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A Primer on African Market Integration with a Hard look at Progress and Challenges Ahead

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A Primer on African Market Integration with a Hard look at Progress and Challenges Ahead*

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Abstract

Treaties implemented by Regional Organizations (ROs) among which the eight Regional Economic Communities (RECs) have piloted integration across the African continent. The recently created Africa Continental Free Trade Area (AfCFTA), effective since May 2019, is the latest effort along the roadmap started with the Abuja Treaty of 1994 and continued with the launch of 'Agenda 2063' on the 50th anniversary of the OAU. This primer has three objectives: take stock of progress at market integration and understand the causes of the African 'proximity gap'; summarize and provide new evidence on the extent of integration, and; discuss challenges ahead.

... / ...

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The ambitious objectives of the AfCFTA among highly diverse economies is suggestive of a trilemma: (i) solidarity (calls for special and differential treatment); (ii) build large markets (calls for the removal of all policy-imposed barriers to trade to reap economies of scale); (iii) 'deep' integration (calls for covering behind-the-border measures). The example of the negotiations for the Tripartite FTA illustrates the difficulties of accommodating differences in preferences in a group of 28 countries. This ambitious agenda in a setting of limited implementation capabilities raises the specter of capability traps.

Lowering regional trade costs is key for a successful AfCFTA. Model-based calculations show that these costs have fallen over the last two decades, but not faster than elsewhere so that Africa has not improved its relative position. Estimates of the intensity of bilateral trade in parts and components are positively related to measures of 'deep integration', an indication of the importance of tackling 'behind-the-border' measures affecting trade, an objective of phase II of the AfCFTA. Estimates of the correlates of bilateral trade costs give support to measures promoting 'deep' integration. An outcome indicator of the thickness of borders based on changes in light-intensity along all major cross-border African roads shows that over the period 2000-13, the thickness of African borders has fallen.

All RECs are lagging MERCOSUR and ASEAN in supply chain trade. Over the 1990-2015 period, participation has been limited to the downstream side (i.e. value-added exports enter mostly as inputs into exports of importing countries) with partners outside the region which is in contrast with MERCOSUR and ASEAN where all value chains have developed with regional partners. In the case of ASEAN, the share of trade involving partners outside the region has stayed constant over the 25 period while the share of Regional Value Chain (RVC) trade only involving RTA partners has more than doubled from 7 percent to 17 percent. By 2015, ASEAN's RVC share was about 6 times higher than the RVC rate for SADC, the REC with the most RVC integration. This suggests that intra-regional trade costs have fallen in MERCOSUR and ASEAN but not across the RECs. In short, African countries still have to produce a complete product in order to enter a new product line.

The review singles out two areas for reducing intra-regional trade costs: adopting simple rules of origin, i.e. rules that are business friendly rather than business owned (details in annex A3) and 'taking seriously' the Trade Facilitation Agreement (TFA). New estimates suggest that if the average time in customs for imports at the African Union level were to be reduced to the average time for exports, that is reduced by 49 hours, this would be equivalent to a reduction of 2.7% on tariffs in importing countries.

The greatest challenge ahead is increasing the provision of Regional Public Goods (RPGs). These are under-provided across the continent. Because this primer is

mostly about economic integration, we only cover evidence of RPGs in two areas: peace and security and cross-border infrastructure. For both, the evidence suggests that provision of these RPGs has been low. Greater provision would be conducive, if not essential, to the success of African regional integration.

Executive Summary

Ever since independence, African countries have engaged in a series of treaties in their journey to integrate at the regional and continental levels. Regional Organizations (ROs) among which the eight Regional Economic Communities (RECs) are to pilot this integration. From the start, most efforts at integration (and most assessments) have concentrated on removing policy-imposed barriers (tariffs and Non-Tariff Barriers) to trade in goods, then more recently barriers to the movement of capital and persons. Steps have followed the European linear model of integration (goods markets, factor markets, behind-the-border measures). The recently signed Africa Continental Free Trade Area (AfCFTA), effective since May 2019, is the latest effort in this direction.

The geography of Africa inherited from the 'scramble of Africa' in the late 19th Century is the strongest rationale for regional integration among the many, largely 'artificial' states. Transboundary externalities are numerous in this landscape. These have been tackled in the specialized ROs established to supply Regional Public Goods (RPGs) (electricity, hard infrastructure, management of rivers and lakes, peace and security, health, environment).

This primer has three objectives: to take stock of progress at market integration by exploring the causes of the African 'proximity gap'; to provide new evidence wherever possible, and; to discuss challenges ahead.

The ambitious objectives of the AfCFTA among highly diverse economies face a trilemma: (i) solidarity (calls for special and differential treatment); (ii) build large markets to reap economies of scale (calls for the removal of all policy-imposed barriers to trade); (iii) deep integration (calls for covering behind-the-border measures in small groupings where trust and agreement is easier to obtain). Only two of the three objectives can be achieved. The example of the negotiations for the Tripartite FTA is developed to illustrate difficulties implied by this trilemma in negotiations involving 28 countries. The specter of capability traps implied by this ambitious continental agenda in a setting of limited implementation capabilities is raised.

So far, policy measures actually taken (as opposed to commitments announced) to integrate markets has been uneven. Some RECs still maintain applied bilateral tariffs among members close to MFN tariffs. The resulting disparity in starting point across RECs increases the challenge for implementing the AfCFTA agenda. This is recognized in the adopted variable geometry approach. Measures of progress at financial integration and labor market integration are discussed. In goods markets, once internal free trade is reached, the next step at integration beyond an FTA involves adopting a Common External Tariff (CET). Here, the experiences of EAC and ECOWAS show that the outcome has been detrimental to the small members, especially for the distribution of household income, as the adopted CET has increased household income inequality in Rwanda and Liberia, two small and low-income members in their respective Customs Union.

Lowering regional trade costs is key for the success of the AfCFTA. Model-based calculations of bilateral trade costs show that these costs have fallen over the last two decades, but not faster than elsewhere. On average relative to other comparable groups, African RECs have not improved their relative position by lowering trade costs more rapidly than those of

comparators in world trade. Correlations suggest that, having controlled for distance and other bilateral characteristics like common border and common language, high bilateral trade costs are associated with large gaps in indicators of logistics performance and of institutional quality. Nonetheless, once bilateral and time-varying factors affecting bilateral trade are controlled for, 50-year panel estimates of the intensity of bilateral trade in manufactures show that WTO membership and belonging to a REC are associated with greater intensity of bilateral trade. Furthermore, estimates of the intensity of bilateral trade in parts and components are positively related to measures of 'deep integration' an indication of the importance of tackling 'behind-the-border' measures that affect trade.

Taken together, these estimates give overall support to the measures adopted. This is confirmed by an outcome indicator of the thickness of borders based on changes in light-intensity along all major cross-border African roads. The indicator shows that over the period 2000-13, differences in light-intensity as one moves along cross-border highways have fallen, an indication that the thickness of African borders has fallen.

Supply chain participation estimates are reported at the REC level from the Eora Multi Region Input Output national and global input-output tables covering the period 1990-2015 for 189 countries. The estimates show that the RECs have not yet entered supply chain trade. Compared with MERCOSUR and ASEAN, participation rates in supply chain trade has been low for African RECs over the period 1990-2015. Their participation has been mostly on the downstream side (i.e. value-added exports enter mostly as inputs into exports of importing countries). Moreover, while an objective of AfCFTA is to develop Regional Value Chains (RVCs) as well as Global Value Chains (GVCs), so far the RECs have only integrated with countries outside the region which is consistent with persistently high within-REC trade costs. This is in contrast with MERCOSUR and ASEAN where all integration has been towards members. In the case of ASEAN, the share of GVC trade involving partners outside the region has stayed constant over the 25 period while the share of RVC trade only involving RTA partners has more than doubled from 7 percent to 17 percent. By the end of period, ASEAN's RVC is about 6 times higher than the RVC rate for SADC, the REC with the most RVC integration.

These comparisons suggest that intra-regional trade costs have fallen in MERCOSUR and ASEAN but not within the RECs so that RVCs have not developed across Africa. In short, African countries still have to produce a complete product in order to enter a new product line.

Two areas for reducing intra-regional trade costs are singled out for attention: adopting simple rules of origin (details in annex A3) and 'taking seriously' the Trade Facilitation Agreement (TFA). New estimates of the potential reduction in times at the border suggest much room for improvement. For example, if the average time in customs for imports at the African Union level was to be reduced to the average time for exports, that is reduced by 49 hours from the current average, this would be equivalent to a reduction of 2.7% on tariffs in importing countries.

The greatest challenge ahead is assuring the provision of Regional Public Goods (RPGs). These are under-supplied across the continent. Because this primer is mostly about

economic integration, we only cover evidence of RPG supply in two areas: peace and security, and cross-border infrastructures. For both, the evidence suggests that these RPGs are under-provided. Adequate provision will be conducive, if not essential, to the success of integration.

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Acronyms

AEC:	Africa Economic Community
AEO:	African Economic Outlook
AfCFTA:	Africa Continental Free Trade Area
AGADIR:	Agreement between Tunisia, Morocco, Jordan, and Egypt (in force since 2007)
AGOA:	African Growth Opportunities Act
AIDA:	Accelerated Industrial Development of Africa
ANDEAN:	Regional community comprising Bolivia, Colombia, Ecuador, and Peru.
APIDA:	Action Plan for Accelerated Industrial Development of Africa
APRM:	African Peer Review Mechanism
ASEAN:	Association of Southeast Asian Nations
ASF:	African Standby Force
AU:	African Union
AVEs:	Ad valorem equivalents
BIAT:	Boosting Intra-African Trade
CEMAC:	Communauté économique et monétaire de l'Afrique centrale
CEN-SAD:	Communauté des États sahélo-sahariens
CET:	Common External Tariff
CMS:	Common Market Scorecard
COMECON:	Council for Mutual Economic Assistance
COMESA:	Common Market for East and South Africa
CU:	Customs Union
DB:	Doing Business
EAC:	East African Community
EASF:	East Africa the East African Standby Force
EBA:	Everything But Arms
ECCAS:	<i>Economic Community of Central African States</i>
ECOWAS:	Economic Communities of West African States
ELF:	Ethno-Linguistic Fractionalization
ETLS:	ECOWAS Trade Liberalization <i>Scheme</i>
EU:	European Union
FTA:	Free Trade Area
GATS:	General Agreement on Trade in Services
GCC:	Cooperation Council for the Arab States of the Gulf

GDP: Gross Domestic Product

GERD: Grand Ethiopian Renaissance Dam

GVCs: Global Value Chains

HICs: High-income countries

HS: Harmonized System Description and Coding System of tariff nomenclature

IAT: Import Adjustment Tax

ICT: Information and communication technologies

ICTSD: *International Centre for Trade and Sustainable Development*

IGAD: Intergovernmental Authority on Development

ITC: International Trade Centre

LDCs: Least developed countries

LICs: Low-income countries

LLDCs: Landlocked Developing Countries

LPI: Logistic Performance Index of the World Bank

LSCI: Liner shipping connectivity index of UNCTAD

MAST: Multi-Agency Support Team

MERCOSUR: Mercado Común del Sur (Southern Common Market)

MFN: Most Favoured Nation

NAFTA: North American Free Trade Agreement

NARC: North African Regional Capability

NTBs: Non-Tariff Barriers

NTMs: Non-Tariff Measures

OAU: Organization of Africa Unity

OECD: Organisation for Economic Co-operation and Development

PAFTA: Pacific Alliance Free Trade Area

PIDA: Programme for Infrastructure Development in Africa

PSI: Pre-Shipment Inspections

PTA: Preferential Trade Agreement

RECs: Regional Economic Communities

RoO: Rule of origin

RO: Regional Organization

ROW: Rest of the World

RPG: Regional Public Good

RTA: Regional Trade Agreement

RVC: Regional Value Chain

SAATM: Single African Air Transport Market

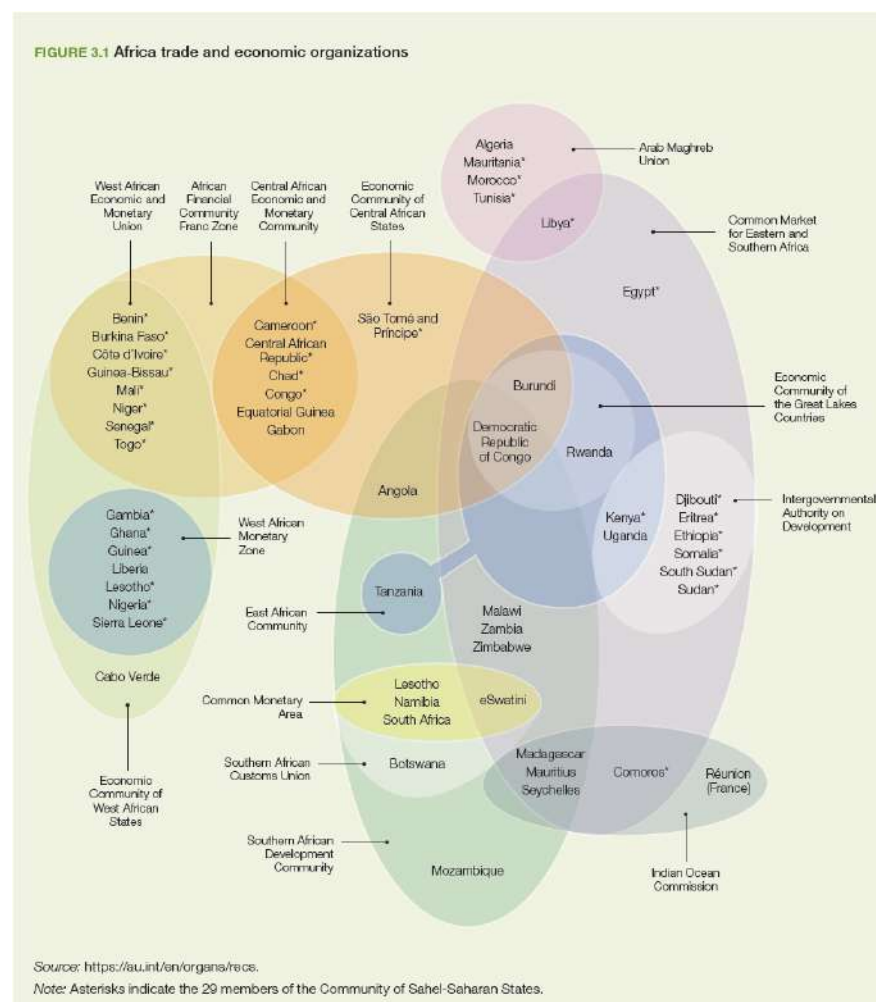
SACU: Southern African Customs Union
SADC: Southern African Development Community
SDGs: Sustainable Development Goals
SDT: Special and Differential Treatment
SOA: Stays of Application (ruling halting application of a decision)
SPM: Special Protection Measures
SPS: Sanitary and Phytosanitary
SRTI: Services Trade Restrictions Index
SSA: Sub-Saharan African
TBTs: Technical Barriers to Trade
TC: Trade Costs
TFA: Trade Facilitation Agreement
TFI: Trade Facilitation Index of the OECD
TFTA: Tripartite Free Trade Area
TRIM: Agreement on Trade-Related Investment Measures
TRIPs: Agreement on Trade-Related Aspects of Intellectual Property Rights
UEMOA : Union Économique et Monétaire de l’Afrique de l’Ouest (also WAEMU)
UMA: Arab Maghreb Union
UMIC: Upper-middle Income country
UNAMID: African Union-United Nations Hybrid Operation in Darfur
UNCTAD: United Nations Conference on Trade and Development
UNECA: United Nations Economic Commission for Africa
WAMZ: West African Monetary Zone
WB: World Bank
WGI: World governance indicators
WTO: World Trade Organization
WTO-X: Measures not covered in multilateral negotiations

1. Introduction

1.1. The African Regional Organizations

Since independence, African countries have embarked on a journey to integrate at the regional and continental levels through a plethora of Regional Integration Agreements, also called Regional Economic Communities (RECs) in Africa. Two types of Regional Organizations (ROs) were set up to carry out this integration: Trade and Economic Organizations (see figure 1) and other ROs (see figure 2). From the start, most efforts at integration have concentrated on removing policy-imposed barriers (tariffs and Non-Tariff Barriers (NTBs)) to trade in goods, then more recently to the movement of capital and persons following the European linear model of integration. These steps towards market integration were part of – and often the main – mandate in the negotiations in the trade and economic organizations listed in the figure 1 (the three distinct phases along this journey are summarized in section 1.2.)

Figure 1: African Trade and Economic Organizations



Source: AEO 2019 figure 3.1

The geography of Africa inherited from the 'scramble of Africa' in the late 19th Century is the strongest rationale for regional integration among many largely 'artificial states'. Recall the following. First, the share of straight-line (i.e. artificial) borders is about 80% across Africa, the highest across continents. Second, ethnic partitioning across borders is strongest in Africa. The mean of the share of an average African country's population that comes from partitioned ethnicities is 47% while for non-African countries it is 18.2% (Alesina et al., 2011). Third, Africa has the highest share of countries per area across continents mechanically increasing the importance of transboundary externalities within the continent.

The importance of these RPGs is evident from the large number of specialized organizations across the continent. Table 1 lists the most important among these along with the two other types of Regional Organizations: The 'AU-recognized RECs' and the 'other economic organizations' that often, though not always, focus on market integration. This primer starts from Newfarmer's (2017) observation that evaluation of progress at integration in Africa has concentrated on eliminating barriers to trade in goods (and only recently to trade in services including the mobility of people and capital) at the expense of evaluating progress on the provision of RPGs.

Typically, the transboundary externalities are addressed in the specialized Regional Organizations (ROs) established to supply Regional Public Goods (RPGs) such as electricity, hard infrastructure, management of rivers and lakes, peace and security, health, environment. These are the other specialized organizations referred to above. In contrast to private goods, public goods, at all levels, national, regional, global are undersupplied. This is the case everywhere because, once a public good is provided, it is difficult to exclude consumption by non-providers and, except for Common Pool Resources, consumption by one party does not diminish consumption by others. This implies that efficiency calls for usage by all, including non-providers. For national public goods, a sufficiently strong government can supply these public goods. For all Public Goods, but especially for RPGs, the prognosis for their supply is directly linked to the share of benefits that can be captured by financial contributors. For RPGs, collective action is necessary at the regional level. This requires some delegation of authority beyond the nation state.

Concentrating on the causes of market fragmentation and on the benefits of market integration is easier to evaluate than progress at delivering RPGs. This is why much of the survey concentrates on progress at market integration. It is the path followed by European integration, at a time when barriers to trade in goods were large, trade had not yet been 'servicified' and cross-border externalities were less important than they are now. Market integration also brings side-benefits in the form of greater trust as it raises the opportunity cost of conflicts.

For RPGs, it is difficult to estimate the spillover benefits. It is also difficult to get the necessary collective action across countries to ensure their supply of RPGs. This survey recognizes the need to give greater attention to the provision of RPGs in future assessments of progress at integration across the continent.

Table 1 Regional Organizations in Africa*

AU-recognized Regional Economic Communities (RECs)	River and lake organizations
Arab Maghreb Union (AMU) [5]	Niger Basin Authority [9]
Common Market for Eastern and Southern Africa (COMESA) [19]	Integrated Development Authority of the Liptako-Gourma Region[3]
Community of Sahel-Saharan States (CEN-SAD) [2]	Lake Chad Basin Commission [6]
East African Community (EAC) [6]	International Congo-Ubangui-Sangha Commission[6]
Economic Community of Central African States(ECCAS) [11]	Limpopo Water Course Commission [4]
Economic Community of West African States(ECOWAS) [15]	Lake Tanganyika Authority [4]
Intergovernmental Authority on Development (IGAD) [7]	Lake Victoria Basin Commission [5]
Southern African Development Community (SADC) [16]	Nile Basin Initiative [10]
Other economic organizations	Permanent Okavango River Basin Water Commission [3]
Central African Economic and Monetary Union (CEMAC) [6]	Organization for the Management of the Gambia Rive[4]
Economic Community of the Great Lakes Countries (CEPLG) [3]	Organization for the Development of the Senegal River [4]
Gulf of Guinea Commission (GGC) [8]	Orange-Senqu River Commission [4]
Indian Ocean Commission (IOC) [4]	Tripartite Permanent Technical Commission [3]
Mano River Union (MRU) [4]	Volta Basin Authority [6]
Southern African Customs Union (SACU) [5]	Zambezi Watercourse Commission [8]
West African Economic and Monetary Union (WAEMU) [8]	Peace and security organizations
Energy-based organizations	Eastern Africa Standby Force [10]
Maghreb Electricity Committee [5]	International Conference of the Great Lakes Region [12]
Eastern Africa Power Pool [10]	G5 Sahel [5]
West African Power Pool [14]	Environmental organizations
Central African Power Pool [10]	Central African Forest Commission [10]
Southern African Power Pool [14]	

**Source: authors' elaboration from EPCDM. Number of countries in brackets*

This survey has three objectives: take stock and understand the extent of progress at market integration; summarize or provide new quantitative evidence wherever possible; and discuss challenges ahead. In the short term, the challenge is to complete negotiations for Phase I of the AfCFTA (tariff schedules, convergence in rules of origin across RECs, set up a workable dispute settlement mechanism) and take advantage of the opportunity offered by the Trade Facilitation Agreement (TFA). In the longer term, the challenge is to make progress at the provision of RPGs.

The emphasis is on measurable achievements.¹ Wherever possible, the paper compares performance with selected 'comparable' Regional Trade Agreements (RTAs) here represented by ANDEAN, ASEAN and MERCOSUR.²

1.2 The three phases of African Integration: from the Lagos plan of Action to the AfCFTA

A first impulse took place under the Lagos plan of action (in 1980), an initiative of the Organization of Africa Unity (OAU). Vagueness and a multitude of objectives throughout the different phases of negotiations, helped States gloss over the issues that divided them. The skewed distribution of benefits that would have resulted from the great disparity characteristics and interests among members would have required large compensation from the gainers to the losers. Absent central funding raised by less distortionary means, funds were either obtained by distortionary taxes negating any efficiency gains from eliminating protection among partners, or trade barriers were not removed.³ So, during this first phase, with the exception of integration in the Franc zone in CEMAC and UEMOA, implementation never reached the Free Trade Area status, let alone deeper integration.

