committed to apply the common external tariff (CET). The agreement, which also provides for free movement of people and investment, was authorized for ratification in December 2018.

Meanwhile, during the 51st Summit of Heads of State and Government, in June 2017, Morocco officially requested to join ECOWAS after a series of talks. ECOWAS accepted Morocco's request in principle, and a set of studies has since been initiated to examine all implications (political, economic, etc.) of this request before endorsing it.

1 - Angola, Botswana, Burundi, Comoros, Djibouti, Democratic Republic of Congo, Egypt, Eritrea, Ethiopia, Kenya, Lesotho, Libya, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Rwanda, Seychelles, South Africa, South Sudan, Sudan, Swaziland, Tanzania, Uganda, Zambia, and Zimbabwe.
2 - Just behind the African continental free trade area.

Since Morocco's request is being challenged by the private sector in some countries (such as Nigeria) the ECOWAS commission is still performing in-depth studies to assess the impact of the membership bid.

A committee of heads of states from Côte d'Ivoire, Ghana, Guinea, Nigeria, and Togo has been put in place to supervise the studies and to guide the decision on whether to approve the accession request by consensus, by unanimity, or by a qualified quorum of member states. In addition to the reluctance of the private sector in some ECOWAS countries, the fact that Morocco has signed a significant number of trade agreements with other regions and countries is also a matter of concern. Finally, ECOWAS plans to have a common currency, starting in 2020. Whether or not Morocco is willing to join this project is also a matter of discussion.

It is worth noting that, as AMU is not working as expected, Tunisia and Algeria have also expressed their willingness to participate more actively in ECOWAS. Tunisia has been an observer since November 2017.

The Continental Free Trade Area

AfCFTA is a very ambitious initiative and was launched in Kigali, Rwanda, in March 2018. It aims to create one of the largest free trade areas in the world, involving 1.2 billion people covering 55 countries, with US$2.5 trillion in terms of GDP. Initially signed by 44 countries at the Kigali summit, 5 additional countries endorsed the agreement during the 31st Ordinary Session of the African Union Assembly held in Mauritania in July 2018, bringing the total number of signatories to 49. To date 54 countries[3] have signed the agreement and 27 have deposited their instrument of ratification with the Chairperson of the African Union Commission (AUC). The agreement entered into force in May 30, 2019.[4]

AfCFTA is a milestone in the African integration process as specified in the 1991 Abuja Treaty, which targets a customs union and a single currency as the ultimate goal. The process involves two phases. During Phase I, three protocols will be negotiated: trade in goods, trade in services, and dispute settlement. The first protocol, on goods, is currently being negotiated and covers market access, non-tariff barriers (such as technical barriers to trade, and sanitary and phytosanitary measures), rules of origin, and trade facilitation. During Phase I negotiations it was decided that 90 percent of trade will be liberalized, while some "sensitive" products will be liberalized at a later stage of the process, and other "excluded" products will remain protected. The modalities regarding the selection of these products were clarified at the Cairo summit in December 2018 and are now known as the "Cairo Package." Negotiators agreed that products that could be excluded from liberalization shall not represent no more than 3 percent of tariff lines and account for no more than 10 percent of the value of imports from other African countries.[5] Phase II negotiations will cover three additional protocols: competition policy, investment, and intellectual property.

AfCFTA is important to the continent for three reasons: (1) although not yet a customs union, it allows Africa to be a significant partner in global trade negotiations (e.g., with China and the European Union) instead of being a collection of small regions.

3 - Representatives of Nigeria and Benin added their signatures at the 12th Extraordinary Summit of Heads of State and Government of the African Union in Niamey on July 7–8, 2019. Eritrea is the only country that has not yet signed the agreement.
4 - The agreement was set to enter into force 30 days after the 22nd country deposited its instrument of ratification. This happened on April 29, 2019.
5 - The value of these imports is to be determined by either the 2014–2016 average or the 2015–2017 average.

It is, therefore, a response to mega-regional agreements such as the Trans-Pacific Partnership (TPP) and the Transatlantic Trade and Investment Partnership (TTIP), which are being negotiated by major economies; (2) it addresses the so-called "spaghetti-bowl effect" of overlapping trade agreements with different rules of origins, which increases trade costs for operators; and (3) many countries and regions are still negotiating trade agreements with partners outside of the continent.

The EPAs between RECs and the European Union are a good illustration of this phenomenon. Better integration in Africa before these agreements enter into force is likely to reduce trade diversion effects. This is one of the main reasons why governments accelerated efforts to set up the ECOWAS customs union: to dampen the negative impacts of the EPAs between West Africa and the European Union.

Measuring regional integration

Trade Costs Indicators

Anderson and van Wincoop (2004) argue that "trade costs are large, even aside from trade policy barriers and even between apparently highly integrated economies" (2004, 691). Such trade costs may be divided into four categories: (1) transaction costs related to transport (including distance) and insurance of traded goods; (2) costs induced by trade policies associated with tariff and non-tariff barriers (such as quotas, Sanitary and Phyto-Sanitary (SPS), and Technical Barriers to Trade (TBT)); (3) local distribution costs from foreign producer to final user in the domestic country; and (4) costs due to administrative barriers or red tape costs (i.e., those associated with trade facilitation and customs inefficiency). The costs of moving goods between countries are generally higher in developing countries than in developed ones, and this is particularly true in Africa. In fact, high costs increase the prices of a country's imports and make its exports less competitive in both regional and international markets. This is why this section disentangles the different costs that affect African trade and especially agricultural products.

Table 3.1 presents Africa's regional integration index constructed by the United Nations Economic Commission for Africa (UNECA). While this index tries to take into consideration several dimensions for each REC in a comprehensive way, it does not satisfy three conditions usually required from a trade integration indicator. Indeed, it does not have a theoretical foundation, has no benchmark, and its interpretation remains ambiguous.

Two remarks are worth making about the aggregate index: (1) while EAC and ECOWAS are the most integrated, COMESA is the least integrated; and (2) the subcomponents show that most of the region has reached relatively higher levels of trade integration compared to productive integration (i.e., has a regional value chain), financial and macroeconomic integration, and regional infrastructure. A closer look at the integration dimensions by REC (Table 3.1) shows that trade integration by EAC, COMESA, and AMU is the highest compared to other dimensions (referring to the so-called shallow integration) within each REC.[6]

6 - Despite a low level of intraregional trade in AMU, its trade integration index is high thanks to very low customs duties on intraregional imports.

By contrast, other RECs display deeper integration, since ECCAS and ECOWAS are deeply integrated at the financial and macroeconomic levels, and EAC and SADC have a high index for the free movement of people.

Hence, one can expect that these countries have low tariff levels thanks to the implementation of different free trade agreements but are still lagging in terms of infrastructure integration or reduction of non-tariff measures, as will be shown later.

Table 3.1 Africa Regional Integration Index 2015

Index	COMESA	ECCAS	SADC	AMU	ECOWAS	EAC	Average
Trade integration[7]	0.57	0.53	0.51	0.63	0.44	0.78	0.58
Regional infrastructure[8]	0.44	0.45	0.5	0.49	0.43	0.5	0.47
Productive integration[9]	0.45	0.29	0.35	0.48	0.27	0.55	0.40
Free movement of people[10]	0.27	0.4	0.53	0.49	0.8	0.72	0.54
Financial & macro integration[11]	0.34	0.6	0.4	0.2	0.61	0.16	0.39
Average	0.41	0.45	0.46	0.46	0.51	0.54	

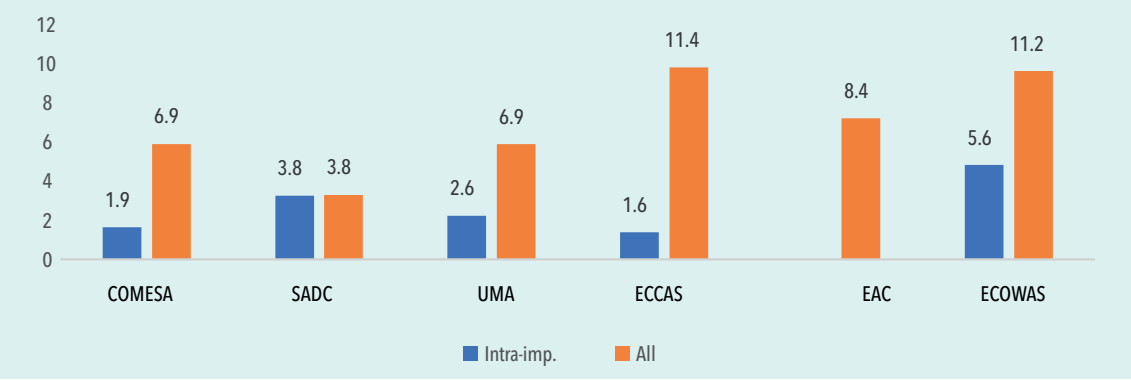
Source: Constructed by the authors using the Africa Regional Integration Index.
Note: The index is constructed as follows: each of the indicators is given equal weight in the calculation of dimension scores using the sum of the average of the indicators in a dimension. The index uses the standard minmax method of scaling results from 0 (least) to 1 (best). That includes a standardization of the results to get the same unity of measurement to aggregate the data.

Low Levels of Tariffs

We observe that most RECs in Africa do not have high tariff levels on their intraregional imports. Figure 3.1 confirms this, comparing the weighted average of applied tariffs versus tariffs on intraregional imports. In general, the latter are very low, ranging from 1.6 percent for ECCAS to 5.6 percent in ECOWAS. These continue to impose sizable protection on intra-REC trade, chiefly on industrial products. This, however, may be due to the fact that updated data on preferential tariffs may not be fully captured. Such liberalization should, de jure, boost trade at the intraregional level; however, de facto, these countries suffer from other implicit barriers owing to deficient infrastructure and behind-the-borders barriers.

7 - Trade integration includes the following indicators: level of customs duties on imports, share of intraregional goods exports (% GDP), share of intraregional goods imports (% GDP), and share of total intraregional goods trade.
8 - Regional infrastructure includes the infrastructure development index (transport; electricity; information and communications technology; water and sanitation); proportion of intraregional flights; total regional electricity trade (net) per capita; and average cost of roaming.
9 - Productive integration includes the share of intraregional intermediate goods exports (% total intraregional exports goods); share of intraregional intermediate goods imports (% total intraregional imports goods); and merchandise trade complementarity index (total absolute value of the difference between share of imports and share of exports of a member state in an REC).
10 - Free movement of people includes ratification (or not) of the REC protocol on free movement of persons; proportion of REC member countries whose nationals do not require a visa for entry; and proportion of REC member countries whose nationals are issued with a visa on arrival.
11 - Financial and macroeconomic integration includes regional convertibility of national currencies and inflation rate differential (based on the harmonized consumer price index).

Figure 3.1 Level of customs duties on intraregional imports and on all imports 2015



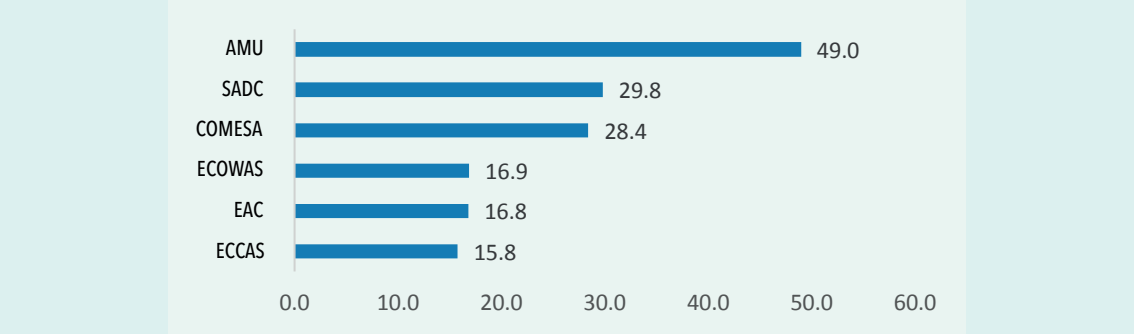
Source: Authors' elaboration using COMTRADE (2019).
Note: Intra-imp represents the intra-regional imports and All is total imports. COMESA for Common Market for Eastern and Southern Africa, SADC for Southern Africa Development Community, AMU for Arab Maghreb Union, ECCAS for Economic Community of Central African States, EAC for East African Community, ECOWAS for Economic Community of West African States.
This figure illustrates the level of average tariffs on intra-REC trade in Africa in 2015. Since that date, there has been a change in these customs duties. For example, there are no longer any customs duties on trade in goods within ECOWAS.

Deficient Infrastructure

In general, transport costs represent a higher trade barrier than import tariffs or other trade restrictions. Since infrastructure is deficient, transport in Africa is often unpredictable, leading to a significantly higher cost of transport and thus higher prices. Indeed, Rizet and Gwet (1998) proved that the unit costs of road transport are 40 percent–100 percent higher in Africa than in Southeast Asia. A well-developed infrastructure matters, particularly for small or landlocked countries. MacKellar, Wörgötter, and Wörz (2002) suggest that the costs are three to four times higher in landlocked countries than in other, non-landlocked countries.

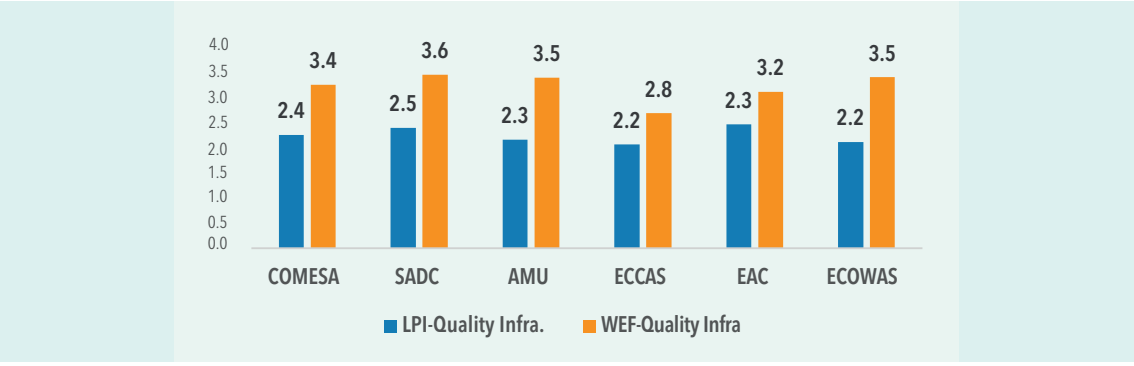
Regarding the effect on trade, Limao and Venables (2001) estimate that a 10 percent decrease in transport costs will increase trade by 25 percent. Moreover, Freund and Rocha (2010) argue that a 1-day reduction in inland travel times leads to a 7 percent increase in exports (similar to a cut of 1.5 percentage points on all importing-country tariffs). Lack of good infrastructure also keeps most of Africa out of manufacturing value chains and inhibits diversification (Storeygard, 2016). These empirical results are confirmed in Figure 3.2, which shows the low level of the infrastructure development index (developed by the African Development Bank and including transport, electricity, ICT, and water and sanitation) and Figure 3.3, which compares the indices of the logistics performance index (LPI) and the World Economic Forum (WEF), showing that most of the RECs are suffering from below-the-world-average infrastructure.

Figure 3.2 Infrastructure development index 2015



Source: Constructed by the authors using the African Development Bank Infrastructure Index.
Note: This index ranges from 0 (least) to 100 (best). COMESA for Common Market for Eastern and Southern Africa, SADC for Southern Africa Development Community, AMU for Arab Maghreb Union, ECCAS for Economic Community of Central African States, EAC for East African Community, ECOWAS for Economic Community of West African States

Figure 3.3 Quality of infrastructure 2018



Source: Constructed by the authors using Logistics Performance Indicators (2019) and World Economic Forum (2019).
Note: (i) Logistics performance index: Quality of trade and transport-related infrastructure (1 = low to 5 = high;) (ii) Quality of port infrastructure, WEF (1 = extremely underdeveloped to 7 = well developed and efficient by international standards). COMESA for Common Market for Eastern and Southern Africa, SADC for Southern Africa Development Community, AMU for Arab Maghreb Union, ECCAS for Economic Community of Central African States, EAC for East African Community, ECOWAS for Economic Community of West African States

Costly Non-tariff Measures (NTMs)

Numerous non-tariff measures are faced by exporters in most African countries. The literature on the cost of non-tariff measures shows that their cost—and especially that of sanitary and phytosanitary measures and technical barriers to trade—is much higher than that of tariffs (Gillson and Charalambides 2012), and inhibits regional trade. Figure 3.4 is based on a survey by the International Trade Center (between 2010 and 2011) and reports the share of trade and NTMs faced by firms in different destinations. Several firms report that they face more NTMs in countries belonging to the same REC. For instance, firms in Guinea report that 65.9 percent of NTMs are imposed by ECOWAS countries, while only 18.3 percent are imposed by Organization for Economic Cooperation and Development (OECD) countries and 15.9 percent are imposed by other developing countries. This may explain why the shares of trade with these three regions are: 10.5 percent for ECOWAS, 84.5 percent for OECD, and 5 percent for developing countries.

Figure 3.4 NTMs faced by selected African countries

Source: Constructed by the authors using the International Trade Center Business Surveys (2019).
Note: Data presented are the latest available year for each country (between 2010 and 2011). COMESA for Common Market for Eastern and Southern Africa, SADC for Southern Africa Development Community, AMU for Arab Maghreb Union, ECCAS for Economic Community of Central African States, EAC for East African Community, ECOWAS for Economic Community of West African States, NTM for Non-Tariff Measure.

In general, the share of NTMs faced by African exporters and imposed by countries that are members of the same REC is relatively high. For instance, 24 percent of the NTMs faced by Kenyan exporters and 31 percent by Tanzanian exporters are imposed by EAC members. Côte d'Ivoire and Guinea face more NTMs imposed by ECOWAS members (36 percent and 66 percent of total NTMs, respectively). The same conclusion holds for COMESA, but to a lesser extent, for both Madagascar and Mauritius.

From a policy perspective, this is particularly important since most RECs failed to tackle NTMs that are likely to affect trade, particularly that in agriculture. Indeed, Cadot and Gourdon (2014) prove that, owing to non-compliance, sanitary and phytosanitary measures increase the price of African foodstuffs (especially rice and other cereals, some types of meat, and edible oils) by 14 percent. This exerts a negative effect on poor households whose cost of living increases by 9 percent.

Border-related Measures

The last type of barriers that affects trade in African countries is border-related measures; these are lengthy, time consuming, and extremely costly for perishable products (such as agricultural products). The cost of these barriers accounts for 2 percent–15 percent of the value of traded goods (OECD 2002). The most serious problem induced by such complexity is the risk of error that can be repeated and multiplied from one stage to another.