The Abuja Treaty (operational in 1994) created the Africa Economic Community (AEC). It marked the beginning of the second phase when regional cooperation started in earnest. Eight RECs would set out the path for the creation of the AEC by 2028 (see list in table 1 and membership in figure 1). A Free Trade Area (FTA) would be first established, followed by a customs union, a common market, and a monetary union following a 'variable geometry' whereby integration would be at different speeds across RECs following a 'Minimum Integration Program' along six stages for the eight RECs but also through the other more specialized organizations. Abolition of barriers to free trade between the various RECs was only to take place at stage 4 when customs unions would be fully operational.

And now, since the launch of the African Continental Free Trade Area (AfCFTA) in March 2018 with entry into force on May 30, 2019, a third phase is under way. This FTA at the

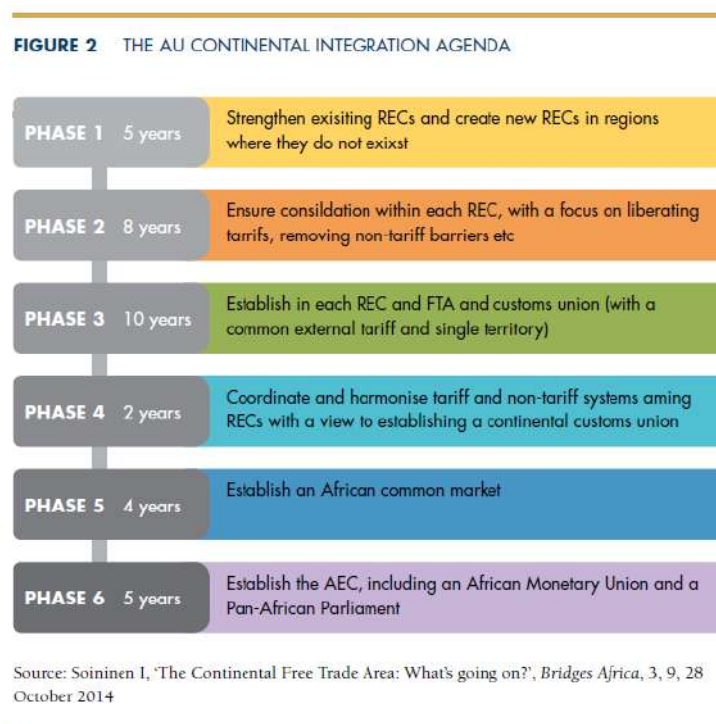
¹ Nine UNECA reports, the 2019 AfDB's Africa Economic Outlook, and the regularly updated Doing Business reports of the World Bank, all monitor progress. To avoid repetition, metrics presented here are mostly complementary to those presented in those reports.

² These are very imperfect comparators as ASEAN had two high-income members, Brunei and Singapore, and the average per capita income of comparators is close to ten times that of the average African REC.

³ For example, in West Africa preferential customs duties (e.g. the 'Taxe de coopération régionale' applicable to partners' industrial products were tailored to the 'protection needs' of the least advantaged partners. In Europe, until Brexit, France delayed progress towards deeper integration when it opposed the planned move in the Treaty of Rome from unanimity to majority voting in the European Council fearing that it would have to adopt policies it would oppose. The conflict over sovereignty was also apparent when several countries opted out of the 2007 Lisbon Treaty which further strengthens EU institutions and inches towards qualified majority voting.

continental level was envisaged since the start of the process, but only after FTA status had first been achieved at the REC level (i.e. at the end of Phase III of the Abuja Roadmap in Figure 2).

Figure 2 The Abuja Roadmap: 1994-2028



This third phase coincides with the launch of its 50-year vision on the 50th year anniversary of the OAU, called 'Agenda 2063' (AU, 2015). Titled "The Africa We Want", the vision calls for "a prosperous Africa based on inclusive growth and sustainable development" implying that fast-tracking a Continental FTA should be built around the post-2015 development agenda. With SDGs occupying center stage on the global policy coordination front, African integration is also to take into account the environmental footprint of industrialization. If anything, rather than concentrating on a narrower range of objectives, in its deeper reach, the AfCFTA recognizes the multidimensionality of integration.

An ambitious seven-cluster action plan⁴ for "Boosting Intra-African Trade (BIAT)" preceded the launch of Vision-2063. By adopting the BIAT plan at the same Summit as the AfCFTA, the leaders had recognized that trade integration alone will not solve Africa's development challenges. The BIAT Action Plan references and incorporates the Action Plan for Accelerated Industrial Development of Africa (AIDA) and the Programme for Infrastructure Development in Africa (PIDA). Thus, African leaders envisage that the AfCFTA would be implemented together with the BIAT, AIDA and the PIDA. The AfCFTA recognizes that a successful integration extends beyond market integration to include RPGs. RPGs are not supplied by the market. They require collective action, often beyond the state level. Much

⁴ The seven priority clusters are: trade policy, trade facilitation, productive capacity, trade-related infrastructure, trade finance, trade information and factor markets.

has been written on the architecture and the two envisaged phases of the AfCFTA (see summary in annex) but assessments have concentrated on describing objectives rather than on achievements so far.

The expression ‘developmental regionalism’ encapsulates this expanding scope of regional integration shown in figure 2. UNCTAD (2013) defines developmental regionalism as “cooperation among countries in a broader range than just trade facilitation, to include—for example—investment, research and development, as well as policies aimed at regional infrastructure provision, such as the building of better networks of roads and railway”. This approach that characterizes the ‘Agenda 2063’ is an extension of the linear model of regional integration first envisaged in the Abuja Treaty. The roadmap towards an AEC scheduled for 2028 includes an African Monetary Union and a Pan-African Parliament. The roadmap in figure 2 still emphasizes the linear model, first within each REC until stage 4 (in 2019) when harmonization of tariff and non-tariff systems is supposed to take place across RECs.⁵

This roadmap is certainly ambitious if one recalls the long and tortuous path at European integration over a fifty-year period. At the same time, it recognizes that the politics of economic integration cannot be left aside. Nonetheless, in an environment of still weak governance and weak institutions at the country level, one can hope that regionalism will provide an anchor for good policies if there is sufficient political commitment at the country level.

However, as mentioned above, African countries are patchworks of ethnic groups where the fragmentation of civil society hampers the emergence of organized counter-groups, exposing policy-making to powerful lobbies from very narrow special-interest groups whose influence would likely be diluted in a larger community.⁶ Developmental integration emphasizes the interdependence of benefits, though it does not recognize that, to be successful, sufficient delegation of authority to a supra-national level is needed. This survey recognizes these tensions that detract from applying the principle of subsidiarity which is necessary for regional cooperation to help move forward regional integration.

1.3. Outline

Section 2 discusses the dimensions of the AfCFTA agenda. It identifies a trilemma implied by the ambitious objectives among highly diverse economies. The example of the negotiations for the TFTA is used to illustrate difficulties implied by diversity in the context of negotiations for a large group (28) of countries. The specter of capability traps implied by the ambitious agenda in a setting of limited implementation capabilities is raised.

Section 3 takes stock of the policy measures actually taken (as opposed to commitments) to integrate markets distinguishing between ‘shallow’ (goods market only) and ‘deep’ (other markets, behind-the-border) measures. The section shows an uneven progress at implementation across RECs. The resulting disparity in starting point across the RECs

⁵ See UNECA (2017, figure 2.2).

⁶ Melo, Panagariya and Rodrik (1992) present a model in which the strength of lobbying activities (that take place within countries) is diluted through regional integration where there is delegation of authority to a supra-national level.

increases the challenge for implementing the AfCFTA agenda. This is recognized in the variable geometry approach.

Section 4 examines outcomes on market integration so far. It looks for changes in trade patterns around the time of implementing the RECs, and of the extent of regionalization of trade in new manufactured products. Measures of progress at financial integration and labor market integration are discussed. In goods markets, the next step at integration beyond a FTA involves adopting a common external tariff (CET). The experiences of EAC and ECOWAS are presented to show that the outcome is detrimental to the poor in Rwanda and Liberia, two small partners in their respective Customs Union.

Intra-African trade is still low, leading observers relying on patterns of bilateral trade suggested by the gravity model to summarize intra-African trade by a ‘proximity gap’, another way of saying that, controlling as best possible over a large number of countries, trade among African countries should be more intense. Section 5 turns to evidence on these trade outcomes reviewed in section 4. Model-based calculations of trade costs show that these costs have fallen over the last two decades, but not faster than elsewhere. Correlations suggest that, having controlled for distance and other bilateral characteristics like common border and common language, high bilateral trade costs are associated with large gaps in indicators of institutional quality. Controlling for bilateral and time-varying factors affecting bilateral trade, 50-year panel estimates of the intensity of bilateral trade in manufactures show that membership to the WTO and to REC are associated with greater intensity of bilateral trade. For the development of regional value chains, estimates of the intensity of bilateral trade in parts and components are positively related to measures of ‘deep integration’ an indication of the importance of tackling ‘behind-the-border’ measures that affect trade.

Section 6 wraps up the evidence on market outcomes. It complements the widely used Africa Regional Integration index that gives a comprehensive dashboard of where integration stands, but that mixes outcomes with policy measures with two other indicators. The first is a micro-level scorecard that tallies implementation of (and backtracking on) commitments at integration. Such a scorecard was built for the EAC and applied for 2014 and 2016. It checks whether EAC customs laws which prevent member states from introducing any new restrictions on the provision of goods, capital and services, are respected.⁷ Applying such a scorecard at other RECs would help greatly the extent of progress at policy implementation. The second, is an outcome indicator based on changes in light-intensity along all major cross-border African roads. Evolution of this index of luminosity suggests that the thickness of African borders has, indeed, fallen over the period 2000-13.

The fall in the costs of moving goods, people, and ideas has resulted in the unbundling of economies into Value Chains at the global and regional levels. This represents an opportunity for African countries to increase their participation in global trade without having to produce a complete product in order to enter a new product line. Section 7 gives estimates of the relatively low participation by the RECs in Global Value Chains (GVCs) over

⁷ See AEO 2019, box 3.2

the period 1990-2015, confirming that participation has been mostly on downstream side (i.e. value-added exports enter mostly as inputs into exports of importing countries). Two areas for reducing costs are singled out for attention: adopting simple rules of origin (details in annex A3) and ‘taking seriously’ the Trade Facilitation Agreement (TFA). New estimates of the potential reduction in times at the border suggest much room for improvement.

Section 8 turns to the challenges of providing RPGs. These are pervasive covering many inter-related functions (economic cooperation and integration, human and social development, natural resources and the environment, cross-border infrastructure, Peace and Security, Governance).⁸ Because this primer is mostly about economic integration, we only cover evidence of the supply of RPGs in two areas: peace and security and cross-border infrastructure. For both, the evidence shows that provision of these RPGs is conducive to regional integration.

Section 9 concludes.

The annex gives details on the AfCFTA in the broader landscape of African integration and two challenges facing a successful completing of phase I negotiations: a workable dispute settlement mechanism and ‘business friendly’ but not ‘business owned’ rules of origin. Because successful provision of RPGs rests on the delegation of authority to supra-national levels, the annex mentions two examples of delegation of authority: the peer review mechanism and the standby force.

⁸ See ADB (2017, table 7.2) for a list of examples with associated benefits.

2. Implementation challenges

2.1 The 2016 Agenda: an African integration trilemma⁹

The AfCFTA entered into force on May 30 2019, with the important arrival of Nigeria in early July.¹⁰ If all signatories fulfil the domestic requirements for certification, AfCFTA will have the largest membership of a free trade area in the world since the launch of the GATT (now the World Trade Organization, WTO) 70 years ago. If all African countries have joined the free trade area by 2030, the market size would include 1.7 billion people with an estimated US\$6.7 trillion of cumulative consumer and business spending. The incompatibility of three competing objectives in the AU's Agenda 2063 presents a challenge. The three objectives are:

- African solidarity (to accommodate all countries).
- Large markets (no policy-imposed impediments to trade to reap economies of scale).
- Deep integration (to reap all the benefits of integration).

Typically, membership in each of the eight regional economic communities (RECs), through which integration is to continue includes resource-rich and resource-poor countries, coastal and landlocked countries, and large and small countries with differing population densities. As mentioned in the introduction, African countries are also highly diverse along multiple dimensions (ethno-linguistic, religious and biological).

These diversities point to an 'integration trilemma' facing the 2063 agenda of integration. This trilemma is shown in Figure 3, where for each objective, further distance from the vertex indicates less achievement. Figure 3 suggests that even if integration were to progress smoothly within each REC, Africa cannot be at all three vertices simultaneously.

Solidarity requires Special and Differential Treatment (SDT) for least developed countries (LDCs) and financial resources (which are in short supply) to compensate for integration costs. Solidarity requires trust, which falls as membership size increases. During the AfCFTA negotiations, South Africa strongly opposed financial compensation (Parshotam, 2018). The compromise is that SDT is to be built into the Treaty on a case-by-case basis and LDCs have an extended implementation period.

SDT accommodates this diversity but at the cost of market fragmentation. Thus, the Tripartite Free Trade Area (TFTA) among the Common Market for East and South Africa (COMESA), the Economic Community of West African States (ECOWAS) and the Southern

⁹ This section draws on <https://theforum.erf.org.eg/2019/01/28/african-continental-free-trade-area-integration-trilemma/>.

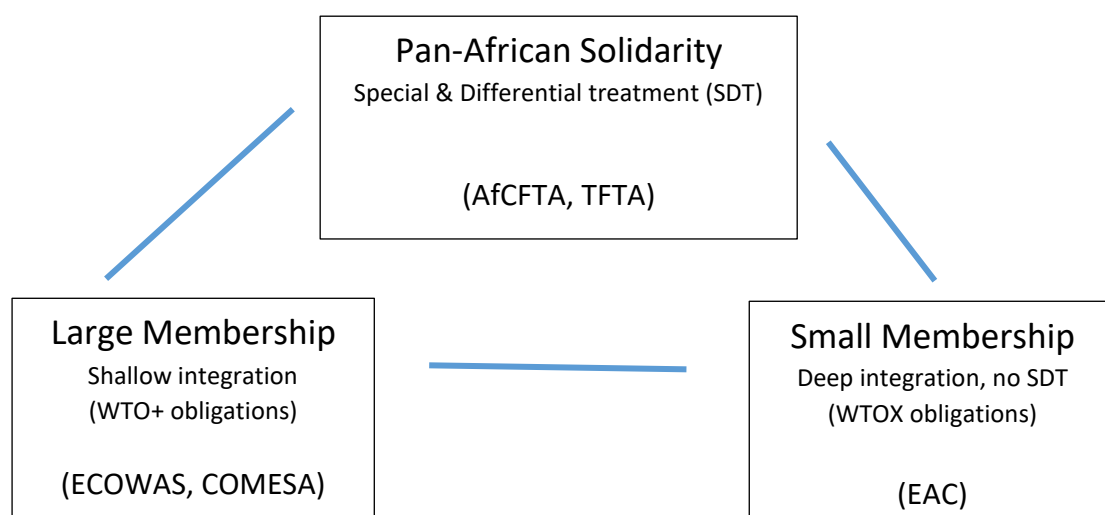
¹⁰ As of mid-July 2019, the AfCFTA has collected 52 signatories (Benin and Eritrea had not signed), with 26 signatories having deposited their instruments of ratification. A three-phase sequential protocol (right of entry and abolition of visa requirements; rights of residence; right of establishment) launched in 2018, has collected 30 signatures. South African and North African countries are reluctant to enter phase I unless number of preconditions are met.

African Development Community (SADC) or the AfCFTA can achieve solidarity but at the expense of a continental market and deep integration.

Fully reaping economies of scale requires large membership (COMESA, ECOWAS) and low trade barriers. This precludes SDT for the LDCs, which segment markets by raising trade costs and effectively limits the size of the market.

Deep integration as in the case of the EAC results in the integration of financial markets and the mobility of people. Deep integration requires trust. Trust is more easily achieved in a small membership setting (such as the East African Community). Because of the lack of trust needed to delegate authority to supranational institutions, embracing diversity to satisfy political objectives impedes deep integration.

Figure 3 The African Integration Trilemma



African diversity also points to an implementation conundrum. On the one hand, because of diversities – such as between coastal and landlocked countries – potential gains from closer economic integration are large. On the other hand, realising these gains requires financial resources necessary to compensate countries with large differences in expected gains from closer integration.

The wasteful Common Agricultural Policy (CAP) amounting to 1% of European Union GDP has often been explained as a political compromise between France and Germany whereby German manufacturers gained access to the French market while German taxpayers helped to subsidise French farmers. In the African context, the AU could only finance 44% of its budget from member States contributions. Reaching financial viability via a 0.2% levy on all eligible goods imported to the continent from outside could be controversial under current WTO law (Aria 8, UNECA, 2017). In any case, political compromises will be needed for the AfCFTA to move ahead.

Deep integration as envisaged under the AfCFTA calls for some delegation of authority to a supra-national level. The needed trust is difficult to build under any circumstance, but particularly so under Africa's landscape of great diversity. And the establishment of supranational entities rests on implementation capabilities, also in short supply across Africa.

Negotiations on 'technicalities' are still besieging Phase I of the AfCFTA where negotiations follow the principle of the 'acquis' (see annex). The acquis, whereby anything agreed upon under the RECs, cannot be undone until there is full agreement by all participants, will also likely prevail during Phase II negotiations of the AfCFTA. These technicalities include agreement on a common set of rules of origin, on a dispute settlement mechanism, and agreement on trade remedies (i.e. on conditions for the use of contingent protection).

2.2 Market size and the provision of Public Goods

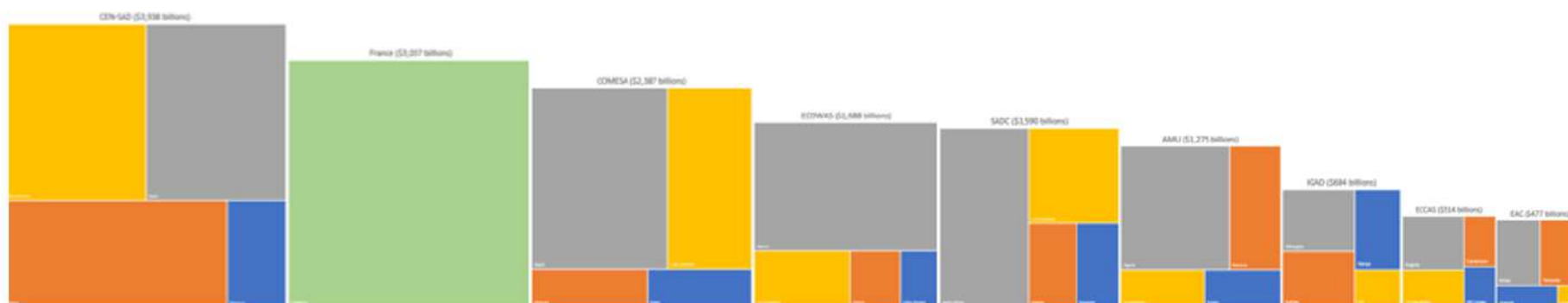
Figure 4 compares the market size of each REC with that of France. Suppose that each REC had no trade barriers across members. Then only CEN-SAD, the largest REC, would have a market size greater than France's. However, in 2016, ECOWAS and CEN-SAD are the two RECs where average applied intra-REC tariffs are barely below corresponding MFN averages (see AEO 2019 table 3.1). This means that tariff protection still segments intra-REC markets. Among the RECs, only the EAC and ECOWAS (see figure 5 below) have zero bilateral tariffs. Assuming these data are accurate – and omitting exclusions and from the CET – policy barriers still segment markets within the RECs. With such small markets, economies of scale remain unexploited in many markets.

Small markets also hamper the provision of public goods. Suppose that in each country the only objective of the government is to provide a non-rival national public good (health, infrastructure...) through a tax levied on its citizens. The population has heterogeneous preferences. People cannot cross borders. In this setting there is a trade-off between larger markets that lower the cost of producing the public goods and raise income, and the costs of accommodating heterogeneity in large populations. By reducing trade costs, international economic integration, say along the paths set out by the RECs, increases the number of economically viable countries as the size of the market matters less for productivity and hence as a determinant of country size in providing the national public goods.¹¹

It is hard to escape the conclusion that, across Africa, markets are too small in all but a handful of countries, so there is no alternative to relentlessly pursuing economic integration, the objective of the RECs and African Union even if it is at the expense of accommodating heterogeneity in preferences.

¹¹ This trade-off is explored formally in Alesina and Spolaore (2003). Human capital externalities on total factor productivity in growth models find support in the data (Ades and Glasser, 1999). Larger countries (measured by population size) also rely more heavily on the more efficient forms of taxation (income tax) relative to the less efficient ones (taxation at the border where the tax base is smaller requiring a higher tax rate to collect the same government revenue). See Easterly and Rebelo (1993).

Figure 4: Market size across African RECs (GNI 2018 at PPP)



Notes: For each REC, the three largest countries in terms of PPP GNI are represented individually. Smaller countries are lumped a residual blue category. Below, the list of members in each REC by descending order of GDP with countries under \$50 billion in italics. For reference, the canton of Bern in Switzerland (1 million) has a PPP GDP of 58 billion.

CEN-SAD : Egypt, Nigeria, Morocco, Sudan, Kenya, Tunisia, Ghana, Libya, Côte d'Ivoire, Senegal, *Mali, Burkina Faso, Guinea, Chad, Benin, Niger, Mauritania, Togo, Sierra Leone, Liberia, Cabo Verde, CAR, Gambia, Guinea-Bissau, Comoros, Sao Tome and Principe, Djibouti, Eritrea, Somalia.*

COMESA : Egypt, Ethiopia, Sudan, Kenya, Libya, Uganda, DR Congo, Zambia, *Zimbabwe, Madagascar, Mauritius, Rwanda, Malawi, Eswatini, Burundi, Seychelles, Comoros, Djibouti, Eritrea.*

ECOWAS : Nigeria, Ghana, Côte d'Ivoire, Senegal, *Mali, Burkina Faso, Guinea, Benin, Niger, Togo, Sierra Leone, Liberia, Cabo Verde, Gambia, Guinea-Bissau.*

SADC: South Africa, Angola, Tanzania, DR Congo, Zambia, *Zimbabwe, Madagascar, Botswana, Mozambique, Mauritius, Namibia, Malawi, Eswatini, Lesotho, Seychelles.*

UMA: Algeria, Morocco, Tunisia, Libya, *Mauritania.*

IGAD: Ethiopia, Sudan, Kenya, Uganda, *Djibouti, Eritrea, Somalia, South Sudan.*

ECCAS: Angola, Cameroon, DR Congo, *Gabon, Equatorial Guinea, Chad, Congo, Burundi, CAR, Sao Tome and Principe*

EAC: Kenya, Tanzania, Uganda, *Rwanda, Burundi*

In contrast to the hypothetical situation above, African countries are diverse along the characteristics needed to deliver public goods successfully. On the trade side, diversity is a source of gains from trade, but it also sets up conflicts of interest that must be managed. Successful industrialization depends on market integration but the realities of the African landscape complicate this quest to integrate economically. Below are factors to take into account before reviewing progress to date and challenges ahead.

2.3 Reconciling wide-ranging objectives: the case of the Tripartite FTA

Integrating in a large membership exacerbates these differences in preferences. As examples, consider the following objectives taken from Treaties (see Melo and Tsikata (2015)). Harmonizing regulations and policies features among the objectives of the AMU. For ECOWAS with its very heterogeneous membership (11 of 15 members are LDCs eligible for EBA and AGOA preferences¹² from the EU and US), the Treaty calls for the establishment of a West African parliament, an economic and social council, and an ECOWAS court of justice to enforce community decisions. SACU calls for expanding the development of their least developed members. As recognized by UNECA in its yearly progress reports, in spite of accepting that integration would have to take place at different speeds through variable geometry, progress has been slow. UNECA (2012: 13) notes: ‘...despite current initiatives, results remain mixed. Whereas certain RECs have achieved tangible outcomes... others have had relatively disappointing results’.

Moving ahead under the AfCFTA will require compromises to achieve a minimum of common objectives. Difficulties in doing so are illustrated in the long-lasting, and still ongoing, negotiations for the Tripartite FTA (TFTA) involving COMESA, the EAC and SADC. The protracted TFTA negotiations illustrate the difficulties encountered during the AfCFTA negotiations. The negotiations principles of the TFTA follow a ‘variable geometry’ under the ‘acquis’ (that is, nothing agreed by the COMESA, EAC and SADC free trade agreements, FTAs, can be undone).

Instead of merging the three FTAs into one, the TFTA has evolved into a new FTA encompassing the three existing RECs. These developments raise the question of how, under the necessity of preserving the acquis to maximise membership by accommodating diverging interests, the AfCFTA, will be able to overcome the heterogeneity of interests across RECs.

In terms of Figure 3, moving towards the top vertex is through ‘shallow’ integration at the sacrifice of economic efficiency. It is also unlikely that the brake on integration caused by the negotiation principles in the TFTA will reduce heterogeneity of preferences across members. A fortiori, this will be the outcome of the negotiations under the AfCFTA.

¹² Sorgho and Tharakan (2019) assess the impact of these unilateral concessions (EBA and AGOA) on the exports of African beneficiary countries. They confirm that a country becomes eligible for both preferences only when it meets certain conditions, defined by their donors, such as political stability and economic regulation (for AGOA), and freedom of expression and human development (for EBA). Their results show that both AGOA and EBA policies have had a positive impact on African beneficiary countries' exports towards unilateral preference providers.

The TFTA, which was initiated in 2008 and signed in 2015, was intended to reconcile the challenge of overlapping REC membership.¹³ This overlap has traditionally permitted governments to cherry-pick which commitments they uphold. The TFTA objectives are:

- Removing tariffs and non-tariff barriers, and implementing trade facilitation measures to include a harmonisation of rules of origin.
- Applying the subsidiarity principle to infrastructure to improve the transport network.
- Fostering industrial development.

But to keep momentum going and to accommodate the diversity of interests among partners, negotiations to set up a 'single undertaking' to establish a proper FTA veered towards a 'variable geometry' under the principle of flexibility to allow the co-existence of different trading arrangements.

'[T]he principle of flexibility ... allows progression in cooperation among Member/Partner States in a variety of areas at different speeds. The TFTA will allow the co-existence of different trading arrangements which have been applied within COMESA, EAC, and SADC member states and any trading arrangements that may be reached during the negotiations. The principles of variable geometry, reciprocity and *acquis* are complementary' (Erasmus, 2013).

This means that the negotiations principle of a single undertaking (in the sense that all must be agreed in a single go) where 'nothing is agreed until everything is agreed' no longer made sense since the result would be a new FTA. This implies that the parties probably did not agree to a prior agreement about the agreement.

Not surprisingly, under the variable geometry with the *acquis*, the three blocs reached a common position on the proportion of tariff lines to be liberalised, but failed to agree on the common external tariff to be applied on sensitive products (maize, cement, sugar, second-hand clothes, spirits, plastics, electronic equipment, etc.). Other technical difficulties besieged the completion of Phase I on non-tariff barriers (article 10 and annex 3), rules of origin (article 12 and annex 4), trade remedies (articles 16-20 and annex 2), and dispute settlement (article 10 and annex 10) – see Luke and Mabuza (2015).

Despite agreeing that the three RECs would work towards merging into a single REC, this did not happen. Instead, the TFTA evolved into a new FTA encompassing the three existing RECs because it is based on preserving the *acquis*, a fear voiced by Erasmus. The expression of these disagreements had greater intensity because the negotiations started from the *acquis*, that is the point reached by each of the COMESA, EAC and SADC negotiations. Phase II of the TFTA negotiations covering competition policy, intellectual property rights and investment movement of business persons are still on the table because of difficulties encountered with the *acquis* and variable geometry (see annex).

¹³ Economically, the overlap of RTAs (such as RECs) can lead to a negative trade effect between members belonging to them (see Sorgho, 2016). However, this evidence has not been confirmed for south-south cases.

2.4 Capability traps and Political economy considerations

This ‘big development’ agenda across RECs, recalls the European Union (EU) integration model from which it is inspired. In the European integration model, the bet was that creating institutional bodies focusing on consensus decision-making would lead to a reduction in ‘heterogeneity costs’ across the different European populations as envisaged by the functionalist approach to European integration (Spolaore, 2015)¹⁴. This integration process over a 50-year period involved the creation of 13 institutions (and an institution regrouping four inter-institutional bodies). This building of institutions rested on a high implementation capability. Among the RECs, ECOWAS has six institutions, ten specialized agencies, and two private sector organizations, COMESA has 11 institutions, and the EAC, which has gone furthest in terms of integration, has 8 institutions.

Pritchett et al. (2013) criticize this ‘big development’ agenda for encouraging progress through importing standard responses to predetermined problems. This approach, which they call ‘isomorphic mimicry’, is a technique of failure, in this case the adoption of the EU institutions. This camouflages a persistent lack of capability that perpetrates a mismatch between expectations and the actual capacity of prevailing administrative systems as shown by the COMESA report below.

Melo et al. (2018) cite a report of the 2014 meeting of the Council of Ministers of COMESA that took stock of progress in implementing the Customs Union adopted in 2009. The report illustrates implementation difficulties. Taking a tally of the 217 decisions reported in the Common Market gazette from 2009 to 2012, the report notes that 13 per cent of the decisions were not addressed to any party. Regarding the signing and ratification of COMESA instruments that were to be carried out from 2009 to 2012, 75 per cent (of the 12 instruments) had been signed by the majority but only five instruments had been ratified, and only nine of 19 members had signed the COMESA Treaty (COMESA, 2014: Tables 1 and 2). Likewise, the report notes little progress in enacting the key Common Market legislation (Common Tariff Nomenclature, Common External Tariff and Common Market Customs Management Regulations).¹⁵

Perhaps striving for these ambitious targets creates more pressure for change than would less ambitious targets. In the case of the AfCFTA, an important implementation issue is

¹⁴ Spolaore (2015) describes how to move towards a federation of States, the European States created supra-national institutions (the EC, the Parliament, Court of Justice) and intergovernmental institutions (Council of Ministers and the European Council). Integration would be through a chain reaction. Integration would move forward by transferring specific functions to the supranational institutions. In the case of European integration, the theory of functionalism reflected the view that deeper integration towards political integration would be pushed by elites and interest groups that transcended national borders rather than by the people. In the road toward the Euro, at each step—which was viewed as irreversible— a pre-existing contradiction would be solved. The path towards the federation of States creation of the Euro was then part of a chain reaction towards the Federation of States. Through cooperation, people’s preferences would converge endogenously.

¹⁵ Malawi reported that adopting the CET would result in a large loss of tax revenue (trade taxes account for 35 per cent of tax revenue). Other states with more than 50 per cent of tariff lines at zero rate, some of which are bound at that level at the World Trade Organization (WTO), were concerned about the possibility of eventual negotiations at the WTO for adopting the envisaged CET.

whether or not it is an example of premature load bearing that Pritchett et al. (2013) qualify as ‘asking too much of too little too soon too often’ (Pritchett et al., 2013, p.37).

A more optimistic view of the AfCFTA (and of regional integration) sees implementation as possible if political economy conditions are recognized and translated into a less ambitious agenda. First, the tension between form and function, often noted in evaluation reports, is not reflected in the look-alikes of best-practice models reflected in the structure of the Treaties. As noted in Byiers et al. (2015), the regional public institutions (regional courts and parliaments) are mistaken for the stated institutional functions (budget management accountability, transparency, conflict mediation). This results in the gap between policy decisions and implementation. Stated succinctly, what you see is not what you get. These tensions between form and function result in incomplete transposition of regional commitments to national and regulatory texts and other practices, legitimate and illegitimate, that create de facto barriers to integration.

Since regional integration is driven by groups and coalitions of actors, this must be taken into account. In the case of the EU, the functionalist model progressed from the top-down until it was stalled when the Dutch and the French rejected the European Constitution in their national referenda. In Africa, it is the leaders at the highest level that count the most. The considerable weight of the big 3 (or 4) could unblock stalemates and overcome coordination failures in regional collective action. However, in reality, these are the most protectionist countries on the continent so that in practice small countries can carry more than their weight in resolving coordination failures. But to do so, trade negotiators should have greater stake/influence up-front including through more consultations prior to meetings at the Heads of State level. For example, for those trade negotiators with experience in negotiations, their experience is usually for trade in goods, and not for negotiations in the “new” issues not covered in the multilateral negotiations.¹⁶ This probably helps explain their observed low enforceability. The expertise required to make progress on the WTO-X issues (see table 7 below) is held by the regulators and the institutions they belong to. But these regulators are not in the trade ministries that are in charge of implementing the agenda. A fortiori, experts on the technicalities besieging negotiations on RPGs are not part of the negotiating teams in the RECs.

¹⁶ These new issues cover behind-the-border measures (capital and labor regulations, domestic trade-related regulations, other regulation) often referred to as “WTO-X” measures. figure 3.5 in AEO2019 shows that coverage of WTO-X measures are as high -or higher- across the RECs than in other South-South RTAs, but that deemed legal enforceability is lower.

3. Policy Measures to foster market Integration: Progress so far

Markets are integrated when trade costs are low, that is when arbitrage (buying in locations where prices are low and selling in locations where prices are high) erases differences in prices (i.e. nothing is left on the table). Trade costs are high when the geographical landscape is unfavorable and when hard infrastructure (e.g. roads and railways) are poor and when soft infrastructure (e.g. logistics markets) are poor. Trade costs are also high when governments put up barriers and when informal rent-extraction takes place. Here we look for evidence of reductions in policy-imposed trade barriers, the main objective of the Phase I of integration along the Abuja road map.¹⁷

3.1 Shallow integration: Reduction in tariffs and non-tariff barriers to trade

Three observable changes in policies can accelerate integration. Under ‘shallow’ integration: (i) a reduction in tariffs between members and a reduction in non-tariff barriers (NTBs) that result from policies and from non-policy induced rent-extortion will ease arbitrage. A third channel associated with ‘deep’ integration includes the two components of ‘trade facilitation’: a ‘hard component’ related to tangible infrastructure like ports, roads, highways and telecommunications; and a ‘soft’ component related to transparency, customs management, the business environment and other intangible institutional aspects that affect the ease of trading. This third channel includes the WTO-X measures—reduction of barriers in capital and labor services, harmonization and streamlining of behind-the-border measures and the provision of RPGs belong to this category. To better appreciate progress and challenges ahead, we benchmark against three other PTAs, all among (mostly) developing countries (number of members included in each PTA in parenthesis): ANDEAN (5), ASEAN (10), MERCOSUR (4).

Tariffs. Traditionally, and certainly for integration along the RECs, the first stage of integration has always been eliminating tariffs on ‘substantially all trade’, where substantially is left purposely vague, at least at the WTO. A first exercise then is to compare average applied tariffs at the MFN and at the REC level and then with comparators. This comparison is carried out in two steps. A first step involves calculating for each country its average applied MFN tariff level from HS6 tariff data, then to compare it with the corresponding applied bilateral average across REC members. The second step takes

¹⁷ Two examples illustrate possible sources of market segmentation. In the case of trade in homogenous products involving little transformation, ethnicity and hence trust, can be an important factor. For agricultural products, using high-frequency data on cowpea and millet prices traded between Niger and Nigeria, Aker et al. (2014) analyze price dispersion between locations on opposite sides of national borders. They find that the extra cost across the national border is much smaller, and in some cases insignificant, when markets on either side of the border share the same ethnicity. Lack of information can also impede arbitrage. In a study of fish markets across the State of Kerala in India, Jensen (2007) showed that the advent of mobile telephony enabled fishermen to arbitrage price differences across markets increasing their profits by 8 percent on average as a result of mobile telephony.

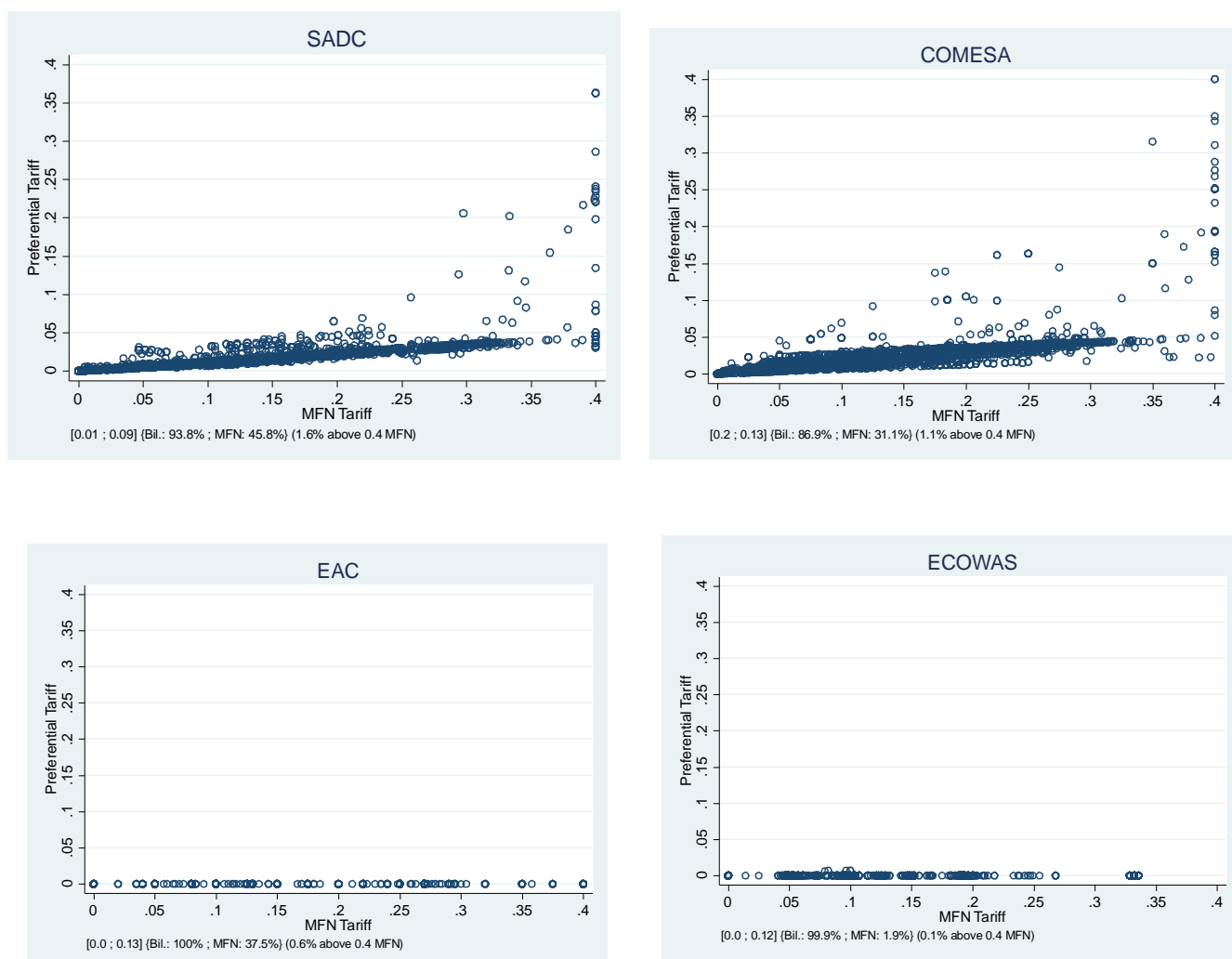
averages across all REC members. Thus, in the case of SADC, the average applied tariff to members is 1% while the corresponding average MFN tariff is 9%.

Figure 5 displays the dispersion between applied MFN tariffs and applied bilateral tariffs of two Customs Unions (CUs), ECOWAS and EAC and two FTAs, SADC and COMESA. For the sake of readability, MFN tariffs above 40% are not included in the figures although the percentage of tariffs in that category are included under the scatters. Under full intra-REC free trade, all points on the scatter would be bunched on the horizontal axis. This is the case for ECOWAS and the EAC. Note, however, that exceptions to the Common External Tariff (CET) and exclusions are not plotted. With little tariff reduction on intra-regional trade, most points would lie on the 45° line. While this is never the case, COMESA and SADC have a large share of positive applied bilateral tariffs.

Three patterns stand out. First for the two CUs, subject to the exemptions and exclusions not shown in figure 5, the scatter plot suggests that intra-REC trade is tariff free. Second, for the two FTAs little reduction in applied bilateral tariffs has taken place for high MFN tariffs. Third, difficulties in applying tariff-free intra-REC trade comes out from the scatter. The bunching of tariffs on the horizontal line only holds for MFN tariffs under 5%. And for COMESA, there are quite a few points on the 45° line even for low MFN tariffs. In the absence of contingent-protection measures and dispute settlement rules, the objective of reaching free trade at the continental level is still a challenge. The AU will need to set up institutions to monitor progress towards reaching free trade status. This is always difficult to do, but especially so among low-income countries where implementation capabilities are weak.¹⁸

¹⁸ In interpreting these comparisons, recall that indicators of capability of implementation are much higher in the comparator group. First, the average per capita income of the comparator group is over ten-fold that of the African RECs. Second, comparators have more alternatives to border taxes as sources of government revenue. Third, indicators of trust (e.g. the Ethno-Linguistic Fractionalization (ELF) index where higher value indicates more fractionalization) are more favorable among the comparators. Average (simple) per capita income in parenthesis and coefficient of variation in squiggles {...} and ELF index in brackets. ECOWAS (\$961) {0.88} [0.77]; ASEAN (\$10, 508) {1.55} [0.60]; MERCOSUR (\$9154) {0.43} [0.23]; EAC (\$630) {0.51} [0.56]. Source (Melo et al. 2018: Table 1).

Figure 5 Comparison of applied bilateral and applied MFN tariffs across selected RECs



Notes: Tariff data at HS6-level (5468 tariff lines). MFN tariff rates above 40% excluded.

For readability, applied MFN tariffs above 40% excluded. Percentage of MFN tariff lines above 40% in parenthesis.

Simple average applied tariffs [bilateral, MFN] in brackets. Percentage zero tariff lines {bilateral, MFN} in squiggles.

Each scatter plot has 5468 observations. Less dense scatter for EAC and ECOWAS reflects that these have a Common External Tariff because they are Customs Unions (CUs). For CUs, exceptions from the CET (.e.g. the Sensitive Items list for the EAC and the exclusions for ECOWAS) are excluded

Source: ITC MACMAP, 2018 or latest date available

Non-tariff Barriers (NTBs). NTBs is the other explicitly identified policy-imposed restriction to trade that is up for elimination during stage 1 of integration. The prevalence and its associated effects of NTBs are very difficult to measure: many are opaque and difficult to identify. First, NTBs are not all the results of policy. For example, NTBs like roadblocks and excessive verifications to extract rents also represent important barriers to trade.¹⁹ Second, keeping with policy-imposed NTBs, identifying NTBs from the increasing array of Non-Tariff Measures (NTMs) is difficult especially when the objective is to evaluate the measures at the economy-wide level. This is because the inventory approach is the only available information for a large number of countries. As to their effects on trade, often NTMs do not have a trade focus, even though they have an effect on trade flows. In some instances, NTMs stimulate trade flows because they provide information and when they diminish trade flows, they may increase efficiency because they reduce the full social costs of production.²⁰

Start with technical measures. Table 2 displays an average of frequency indices for technical measures and border control measures for the largest available sample (18) of African countries. Technical measures (SPS and TBT in columns 1 and 2) have high frequency values for agricultural products and leather and wood products. These values show a similar pattern to those reported by Cadot et al. (2018a) for a larger sample of 86 countries. In their AVE estimates drawn from these data, Cadot et al. (2018a, table 2) estimate high AVE estimates for food products, a suggestion of high compliance costs. However, these high AVEs do not necessarily reflect greater distortions. For foodstuffs for example, high frequency values resulting in high estimated AVEs may reflect that producers must alter the design of their products or upgrade quality, clearly the case for live animals and foodstuffs.