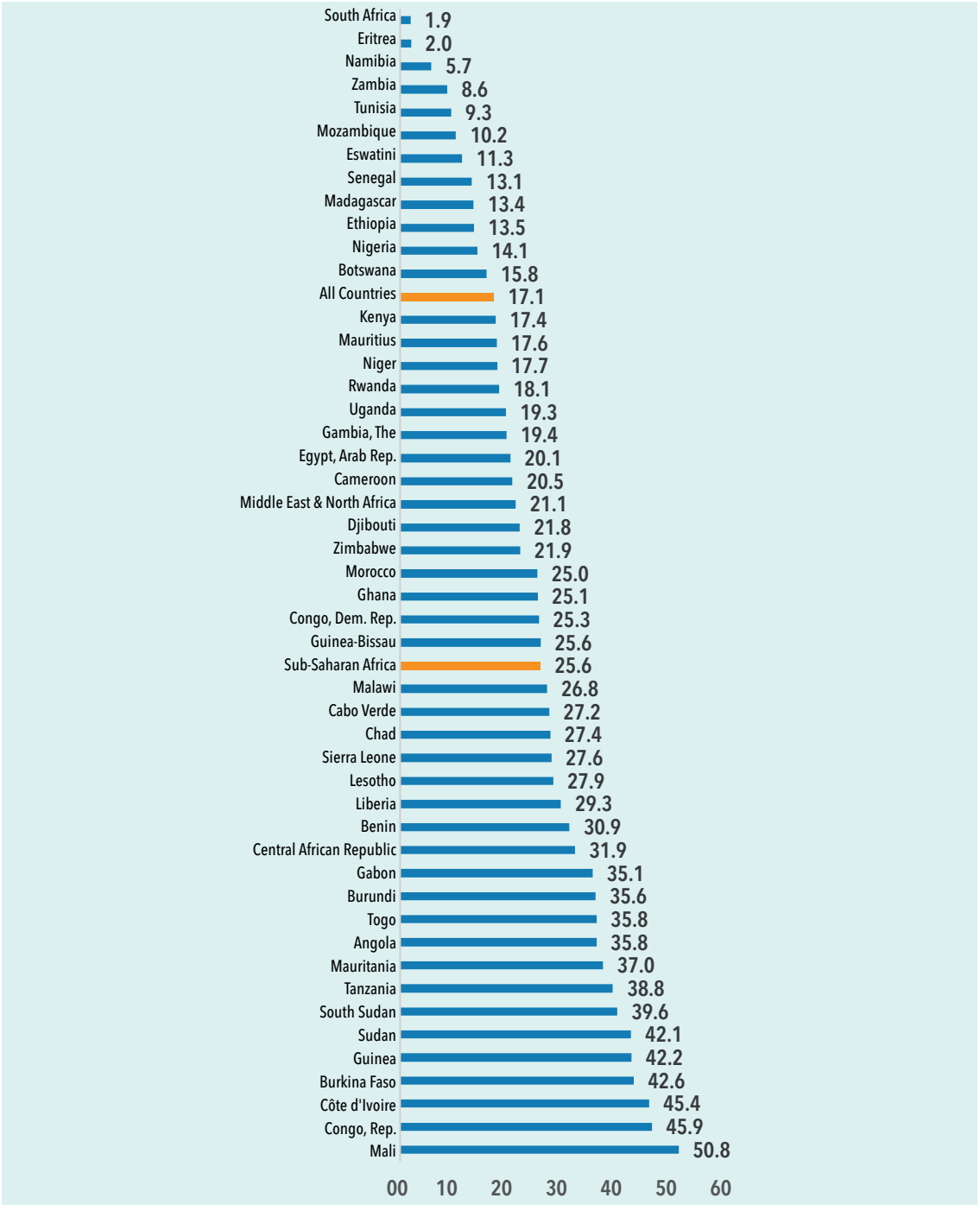
Table 3.2 presents the time to clear exports through customs and time to export (both for border and documentation compliance). An exporter in ECCAS has to bear 234 hours between borders and documentary compliance. If exported products are perishable or have a seasonal nature, losses will be more important since such products will not be sold at an appropriate time to allow consumption. Additional costs are due to the fact that these products could be exported to other markets, with faster clearance. This is slightly lower for ECOWAS and SADC. All African RECs, however, have longer export timescales than their Asian counterparts. This is why the World Bank Enterprise Surveys (Figure 3.5) indicate that, on average, 26 percent of the surveyed firms identify that customs and trade regulations are a major constraint to trade (whereas at the world level only 17 percent do). A large variance can be observed, ranging from 51 percent in Mali, 45 percent in Côte d'Ivoire, 20 percent in Egypt, and 2 percent in South Africa and Eritrea. It is, however, important to note that such perception-based indices are also affected by the fact that some countries (such as Eritrea) do not trade a great deal, and hence their exporters and importers do not report customs regulations as an obstacle to trade.

Table 3.2 Border-related measures (by region) 2018

Region	Time clear exp.	LPI shipments	Time exp. bord.	Time exp. doc.	Time imp. bord.	Time. Imp. doc.
COMESA	6.3	2.9	71.7	69.1	115.7	90.0
SADC	4.7	3.0	81.8	64.4	94.7	58.0
AMU	n.a.	2.9	57.2	60.6	127.1	85.2
ECCAS	6.7	2.7	145.3	89.1	197.8	142.7
EAC	n.a.	3.3	68.0	65.0	204.6	133.5
ECOWAS	12.8	2.8	100.6	76.0	120.7	108.8

Source: Constructed by the author using the Doing Business (2019) and Logistics Performance Indicators (2019).
Note: Time clear exp. stands for average time to clear exports through customs and is measured in days; LPI shipments stands for Logistics performance index and is the frequency with which shipments reach consignee within scheduled or expected time (1 = low to 5 = high); Time exp. bord. stands for Time to export, border compliance and is measured in hours; Time exp. doc. stands for Time to export, documentary compliance (hours); Time imp. bord. stands for Time to import, border compliance (hours); Time imp. doc. stands for Time to import, documentary compliance (hours) ; n.a. stands for not available. COMESA for Common Market for Eastern and Southern Africa, SADC for Southern Africa Development Community, AMU for Arab Maghreb Union, ECCAS for Economic Community of Central African States, EAC for East African Community, ECOWAS for Economic Community of West African States

Figure 3.5 Percentage of firms identifying customs and trade regulations as a major constraint



Source: Constructed by the authors using the World Bank Enterprise Surveys (2019).
Note: Surveys have been conducted at different years; they are listed in Appendix A3.3.

In a nutshell, despite significant liberalization, African countries are suffering from deficient infrastructure, many NTMs imposed at the intraregional level, and costly border measures.

Trade flows indicators

Measuring Trade Integration: Challenges and Pitfalls

The indicators we use to track progress toward regional trade integration are often presented without a thorough discussion of their underlying properties and limitations. Many authors (e.g., Iapadre and Luchetti 2009; Bouët, Cosnard, and Laborde 2017) have highlighted that a regional integration indicator must fulfill a series of conditions to unambiguously measure progress toward more integration. It must first have a thorough theoretical foundation. Second, there should be a benchmark to compare with; and, third, it should measure trade integration without ambiguity. Yet, analysts have long relied on intraregional trade shares. This indicator, which is defined as the ratio of intraregional trade flows over total trade flows, is easy to compute and interpret. For a particular region (a REC for instance), it measures the share of the region's trade that takes place between its member states. For region R, the share of intraregional trade (SIT_R) is given by Eqn 3.1:

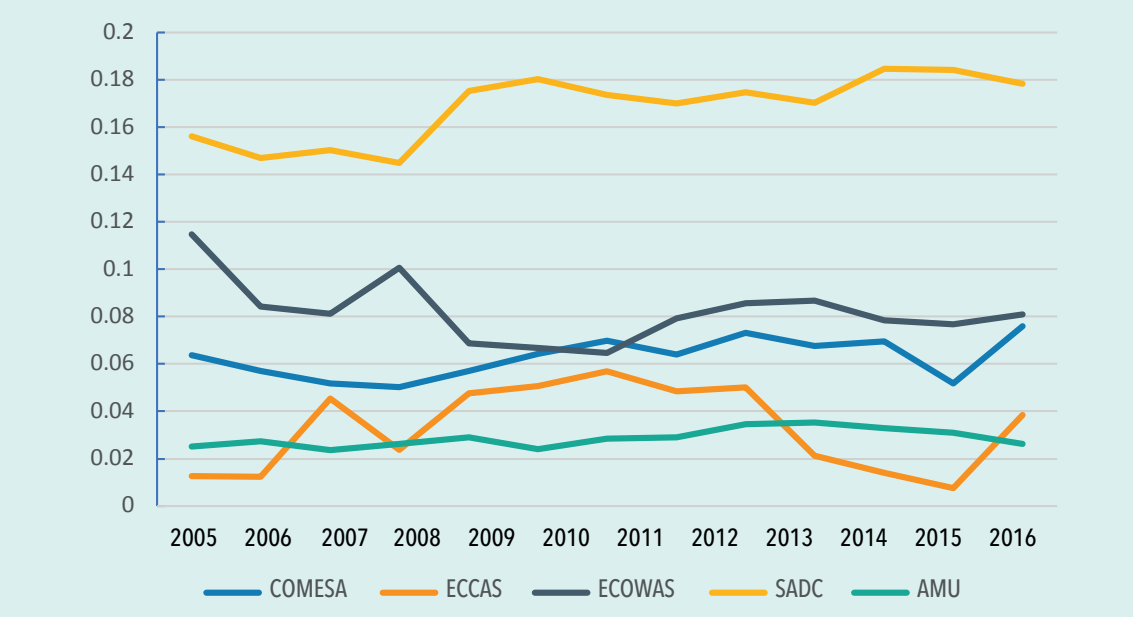
$$SIT_R = \frac{\sum_{s\epsilon R}\sum_{s\prime\epsilon R}(X^{\cdot}_{s,s\prime} + X^{\cdot}_{s\prime,s})}{\sum_{r\epsilon R}(X^{\cdot}_{r,\cdot} + X^{\cdot}_{\cdot,r})} \qquad (3.1)$$

where r,s is countries; R is region R (mainly RECs); $X^{\cdot}(r,\cdot)$ is total exports of country r; and $X^{\cdot}(\cdot,r)$ is total imports of country r.

Figures 3.6 and 3.7 show the intraregional trade shares for the main RECs in Africa for total trade and agricultural trade over the period 2005–2017. The intraregional trade shares for the main RECs range from 1 percent (ECCAS in 2005) to 18 percent (SADC in 2017). This is particularly low compared to other regions, where trade shares range from 30 percent in North America to 50 percent for the European Union (Bouët, Cosnard, and Laborde 2017) and from 40 percent in the Americas to 75 percent in the European Union for agricultural products (Goundan and Fall 2018).