The index values for border control measures are also relatively high, at least compared to the full sample of 83 countries. QR indices are usually lower on average than the corresponding values for the whole sample (Cadot et al., 2018b, table 1).

¹⁹ NTBs in Africa are particularly intrusive to SMEs, informal cross-border traders, and women traders. The most frequently mentioned NTBs include: customs and trade procedures; immigration procedures; quality inspection procedures; transport-related requirements; road blocks. UNECA (2017, Box 6.1) gives some general comments on this list.

²⁰ Cadot et al. (2018b) discuss the welfare economics of NTMs, the difficulties in identifying those that are welfare-reducing, and the methods for detecting their effects. Melo and Nicita (2018a) discuss the limitations of the inventory approach to calculating indicators of NTMs.

Table 2: NTM frequency Indices by HS section (in %)**(Averages for 18 African countries)**

HS Sections	Sanitary and Phyto- Sanitary	Technical Barriers to Trade	Border Control Measures	Quantitative Restrictions
Column	1	2	3	4
I. Animals	90	62	54	12
II. Vegetables	83	53	53	6
III. Fats & Oils	87	63	53	14
IV. Beverages & Tobacco	81	56	51	9
V. Minerals	6	21	40	9
VI. Chemicals	14	27	37	9
VII. Plastics	6	19	47	8
VIII. Leather	28	32	43	10
IX. Wood products	35	18	47	7
X. Paper & Book	5	14	46	7
XI. Textile and clothing	8	24	53	8
XII. Footwear	9	17	46	12
XIII. Stone & Glass	6	15	46	7
XIV. Pearls	6	18	44	12
XV. Metals	7	14	46	6
XVI. Machinery	8	44	45	11
XVII. Vehicles	9	31	46	14
XVIII. Optical Medicals	7	21	44	10
XIX. Arms & Ammunition	14	53	33	14
XX. Miscellaneous	8	19	46	10
XXI. Works of art	11	20	44	19

Notes: Average of frequency indices for the following countries: Benin, Botswana, Côte d'Ivoire, Cameroon, Cape Verde, Algeria, Ethiopia, Ghana, Gambia, Liberia, Morocco, Mali, Mauritania, Niger, Nigeria, Senegal, Togo, Tunisia.

Source: Cadot et al. (2018b) calculations from OECD NTM data.

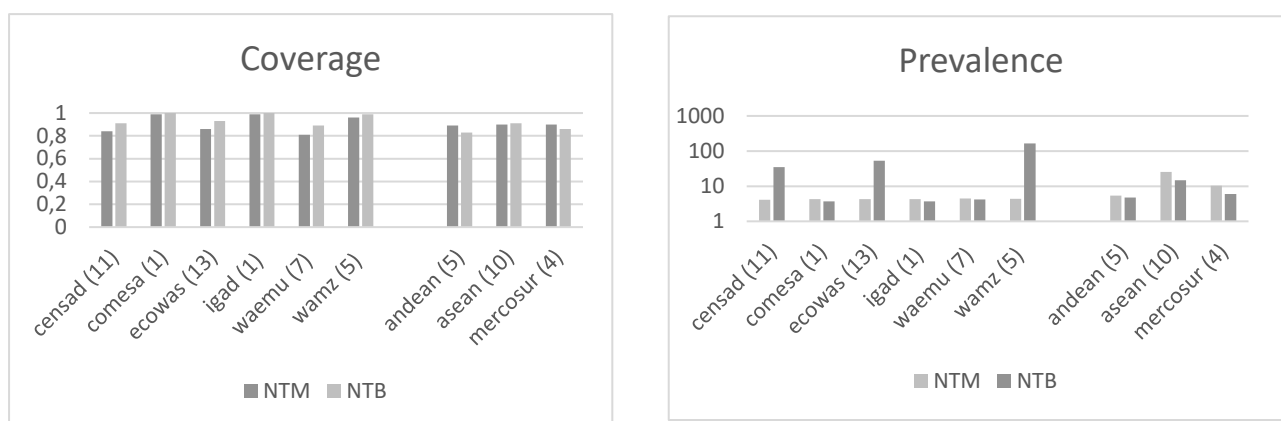
Figure 6 reports three sets of indices, coverage, frequency and prevalence for NTMs across RECs. A classification is devised to try to identify those NTMs that are most likely to be NTBs. The tally is for the technical measures – Technical Barriers to Trade (TBTs) and Sanitary and Phytosanitary (SPS) – in the UNCTAD-WTO-ITC data base. These statistics are purely descriptive; they are not an indication of regulatory stringency. Because they are qualitative and collection methods differ, caution must be exerted in interpret differences across countries.²¹

The comparison of the average values for the three indices reveals no clear pattern across RECs. The share of imports (coverage) and the percentage of tariff lines (frequency) subject to NTMs are high across all RTAs. However, the average number (prevalence) of NTMs per tariff line are higher in the comparator groups, most likely a reflection that technical measures increase with per capita income.²²

²¹ Most data on NTMs is qualitative (presence of absence of an NTM) so it is difficult, if not impossible to ascertain the stringency of the regulation from the text. Equivalence in regulations does not necessarily imply equivalence in stringency as implementation and enforcement varies across countries. High prevalence scores make it very difficult to isolate the effect of one specific measure from another. Although the data are available at the HS6 level, differences in regulation at that level reflect, at least partly, product heterogeneity so it is difficult to construct comparable aggregate indicators. Cadot et al. (2018a) suggests that regulatory convergence increases bilateral trade. Because governments tend to over-regulate where trade flows are important, there is a two-way causality between NTMs and trade flows which makes it difficult to disentangle the effects of regulation on trade flows.

²² Regulatory expansion of technical measures with higher per capita income probably reflects the observation that, as countries grow richer and modernize, consumers demand more variety and more product quality which shows up in higher unit values as per capita income rises.

Figure 6: Prevalence, Coverage and Frequency indices across RECs: NTMs and NTBs



Notes: Data from the UNCTAD MAST-defined NTMs for one year, mostly over the period 2013-2014. Number of countries in RECs/RTAs in parenthesis. Indices computed at the HS6 level are country averages over lists. Count of measures in the UNCTAD-WTO NTM data base using the MAST 2012 classification of NTMs collected at the HS6 level. NTMs is a count of Technical measures (SPS, TBTs, PSI). NTBs are the subset of NTMs classified as Customs measures extracted from the 4 categories (Consumer, Process, Products and Customs) defined in Ederington and Ruta (2016) and augmented by contingent trade-protection and local content measures.

Prevalence: average number of NTBs per line at the HS6 level.

Coverage: share of imports covered by an NTM

Frequency: number of HS lines with an NTM.

Source: Authors' calculations from UNCTAD-WTO-NTM data base

Unfortunately, these descriptive indices give limited information to appreciate progress at streamlining NTMs even when covering only legal engagements. Sticking with measuring progress on legal implementation, monitoring requires tracking the NTBs reported by each partner (and accepted by the others), then checking if they have been removed. The East African Common Market Scorecard does this detailed monitoring for Goods, Capital and Services (see AEO 2019, box 3.1). A similar scorecard for other RECs would be welcome.

3.2 Deep integration: Factor markets and other provisions

Prior to 2000, 90 per cent of the 81 PTAs notified to the WTO dealt exclusively with provisions covering trade in goods. A drastic change occurred during 2000 to 2015 when 64 percent of the 194 PTAs notified to the WTO also included provisions on services trade (Egger and Shingal, 2016). This extension of coverage to services reflects the increasing importance of services as complementary inputs into production but also the slow progress at trade liberalization in services at the multilateral level negotiations. In fact, while all RTAs cover provisions negotiated at the multilateral level (WTO+ provisions), they also cover other provisions (WTO-X provisions). These include producer services (transportation, accounting, ICT, consulting, financial), all complementary inputs in the production function and hence necessary to expand the production of intermediate and final goods. Many are specialized inputs. As shown in AEO figure 3.5, for all these categories, on average, the African RTAs have lower enforceability than in other South-South agreements. This is particularly so for the investment-related obligations – General Agreement on Trade in

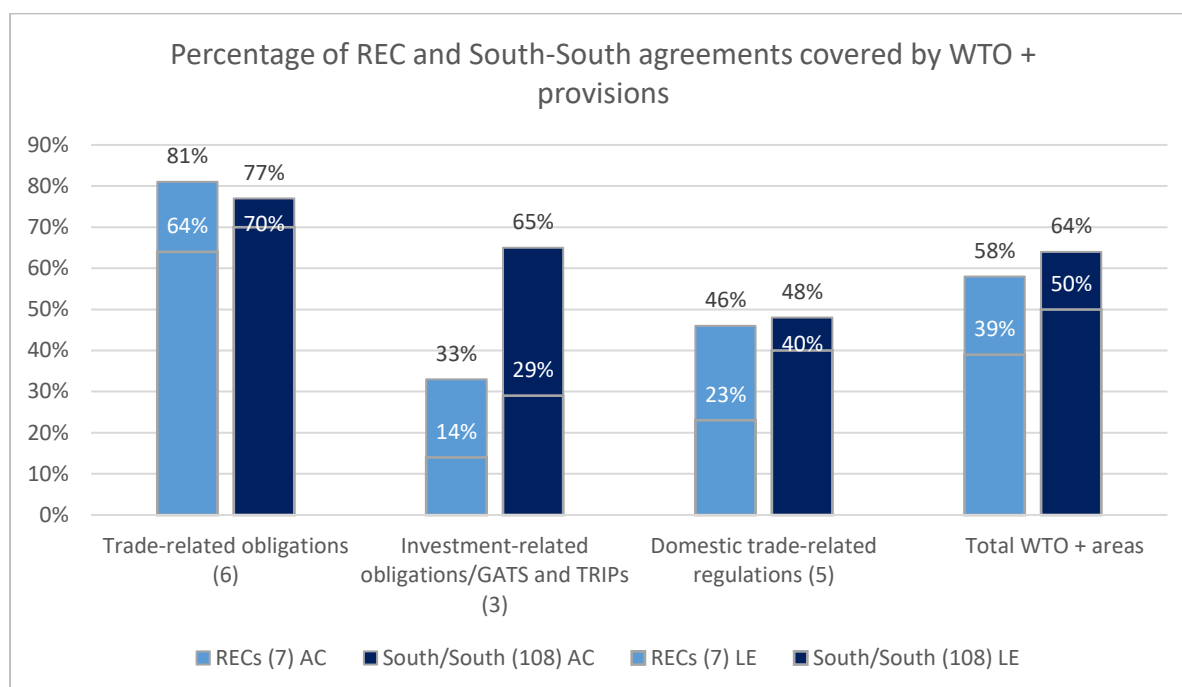
Services (GATS), Agreement on Trade-Related Investment Measures (TRIMs), Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPs) – which have lower coverage and lower enforceability.

Figure 7 compares coverage across African RECs with those in 108 other South-South RTAs. The tally reveals a high coverage ratio of WTO-X provisions across African RTAs but a relatively low legal enforceability. This low level of enforceability could reflect a combination of three factors. First, would be a high coverage inspired by coverage in EU agreements where RIAs are the main diplomatic arm of the EU. Second, high coverage could be a way to build trust by including the preferences of all participants. Third, and relatedly, this coverage could be a sign of compromise among countries with large differences in preferences. It could reflect the ‘universalism’ problem in the politics of rent-sharing in RTAs where every government wants a share of the spoils when voting on protection so that all countries vote for measures that are not in their interest in exchange for getting the support of other members for measures they benefit from (Schiff and Winters, 2003: 87).

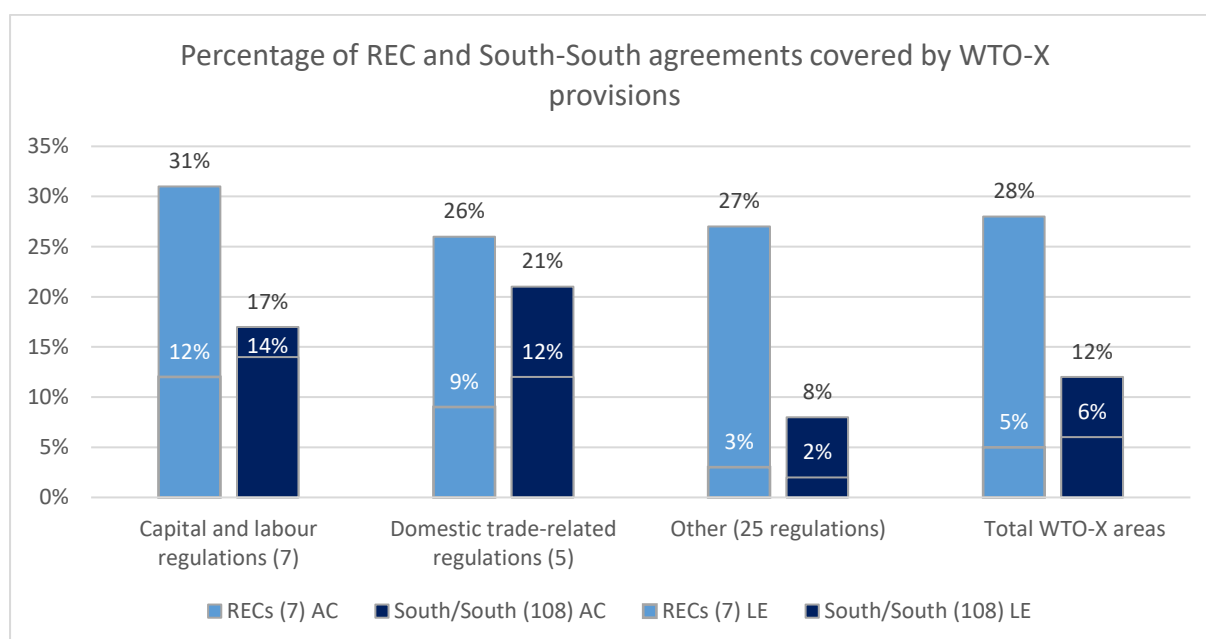
Figure 7: Coverage of Provisions across South-South RTAs

African RTAs vs. other South-South RTAs

7a) Average Coverage of WTO+ Provisions by Category of obligations:



7b) Average Coverage of WTO-X Provisions by Category of obligations:



Source: Source: Melo, Nouar and Solleder (2018, figure 4)

Notes: African RTAs: CEMAC, COMESA, EAC, ECOWAS, SACU, SADC, WAEMU

Percentages are by category of provisions covered distinguishing those that are Legally enforceable. For example in the figure 5(b) for the 7 African RECs, of a total of 49=7x7 possible coverage for capital and labour requirements, 31% (i.e. 15) provisions are covered with 12% (i.e. 6) are deemed legally enforceable.

Manufacturing increasingly buys, produces, sells, and exports services (called the ‘servicification of manufacturing’) with services accounting for more than 50 percent of exports when measured in terms of valued-added (OECD, 2014). Production Services are complementary inputs into goods. Barriers to trade in services take the form of restrictions to market access and to denial of national treatment. Many barriers to trade in services do not discriminate between services provided by domestic firms from those provided by foreign firms. Table 3 reports average values of AVEs of barriers to trade at the REC level and for the comparator groups. These estimates constructed from a World Bank survey are the result of a careful reading of regulatory texts covering a sample of 103 countries.²³

The patterns in table 4 show great dispersion in estimates across RECs. Taking the AU figures as an indicator for Africa, the AVE estimates are always higher for all categories of Services than those for the OECD but not relative to the comparators. Estimates are an order of magnitude higher for the ‘hard infrastructure’ component of trade costs: rail, road and maritime transport. On the ‘soft’ component side, the AVEs for banking and insurance also have relatively high values.

Barriers to trade in services are increasingly recognized as an important determinant of manufacturing productivity. Firm-level estimates show that policies that restrict foreign access to upstream services markets reduce productivity of downstream firms using these services.²⁴ Beverelli, Fiorini and Hoekman (2017) report similar results at the sector level across a large sample of developing countries at different stages of development. Notably they find that policies that reduce barriers to cross-border trade will be largely ineffective when indicators of the quality of institutions (rule of law, regulatory quality) have low values. These results echo early results by Freund and Bolaky (2008) who estimated that trade is associated with higher per capita incomes in flexible economies as captured by DB indicators.

²³ Borchert et al. (2014) describe the methodology. Estimates in table 3 are simple averages of the estimates reported in Jafari and Tarr (2015).

²⁴ See Duggan et al. (2013) for Indonesia; and Bas (2014) and Arnold et al. (2016) for India.

Table 3 Ad Valorem Equivalents (AVEs) of Services Trade Restrictions Index (SRTI) by Sector and Country Group

	8-Recognized RECs in Africa								AU	Comparator Groups			
	AMU	CEN-SAD	COMESA	EAC	ECCAS	ECOWAS	IGAD	SADC		ANDEAN	ASEAN	MER	OECD+EU
Accounting	54	47	30	34	29	43	28	28	35	32	50	30	29
Legal Services	56	52	50	48	34	45	65	43	47	27	68	32	31
Air Transport	50	32	23	11	0	24	28	27	28	28	58	58	15
Rail Transport	51	56	64	68	77	60	55	56	59	8	62	28	16
Road Transport	48	18	38	12	40	16	28	37	32	8	60	22	18
Banking	9	16	22	10	10	14	37	11	15	18	21	12	2
Insurance	28	26	39	29	46	24	53	29	31	30	26	24	14
Fixed Line	12	281	710	915	694	481	915	502	485	9	175	11	35
Mobile Line	1	1	5	3	2	1	14	2	3	0	1	1	1
Retail	4	3	4	2	3	2	5	2	3	2	5	1	1
Maritime Transport	63	42	31	20	19	16	41	17	28	25	50	39	9
Average (simple)	34	52	92	105	87	66	115	69	70	17	52	23	16

Notes: All figures are in percentage terms. AU column is the simple average across the 8 RECs
 Authors' Calculations from AVE data in Jafari and Tarr (2015, table 3).

4. Market integration: Outcomes Patterns across RECs²⁵

Before-and-after patterns of intra-African trade provides a first appraisal of any effects of reduction in trade barriers. Comparisons are for period-averages before and after the start of announcement of reductions in trade barriers. Section 5 provides model-based estimates that attempt to control for other intervening factors that might influence intra African trade.

4.1. Intra-African Trade

Has the launch of integration since the Abuja treaty been accompanied by increased intra-African trade? By a reorientation of trade in new products towards African partners?

Intra-regional trade. Calculations on trade shares in GDP taking as benchmarks an average of 2 years before contrasted with an average of 5 and 10 years after implementation show that relative to extra-bloc import shares that hover in the 20-30 percent range, intra-bloc import shares remain low in the 2-4 percent range even though some show an increase over the ten-year period. Except for ASEAN²⁶, where intra-group import shares increased from an already high base, intra-bloc imports share across all RECs and their two comparators remained low. Nonetheless, intra-bloc shares increased noticeably for ECOWAS and SADC and also for WAEMU where a common currency and a common language would be expected to have intensified intra-regional trade (see Carrère, 2013).

New manufactures go to closer destinations. A key pillar of Africa's development strategy is to accelerate industrialization by promoting Regional Value Chains (RVCs) as it is often said that countries get rich by producing the goods that rich countries consume. Is there evidence that trade in new products, those apparently necessary to climb the ladder, are developing along RVCs? Comparing the average distance of partners for new manufactures (where 'new' manufactures must be exported for at least three consecutive years) versus manufactures previously exported is a measure of the extent of regionalization of trade since a reduction in the average distance of trade indicates that new products are 'going regional'. AEO (2019, figure 2.3) carries out this comparison at the REC level for products aggregated to the HS4 level for two periods: 1995-2005 and 2005-2010. The comparison reveals that new manufactures are shifting towards REC members.

Across RECs, on average during 2005-2010, new manufactures (where 'new' manufactures must be exported for at least three consecutive years) were shipped to closer destinations than during 1995-2005 (AEO 2019, figure 2.3). For example, for ASEAN [EAC], the average distance of trade for new products fell from approximately 6500 [4500] km to 3800 [3900]

²⁵ The African regional integration index provides a summary measure of integration at the REC level covering five dimensions (regional infrastructure, trade integration, productive integration, free movement of people and financial and macroeconomic integration) See <https://www.integrate-africa.org/rankings/dimensions/free-movement-of-people/>

²⁶ ASEAN, which has the highest indicator value for complementarity in its production structure with its partners among all RTAs (see indices in Melo and Tsikata 2015, table 1) displays sharp increases in both intra- and extra-regional imports.

This shift might reflect characteristics of the products, knowledge of demand, trust, or similar institutions, all of which could translate into lower trade costs. This systematic pattern also holds across a larger sample of countries where newly exported manufactures (over a period of three or more years) are both high-cost relative to traditional goods and are sold only on markets with low trade costs (i.e. close, contiguous, or part of an RTA). Patterns also show that when the newly exported goods reach the maximum age of ten, they are still mostly exported towards geographically and culturally closer destinations than the destinations for traditional goods.²⁷

The patterns of negligible increases in intra-REC trade in spite of a regionalization of trade in manufactures in recent years raises doubts that the RECs have contributed significantly to an increase in intra-regional trade. The evolution of the calibrated trade costs reported in section 5 confirm these patterns. These outcomes could reflect several factors: (i) the generally small reduction in intra-REC tariffs illustrated for ECOWAS in figure 5, also observed for most other RECs; (ii) the importance of non-policy related NTBs like roadblocks and the possibility that the policy-related NTMs are, on the whole, barriers to trade; (iv) the continued importance of informal trade. It has often been remarked that recorded trade statistics severely underestimate the extent of regional trade integration in Africa. Since unrecorded trade is probably less responsive to an RTA than recorded trade, recorded growth of measured trade following an RTA would probably be underestimated.²⁸

4.2. Financial and Labor Market integration

Financial integration. In Africa, financial markets are still characterized by low capitalization, low liquidity, a limited number of financial instruments and the short-term structure of instruments. As of 2017, only 15 countries had capital markets that simultaneously traded in treasury bills, sovereign bonds, corporate bonds and equity instruments (AEO table 3.4). From a de jure perspective, financial openness as measured by the Chinn-Ito index of financial openness, a composite measure of indices indicating restrictions on current and capital market transactions, has been progressing slowly within the RECs.