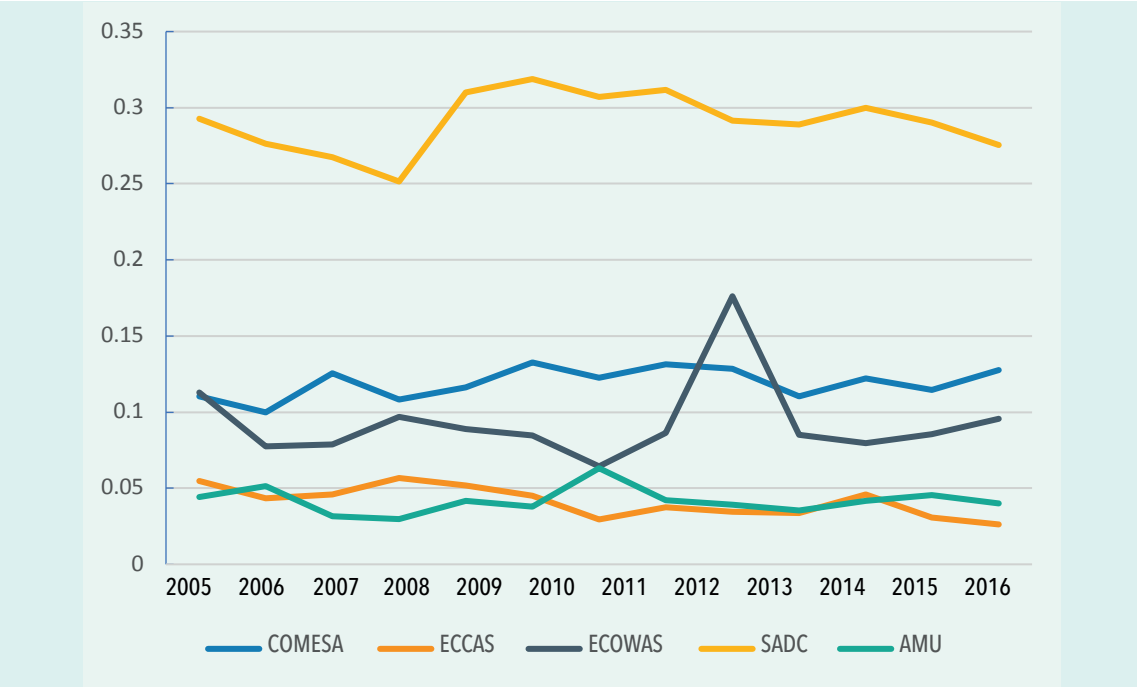
SADC, ECOWAS, and COMESA appear to be the regions with the highest intraregional trade shares for both total trade and agricultural trade. AMU and ECCAS have the lowest levels over the entire period. For all RECs, we observe more integration for agricultural trade compared to total trade. This is particularly the case with SADC and COMESA. The level of agricultural trade integration is stable for the period under consideration, except for COMESA, in which we observe an increasing trend. ECOWAS is the most volatile region from year to year.

Figure 3.6 Share of intraregional trade for all products 2005-2017



Source: Authors' elaboration using COMTRADE (2019) .
Note: COMESA for Common Market for Eastern and Southern Africa, SADC for Southern Africa Development Community, AMU for Arab Maghreb Union, ECCAS for Economic Community of Central African States, ECOWAS for Economic Community of West African States

Figure 3.7 Share of intraregional trade for agricultural products 2005-2017



Source: Authors' elaboration using COMTRADE (2019).
Note: COMESA for Common Market for Eastern and Southern Africa, SADC for Southern Africa Development Community, AMU for Arab Maghreb Union, ECCAS for Economic Community of Central African States, ECOWAS for Economic Community of West African States

One should, however, be cautious with these figures as the intraregional trade shares suffer from a series of shortcomings, and these can bias analysis when comparing different RECs. The indicator indeed fails to comply with the three conditions mentioned in the beginning of subsection 3.4.1. For instance, there is no benchmark for comparison. In addition, higher intraregional trade shares do not necessarily mean there is more regional integration: indeed, they may be a sign of loss of competitiveness in external markets (Walkenhorst 2013). One final shortcoming of intraregional trade shares is the sensitivity of this measure to the number and size of countries under consideration, particularly when comparing different RECs (Anderson and Norheim 1993; Frankel 1997; Iapadre and Luchetti 2009). Indeed, the measure would lead one to find more integration in an REC with many small countries compared to another with the same GDP size but with fewer countries. The share of intraregional trade in total trade is, therefore, better suited for monitoring one single REC through time.

New Way of Measuring Regional Integration with Consistent Indicators

To overcome the shortcomings related to the share of intraregional trade, Iapadre and Luchetti (2009) propose some refinements to create a proper benchmark (the share of the region in world trade). This new indicator, the intraregional trade intensity index ($IRTI_R$) is given in Eqn 3.2:

$$IRTI_R = \frac{\sum_{s\epsilon R}\sum_{s\prime\epsilon R}(X^{\cdot}_{s,s\prime} + X^{\cdot}_{s\prime,s}) \,/\left(\sum_{r\epsilon R}(X^{\cdot}_{r,.} + X^{\cdot}_{.,r})\right)}{\sum_{r\epsilon R}\left(X^{\cdot}_{r,.} + X^{\cdot}_{.,r}\right)/(2.X^{\cdot}_{.,.})} = \frac{SIT_R}{\alpha_R} \qquad (3.2)$$

However, this indicator also suffers from two shortcomings: its maximum value is a decreasing function of the region's total trade, and it is not symmetric around 1.[12] The regional trade introversion index they propose fixes these issues. It is based on a modified version of the intraregional intensity index ($MIRTI_R$) and the extraregional intensity index ($MERTI_R$). This indicator is given by Eqn 3.3:

$$RTI_R = \frac{MIRTI_R - MERTI_R}{MIRTI_R + MERTI_R} \qquad (3.3)$$

where:

$$MIRTI_R = \frac{\sum_{s\epsilon R}\sum_{s\prime\epsilon R}(X^{\cdot}_{s,s\prime} + X^{\cdot}_{s\prime,s}) \,/\left(\sum_{r\epsilon R}(X^{\cdot}_{r,.} + X^{\cdot}_{.,r})\right)}{\sum_{s\epsilon R}\sum_{s\prime\notin R}(X^{\cdot}_{s,s\prime} + X^{\cdot}_{s\prime,s}) \,/\left(\sum_{r\notin R}(X^{\cdot}_{r,.} + X^{\cdot}_{.,r})\right)} = \frac{SIT_R}{\beta_R} \qquad (3.4)$$

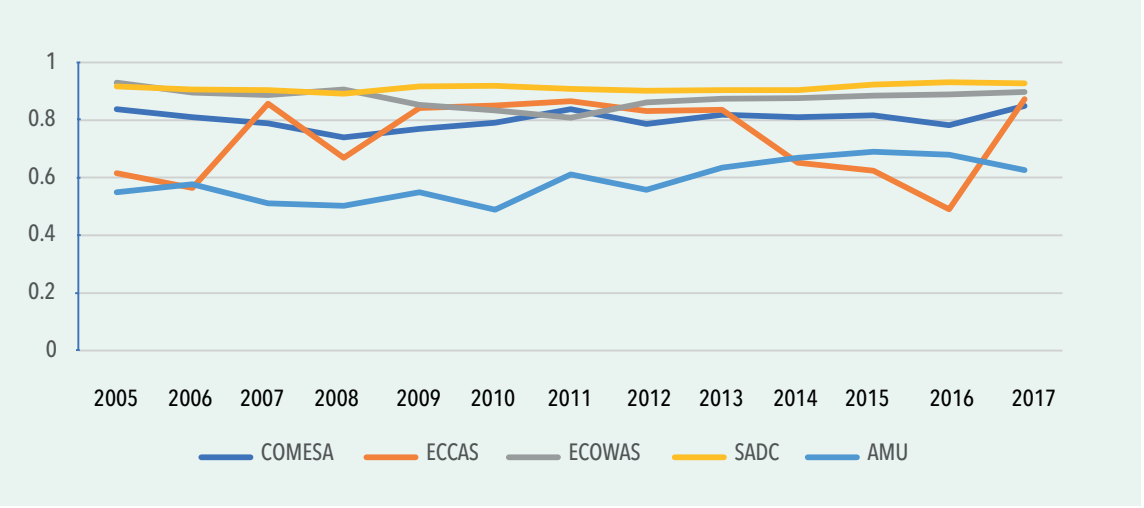
$$MERTI_R = \frac{(1 - SIT_R)}{(1 - \beta_R)} \qquad (3.5)$$

12 - It ranges from 0 to 1 (1 being geographic neutrality) and from 1 to infinity.

Since both $MIRTI_R$ and $MERTI_R$ are positive, RTI_R necessarily falls between −1 and +1. Values between −1 and 0 reflect the fact that the region is more extraverted than introverted, and values between 0 and +1 indicate that the region is more introverted than extraverted.

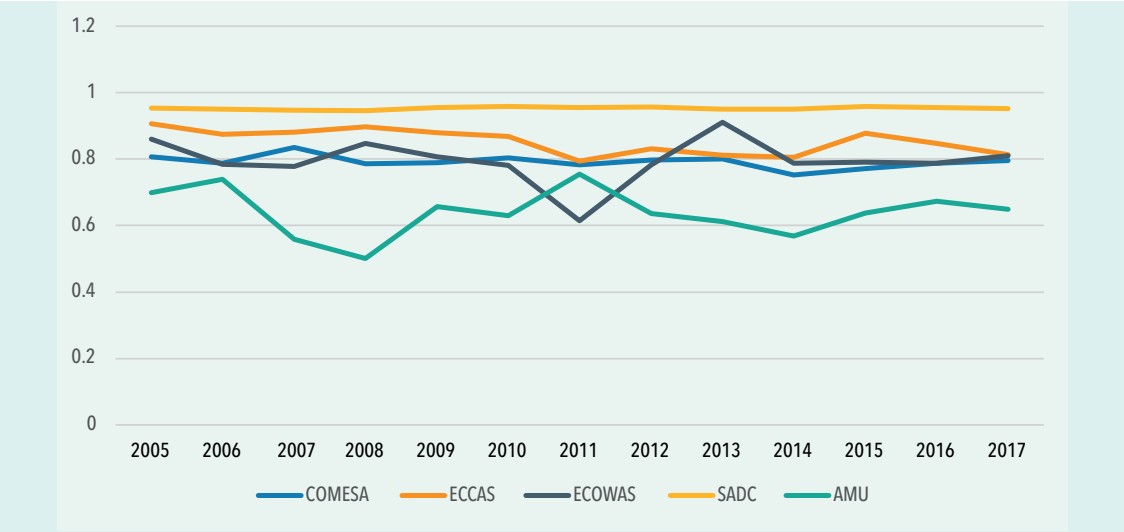
Figures 3.8 and 3.9 present the evolution of the regional trade introversion index for the five RECs studied in Figures 3.6 and 3.7 for both total trade and agricultural products over the period 2005–2017. One interesting feature is that all five RECs are more introverted than extraverted, with quite a stable pattern, except for AMU. In addition, the difference between total trade and agricultural trade is less pronounced. When restricted to total trade flows, the differences observed with the shares of intraregional trade (SITs) are now limited, although SADC, ECOWAS, and COMESA still appear as the most introverted RECs and AMU the least introverted. The degree of introversion of ECCAS has increased, particularly in the period 2006–2013, driven mainly by non-agricultural products. Indeed, for this latter group of products, the pattern is quite stable over the entire period. For agricultural products, SADC remains the most introverted region, while ECCAS now appears more introverted than ECOWAS and COMESA, in contrast to what the SIT suggests. Despite the correction of the potential bias of SIT, AMU represents a region with a low level of trade introversion. Indeed, since its creation in 1989, this organization has faced difficulties in realizing its objectives, mainly because of political divergences among its member states.

Figure 3.8 Regional trade introversion index for all products 2005-2017



Source: Authors' elaboration using COMTRADE (2019) .
Note: COMESA for Common Market for Eastern and Southern Africa, SADC for Southern Africa Development Community, AMU for Arab Maghreb Union, ECCAS for Economic Community of Central African States, ECOWAS for Economic Community of West African States

Figure 3.9 Regional Trade Introversion Index for all products for agricultural products 2005-2017



Source: Authors' elaboration using COMTRADE (2019) .
Note: COMESA for Common Market for Eastern and Southern Africa, SADC for Southern Africa Development Community, AMU for Arab Maghreb Union, ECCAS for Economic Community of Central African States, ECOWAS for Economic Community of West African States

Whatever the regional trade integration indicator selected for the analysis, the official data used here may underestimate actual trade flows to a large extent. This is particularly the case for agricultural products in Africa. Indeed, databases are based almost exclusively on data provided by national statistical institutes, which in turn are based on data provided by customs administrations. For agricultural products, informal trade flows going through unofficial routes (particularly trade in small quantities, but not exclusively) between neighbors have for a long time constituted a large part of transactions in Africa (Egg and Herrera 1998) and tend to dominate transactions that go through customs but remain unrecorded (Traoré and Mitaritonna 2017). The actual indicators would improve if these non-recorded flows were considered.

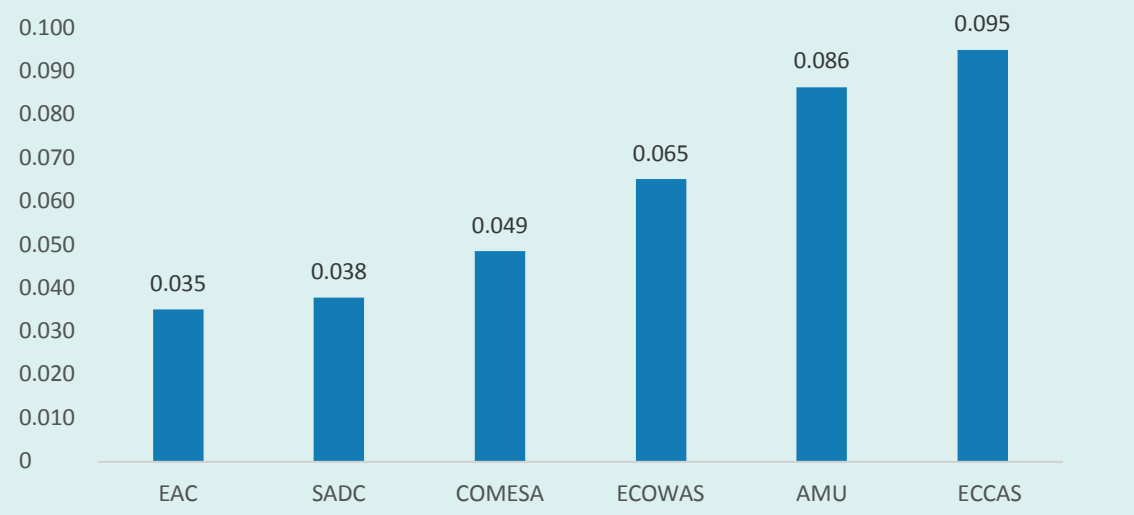
Structure of Intra-Africa Agricultural Trade

Trade Diversification

Geographical diversification

To determine to what extent African RECs are diversified at the geographical level, we rely first on a Herfindhal–Hirshman (HH) index (Figure 3.10). The higher the index, the more concentrated the exports of each REC will be. Since there is very limited variability over time, we focus on the average values over the period 2005–2017.

Figure 3.10 Herfindhal–Hirshman index–geographical diversification average 2005-2017



Source: Authors' elaboration using COMTRADE (2019).
Note: Figures are calculated as an average over the period 2005–2017. COMESA for Common Market for Eastern and Southern Africa, SADC for Southern Africa Development Community, AMU for Arab Maghreb Union, ECCAS for Economic Community of Central African States, EAC for East African Community, ECOWAS for Economic Community of West African States

While all RECs are relatively diversified in terms of their destination (the HH index is on average 0.06), some are more concentrated than others. ECOWAS, ECCAS, and AMU belong to the first group with 15.4 percent, 30.2 percent, and 58 percent of their total exports going to India, China, and the European Union, respectively.

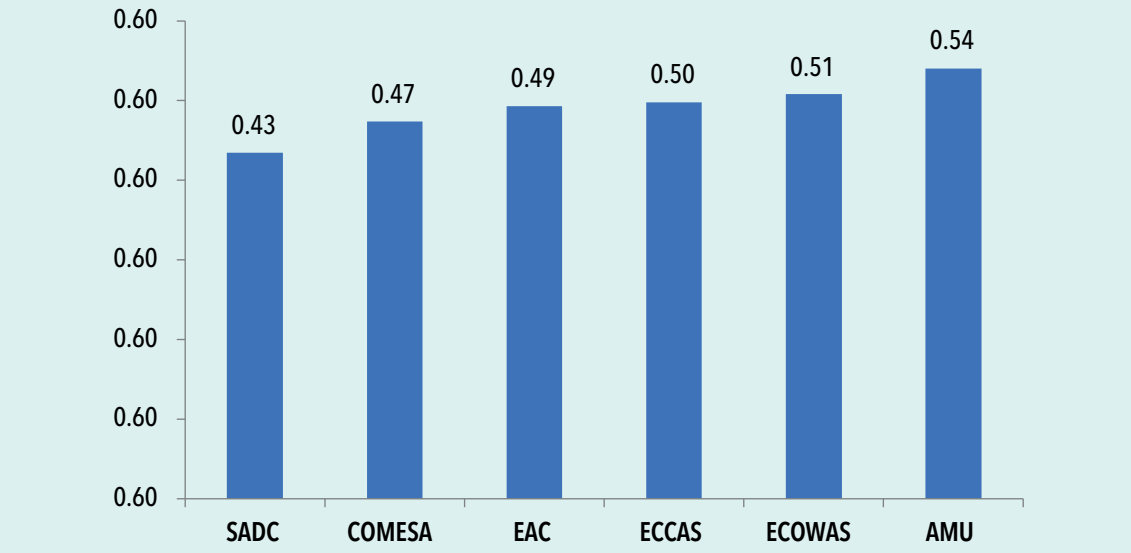
Yet, most trade indices (including the HH index) do not take into consideration the actual size of every potential partner, since they do not distinguish between a situation where a country depends heavily on a major partner or on a small one. This is why De Lombaerde et al. (2012) and Bouët, Cosnard and Laborde (2017) used the global geographic diversification index (GGDI), which is based on the weight of each commercial partner in world trade using the Finger–Kreinin index of similarity. This index evaluates the distance between the distribution of one country's trade and the distribution of trade in the rest of the world (Eqn 3.6):

$$GGDI(r) = 1 - \frac{\sum_{s \neq r} \left| \frac{X_{r,s} + X_{s,r}}{X_{r,\cdot} + X_{\cdot,r}} - \frac{X_{s,\cdot} + X_{\cdot,s} - (X_{r,s} + X_{s,r})}{2X_{\cdot,\cdot} - (X_{r,\cdot} + X_{\cdot,r})} \right|}{2} \qquad (3.6)$$

with the same notation system. If a country *r* has exactly the same geographic allocation of its trade as the worldwide distribution of trade, each term in absolute value is equal to 0 and the index is equal to 1. The more the country's geographic allocation of trade differs from the worldwide distribution of trade, the smaller the index.

Figure 3.11 presents the GGDI by REC. At the geographical level most regions are moderately diversified since, on average, the GGDI for agricultural products is around 0.5. AMU is the most diversified, and SADC is the least diversified.

Figure 3.11 Global Geographical Diversification Index average 2005-2017

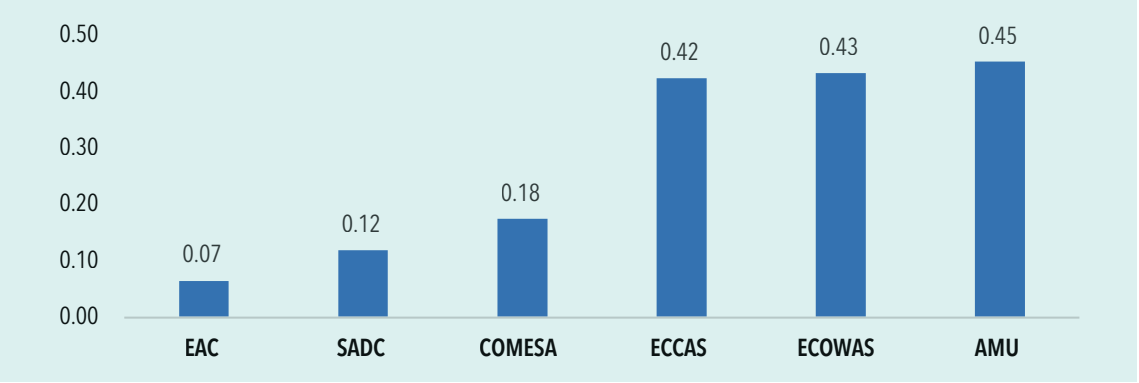


Source: Authors' elaboration using COMTRADE (2019) .
Note: Figures are calculated as an average over the period 2005–2017. COMESA for Common Market for Eastern and Southern Africa, SADC for Southern Africa Development Community, AMU for Arab Maghreb Union, ECCAS for Economic Community of Central African States, EAC for East African Community, ECOWAS for Economic Community of West African States

Sectoral Diversification

Figure 3.12 shows that, while EAC, SADC, and COMESA are more diversified, exports from ECOWAS, ECCAS, and AMU are concentrated in fuel and natural resources (their share in total exports being 39.4 percent, 39.7 percent, and 42.6 percent, respectively).