Financial integration can be appreciated by movements in asset prices and in quantity terms by a separation of investment from savings. Regarding asset prices, by 2017, the standard deviation of lending rates across the region was only 4.4 percent, closer to the zero mark, and less than what it was during the global financial crisis in 2008 by a factor of 7 (AEO, figure 3.7).

As to savings and investment, if investors can easily invest anywhere in the region, acting rationally, they would invest in countries offering the highest return per unit of investment. This process would eventually drive up the cost of investments in the high returns countries until returns equalize across all countries in the region. As a result, domestic saving rates should be uncorrelated with domestic investment rates since, in the absence of financial regulation in international capital flows, the savings of any country in the region should flow to countries with the most productive investment opportunities. Therefore, savers would

²⁷ Régolo (2017) explores these patterns of bilateral trade for a sample of 116 countries over the period 2000-2010. She shows that export diversification is accompanied by the regionalization of trade, at least in the medium term.

²⁸ Bensassi et al. (2019) document the extent of unrecorded trade in West Africa.

only look at expected returns and show no preference for investing in their own country but would lend to foreign investors and would not need to lend domestically. For Africa, at the aggregate level, there is a negative correlation between investment and savings rates.

Labor Markets. In Africa, nearly 80 percent of migration is intra-regional with 20 percent of immigrants coming from outside the continent. Total intraregional remittances in SSA are about 0.6 percent of GDP, about twice the corresponding estimate for Asia, Europe and the Americas (AEO 2019, p.89). All RECs, except IGAD, have free movement of persons' protocols, but they differ on regulations about labor mobility including for countries in the same REC. Regions with higher intra-African migration are more open in their visa policies which are more open for countries sharing a common language (e.g. UEMOA). As in the case of tariffs, even if all REC members have ratified a free movement of persons' protocol, they may not have implemented it, resulting in a mismatch between the protocol and its application.

Based on a difference-in-difference analysis of bilateral migration changes after ratification or implementation of the free movement of persons, Mbaye and Wahba (2018) find that when all member countries in a REC implement a free movement of persons as was the case for ECOWAS, the implementation is correlated with higher migration, but not when ratification is not followed by implementation. In conclusion, as for reduction in tariffs and NTBs, there is considerable heterogeneity in implementation.

4.3. Distributional implications of deeper integration: Common External Tariffs and the Poor

In Africa, the move towards a CU, the next stage towards integration, has occurred relatively early, at a time when import-competing industries still benefit from relatively high protection reflected in strong lobbying influence. It is also taking place in the absence of compensation funds for the smaller and, usually, economically weaker, states.²⁹ The adopted Common External Tariff (CET) is then likely to reflect the lobbying power of the economically strongest country in the REC (for example Nigeria in ECOWAS and Kenya in the EAC). This implies that the distribution of adjustment costs will fall mostly on the weaker states and, within states, on the poorer households. Even taking into account temporary protection measures, the CET has, in the case of the EAC, (or will in the case of ECOWAS) raise the cost of living for households, especially those in the bottom deciles. A backlash against the negotiated CET is then likely down the road.

EAC. In its first attempt at integration in the 70s, the EAC was disbanded over distributional conflicts related to tariff revenue. Schiff and Winters (2003) document this episode. In its more successful second attempt, the EAC provides an example of relatively deep integration first involving three members – Kenya, Tanzania and Uganda – reaching a CU status by 2005 prior to an extension to five members in 2009 with Burundi and Rwanda. As latecomers, Burundi and Rwanda adopted the three-band CET (0% for raw materials, 15% for semi-finished products, 25% for finished products) and a 'sensitive' item (SI) list (66 products exempt from the three-band tariff schedule with tariffs up to 70 per cent). Both newcomers

²⁹ The lobbying power of protectionist industries was weaker during the successive enlargements of the EC to the South (to Greece, Spain and Portugal), and later to the East to former COMECON members.

had an adjustment period of two years upon joining the CU. Overall, the EAC has pursued a relatively transparent trade policy where emphasis on removing NTBs was taken seriously as shown in the regularly updated EAC Common market scorecard. However, Stays of Application (SOA) exempting countries from the CET for sensitive products have been renewed regularly, one among several reasons for the current renegotiation of the CET.

Nonetheless, even though the average tariff on imported goods fell for Rwanda upon joining the CET, the price increased by an average of 3.8% because many goods on the SI list with high tariffs were disproportionately consumed by the poor (e.g. a 100% tariff on sugar)). . Government revenue from tariffs fell by approximately half in the following two years. On the positive side, since the CET reduced the average tariffs on imported goods by 5 percentage points, using firm-level data, the CET led to an increase in exports of between 1 % and 2% for the average firm (Frazer, 2012).

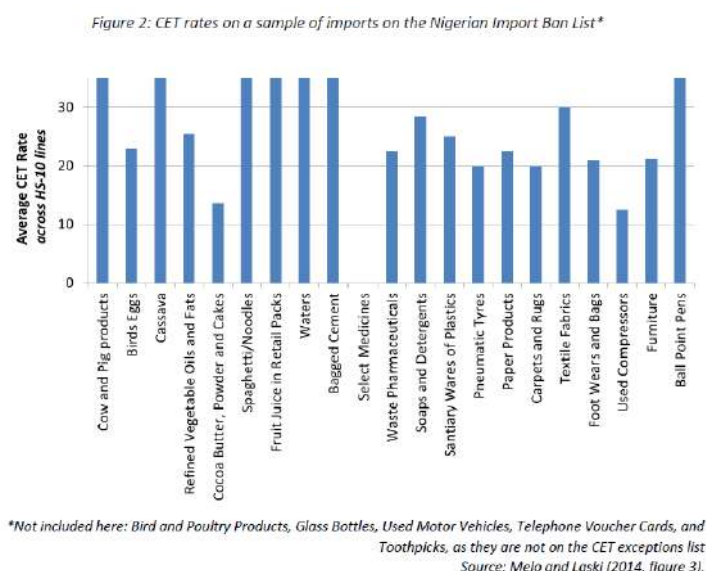
ECOWAS stands in contrast with a less transparent trade policy. Liberia joined the five-band CET (0% for necessities, 5% for raw materials and capital equipments, 10% for intermediate products, 20% for consumer products, 35% for goods for regional development) in 2015 at a time when the ECOWAS Trade Liberalization scheme adopted in 1994 is yet to be implemented (See table 3.1).³⁰ This is evident from the negligible tariff reductions (see figure 5) among ECOWAS members. Adopting the CET would almost double the import-weighted tariff from 6.3% to 14.7%, increasing expenditures of urban [rural] households by 3% [6%] respectively to maintain their current (pre-Ebola) level of well-being (de Melo, Laski and Mancellari, 2014). In effect, migrating to the CET regime calls for a deep adjustment in Liberia's statutory tariff regime with an upward [downward] adjustment for 45% [25%] of the tariff lines. For some 233 products, Liberia will have to increase tariffs by at least 15 percentage points. These changes will not be welcomed by producers since the vast majority of imported goods are not produced domestically while consumers will have to pay more for imported goods, some now coming from ECOWAS partners, likely to be of lower quality.

Beyond its protectionist and regressive welfare effects for the poorest Liberian households, the temporary Special Protection Measures (SPM) adopted in 2013 are poorly designed for the five ECOWAS members with the lowest per capita GDP: Gambia, Guinea, Guinea Bissau, Liberia and Niger. These members primarily export baskets of raw agricultural and extracted commodities. Even during the adjustment period, as designed, the SPM measures allow no escape to raising MFN tariffs, even though the MFN tariff during the adjustment period can

³⁰ The insistence to protect Nigeria's competitiveness through the adoption of the 5th tariff band is captured in the president's 2012 budget speech: "It is common wisdom that the best ways we can grow our economy and create jobs for our people is for us to patronize Nigerian-made goods" (cited in Laski and de Melo (2014, p.5)). This attitude has continued to prevail during the AfCFTA negotiations notably after Nigeria decided to join AfCFTA in early July 2019. As tweeted by President Buhari on June 27: "Our vision for intra-African trade is for the free movement of 'made in Africa goods.' That is, goods and services made locally with dominant African content in terms of raw materials and value addition", and on July 3: "Nigeria is signing the AfCFTA Agreement after extensive domestic consultations, and is focused on taking advantage of ongoing negotiations to secure the necessary safeguards against smuggling, dumping and other risks/threats. Let me state unequivocally that trade is important for us as a nation and to all nations. Economic progress is what makes the world go around. Our position is very simple, we support free trade as long as it is fair and conducted on an equitable basis."

exceed the CET rate by up to 20 percentage points with a cap at 70% as illustrated by the case of zinc for Liberia.³¹

Figure 8 : The CET rates on a sample of imports on the Nigerian import ban list

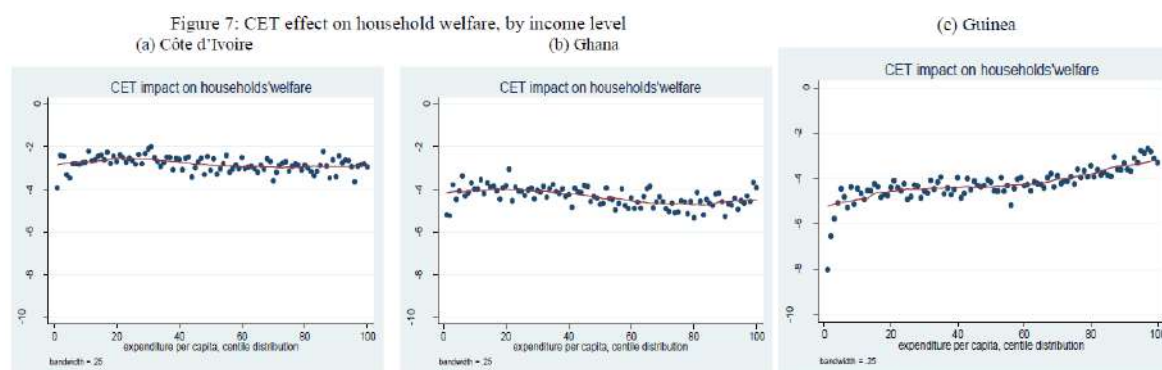


Moreover, the CET also has an exception list of 300 products (of which 200 were on Nigeria's import ban list). Figure 8 gives a sample of products from Nigeria's import ban list that are on the CET exception list. These agricultural products are in the 5th band of the CET. The SPM will allow Nigeria to apply a temporary 55% MFN tariff. The CET will likely raise the price of non-ECOWAS imported foods and manufactured goods, leading to trade diversion towards higher-cost partners. Since the ETL

scheme signed in 1994 is still largely to be implemented and tariffs on ECOWAS partners are to be lowered, it remains to be seen whether ECOWAS partners.

Changes in the cost of living by per capita by centile for three ECOWAS countries are reported in figure 9 along with the drivers of the price increases in the household consumption basket for each country. For Côte d'Ivoire, the incidence of the CET is quite uniform, raising the cost of living by about 3%. For Ghana, the incidence of the CET is slightly progressive, though one observes a less important loss for the richest households around the 99th percentile. For Guinea, the incidence of the CET is regressive, the consumption-weighted welfare cost going down from about 5% for the 5th percentile to 3% for the 95th percentile.

Figure 9 : CET Effect on household welfare by income level: Côte d'Ivoire, Ghana, Guinea



31 The temporary Import Adjustment Tax (IAT) allows a country to have a tariff within 20 percentage points of the CET for up to 3% of tariff lines. For zinc, an essential imported material, Liberia's tariff is 5%. With the IAT, the lowest tariff it can apply on non-partner imports is 15%, so there is no escape to raising the tariff.

Notes: Drivers: (a): bicycles, beef meat, fridge; (b) beef meat, bread, soap; (c) bread, soap, tomato paste.

Source: Cadot and Gourdon (2014: table 7)

The EAC, which has completed stage 1 of market integration, is currently reviewing its 3-band CET under strong pressures to add one or two more bands in an effort to eliminate Stays of Application (i.e. exceptions to the application of the current CET) and to protect industries that satisfy a threshold of regional demand. It is likely that this review is partly in response to globalization-induced pressures. Technical progress transmitted through GVCs has put downward pressures on low-skill wages leaving little room for many developing countries to compensate for their technological disadvantage with low-skill labor.³²

This possible backtracking when adjustments to the current CET are well on the way would create further adjustment costs and a likely loss in credibility for future efforts at integration. In sum, political economy pressures internal to the RECs resulting from large disparities in power across members is going to create heterogeneity along economic, cultural and institutional dimensions but also from globalization-driven competition pressures have resulted in the RECs being quite far away from completing stage 1 of economic integration.

³² Rodrik (2018) shows that new technologies – which may be transmitted to developing countries through their participation in GVCs – puts a pressure on developing countries since it puts upward pressure on high-skill labor with little possibility to substitute with low-skill labor whose wages are subject to downward pressure. It then becomes harder for low-income countries to offset their technological disadvantage with their low-skill labor-cost advantage.

5. Trade Costs: Calibrated estimates and correlates

The gravity trade model is a favorite tool to evaluate progress at integration. Most applications take a ‘bottom up’ approach where trade costs such as distance, tariffs and the tariff equivalent of NTBs are used to identify differences in the intensity of bilateral trade (see e.g. Kee et al., 2009). This approach has the drawback that it does not include all sources of trade costs between partners. By contrast, the ‘top down’ approach (e.g. Arvis et al., 2016) includes all sources of trade costs, observable and unobservable. These estimates, also derived from the gravity model, recognize explicitly the ‘primacy’ of trade costs that have occupied center stage in the AU continental integration agenda. In fact, trade costs are ‘calibrated’, i.e. calculated from the estimates of the standard trade model. Trade costs between partners are measured relative to internal trade costs. Assumptions required to obtain the estimates reported below include that trade costs are : (i) symmetric (i.e. trade costs faced by exporters of country i in country j and trade costs faced by exporters of j in country i) implying that one cannot attribute trade costs to each partner; (ii) trade costs per unit exported are constant (i.e. ‘iceberg’ trade costs). Bilateral trade costs are then a geometric average of trade costs in both directions.

5.1 Correlates of Bilateral Trade Costs

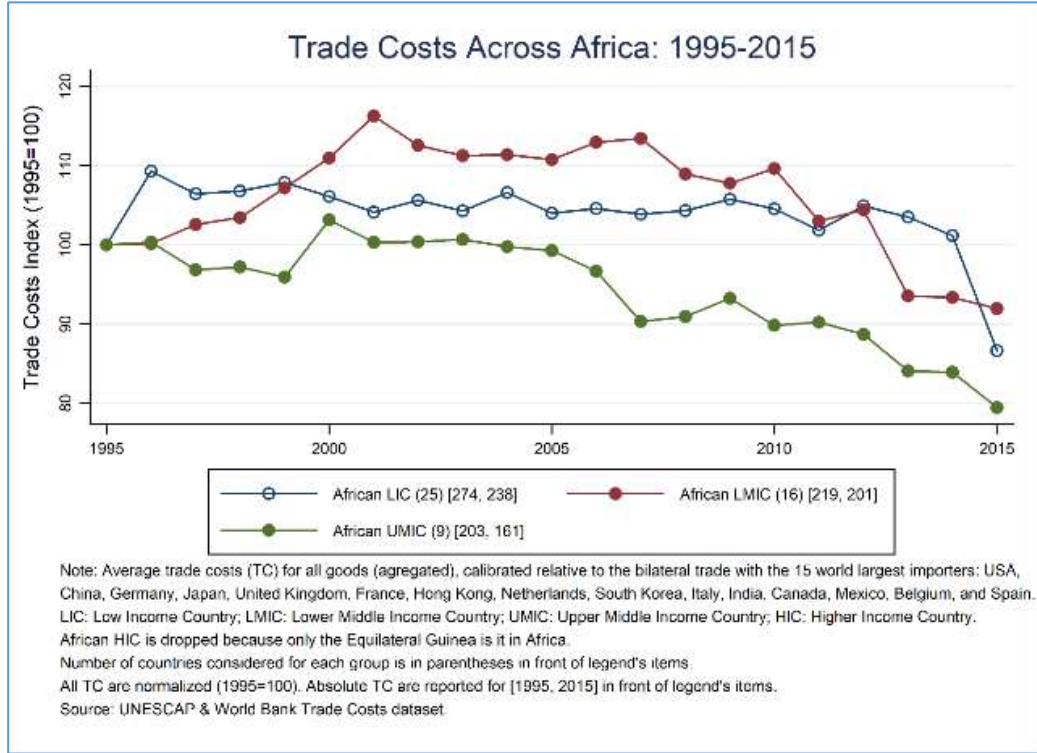
Figure 10 compares the evolution of calibrated trade costs relative to those of the top 15 largest importers by income group. To see more clearly the evolution of trade costs during the 20-year period, trade costs in the base year (1995) are normalized to 1. Also, next to each grouping, each panel displays the initial and final year trade costs relative to those of the 15 largest importers in the sample of 167 countries. For example, on average, the 26 low-income African countries (LICs) had bilateral trade costs of 274 percent above those of the top importers in 1995 and of 238 percent in 2015, showing catch up during the period. In spite of high values, comparatively, these estimates are not that high, since, on average, the other high-income countries (HICs) average trade costs was still 115% above those of the top importers.³³ According to the gravity model, bilateral trade costs are about two to three times those of the top importers.

Figure 10 shows the time profiles of calibrated trade costs by income category. Catch up towards the average of the trade costs of the 15 largest importers was greatest for the UMIC group that started from a lower trade cost disadvantage (209 percent in 1996) while the LIC group started from the highest trade costs, remaining the group with the highest average trade costs. Other classifications also show that African countries lag comparator groups.³⁴

³³ Ever since the start of the literature on the ‘border effect’, estimates of the border effect have been high. Anderson and Van Wincoop (2003) estimate trade cost around 70 percent between Canada and the US, two countries in an FTA sharing a common language. In another Canada-US comparison, Horlick (2013, p. 27) reports that sending a small parcel from Washington, D.C. to Los Angeles (4000km) costs \$5.60 while sending the same parcel to Montreal, Canada, 1500 km away costs \$19.95.

³⁴ Initial and terminal year trade costs estimates (percentage above the average trade costs of the 15 countries with the average lowest trade costs) for African countries are: LDCs (273/230), Land-locked (283/263); non-African LDCs (208/198). See AEO (2019, figure 3.4b) for comparisons with other classifications.

Figure 10: Calibrated Trade Costs across Africa by income group: 1995-2015



Lowering trade costs, a prime objective of the AfCFTA, is necessary to increase intra-African trade so we start by exploring the correlates of bilateral trade costs, $TC_{o,d,t}$ for manufactures reported in figure 10. The trade costs estimates in figure 10 include all sources contributing to the wedge between the producer price in the exporting country and the consumer price in the importing country for country pairs with positive trade, that is about half of the sample. Furthermore, the trade costs are measured relative to internal trade costs so one cannot distinguish between a reduction in bilateral trade costs at origin or at destination.

To explore the sources of differences in the trade cost estimates in figure 10, we correlate these estimates with proxies capturing policy factors after controlling for variables that capture ‘natural’ (or geographical) factors. These correlations are carried out for several samples: All countries; African countries with the rest-of-the world, and Sub-Saharan African (SSA) countries. This helps checking the robustness of the patterns. The policy factors include indicators of the quality of logistics and of the quality of domestic institutions.³⁵ The policy factors also include a dummy variable equal to 1 if the two countries belong to an RTA during the period. The policy indicators that vary over time are included in vector Z and are indexed over k in equation (1). All sets of estimates control for several time-invariant bilateral characteristics that presumably affect trade costs, $X_{o,d}$. The estimated equation is:

$$\log TC_{o,d,t} = \alpha_0 + \sum_k \beta_k Z_{o,d,t}^k + \sum_m \gamma_m X_{o,d}^m + \epsilon_{o,d,t} \quad (1)$$

³⁵ In a cross-section, Nunn and Trefler (2014) show that patterns of revealed comparative advantage depend as strongly on measures of the quality of institutions as they do on the ‘traditional’ drivers of comparative advantage differences in factor endowments and in technology across countries.

Note that the policy indicators $Z_{o,d,t}^k$ are constructed to vary bilaterally. For logistics, the bilateral indicator is constructed as in Arvis et al. (2016) by taking a geometric average at origin and destination so that a higher value indicates better logistics which, once controlling for other factors, should be associated with lower bilateral trade costs. For institutions, as in Alvarez et al. (2018), the bilateral measure is taken as the absolute difference in the indicator value at origin and at destination so that a higher value would be expected to be associated with higher bilateral trade costs.

Table 4 reports the results for logistic indicators. Due to the way bilateral trade costs are computed, we do not observe them when bilateral trade flows are zero. This may lead to a downward bias in the OLS estimates as the unobserved trade costs are likely to be very high. To overcome this, we impute the maximal value of observed trade costs for a given origin to the missing trade costs. We then estimate the model on the imputed dataset using a censored-normal regression indicating the imputed variables as censored.

Table 4 reports results for the logistics indicators for both OLS and censored normal estimators. In general, coefficient estimates are of the same sign and significance across samples. Take first the geographical factors. Distance has the expected positive sign. For the OLS estimates in column A (full sample), a 10% increase in distance is associated with a $(\approx 0.33 \approx e^{0.288} - 1)$ 3.3% increase in trade costs. This is a rather small estimate when compared with gravity estimates, but the censored normal estimate of $(\approx 4.8 \approx e^{0.392} - 1)$ 4.8% is closer to gravity estimates.³⁶ As expected, the trade cost elasticity to distance for the SSA \leftrightarrow SSA sample in column C is more than twice as high ($\approx 8.1\%$). All other geographical variables are significant and have the expected signs.

Turning to the policy variables, trade costs are lower for country pairs belonging to a PTA, but the estimate is insignificant for the SSA sample. For the whole sample, belonging to a PTA reduces trade costs by 30% relative to bilateral trade flows among non-PTA partners.³⁷ The LPI and LSCI indices both have negative and statistically significant coefficients in all samples for the Tobit estimates at the 1% level. A 10% improvement in the LPI [LSCI] index is associated with a 21.7% [3.5%] reduction in trade costs. The Doing Business market entry cost, a proxy for fixed costs, is negative and significant, suggesting that higher fixed entry costs is associated with reduced bilateral trade costs. This result opposite to Arvis et al. (2016, see table 5, col. 1) could reflect that larger firms necessary to absorb the high fixed entry costs subsequently allow them to have lower bilateral trade costs.³⁸

³⁶ For example, Head and Mayer (2019, table 4) report coefficient estimates for distance in the range(-0.93) to (-1.1)

³⁷ The OLS estimate for the PTA variable has approximately the same value as in Arvis et al. (2016), see table 5. The larger coefficient value for column 4 would suggest a higher reduction in trade costs for North-South PTAs, a plausible result that would require further checks.

³⁸ Another explanation can be the difference between our model sample and that of Arvis et al. (2016). For example, our sample covers manufactured goods only while Arvis et al. (2016) include all goods in their sample. Moreover, half of their sample observations has been dropped to avoid understated standard errors stemming from country pair repetition, and Belgium, the Netherlands, and Singapore are excluded from the estimation sample due to the re-exports issue.

Table 4: Bilateral Trade Costs and Logistics indicators

	Full sample (A)		Africa ↔ RoW (B) *		SSA ↔ SSA (C)	
	OLS	Censored Norm.	OLS	Censored Norm.	OLS	Censored Norm.
Depend. var.	Log(TC)	Log(TC)	Log(TC)	Log(TC)	Log(TC)	Log(TC)
	1	2	3	4	5	6
DIST	0.288 ^a (0.00318)	0.392 ^a (0.00628)	0.305 ^a (0.00827)	0.460 ^a (0.0136)	0.437 ^a (0.0223)	0.650 ^a (0.0422)
BORDER	-0.358 ^a (0.0158)	-0.228 ^a (0.0358)	—	—	-0.158 ^a (0.0490)	-0.371 ^a (0.109)
LANGUAGE	-0.0551 ^a (0.00611)	-0.0232 ^c (0.0125)	-0.0698 ^a (0.0116)	-0.0313 (0.0204)	-0.189 ^a (0.0220)	-0.473 ^a (0.0464)
COLONY	-0.262 ^a (0.0141)	-0.468 ^a (0.0276)	-0.623 ^a (0.0354)	-0.642 ^a (0.0493)	-1.513 ^a (0.118)	-0.404 (0.594)
PTA	-0.107 ^a (0.00465)	-0.300 ^a (0.00967)	-0.318 ^a (0.0107)	-0.488 ^a (0.0160)	0.0905 ^a (0.0286)	-0.0559 (0.0556)
\widetilde{LPI}	-0.878 ^a (0.0204)	-1.147 ^a (0.0384)	-1.023 ^a (0.0389)	-1.265 ^a (0.0688)	-0.137 (0.122)	-0.927 ^a (0.203)
\widetilde{LSCI}	-0.365 ^a (0.00372)	-0.790 ^a (0.00682)	-0.464 ^a (0.00659)	-0.900 ^a (0.0128)	-0.661 ^a (0.0353)	-1.596 ^a (0.0611)
\widetilde{BSC}	-0.241 ^a (0.0162)	-0.198 ^a (0.0298)	-0.0860 ^a (0.0228)	-0.238 ^a (0.0456)	- 0.00337 (0.0548)	1.006 ^a (0.112)
Constant	1.448 ^a (0.0714)	2.627 ^a (0.132)	1.617 ^a (0.124)	2.813 ^a (0.232)	-0.680 ^b (0.273)	-2.292 ^a (0.488)
<i>N</i>	37472	60612	12868	24676	1632	3510
adj. <i>R</i> ²	0.520		0.377		0.461	

Notes:

log-log estimates. Years: 2007, 2010, 2012. Robust standard errors in parentheses, a) $\rho < 0.1$; b) $\rho < 0.05$; c) $\rho < 0.01$.

*The Common border dummy is omitted because it only applies to one observation (Egypt-Palestine)

Data sources: Dependent variable is bilateral trade cost from figure 10. LSCI: UNCTAD; LPI: World Bank; BSC: World Bank's Doing Business project. All variables are geometric averages e.g. $\widetilde{LPI}_{o,d,t} = (LPI_{o,t} * LPI_{d,t})^{1/2}$

\widetilde{LPI} : Logistic Performance Index, computed as a proxy for trade facilitation.

\widetilde{LSCI} : Liner shipping connectivity index, computed as in Arvis et al. (2016) as a proxy for international transport connectivity. It also captures the effect of landlocked countries.

\widetilde{BSC} : Cost of starting a business, computed as a proxy for the costs of market entry.

Source: Authors' estimates.

Table 5 reports estimates for the indicators capturing the quality of governance taken from the World Bank's WGI. Each is a composite of several sub-indices. We report separately on six dimensions of world governance indicators (WGI) developed by the World Bank: Voice & Accountability (VA), Political Stability and Lack of Violence (PV), Government Effectiveness (GE), Regulatory Quality (RQ), Rule of Law (RL), and Control of Corruption (CC). We then define institutional distance as the *difference* between the value of the indicator in the country of destination and that in the country of origin. Controlling for the same geographical variables included in (1), one would expect that lower institutional distance, which is expected to capture lower trade barriers associated with governance, would be associated with lower bilateral trade costs. We report standardized coefficient estimates to compare the strength of the different proxies for governance and report only the censored normal estimates.³⁹ Results for the SSA↔SSA sample are not reported because they are not stable. The coefficient values for the geographical variables are close to those reported in table 4. The estimated coefficient values for the variables including belonging to an RTA are close to those in table 4.

The coefficient values for each one of the institutional variables have the expected sign and are highly significant and with similar values. Comparing the strength of each regressor on trade costs from the standardized values shows that, among the usual variables in gravity formulations, RTA and distance have the strongest impact on trade costs. The association of political stability and voice and accountability measures have the least strength among the institutional variables selected from the WGI. In the Africa ↔ROW samples, the institutional variables have less strength than the RTA membership dummy.

³⁹ Standardized coefficients refer to how many standard deviations the dependent variable will increase per standard deviation increase in the explanatory variable.

Table 5: Quality of Institutions are negatively correlated with bilateral Trade Costs

	(1a) ALL Log(TC)	(1b) Africa-ROW Log(TC)	(2a) ALL Log(TC)	(2b) Africa-ROW Log(TC)	(3a) ALL Log(TC)	(3b) Africa-ROW Log(TC)	(4a) ALL Log(TC)	(4b) Africa-ROW Log(TC)	(5a) ALL Log(TC)	(5b) Africa-ROW Log(TC)	(6a) ALL Log(TC)	(6b) Africa-ROW Log(TC)
Log(dist)	0.351*** [0.199]*** (0.00562)	0.510*** [0.175]*** (0.0128)	0.357*** [0.203]*** (0.00550)	0.508*** [0.174]*** (0.0127)	0.352*** [0.198]*** (0.00574)	0.534*** [0.183]*** (0.0130)	0.342*** [0.194]*** (0.00555)	0.496*** [0.170]*** (0.0127)	0.350*** [0.198]*** (0.00549)	0.508*** [0.174]*** (0.0128)	0.365*** [0.207]*** (0.00563)	0.537*** [0.184]*** (0.0129)
Com. Border	-0.426*** [-0.0457]*** (0.0271)	-	-0.439*** [-0.0471]*** (0.0265)	-	-0.366*** [-0.0390]*** (0.0275)	-	-0.461*** [-0.0495]*** (0.0268)	-	-0.445*** [-0.0477]*** (0.0266)	-	-0.408*** [-0.0436]*** (0.0272)	-
Com. Lang.	0.0826*** [0.0217]*** (0.0112)	-0.204*** [-0.0525]*** (0.0182)	0.0354*** [0.00932]*** (0.0110)	-0.201*** [-0.0517]*** (0.0181)	0.0877*** [0.0229]*** (0.0114)	-0.258*** [-0.0661]*** (0.0184)	0.0604*** [0.0159]*** (0.0111)	-0.190*** [-0.0490]*** (0.0181)	0.0361*** [0.00950]*** (0.0110)	-0.212*** [-0.0545]*** (0.0181)	0.0897*** [0.0235]*** (0.0112)	-0.232*** [-0.0598]*** (0.0182)
Colonial rel.	-1.048*** [-0.0925]*** (0.0238)	-1.192*** [-0.0928]*** (0.0369)	-0.975*** [-0.0863]*** (0.0240)	-1.187*** [-0.0923]*** (0.0376)	-1.167*** [-0.102]*** (0.0233)	-1.270*** [-0.0984]*** (0.0353)	-0.993*** [-0.0879]*** (0.0240)	-1.170*** [-0.0911]*** (0.0376)	-0.976*** [-0.0862]*** (0.0243)	-1.182*** [-0.0918]*** (0.0375)	-1.071*** [-0.0943]*** (0.0235)	-1.201*** [-0.0933]*** (0.0362)
RTA	-0.702*** [-0.221]*** (0.00909)	-1.039*** [-0.266]*** (0.0147)	-0.649*** [-0.205]*** (0.00896)	-1.004*** [-0.257]*** (0.0147)	-0.759*** [-0.238]*** (0.00922)	-1.069*** [-0.273]*** (0.0149)	-0.679*** [-0.214]*** (0.00900)	-1.026*** [-0.263]*** (0.0146)	-0.660*** [-0.208]*** (0.00894)	-1.030*** [-0.263]*** (0.0147)	-0.684*** [-0.215]*** (0.00913)	-1.036*** [-0.265]*** (0.0148)
*Control of Corruption	-0.284*** [-0.220]*** (0.00353)	-0.228*** [-0.164]*** (0.00617)										
*Government effectiveness			-0.386*** [-0.283]*** (0.00373)	-0.285*** [-0.199]*** (0.00640)								
*Political stability					-0.181*** [-0.127]*** (0.00425)	-0.108*** [-0.0739]*** (0.00695)						
*Rule of Law							-0.346*** [-0.257]*** (0.00366)	-0.285*** [-0.197]*** (0.00636)				
*Regulatory Quality									-0.410*** [-0.286]*** (0.00398)	-0.297*** [-0.195]*** (0.00675)		
*Voice and accountability											-0.272*** [-0.197]*** (0.00408)	-0.208*** [-0.142]*** (0.00687)
N	104734	45000	104734	45000	104734	45000	104734	45000	104734	45000	104734	45000
Time FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes: Bilateral trade costs from figure 10. Double log estimates Robust standard errors in parentheses * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$ Standardized coefficients in brackets.

* Censored normal estimates. Standardized values. Proxies for quality of institution from WGI. Each indicator is given by $|INST_{o,d,t}^k| = |INST_{d,t}^k| - |INST_{o,t}^k|$. Common border dummy for Africa-ROW estimates omitted.

5.2 Deep integration and bilateral trade in intermediate products

Second, we report results of regressions exploring the role of institutions, i.e. belonging to a REC and being a WTO member. We also explore the importance of deep integration on bilateral trade in parts, an important ingredient in RVCs.

Bilateral Trade in Manufactures. To detect any importance of the quality of institutions, we check first if, after controlling for the usual factors entering gravity estimates, REC and/or WTO membership is associated with higher bilateral trade in manufactures. Estimates are derived from a sample of 254 countries with yearly observations over the period 1967-2015 using a Poisson Pseudo Maximum Likelihood (PPML) estimator:

$$X_{o,d,t} = \exp \left((\gamma RTA_{o,d,t} + \lambda WTO_{o,d,t}) + \alpha_{o,t} + \alpha_{d,t} + \phi_{o,d} \right) * \epsilon_{o,d,t} \quad (1)$$

Specification (1) is the structural gravity formulation, including a full set of FEs. These are (i) exporter (α_{ot}) and importer (α_{dt}) time-varying FEs to control for all country-specific time-varying omitted variables such as GDP or the multilateral resistance terms (MRTs); and (ii) time-invariant bilateral FEs (ϕ) that take the place of the usual dyadic time-invariant variables (distance, common border, common language). In interpreting estimates from (1), this amounts to assuming that all PTAs are drawn from the same sample, so the estimates amount to an ‘average treatment effect’. Besides having to interpret what the γ and λ coefficients actually capture, this leaves the possibility of endogeneity due to time-varying omitted variables or to the depth of an RTA which likely varies over time (see Baier and Bergstrand, 2007) and Limaõ (2016)) and internal trade costs that are not taken into account (Yotov, 2012).

Table 5 displays the results for three samples of bilateral trade in manufactures: All countries (cols. 1 and 2), North-South and South-South where at most one of the partners is an industrialized country (cols. 3 and 4), and South-South (cols 5. and 6) where bilateral trade is restricted to trade among developing countries. For each sample OLS results are contrasted with those obtained with the PPML estimator that controls for zero trade flows and heteroskedasticity.

Table 6: Detecting Institutional correlates of bilateral Trade in Manufactures

	Manufactures, World trade		Manufactures, No North-North trade		Manufactures, South-South trade only	
	Log(imports)	Imports	Log(imports)	Imports	Log(imports)	Imports
Col.	1 (OLS)	2 (PPML)	3 (OLS)	4 (PPML)	5 (OLS)	6 (PPML)
REC dummy ^{a/}	0.754*** (0.0238)	0.760*** (0.0398)	0.735*** (0.0247)	0.542*** (0.0383)	0.716*** (0.0301)	0.433*** (0.500)
WTO dummy	0.155*** (0.0161)	-0.00237 (0.0271)	0.144*** (0.172)	0.190*** (0.0265)	0.092*** (0.0259)	0.132*** (0.0326)
%Zero flows	-	64%	-	45%	-	62%
FE						
Bilateral	Y	Y	Y	Y	Y	Y
Yr-exp	Y	Y	Y	Y	Y	Y
Yr-imp	Y	Y	Y	Y	Y	Y
R ²	0.850	0.986	0.832	0.989	0.787	0.976
Obs.	920'926	1'754'410	806'069	1'601'485	303'750	697'161

Notes:

Estimates on annual data covering years 1967-2015 (no gap)

Robust standard errors in parentheses

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

a/ REC dummy is set to one if both importer and exporter are in the same REC. Considered RECs are AMU AGADIR CEMAC COMESA EAC ECOWAS PAFTA SACU SADC WAEMU GCC CEN-SAD ECCAS IGAD WAMZ

The coefficient on the REC dummy is positive and statistically significant in all regressions. Considering OLS regressions (cols 1, 3, and 5) the coefficient decreases slightly when trade of high income countries is progressively removed from the picture going from 0.754 when all trade is taken into account to 0.735 when North-North trade is removed and 0.716 when only South-South trade is considered. Looking at PPML, the coefficient in column 2 (All trade) is very close to the one of the OLS regression with a value of 0.76. With the PPML estimator, the magnitude of the coefficient decreases sharply from 0.542 to 0.433 when high income countries' trade is removed. Since PPML estimates take into account zero trade flows, this suggests that belonging to a REC has a smaller effect for southern countries than for northern countries, a confirmation of both less reduction in tariffs (see the large share of positive bilateral tariffs across the African RECs in figure 4) and also of less depth in the agreements.

The WTO dummy is also positive and statistically significant with a similar effect across all columns except col. 2. This is to be expected since almost all countries outside of Africa are WTO members, there is little variation in membership to identify effects of WTO membership outside Africa where 7 of the 17 countries negotiating accession at the WTO are located. In spite of the controls for omitted variables, the result may not be robust, as many countries are both part of a REC and part of WTO and their effect may be mingled, furthermore, our sample starts in 1967 meaning that more than 60 countries were already members and reaping benefits when our analysis start.

Since the same trade cost function is assumed to hold for all countries in the sample, under the theoretical models giving rise to the gravity equation, the average tariff equivalent of being part of a

REC (τ^{AVE}) is given by $\tau^{AVE} = e^{-\lambda/\varepsilon} - 1$ where a value of $\varepsilon=5$ is taken as a representative value of the range of estimates in the literature (e.g. Limaõ 2016). Taking the PPML estimates in columns 2 and 4, and 6 gives estimates of the partial trade effect of being part of a REC as being equivalent to a tariff reduction of about 16 percentage points considering world trade, 11 considering North-South trade, and 9 for South-South trade.

Trade in parts and components. For the exploration of correlates of trade in parts and components, we add to the regressors in (1) the count measures presented in figure 7 above. These are the counts on the number of WTO+ and WTOX provisions covered in the RECs serve as proxies for the depth of integration. Results are reported in table 6:

Table 7: Detecting Institutional correlates of bilateral Trade in parts and components				
	(1)	(2)	(3)	(4)
	OLS	OLS	PPML	PPML
	log imports	log imports	imports in US\$	imports in US\$
	1	2	3	4
REC dummy ^{a/}	0.617*** (0.0418)	0.603*** (0.0419)	0.710*** (0.0926)	0.729*** (0.0921)
WTO dummy	0.216*** (0.0274)	0.218*** (0.0274)	0.0949* (0.0543)	0.0960* (0.0542)
Sum of bilateral WTO+ and WTO-X provisions	0.00565*** (0.000539)		-0.00379*** (0.000708)	
Sum of bilateral WTO+ provisions		0.0156*** (0.00137)		-0.00638*** (0.00161)
Observations	433197	433197	856738	856738
FE				
Bilateral	Y	Y	Y	Y
Yr-exp	Y	Y	Y	Y
Yr-imp	Y	Y	Y	Y
R^2	0.868	0.868	0.989	0.989
Adjusted R^2	0.855	0.855		

Robust standard errors in parentheses

Estimates on annual data covering years 1980-2015 (no gap)

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

a/ REC dummy is set to one if both importer and exporter are in the same REC. Considered RECs are AMU AGADIR CEMAC COMESA EAC ECOWAS PAFTA SACU SADC WAEMU GCC CEN-SAD ECCAS IGAD WAMZ

Looking first at the OLS results in columns 1 and 2 we see that, as for manufactured goods, the impact of the REC is always positive and statistically significant. The size of the coefficient is also close to the one for manufactures. Turning to the WTO+ and WTO -X provisions we see that both coefficients are positive and statistically significant though with

a very low magnitude (0.005 for both WTO+ and WTO-X, and 0.01 for WTO+ only). As the average number of measure is relatively low (on average 10 for WTO-X + WTO+ and 5 WTO+ for REC members), the depth of the agreements plays little role in the impact of the REC. Turning to the PPML, we observe similar results with a slightly higher REC coefficient. This time the WTO+ and WTO-X coefficient are negative but with an even lower coefficient (-0.003 and -0.006 respectively) suggesting an almost null economic impact.

The WTO coefficient is positive and statistically significant for all regressions and ranges from about 0.22 for both OLS regressions to about 0.095 for both PPML regressions.

6. Wrapping up: African Borders are less thick

Three types of indicators are helpful at measuring progress at integration. One is an in-depth tally of progress at implementing commitments at integration. The best known, most comprehensive one is the EAC Common Market Scorecard (CMS) that gives scores at implementing de jure (but not de facto) commitments in the Common Market Protocol. The CMS 2016 compares progress with 2014 and 2016 for three areas: the free movement of capital, the free movement of services, and for free trade in goods. For example, for the free movement of capital, CMS 2016 reports that members carried out few reforms in the freedom of capital movement but increased the use of exemptions while still not complying with the notification requirement. For the free movement of services, none of the partners complied with the obligation to inform the EAC council. And for free trade in goods, the Common market Scorecard (CMS) 2016 showed an increase in reported non-tariff barriers.⁴⁰

Another is the dashboard proposed by the Africa Regional Integration Index.⁴¹ It is comprehensive with overall comparisons across RECs. The index has five components (regional infrastructure, trade integration, productive integration, free movement of people, financial & macroeconomic integration). Except for the index on the free movement of people, whose components are all related to policies affecting the movement of people, the indexes have sub-components that include policies and outcomes. For example, the trade integration component has customs on imports and three indicators covering shares of intra-regional trade in overall trade. It is then difficult to attribute

A third approach, measures changes in activity along cross-border corridors. Besides giving an indicator of the “border effect”, it gives complementary information on the evolution of concentration in economic activity. Some reports on regional integration in Africa (see UNECA (2013) and (2017), i.e. Aria 7, 8) argue that expected overall welfare gains from a reduction in the ‘thickness’ of African borders will only be ‘win-win’ if the reductions in tariffs and NTBs are accompanied by compensation for LDCs and especially LLDCs because activities will concentrate in urban areas, often along coasts or major waterways. The WDR 2009 summarizes this view, asserting that ‘[the] openness to trade and capital flows that makes markets more global also makes subnational disparities in income larger and persist for longer in today’s developing countries’ (World Bank (2008, p.12) cited in Bruhlart (2011)). Another view, held by Krugman and Livas-Elizondo (1996) argues that the rise of giant metropolises in developing countries was due in large part to their import-substitution-led

⁴⁰ See AEO 2019 box 3.2 for more examples.

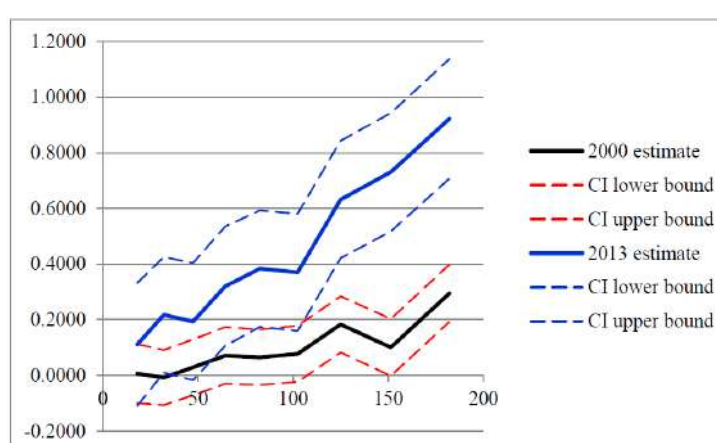
⁴¹ See <https://www.integrate-africa.org/rankings/regional-economic-communities/eac/>

development strategies and that it should stop with the reversal of policy toward greater openness to trade. If so, closer regional integration should lead to a dispersion of economic activity as was the case in Mexico during NAFTA when manufacturing activities in the Northern Maquiladoras overtook those in Mexico City. The natural experiment provided by the fall of the Berlin wall also supports the Krugman-Livas hypothesis (now referred to as the ‘iron-curtain’ effect), namely that growth in cities, especially small ones, close to the old iron curtain was strong after the fall of the wall (see Redding and Sturm (2008)).