Figure 3.12 Herfindahl–Hirschman Index by product average 2005-2017



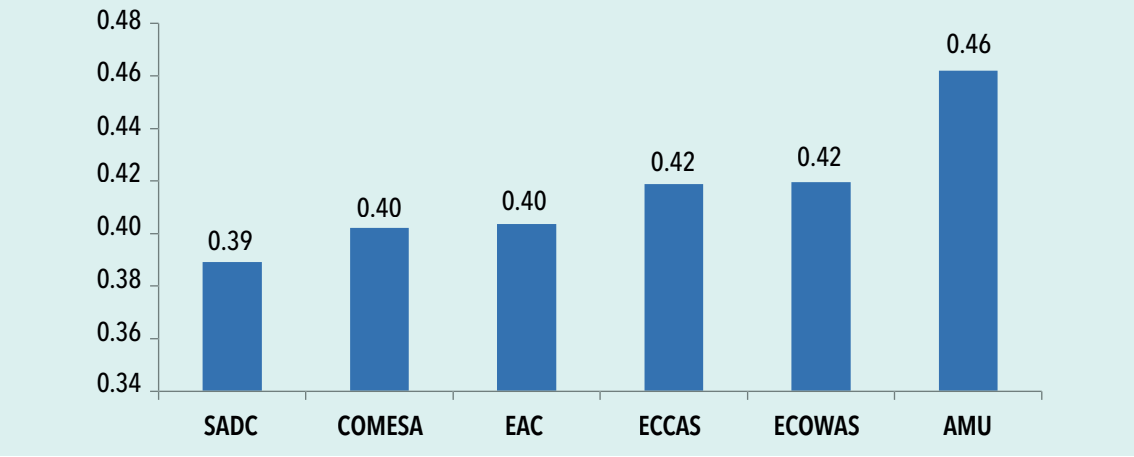
Source: Authors' elaboration using COMTRADE (2019) .
Note: Figures are calculated as an average over the period 2005–2017.COMESA for Common Market for Eastern and Southern Africa, SADC for Southern Africa Development Community, AMU for Arab Maghreb Union, ECCAS for Economic Community of Central African States, EAC for East African Community, ECOWAS for Economic Community of West African States.

Yet, when we use the global sectoral diversification index (GSDI), which is the sectoral equivalent of the GGDI, results are relatively similar for most RECs. Indeed, the latter measures the distance between the sectorial distribution of a country's total trade and the sectorial distribution of trade in the rest of the world using Eqn 3.7:

$$GSDI(r) = 1 - \frac{\sum_k \left| \frac{X^k_{r,.} + X^k_{.,r}}{X_{r,.} + X_{.,r}} - \frac{2X^k_{.,.} - (X^k_{r,.} + X^k_{.,r})}{2X_{.,.} - (X_{r,.} + X_{.,r})} \right|}{2} \qquad (3.7)$$

Figure 3.13 shows that all RECs have almost the same level of diversification for agricultural products, with EAC being the least and ECCAS the most diversified.

Figure 3.13 Global sectorial diversification index average 2005-2017



Source: Authors' elaboration using COMTRADE (2019).
Note: Figures are calculated as an average over the period 2005–2017. COMESA for Common Market for Eastern and Southern Africa, SADC for Southern Africa Development Community, AMU for Arab Maghreb Union, ECCAS for Economic Community of Central African States, EAC for East African Community, ECOWAS for Economic Community of West African States.

Intra-industry Trade Flows

This section investigates the magnitude of intra-industry trade as an outcome of regional integration in Africa. Intra-industry trade refers to the existence of two-way exchange flows of products of the same industry between two trade partners. The Grubel–Lloyd index is used to measure intra-industry trade of raw versus processed agricultural products between African countries, considered individually or as a group in their RECs, and their trade partners in world and intra-African markets. The index measures the extent of overlap of imports and exports of product by country in market and year as in Eqn 3.8:

$$GL_{ijtk} = 1 - \frac{|X_{ijtk} - M_{ijtk}|}{X_{ijtk} + M_{ijtk}} \qquad (3.8)$$

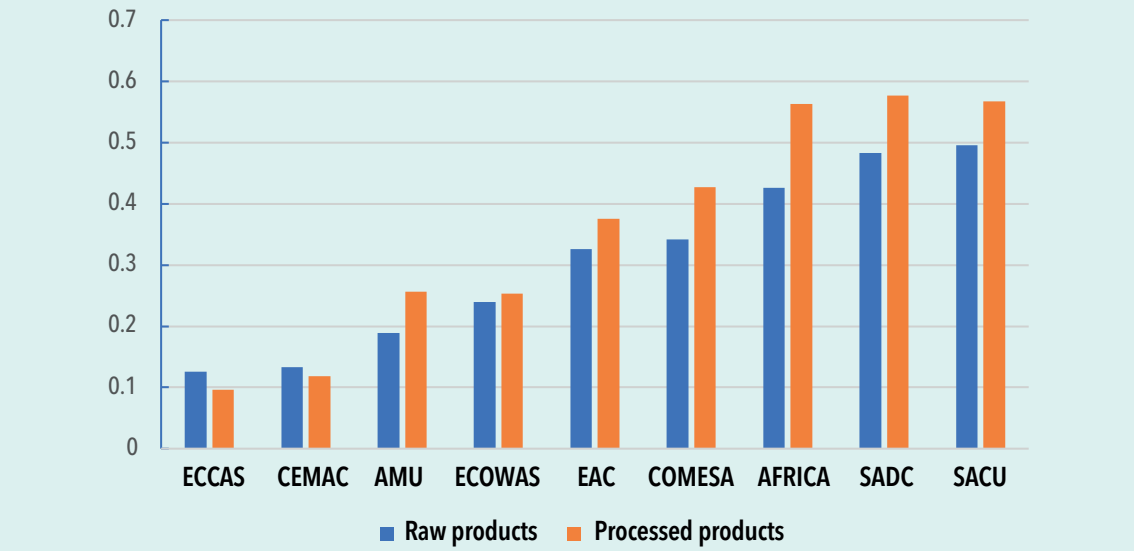
The index varies between 0 (denoting no intra-industry trade) and 1 (corresponding to only intra-industry trade) in exchange flows. The index is computed at the 6-digit level of the Harmonized Commodity Description and Coding System (HS6) and the results are presented below in 3.6.1 and 3.6.2, first with respect to trade flows between African countries and their partners in world markets, and then considering intra-Africa trade flows.

The results suggest that the scope of intra-industry trade by African countries with the rest of world is significantly broader for processed agricultural products than for raw agricultural products. The results also indicate that the extent of intra-industry trade is larger in intra-Africa exchanges of agricultural products than in Africa's agricultural trade with the rest of the world. Grubel–Lloyd index values are significantly higher at an REC level compared to their values for the REC's respective member countries, suggesting that exports by some countries tend to offset imports by other countries in the same REC.

Intra-industry Trade Between Africa and the Rest of the World

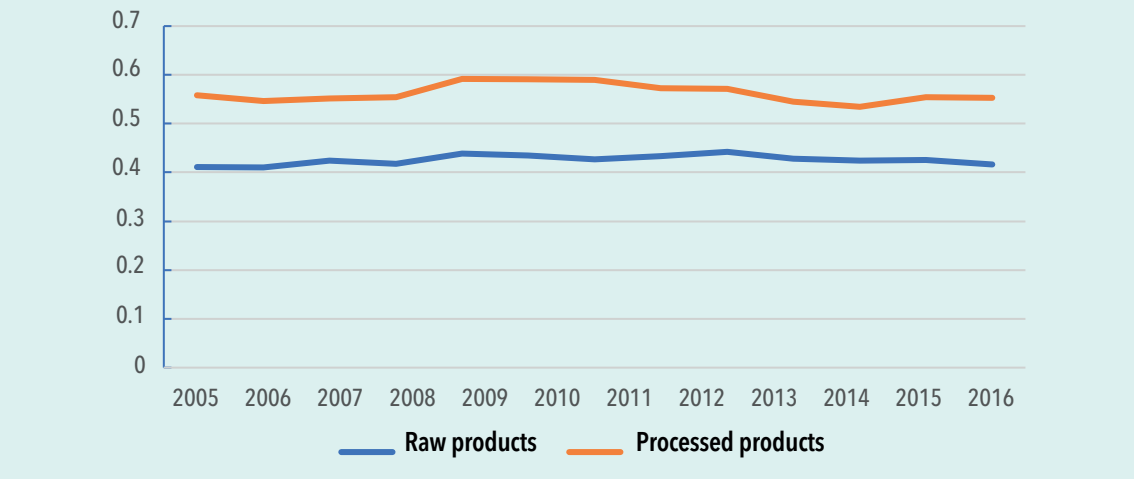
Figure 3.14 presents the average Grubel–Lloyd index values calculated for the trade of raw versus processed agricultural products between Africa's RECs and the rest of the world from 2005 to 2017. Across all RECs, except for ECCAS and CEMAC, intra-industry trade is higher for processed products compared to raw products. The lowest values in the index are found in ECCAS, while SADC has the highest values. For the whole Africa's trade flows the average index is 0.56 for processed products and 0.43 for raw products; it is lower for all RECs apart from SACU and SADC, where for processed products it is 0.57 and 0.58, respectively, and for raw products it is 0.50 and 0.48, respectively. Figure 3.15 shows that the higher intra-industry trade index for processed versus raw products has remained unchanged between 2005 and 2017. The index value tends to decrease over time but more markedly for processed products.