In Africa, data are very poor and sporadic, making it difficult to test whether closer integration leads to a concentration or a dispersion in economic activity. This is because economic activity is very poorly recorded as remoteness, informality and poor statistical capabilities combine to produce unreliable GDP and trade data, especially at the sub-national level. To improve on this situation, Cadot et al. (2015) use annual Anthropogenic Illumination (AI) or night lights captured from satellites over the period 1995-2013 at a very detailed level (10km x 10km grid up to 200 km from the border). Once corrected for ‘overglow’ and other confounding influences, AI radiance along cross-border corridors proxies the intensity of activity across the continent. Conveniently, it is during the 1995-2013 period that countries were intensifying their integration. They study light-intensity along cross-border corridors measured as distance to the border. In a first step, they confirm an iron-curtain effect (light-intensity increases with distance from borders).

Figure 11 shows the slope of the profile of light intensity along distance from the border along the cross-border highways. The positive slope indicates that activity agglomerates away from borders, an indication of an ‘iron curtain’ effect. Importantly, the slope of the line in 2013 is less than in 2000, indicating a weaker agglomeration effect far from the border. This is *prima facie* evidence that borders are not as thick now as they used to be, an indication of progress at integrating markets.

Figure 11 Activity agglomerates away from borders, but less so in 2013 than 2000



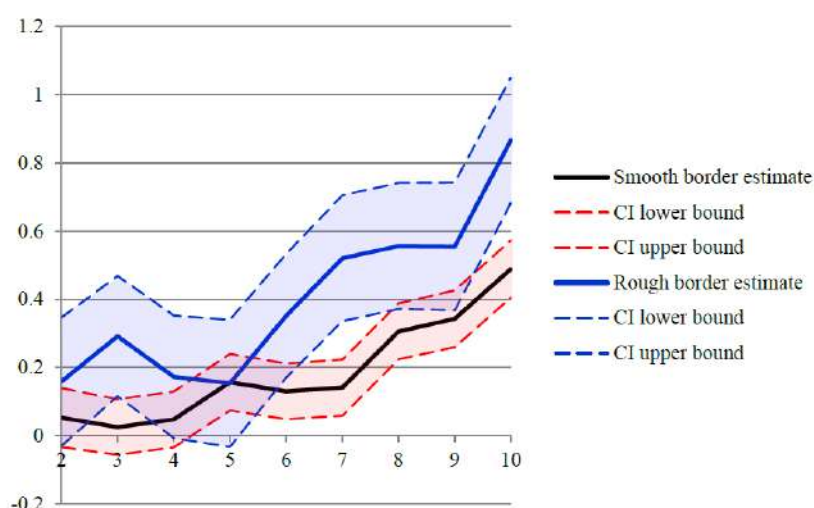
Notes: The horizontal axis measures distance from the border in km, within a 200 km buffer around Africa’s cross-border highways. The vertical axis measures light intensity where each point estimate reports the coefficient on the dummy variables (one for each of the 10 bins within the 200km buffer) so that a higher coefficient value indicates a higher light intensity relative to the first bin (omitted for multicollinearity). The regression controls for altitude, population density and year and country fixed effects. From the border along Africa’s cross-border highways. Dashed lines are 5 percent confident intervals (CI).

Source: Cadot et al. (2015) figure 4.

In a second step, instead of splitting the sample by year, they split the sample between within-RTA borders and borders between countries not belonging to the same RTA. Their estimates, reported in their figure 6, show no discernable pattern between the two samples. This suggests that ‘shallow integration’ as captured by any reduction in tariffs and NTBs was not strong if that is what is captured by the dummy variable indicating membership in an RTA.

However, patterns are different when the sample is split into two groups according to measures of trade facilitation: ‘smooth’ and ‘rough’ cross-border corridors according to their score on the World Bank’s Logistic Performance index, with ‘smooth corridors’ having a score above the median LPI value. Figure 12 shows that the iron-curtain effect is much steeper starting at decile six for the sample with rough borders.

Figure 12 The iron curtain effect is weaker across borders along smooth corridors



Notes: For construction of curves, see figure 9. Smooth [rough] borders correspond to highways when the product of the two bordering countries ‘efficiency of customs clearance’ score in the LPI is above [below] the median value of the World Bank’s LPI index.

Source: Cadot et al. (2015), figure 7

Light intensity is arguably an adequate proxy for activity and trade intensity in the African context. Using night-lights, Eberhard-Ruiz and Moradi, show that the establishment of the EAC in 2001, had a temporary effect--lasting around four years--in the form of higher growth for cities near the internal border. These patterns then suggest three conclusions. First, borders are still thick (in Europe night lights are uniformly distributed along cross-border corridors), but progressively less so over the last 15 years. So, contrary to fears on regional integration in Africa, concentration of activity has not increased, at least up to 200 km from the borders. Second, membership in an RTA does not seem to have an effect of agglomeration of economic activity. Third, trade facilitation projects, an integral component of current and planned integration efforts, leading to the development of peripheral areas

can make growth more balanced spatially, alleviating the fears of an unbalanced development across the continent.

7. Supply Chain Trade and Regional Value Chains

Reduction in policy-imposed trade barriers along with the ICT revolution lowered the costs of fragmenting production both between firms nationally and across borders. This fragmentation of tasks is reflected in the growth of value chains both at the global level (GVCs) and at the regional level (RVCs) over the last twenty-five years. The more complex value chains (e.g. electrical and optical equipment or information and communication industry) have strong regional linkages. By reducing barriers to intra-African trade, the AfCFTA is to promote participation in RVCs. Have African countries participated in supply chain trade, and how have they fared compared with others? Participation in GVCs and RVCs would provide new opportunities for African countries to enter a new line of business without having to produce a complete product increase their participation in global trade and diversify their exports.

7.1 Patterns of supply Chain Trade in sub-saharan Africa⁴²

In GVC trade, parts and components are produced in different countries and are assembled sequentially along the chain or in a final location. GVC trade is defined as trade flowing at least through two borders. Melo and Twun (2019) use the Eora Multi-region Input Output national and global input-output tables covering 189 countries over the 1990-2015 period and 26 sectors to calculate the three measures of supply chain participation used to characterize supply chain trade. GVC participation defined in figure 13 is the sum of domestic and foreign value-added exports both expressed as a share of total gross exports (excluding double counting from domestic value-added entering imports from partners).

Figures 13 and 14 show the evolution value chain trade over the period 1990-2013 for RTAs where a reduction in trade costs would be reflected in increased GVC participation (i.e. points above the 45° line in figure 13a). Indeed, except for COMESA, all groups have followed the worldwide trend of increased GVC participation over the past 25 years. Three other patterns emerge from figure 13a. First, is the dominant participation of ASEAN ('factory Asia') in the figure for both periods. Second is the catching up by most other groups. Third is the large increases in participation rates of the EAC and MERCOSUR. Arguably, these are the two RTAs where reduction in policy-imposed trade barriers have been most pronounced. One could add that COMESA and ECOWAS, each with a protectionist hegemon, have not increased their participation as much as the other RECs.

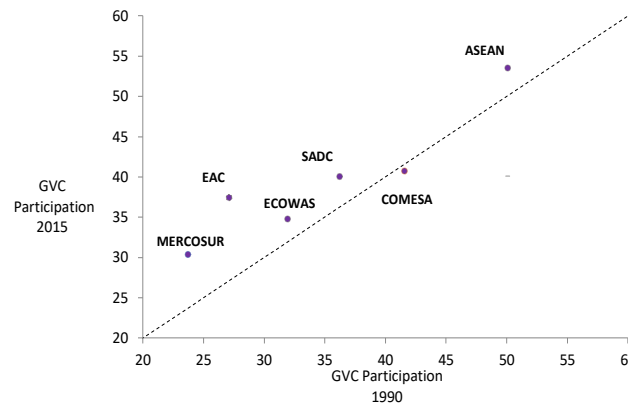
In the GVC literature, somewhat counter-intuitively, a country is said to be 'upstream' if the share of foreign imports in value-added is high. Conversely, a country is said to be downstream if most of its value-added exports enter into exports of other countries. So upstream countries have a high backward participation share, and a downstream country has a high forward participation share. Figure 13b shows the evolution of both measures for the same group of RTAs. With the notable exception of ASEAN, RTAs have increased their GVC participation rates as a result of both increases in up-streamness and in down-streamness which is just another way of documenting that the fragmentation of tasks is

⁴² This section draws on results in Melo and Twun (2019)

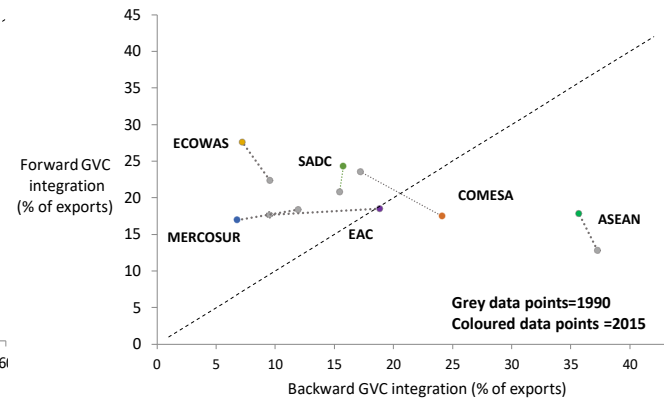
increasing around the world. However, this is not the case for ASEAN where China has had a strong increase in vertical integration.

Figure 13: GVC Participation 1990-2015: RECs and Comparators

a. GVC participation rate, 1990 and 2015



b. Backward and forward GVC participation rate , 1990 and 2015

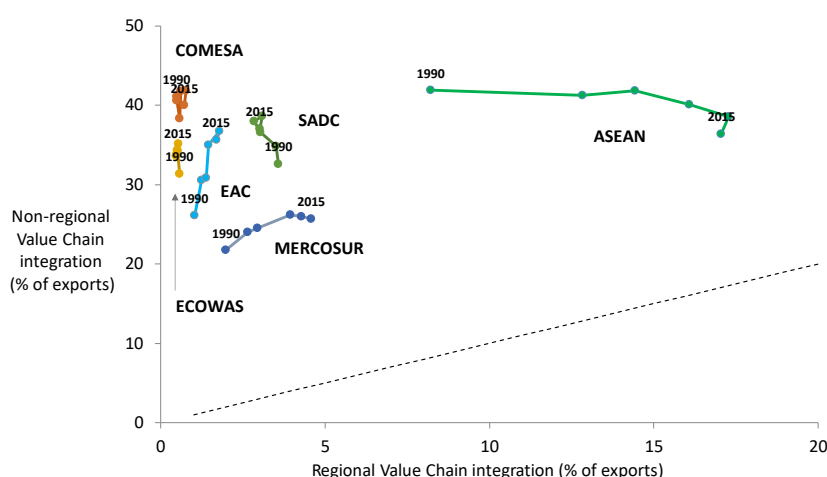


Source: Melo and Twun (2019, figure 6).

Notes. GVC participation is the sum of backward and forward shares in gross exports. Backward is the share of imported value-added entering a country' exports and forward is the share of gross exports that is exported to another country for further processing. In figure 13a, points above the 45° line indicate an increase in GVC participation over the period.

Has increased GVC participation been with RTA members or with non-regional trading partners? Figure 14 traces the path of GVC participation over the 1990-2015 period by geographic distinction. This geographic classification reveals three distinct patterns. First, non-regional GVC participation dominates throughout (all points above the 45° line). Second, the non-African blocs have moved towards RVC supply trade. In the case of ASEAN, the share of GVC trade involving partners outside the region has stayed constant over the 25 period while the share of GVC trade only involving RTA partners has more than doubled from 7 percent to 17 percent. By the end of period, ASEAN's RVC is about 6 times higher than the RVC rate for SADC, the oldest African REC with the most RVC integration. Among the African RECs, the EAC achieved the largest increase in non-regional supply chain trade. This should be a favourable omen since there should be 'learning-by-tasking' with partners that have stronger industrial and agricultural bases.

Figure 14: Growth in Value-chain integration outside the region dominates supply chain trade across African RECs



Source: Melo and Twun (2019, table 7) using GVC database from EORA and Borin and Mancini (2015, 2019).

Notes: GVC participation measures the share of country's exports that either makes use of value-add imported from another country or is exported to another country for further processing. It is the share of GVC related trade for a country over its total gross exports. For each region and intervals of 5–6 years between 1990 and 2015, the figure plots the share of GVC trade involving only production partners inside the same region in total GVC trade (regional GVC integration) against the share of GVC trade involving only partner countries outside the region in total GVC trade (non-regional GVC integration). Regional and non-regional GVC participation measures are computed as weighted averages over the countries in each group. The weights are the share of each country in the corresponding region total trade. Points above the 45° indicate larger non-regional GVC participation.

In sum, supply chain trade has increased across RECs (except COMESA) over the past 25 years, but this increased trade in parts and components has been mostly with partners outside the RECs (and probably outside of Africa). Even though the BIAT and the AfCFTA seek to encourage RVCs across Africa, it is not intended to be at the expense of trade in intermediate goods with other partners because of the expected productivity-enhancing effect from contacts with more advanced economies.

Several factors have contributed to these patterns of low trade in intermediates within RECs. First is the often-observed lack of complementarities in their trade baskets: countries export coffee and other raw materials and they import intermediates and processed goods. Second, the GVC data show that the more complex supply chains tend to have strong regional linkages (World Bank 2017). So far, many, but not all (e.g. Vietnam) low-income countries have not participated in complex value chains. At least three factors have been advanced: weak governance, high unit labor costs, and low connectivity, all reflected in the high trade costs shown in section 5.⁴³

Two opportunities could contribute to enhance GVCs in Africa. The first would be to take the opportunity presented by the harmonization of rules-of-origin required as part of the final steps of phase I of AfCFTA to adopt simple and transparent rules of origins. Because of the way rules of-origin are negotiated, it is likely that simple and transparent rules – necessary to increase GVC participation – will end up being complicated and onerous to implement for firms and customs official alike. Reasons are explored in annex A3. The other is to take the TFA ‘seriously. This means ‘fully’ implementing the easily verifiable provisions in the agreement (see box 1). Next section discusses the upsides and downsides (provided by the flexibility in implementation) of the TFA.

7.2. Taking Advantage of the Trade Facilitation Agreement.

All African countries that are members of the WTO participate in the TFA which has the characteristic that progress can be monitored relatively easily. Currently 139 (including 44 African countries) of 164 WTO members have ratified the TFA.⁴⁴ The focus of the TFA is to reduce the time it takes to cross-borders, that is time spent in customs. More broadly, the objective is to reduce the trade transaction costs incurred in enforcement of NTMs. Best practices on Trade Facilitation recommended by the World Customs Organization are part of the TFA but Services-related dimensions of trade facilitation are not included. The TFA follows a ‘bottom up approach’ in which low-income countries have extensive leeway in implementing the Agreement and high-income countries are not under the obligation to provide technical assistance. In effect, the TFA is like a tariff agreement without tariff schedules (see Box 1). This flexibility may be welcome, although the possibility of not implementing these time-savings measures is equivalent to a loss of competitiveness relative to those who implement them. Not taking advantage of the TFA will slow integration along the AfCFTA.

⁴³ World Bank (2017, figure 8) displays a positive association between the extent of GVC participation and values of the Logistics Performance Index. Drawing on the World Bank Enterprise Survey data, Gelb et al. (2016) show that African countries have high labor costs relative to their income level which corroborates the observation that countries deeply involved in GVCs have low unit labor costs rather than low wages (see World Bank figure 7). Connectivity is associated with specialization in more advanced GVCs (see World Bank 2020, figure 2.5).

⁴⁴ 44 of 47 WTO African countries have ratified with 14 of 15 landlocked countries are signatories. Check the status: <http://www.tfafacility.org/ratifications>.

Box 1: The TFA: Obligations and Flexibilities

Signed by all WTO members, the TFA is a rules-based rather than discretionary with specified appeal and review procedures. The TFA embodies a number of disciplines on border clearance procedures and transit that complement existing WTO rules on transit (Art. V GATT), fees and formalities (Art. VIII GATT), and transparency (Art. X GATT). None of these measures have been fully implemented by any country. The TFA is limited in focus to matters that are under the purview of the GATT. Among its provisions, the TFA includes publication of information, advance rulings, appeal or review of decisions, transparency, border agency cooperation, and the setting up of formalities that implement least trade-restrictive measures to achieve underlying policy objectives (e.g. “single-window” systems, a ban on mandatory PSI for classification/valuation). The introduction of measures making the use of customs brokers mandatory is forbidden. Freedom of transit (i.e. the prohibition of non-transport related fees)) is an objective which is most important for landlocked countries. Neufeld (2014) notes that most RTAs signed after the launch of the TFA negotiations in 2004 included Trade Facilitation provisions and that many of the measures in the final TFA had been inspired by TF initiatives included in RTAs (see Hoekman (2016)).

Since implementing the TFA requires scarce resources, especially in LDCs and LLDCs, it is important to keep in mind the non-bindingness of the TFA for developing-country signatories. Indeed, it is only after LDCs obtained recognition of SDT with a wide-ranging exemption from commitments that the TFA agenda take off. That language said that LDCs would “only be required to undertake commitments to the extent consistent with their individual development, financial and trade needs or their administrative and institutional capabilities” (Neufeld (2014a), p. 7). As noted by Neufeld, this is a new interpretation of SDT away from longer transition period to one in which developing countries and LDCs would not be required to implement aspects of the TFA when required support for infrastructure is not forthcoming.

This bottom-up approach, giving extensive leeway eschewed the usual ‘one-size-fits all’ format of WTO multilateral negotiations. Carve-out from commitments was so extensive that Hoekman (2016) notes that the occurrence of the wording “should” in the TFA provisions is twice as high as in the related WTO agreements on customs valuation and import licensing. Technical assistance not forthcoming, TFA provisions cannot be enforced through the WTO dispute settlement mechanism. Thus, the TFA presents no effective commitment threat for signatories. In sum, the TFA is a best-shot endeavor based on promises rather than on legal content. On the one hand, developing countries do not have to engage into bargaining as they only have to submit schedules of the substantive provisions of section I dealing with limits and procedures for customs administration that they would accept – what Finger (2014) notes is akin to a tariff agreement without tariff schedules. On the other hand, the TFA will not solve the implementation problem within the GATT/WTO legal system which does not obligate the Donor members who would step forward to provide financial assistance.

Following the signing of the TFA in December 2013, the OECD has produced and released a series of 11 Trade Facilitation Indicators (TFI). These indicators (identified from A to K) in figure 15, monitor the targets mandated by the TFA. Compared with many other performance indicators in the literature on evaluating the effectiveness of Aid-for-trade initiatives, these indicators are relatively easy to measure and are available for 43 African countries.⁴⁵ Each of the eleven indicators can take a value between 0 (no implementation of TFA) and 2 (full implementation of TFA). Some indicators are averages of subcomponents. A higher value indicates better customs performance for the indicator. The aggregate indicator of performance TFI (L) is used in the following estimates of the potential reduction in time at customs from implementing the TFA.

Figure 15 displays the distribution of each component (A to K) and the aggregated TFI (L) of the TFI. Figure 15a shows the distribution of each component across the 12 ECOWAS countries and at the bottom (line L) the TF index. Figure 15b displays the TFI index (L line in figure 15(a)) for each REC. The bottom three rows in figure 15(b) compare the average for all LDCs and all landlocked LDCs with the average for all AU countries. The box plots in the figure 15 indicate great disparity both within RECs for each indicator value across ECOWAS and across RECs for the average TF value.⁴⁶

Several patterns emerge. First, within each REC, some members have remarkably higher scores on some indicator components than other members. For example, in ECOWAS, on automation of formalities (row G), Senegal has the top score for fees and charges (row E, 1.57), formalities and documents (row F, 1.63) and for the TFI value (row L, 1.17). Extreme scores suggest digging deeper into the data to check if, indeed, this is a sign of better performance, or of inaccuracies in reporting. Second, the largest disparities (largest interquartile ranges) are for the information availability (A) and the governance and impartiality (K) indicators. Arguably, improvements in information availability should be attainable. Third, it is harder to draw conclusions from comparing the TFI values across RECs because of the different membership size across RECs.

Keeping these caveats in mind, we interpret these indicator values as suggestive of substantial room for improvement in customs management within and across RECs. Importantly, these improvements can be estimated when coupled with data on time at customs. Drawing on the Doing Business (DB) indicator values of time in customs for imports and exports, Tables 9 and 10 propose ballpark estimates of the gains under 'implementable' improvements in customs. This is done in two steps. First, we estimate a count model of the time in customs for a typical 40' container (relatively homogeneous goods since the container contains only automobile parts and components).⁴⁷ This estimate includes controls and the value of the TFI from figure 15. The second step simulates the effects on time in customs from improvements in the TFI indicator values.