Figure 3.14 Intra-industry trade in Africa's world trade by regional economic communities, 2005–2017 average



Source: Authors' elaboration using COMTRADE (2019) .
Note: COMESA for Common Market for Eastern and Southern Africa, SADC for Southern Africa Development Community, CEMAC for Central African Economic and Monetary Community, SACU for Southern African Customs Union, AMU for Arab Maghreb Union, ECCAS for Economic Community of Central African States, EAC for East African Community, ECOWAS for Economic Community of West African States.

Figure 3.15 Grubel–Lloyd Index by product category for the whole Africa, 2005–2017



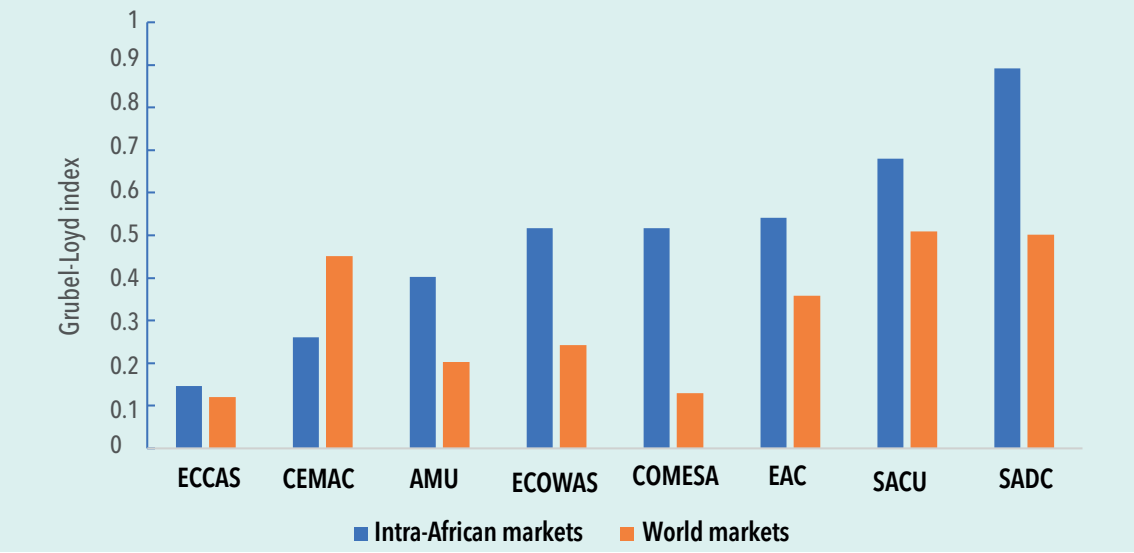
Source: Authors' elaboration using COMTRADE (2019).

3.6.2 Intra-industry Trade in Africa's Agricultural Markets

Figure 3.16 shows that for every REC, except CEMAC, the scope of intra-industry flows of agricultural products is larger in the REC's trade with other African partners than in its trade with non-African partners. As in world markets, ECCAS shows the lowest level of intra-industry trade in intra-Africa markets, while the highest level is attained in the SADC region.

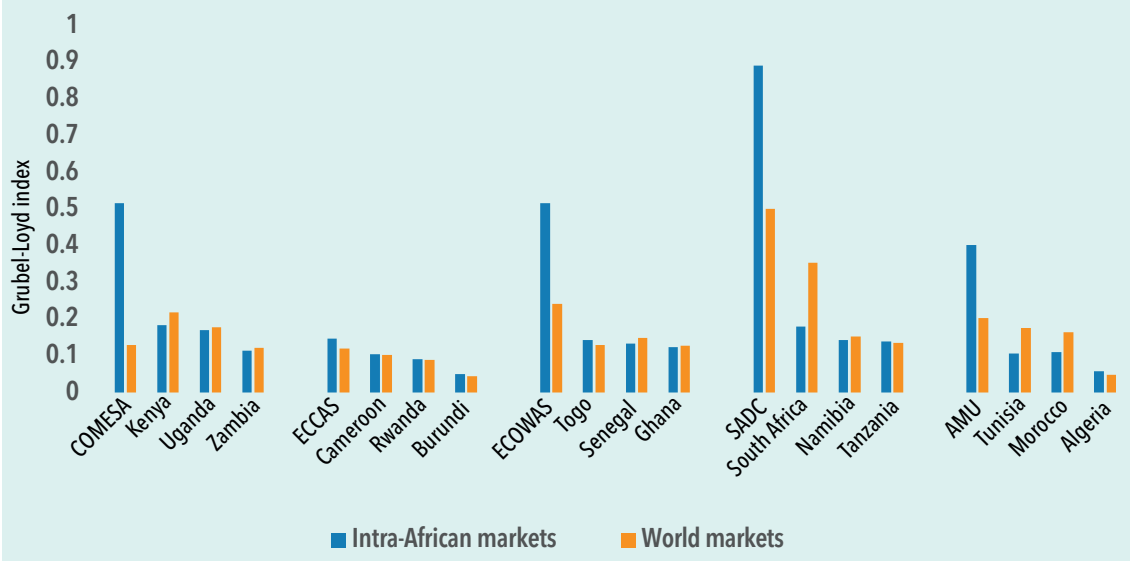
The value of the index for an REC is much higher than the highest values observed for individual countries within the REC, suggesting that trade overlap is more likely at the regional than at the country level (Figure 3.17). For instance, the index of intra-industry trade in agriculture is 0.52 for ECOWAS trade in intra-Africa markets, while the highest country-level index values among the members of this REC are only 0.12, 0.13, and 0.14 for Ghana, Senegal, and Togo, respectively. This suggests a broader scope of intra-industry trade in agriculture in an REC than in its individual member countries, as imports of some countries may be offset by exports of other countries within the same REC.

Figure 3.16 Intra-industry trade in Africa's agricultural markets by regional economic community, 2005–2017 average



Source: Authors' elaboration using COMTRADE (2019).
Note: COMESA for Common Market for Eastern and Southern Africa, SADC for Southern Africa Development Community, CEMAC for Central African Economic and Monetary Community, SACU for Southern African Customs Union, AMU for Arab Maghreb Union, ECCAS for Economic Community of Central African States, EAC for East African Community, ECOWAS for Economic Community of West African States.

Figure 3.17 Intra-industry trade in Africa's agricultural markets, highest country-level Grubel–Lloyd index values by regional economic community, 2005–2017 average



Source: Authors' elaboration using COMTRADE (2019).
Note: COMESA for Common Market for Eastern and Southern Africa, SADC for Southern Africa Development Community, AMU for Arab Maghreb Union, ECCAS for Economic Community of Central African States, ECOWAS for Economic Community of West African States.

CONCLUSIONS

This chapter examines regional integration in Africa in three ways: (1) by providing an overview and comparison of different RECs in Africa since their proliferation in recent decades; (2) by examining their integration through an analysis of their intraregional trade and the different types of trade costs that are likely to hinder their integration; and (3) by assessing the diversification of these RECs at both the geographical and sectoral level and comparing their intra-industry trade.

Our main findings show that, despite low tariffs, the non-tariff measures, deficient infrastructure, and lengthy border-related measures are very costly whether they are measured by observed indices or the perceptions of the company concerned. When different RECs are compared, we see that SADC, ECOWAS, ECA, and COMESA appear to be the most introverted RECs in terms of both total trade and agricultural trade. AMU and ECCAS are, however, less introverted over the entire period. At the product level, we observe for all the RECs that there is more introversion for agricultural trade than for total trade. This is particularly the case with SADC and COMESA. Regarding the trade orientation of different RECs, one can conclude that all five RECs are more introverted than extraverted and—apart from AMU—have a relatively stable pattern. In addition, the difference between total trade and agricultural trade is less pronounced. In terms of diversification, most RECs are diversified at the geographical level, but less diversified at the sectoral level (with some of them exporting either fuel or agricultural products). Finally, agricultural products are more characterized by intra-industry trade compared to non-agricultural products, since most of the latter are concentrated in oil and minerals, which are exported to the rest of the world.

From a policy perspective, several issues must be considered with respect to Africa's integration. (1) Trade agreements have resulted in a relatively good performance, in particular in terms of trade integration within EAC and AMU and free movement of people within ECOWAS and EAC. It is, however, important to take into consideration both border-related and non-tariff measures that are still hindering trade in Africa. (2) At the level of negotiations, a more comprehensive approach is necessary for deeper integration. Indeed, improving infrastructure and facilitating trade procedures are important to boost trade in agriculture, since these products are perishable and can be quickly affected by customs inefficiency or infrastructure deficiency. (3) It is also necessary to address non-tariff measures to boost intra-and extraregional trade in Africa by harmonizing the rules of origin and standards, and norms of products, in different RECs. (4) The provision of technical assistance to different firms (in particular small and medium exporters) from both government and international donors is indispensable to assist companies in complying with international standards. This is vital to improve the quality of exported products and in the production of goods that are up to international standards. (5) It is crucial to make rules and procedures more transparent on customs websites to reduce the cost implied by NTMs and thus lead to easier and more efficient implementation. For instance, a global trade helpdesk—a recent initiative of ITC, UNCTAD, and WTO—will help micro, small, and medium enterprises to export more. This is an online platform to improve the quality and transparency of trade-related information, and to strengthen public–private dialog.

REFERENCES

Anderson, K., and H. Norheim. 1993. "From Imperial to Regional Trade Preferences: Its Effect on Europe's Intra- and Extra-regional Trade." *Weltwirtschaftliches Archiv* 129: 78–102.

Anderson, J., and E. van Wincoop. 2004. "Trade Costs." *Journal of Economic Literature* 42: 691–751.

Bouët, A., L. Cosnard and D. Laborde. 2017. "Measuring Trade Integration in Africa." *Journal of Economic Integration* 32 (4): 937–977.

Cadot, O., and J. Gourdon. 2014. "Assessing the Price-Raising Effect of Non-tariff Measures in Africa." *Journal of African Economies* 23 (4): 425–463.

COMTRADE. Accessed April 1, 2019. https://comtrade.un.org/

De Lombaerde, P., R. Flores, L. Iapadre, and M. Schulz. 2012. The Regional Integration Manual: Quantitative and Qualitative Methods. New York: Routledge.

Doing Business. Accessed April 1, 2019. https://www.doingbusiness.org/

ECA (Economic Commission for Africa). 2016. *Assessing Regional Integration in Africa VII: Innovation, Competitiveness and Regional Integration*. Addis Ababa: ECA.

Egg, J. and J. Herrera. 1998. Échanges transfrontaliers et intégration régionale en Afrique subsaharienne, v. 6. IRD Editions

Frankel, J. 1997. *Regional Trading Blocs in The World Economic System*. Washington, DC: Institute for International Economics.

Freund, C., and N. Rocha. 2010. *What Constrains Africa's Exports?* Staff working paper No. 2010–07, ERSD, World Bank, Washington D.C.

Gillson, I., and N. Charalambides. 2012. *Addressing Non-tariff Barriers on Regional Trade in Southern Africa*. Washington, DC/London: The World Bank/CEPR, 225-247.

Goundan, A., and C. S. Fall. 2018. "Regional Trade Patterns." In *African Agricultural Trade Status Report*, edited by O. Badiane and S. Odjo. IFPRI and CTA: Washington and Brussels, pp. 24-49.

Iapadre, L., and F. Luchetti. 2009. "Trade Regionalisation and Openness in Africa." European Report on Development, European University Institute, Florence.

International Trade Center Business Surveys. Accessed April 1, 2019. https://ntmsurvey.intracen.org/home

Limao, N., and A. J. Venables. 2001. "Infrastructure, Geographical Disadvantage and Transport Costs." *World Bank Economic Review* 15 (3): 451–479.

Logistics Performance Indicators, 2019. https://lpi.worldbank.org/, accessed on April 1, 2019.

MacKellar, L., A. Wörgötter, A., and J. Wörz. 2002. *Economic Growth of Landlocked Countries. Ökonomie in Theorie und Praxis.* Berlin: Springer.

Mold, A., and R. Mukwaya. 2017. "Modelling the Economic Impact of the Tripartite Free Trade

Area: Its Implications for the Economic Geography of Southern, Eastern and Northern Africa." *Journal of African Trade* 3 (1–2): 57–84.

OECD (2002) "Avantages pour les Entreprises de la Facilitation des Echanges", prepared by Matsudaira, T., and E. Mosé, Working Party of the Trade Committee, TD/ TC/ WP(2001)21/ FINAL, August.

Rizet, C., and H. Gwet. 1998. "Transport de Marchandises: Une Comparaison Internationale des Prix du Camionnage – Afrique, Asie du Sud Est, Amérique Centrale." *Recherche–Transports–Sécurités* 60: 68–88.

Storeygard, A. 2016. "Farther on Down the Road: Transport Costs, Trade and Urban Growth in Sub-Saharan Africa." *The Review of Economic Studies* 83: 1263–1295.

TRALAC (Trade Law Center). 2019. African Continental Free Trade Area (AfCFTA) Legal Texts and Policy Documents. https://www.tralac.org/resources/by-region/cfta.html.

Traoré, F. and C. Mitaritonna. 2017. "Existing Data to Measure African Trade." IFPRI Discussion Paper 01618, International Food Policy Research Institute, Washington, DC.

Walkenhorst, P. 2013. *Indicators to Monitor Regional Trade Integration in Africa*. Africa Trade Practice Working Paper Series (1). Washington, DC: World Bank.

World Bank Enterprise Surveys, 2019. https://www.enterprisesurveys.org/, accessed on April 1, 2019.

World Economic Forum. Accessed April 1, 2019. https://www.weforum.org/

APPENDIX

Table A3.1 Membership of African regional trade agreements

Country	ECOWAS	EAC	ECCAS	CEMAC	COMESA	SADC	SACU	AMU
Algeria	0	0	0	0	0	0	0	1
Angola	0	0	1	0	0	1	0	0
Benin	1	0	0	0	0	0	0	0
Botswana	0	0	0	0	0	1	1	0
Burkina Faso	1	0	0	0	0	0	0	0
Burundi	0	1	1	0	1	0	0	0
Cabo Verde	1	0	0	0	0	0	0	0
Cameroon	0	0	1	1	0	0	0	0
Central African Republic	0	0	1	1	0	0	0	0
Chad	0	0	1	1	0	0	0	0
Comoros	0	0	0	0	1	0	0	0
Congo Dem. Rep.	0	0	1	0	1	1	0	0
Congo, Rep.	0	0	1	1	0	0	0	0
Côte d'Ivoire	1	0	0	0	0	0	0	0
Djibouti	0	0	0	0	1	0	0	0
Egypt, Arab Rep.	0	0	0	0	1	0	0	0
Equatorial Guinea	0	0	1	1	0	0	0	0
Eritrea	0	0	0	0	1	0	0	0
Ethiopia	0	0	0	0	1	0	0	0
Gabon	0	0	1	1	0	0	0	0
Gambia	1	0	0	0	0	0	0	0
Ghana	1	0	0	0	0	0	0	0
Guinea	1	0	0	0	0	0	0	0
Guinea-Bissau	1	0	0	0	0	0	0	0
Kenya	0	1	0	0	1	0	0	0
Lesotho	0	0	0	0	0	1	1	0
Liberia	1	0	0	0	0	0	0	0
Libya	0	0	0	0	1	0	0	1
Madagascar	0	0	0	0	1	1	0	0
Malawi	0	0	0	0	1	1	0	0
Mali	1	0	0	0	0	0	0	0
Mauritania	0	0	0	0	0	0	0	1
Mauritius	0	0	0	0	1	1	0	0
Morocco	0	0	0	0	0	0	0	1
Mozambique	0	0	0	0	0	1	0	0
Namibia	0	0	0	0	0	1	1	0
Niger	1	0	0	0	0	0	0	0

Country	ECOWAS	EAC	ECCAS	CEMAC	COMESA	SADC	SACU	AMU
Nigeria	1	0	0	0	0	0	0	0
Rwanda	0	1	1	0	1	0	0	0
Saint Helena	0	0	0	0	0	0	0	0
Sao Tome and Principe	0	0	1	0	0	0	0	0
Senegal	1	0	0	0	0	0	0	0
Seychelles	0	0	0	0	1	1	0	0
Sierra Leone	1	0	0	0	0	0	0	0
Somalia	0	0	0	0	0	0	0	0
South Africa	0	0	0	0	0	1	1	0
South Sudan	0	0	0	0	1	0	0	0
Sudan	0	0	0	0	1	0	0	0
Swaziland	0	0	0	0	1	1	1	0
Tanzania	0	1	0	0	0	1	0	0
Togo	1	0	0	0	0	0	0	0
Tunisia	0	0	0	0	0	0	0	1
Uganda	0	1	0	0	1	0	0	0
Zambia	0	0	0	0	1	1	0	0
Zimbabwe	0	0	0	0	1	1	0	0

Note: COMESA for Common Market for Eastern and Southern Africa, SADC for Southern Africa Development Community, AMU for Arab Maghreb Union, ECCAS for Economic Community of Central African States, EAC for East African Community, ECOWAS for Economic Community of West African States, CEMAC for Central African Economic and Monetary Community, SACU for Southern African Customs Union.

Table A3.2 Level of customs duties on intraregional imports 2015

Country	ECOWAS
Nigeria	0.4%
Senegal	0.4%
Côte d'Ivoire	0.7%
Sierra Leone	0.8%
Togo	3.0%
Guinea-Bissau	3.3%
Ghana	4.8%
Niger	4.9%
Mali	5.5%
Burkina Faso	5.7%
Benin	6.9%
Cabo Verde	11.2%
Guinea	13.5%
Gambia	16.7%
Average	5.6%

Country	COMESA
Burundi	0.0%
Comoros	0.3%
Djibouti	12.5%
Egypt	0.1%
Ethiopia	10.0%
Kenya	1.2%
Libya	0.0%
Madagascar	0.0%
Malawi	0.0%
Mauritius	0.0%
Rwanda	0.4%
Seychelles	7.3%
Sudan	0.6%
Swaziland	1.3%
Uganda	0.7%

Country	SADC
Botswana	0.0%
Lesotho	0.0%
Madagascar	0.3%
Malawi	1.6%
Mauritius	0.0%
Mozambique	1.6%
Namibia	0.0%
Seychelles	12.2%
South Africa	0.0%
Swaziland	0.0%
Tanzania	9.6%
Zambia	0.1%
Zimbabwe	24.0%
Average	3.8%

Country	AMU
Algeria	3.9%
Libya	0.0%
Mauritania	8.6%
Morocco	0.0%
Tunisia	0.5%
Average	2.6%

Country	COMESA
Zambia	0.0%
Zimbabwe	0.2%
Average	1.9%

Country	ECCAS
Cameroon	0.2%
Central African Rep.	0.0%
Chad	0.0%
Congo	5.3%
Gabon	0.3%
Rwanda	0.1%
Sao Tome & Principe	5.3%
Average	1.6%

Source: COMTRADE (2019).

Table A3.3 Enterprise surveys (by year)

Economy	Year	Economy	Year
Angola	2010	Mauritania	2014
Burundi	2014	Mauritius	2009
Benin	2016	Malawi	2014
Burkina Faso	2009	Namibia	2014
Botswana	2010	Niger	2017
Central African Republic	2011	Nigeria	2014
Côte d'Ivoire	2016	Rwanda	2011
Cameroon	2016	Sudan	2014
Congo, Rep.	2009	Senegal	2014
Cabo Verde	2009	Sierra Leone	2017
Eritrea	2009	South Sudan	2014
Ethiopia	2015	Eswatini	2016
Gabon	2009	Chad	2018
Ghana	2013	Togo	2016
Guinea	2016	Tanzania	2013
Gambia	2018	Uganda	2013
Guinea-Bissau	2006	South Africa	2007
Kenya	2018	Zambia	2013
Liberia	2017	Zimbabwe	2016
Lesotho	2016	Congo, Dem. Rep.	2013
Madagascar	2013	Djibouti	2013
Mali	2016	Egypt, Arab Rep.	2016
Mozambique	2018	Morocco	2013
		Tunisia	2013

Source: Constructed by the authors.