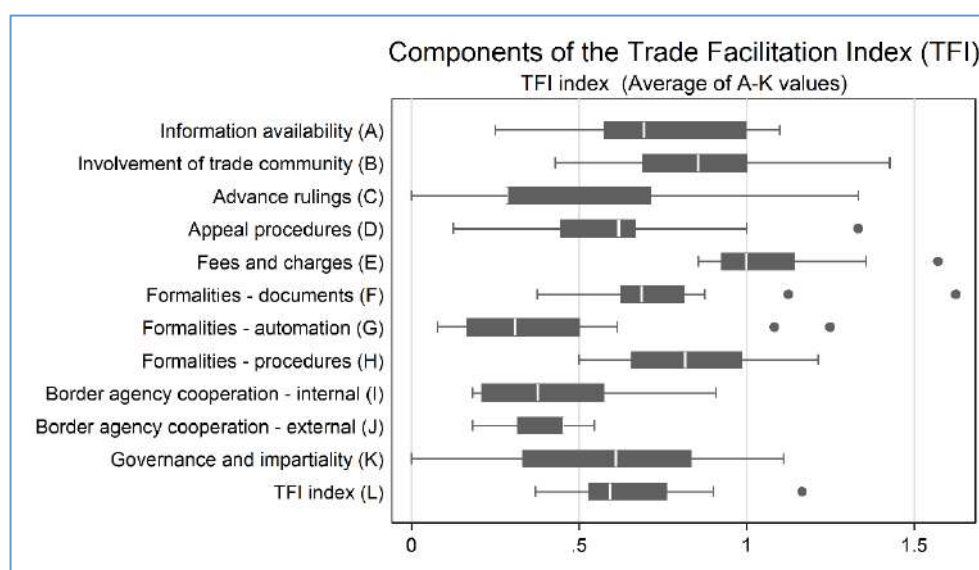
⁴⁵ See Cadot and Melo (2016) for a critique of the difficulty in evaluating the support for boosting trade.

⁴⁶ Before using these indicator values to estimate gains from implementing the TFA, one should recall the large discrepancies between the time to cross customs according to DB (21 days) and those from enterprise surveys (6 days) (see Halward-Driemer and Pritchett (2015, fig. 1C)).

⁴⁷ The data are obtained from freight forwarders, typically 3 per country so there may be doubts about the representativeness of the sample.

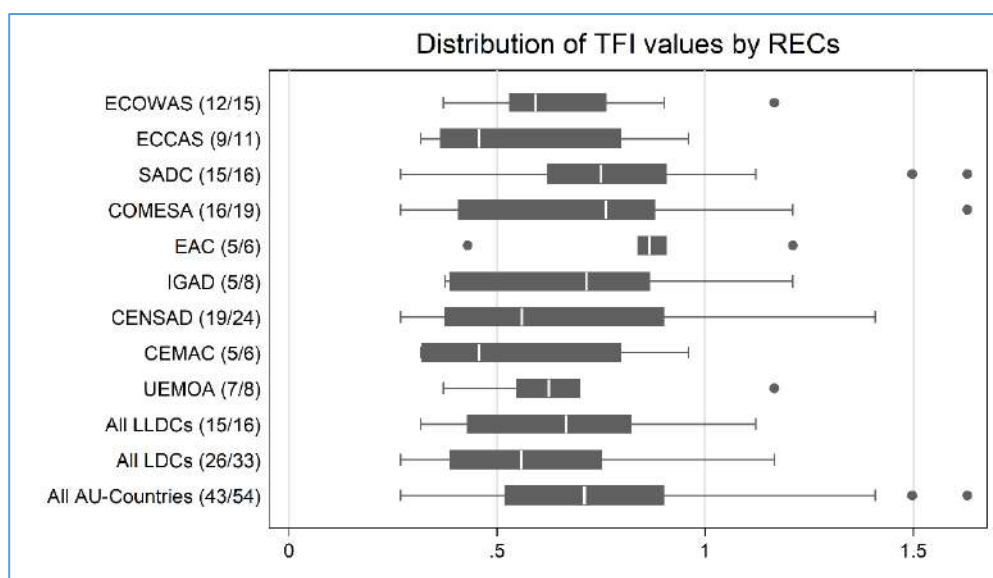
Figure 15. Boxplot of scores on OECD TFI components for RECs

a) ECOWAS (12 in 15 Countries)



Notes: Indicator scores range from 0 (no implementation) to 2 (full implementation of TFA). Box plot. Middle bar is mean value, shaded area is interquartile range and minimum maximum values correspond to ± 1.5 times interquartile range. TFI index (row L) is the average of components (A)-(K) for the 12 ECOWAS countries. Senegal is the country with the top score for fees and charges (1.57), formalities - documents (1.63) and for the TFI index (1.17).

b) Distribution of Trade Facilitation Index at the REC level



Notes: Box plot (see definition in a) above). Each TFI index is the average of the TFI index (by country) at the REC level. In parenthesis, number of countries including in data over total members in each REC. Mauritius is highest score for SADC and COMESA, Kenya for EAC, Senegal for UEMOA.

Source: Authors' calculations from OECD data 2017.

Table 9 reports the estimates of time in customs where the mean time to import is 73 hours with variance of 85 hours, an indication of overdispersion. This makes the standard approach with a Poisson distribution inappropriate.⁴⁸ Columns 1 and 3 report results for the Negative Binomial (NB) which relaxes the equal dispersion assumption imposed by the Poisson distribution. Furthermore, 15 countries belonging to the EU, have time at the border entered as a zero which reflects the situation on the ground, in that borders are “truly eradicated” from the point of view of trade costs (trucks and trains do not stop for controls at the border). It is unrealistic to assume that in the foreseeable future, borders in Africa will be “eradicated” as they are in the EU currently in the Schengen space. It is therefore appropriate to model the data as coming from two distinct distributions. This compromise allows us to keep all the data in the sample while recognizing that the two groups of countries are not drawn from the same sample. In this case, the distribution of the observed outcomes can then be modeled in terms of two parameters, the probability of 'always zero', and the mean number of hours for those not in the 'always zero' group. A natural way to introduce covariates is to model the logit of the probability of always zero and the log of the mean number of hours for countries not in the always-zero class. These are the zero-inflated negative binomial (ZINB) results reported in columns 2 and 4.

Overall, results are plausible. At the aggregate sample level, the fit is good (last 2 rows of table 9), but less so at the REC and AU levels (table 10). Compare first the estimates of time at the border for exports with those for imports for the whole sample in table 9. The predicted time from both models is very close to actual times for both models for exports, but not for imports where the ZINB model gives a much closer fit than the NB, a confirmation that, indeed, deep integration makes a difference. Delays at customs being longer on the import side, table 10 only reports results with the ZINB estimator. As a preliminary exercise, take the Hummels and Schaur (2013) estimates of the tariff ad-valorem equivalent of the costs of time in transit. Their estimates are in the range 0.6% to 2.4% per 24 hours. Take their mean estimate of 1.3% per day and apply it to the predicted estimates for the AU in table 10. Then, if the average time in customs in transit for imports were to be reduced to the average time for exports, that is reduced by 49 hours, this would be equivalent to a reduction of 2.7% on tariffs in importing countries. This is a significant AVE estimate, especially in a situation of supply chain trade where goods may cross borders several times.

Return to the estimates in table 9. As expected, the OECD dummy loses significance for the ZINB estimates. The infrastructure, GDP, GDP per capita, SIDC dummy controls, are not significant. Intriguingly, the area dummy is positive and statistically significant for time at border for exports. Since the composition of the containers is controlled for, does this capture more border posts that would be less automated? Somewhat surprisingly, the dummy variable for landlocked is negative and significant suggesting that, controlling for other factors, on average, containers in landlocked countries spend less time at customs. Would it be that customs officials recognize that containers have been inspected at other borders?

⁴⁸ The Poisson distribution assumes that the mean and variance of the response variable are equal for a given set of covariates. When the mean and variance are equal, the data are said to be equi-dispersed. When the variance is greater than the mean, the data are said to be over-dispersed.

Table 8: Estimates of time in customs for imports and exports

Model	Time at border to Export		Time at border to Import	
	Negative Binomial (NB)	ZINB ^(a)	Negative Binomial (NB)	ZINB ^(a)
	Col. (1)	Col. (2)	Col. (3)	Col. (4)
GDP/capita	-0.057 (-1.048)	0.306 (0.860)	-2.103* (-1.257)	-1.038 (-1.041)
(GDP/capita) ²	0.007 (0.064)	-0.016 (0.053)	0.119+ (0.076)	0.050 (0.064)
GDP	-0.074 (0.081)	-0.096+ (0.064)	0.199* (0.120)	0.058 (0.094)
Area	0.193*** (0.062)	0.143*** (0.051)	0.115+ (0.073)	0.084 (0.062)
OECD dummy	-0.987*** (0.344)	-0.323 (0.312)	-1.457*** (0.373)	-0.606* (0.352)
LLDC dummy	-0.522** (0.257)	-0.495** (0.200)	-0.650** (0.317)	-0.599** (0.248)
SIDC dummy	0.003 (0.441)	-0.135 (0.348)	0.407 (0.535)	0.218 (0.415)
TFI 2017	-1.203** (0.490)	-0.944** (0.384)	-1.253** (0.577)	-0.794* (0.454)
Rules	-0.012 (0.252)	-0.175 (0.209)	-0.374 (0.278)	-0.499** (0.238)
Infrastructure	0.027 (0.309)	0.178 (0.253)	-0.055 (0.361)	0.494+ (0.303)
Constant	4.781 (-4.205)	3.881 (-3.420)	8.606* (-5.035)	6.486+ (-4.151)
Nb. of Obs.	135	135	135	135
Incl. Zero-obs.	15	15	20	20
Avg. of predicted Time from model ^(b)	53.0 hours	52.0 hours	80.1 hours	73.4 hours
Avg. of time from DB	52.0 hours	52.0 hours	73.2 hours	73.2 hours

Notes: Sample: 206 observations with 17 Zero-observations for the 16 EU countries and San Marino.

Dependent variable: number of hours in customs from the World Bank's Doing Business 2017.

Significance of estimates: + p<0.15, * p<0.10, ** p<0.05, *** p<0.01; t statistics in parentheses.

NB: Negative binomial; ZINB: Zero-inflated negative binomial.

^(a) To save space, the coefficients from the inflate equation to predict zero observations are not reported.

^(b) The Average of time in customs is based on sample (i.e., 135 observations) of the estimations.

Variables: The Trade Facilitation Index (TFI) is the simple average of the 11 components of the TFI indicators of the OECD. The rule of law variable is taken from the 6 components of the World Governance Indicators of the World Bank. The Infrastructure Index corresponds to the Infrastructure component of the World Bank's Logistic Performance Index. Only countries for which all 11 TFI components are available are included in the sample.

Source: Melo, Sorgho, Wagner (in progress)

Table 9: Time-reducing estimates of TFA implementation using Zero-inflated Negative Binomial Model (ZINB)

Country Group ^(a)	Time at Border to Export						Time at Border to Import					
	Time at customs	Predicted time	Simul. (1)	Simul. (2)	Simul. (3)	AVE ^(b) in %	Time at customs	Predicted time	Simul. (1)	Simul. (2)	Simul. (3)	AVE ^(b) in %
	Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8	Col. 9	Col. 10	Col. 11	Col. 12
AMU (3 ; 0)	66	74	59	45	35	1.57	135	96	78	62	50	1.84
CEMAC (5 ; 2)	159	115	84	54	38	3.30	222	152	117	84	61	3.68
CEN-SAD (19 ; 5)	81	90	50	45	31	2.44	117	145	87	79	58	3.58
COMESA (16 ; 8)	98	75	44	45	28	1.63	149	136	87	86	59	2.71
EAC (5 ; 4)	82	63	43	42	27	1.14	193	128	92	91	62	2.00
ECCAS (9 ; 4)	194	97	73	48	32	2.65	244	139	109	81	56	3.14
ECOWAS (12 ; 3)	89	90	50	45	30	2.44	116	148	90	81	59	3.63
IGAD (5 ; 3)	87	88	48	49	32	2.11	146	148	91	92	65	3.03
SADC (15 ; 6)	112	84	47	48	32	1.95	139	132	80	78	58	2.93
UEMOA (7 ; 3)	71	85	46	47	29	2.06	95	135	79	81	54	2.93
AU Countries (54 ; 16)	101	87	53	47	32	2.17	144	136	89	80	58	3.03

Notes: All times in hours at customs are hours in customs. Simulations (see below) are based on the Zero-inflated Negative Binomial Model (ZINB) as reported in table 10 Col. (2) for Time to export; Col. (4) for Time to import. LLCs: landlocked countries.

^(a) In parenthesis (number of countries included in data in each country group; number of LLCs in data for each country group).

^(b) The ad valorem equivalent (AVE) of reduction in trade costs is the simulated gain in hours divided by 24 hours times 1.3% from Hummel and Schaur (2013). For example, for the AU, simulation 2 gives a gain of 87-47=40 hours resulting in an AVE of $(40/24)*1.3 \approx 2.2\%$. AVEs for simulation 2 are reported in % in columns 6 and 12.

- **Simulation (1) – Within REC convergence:** Within each REC, all converge to the average of the top 2.
- **Simulation (2) – Within Africa convergence:** The TFA index of each African LLC takes the average value of the top 2 LLC in Africa. That of each African non-LLC takes the average value of the non-LLC in Africa.
- **Simulation (3) – Comparison with outside Africa developing world:** The TFA index of each African LLC takes the average value of the top 2 LLC in the World. That of each African non-LLC takes the average value of the non-LLC in the World.

Importantly, the TFI index has the expected negative and statistically significant sign. Table 10 uses these estimates to simulate reductions in time at customs for exports and imports under three scenarios. For each simulation, for each country, the 2017 TFI value is replaced by the value described in the corresponding simulation. The first scenario (simulation 1) calculates predicted times under improvements in TFI values at the REC level while simulation 2 carries out the same exercise at the AU level and simulation 3 assumes that improvements could result in catch up with the outside world, assuming that current 2017 values are the relevant indicator values.

Columns 6 and 12 display the AVEs. While these are only estimates of orders of magnitude, the simulated improvements would seem reachable, at least for the simulations where improvements are taken from TFI scores in Africa. For the AU, the improvements would be equivalent to a tariff reduction at destination of 2.1% for exports and 3.0% for imports. From a supply chain perspective, these two gains should be added, with weights given by the respective contributions of imports in exports.⁴⁹ Second, the large range of estimated AVEs across RECs in column 12 suggests room for improvement. Interestingly, the estimates suggest that significant improvements would be possible for COMESA, ECOWAS and SADC, all RECs with large memberships and little reduction.

⁴⁹ The effect of a marginal variation in trade costs along a supply chain is much larger when there is more than one transaction. As an example, Rouzet and Miroudot (2013) estimate that the EU pay an average tariff of 3.7% on imported products from India with only 51.5% being paid at the EU border. This illustrates forcefully that GVCs cannot develop when tariffs and trade costs at customs are above a threshold. The same applies to RVCs where tariffs are zero, but other border trade costs can be important.

8. Beyond Market Access: Cooperation on Regional public goods

Regional integration has always been about more than market access. Cooperation has always been important, if only because of the need of rail, road and other means of communication, it is now attracting increasing attention on several fronts. Increasing physical linkages across the African continent have spread environmental externalities beyond national jurisdictions. This is reflected in table 1 where beyond the eight RECs and seven other organizations aiming at deepening intra-regional trade, the majority of Regional Organizations (ROs) deal with RPGs. Five deal with energy, fifteen with the management of rivers and lakes, three with peace and security, and one with the environment. The large number of ROs dealing with rivers and lakes attests to the importance of trans-border externalities across Africa.

Because of growing trans-border externalities, regional integration arrangements are increasingly referred to in terms of “regional cooperation and integration” (RCI) (see World Bank, 2019). In Africa, the growing interdependence is exacerbated by two factors:

- I. the fragmented political landscape in Africa of many small countries with many artificial barriers that mechanically increase spillovers and interdependencies;
- II. the spillovers (or benefits in the AU’s flagship projects) do not correspond to the geography of the RECs.

On the political landscape side, within-country variation in ethnic partitioning mentioned in the introduction helps identify causal mechanisms of the legacy of the ‘scramble for Africa’. Of 835 ethnicities across Africa, 28% have at least 10% of their homelands in more than one country. Split and non-split homelands are not found to differ across geographic or ecological characteristics, yet, on the basis of geo-referenced information on conflicts, Michalopoulos and Papaioannou (2016) estimate that conflict intensity is approximately 40% higher, the conflict duration 50%-60% higher, and the likelihood of conflict 8% higher in the homelands of partitioned groups.⁵⁰

Transborder externalities involve Regional Public Goods (RPGs) which are any good, service, system of rules or policy regime that is public in nature (in the sense that it would be under-provided and often over-used if governed by the market alone). RPGs are transnational public goods that are the result of collective action generate shared benefits for the participating countries and whose provision. The key distinctive feature of transnational public goods is that, unlike national public goods, no single body with the authority of a State exists to ensure the supply of the good. Since collective action refers to a situation where there are more than two providers, all RECs have to muster some extent of collective action to provide RPGs. The under-provision of RPGs is related to the fact that non-payers cannot be excluded from benefitting from the provision of RPGs. In addition, when they are non-rival (meaning that usage by any party does not exclude usage by another as in the case of infrastructure so long as it is not congested), then efficiency calls for extending usage to all.

⁵⁰ The estimates use fixed effects that control for all national features that affect conflict. Michalopoulos and Papaioannou (2018, figure 9) discuss mechanisms between different types of conflict, among which that split ethnicities are more likely to be subject to discrimination by government.

Collective action by governments should then help internalize positive [and negative] benefits across the region that are greater [less] than the spillover effects that individual governments acting alone could generate. This requires regional governance, in which a regional body pools sovereignty over member states to deliver RPGs. This requires that States are willing to cede significant amount of authority to the body. This has only occurred to a significant extent in the European Union.⁵¹ This is why most regional cooperation is intergovernmental. Each state then retains veto power and the regional organization is a secretariat that coordinates and/or harmonizes policies, sets standards, or provides services. These organizations have no authority.

In this setting, the benefits of common policies are high because of widespread cross-border physical (i.e. environmental) spillovers and also because of policy spillovers (air transport, corridors). The costs are also high because policy preference differences across member countries are important. Common decision-making internalizes the spillovers but moves the common policy away from its preferred national policy (i.e. a loss of national sovereignty). In Africa, spillovers are important as transport and communications infrastructure are underprovided while the ethno-linguistic diversity across ‘artificial’ borders suggests strong differences in policy preferences.

The principle of subsidiarity calls for addressing these externalities at the regional level. Subsidiarity is about deciding which level of governance or what size of region are best suited to provide the Regional Public Good (RPG).⁵² From an economic perspective, the scope of the established regional institutions should match the region benefitting from the spillover and the number of countries should be as small as possible to reduce transaction costs. But even for instances when one can reasonably delimit the range of benefits, as in the case of the GERD in the Nile, the Nile Basin Initiative has encountered difficulties in obtaining cooperation for a “win-win” outcome.⁵³ In practice, it is difficult to apply the principle of subsidiarity because the design of the institution’s jurisdiction should take into account the supporting and detracting factors.

The left-hand side of table 10 lists supporting factors for applying this principle while the right-hand column warns of detracting factors. Deciding on the appropriate institutional arrangement further extends beyond the factors listed in table 10. First, it is difficult to estimate the range of benefits (if benefits are small why bother?). Second, factors like the number of participants and proximities in culture and geography can facilitate the supply of RPGs. These factors complicate any evaluation of the proliferation of Treaties and institutions listed in table 1.

⁵¹ As a reminder of the difficulty to delegate national authority, the European Union embarked on an ambitious program to create a seamless market ‘single market’ for energy in 1988. It is still far from being realized.

⁵² Governance (implementing shared standards and policy regimes) is the intermediate public good necessary to generate the desired RPGs. RPGs across the RECs include: knowledge (education and scientific research); Construction and operation of cross-border infrastructure; environment; health, peace and security. IDB (2017, table 7.2) discusses

⁵³ GERD is the Grand Ethiopian Renaissance Dam. Byers et al. (2020) evaluate the provision of water services along river basins and the difficulty in establishing regional energy markets across Africa. They discuss the underlying political economy at the national level and propose a problem-driven approach.

Table 10: Supporting and Detracting Factors for Regional Subsidiarity

Supporting factors	Detracting Factors
<p>Raises efficiency by</p> <ul style="list-style-type: none"> • matching marginal gains with marginal provision costs. • curtailing tax spillovers to non-beneficiaries. 	<p>Economies of</p> <ul style="list-style-type: none"> • scale favor larger jurisdictions than RPG's spillover range. • Scope support providing two or more RPGs whose spillover range do not coincide • learning may require oversized jurisdictions to augment RPG provision
Limited number of participants favorable to building trust necessary for institution building	Too costly to tailor jurisdictions to each RPG owing to proliferation of jurisdictions.
Repeated interactions limit transaction costs by reducing information asymmetries	Provisioning (known as 'aggregator technologies') may favor pooling efforts (e.g. threshold for malaria elimination) or reaching beyond the range of benefits to obtain support (e.g. weakest link)

Source: Adapted from Sandler (2017), table 4.

Because this review of progress is primarily about market integration, here we only consider evidence on two RPGs: connectivity relating to road infrastructure and peace and security.⁵⁴ Road infrastructure along corridors illustrates a situation where, even in the case of a club good where in principle, non-payers can be excluded if they do not pay the fee, weak governance can hamper the functioning of the corridor (see the comparison of outcome in Northern and Central corridors in the EAC in box 2). For peace and security, the subsidiarity principle recommends that organization should be at the regional level where peace and security need to be reinforced to avoid negative spillovers. Prognosis is good if there is a leader to assume the financing. The example also illustrates that preferential trade raises the opportunity cost of conflicts, thereby contributing to the peace and security RPG.

⁵⁴ Chaponda (2011) and Cabri (2011) evaluate three RPGs: Maputo Development Corridor, river blindness and the regional African Satellite Communications organization (RASCOM). World Bank (2020) shows that strong digital connectivity is associated with complex value chains.

8.1 Hard and soft infrastructure

Africa is the least urbanized region in the world. Its urbanization rate is one third while the rest-of-the world's is over one-half. Africa's road [paved] density of 3.4 km [0.7] per 1000 inhabitants is less than one half [one fifth] of the respective global averages (Gwilliam, 2011). Hard Infrastructure (road, ports, railways, corridors) has always been important in the path towards African integration. Increasing market access is a first-order priority for Africa as the resulting increase in the urbanization rate would raise productivity. So, more concretely, the new 'hard' infrastructure from this capital investment is to improve connection across cities, stimulate urbanization, and encourage regional integration by reducing trade costs. Over the 2012-15, transport accounted for 14% of WB lending and 22% of AfDB disbursements across Africa.

In an analysis of new data on roads for 39 African countries combined with geo-referenced data and trade-cost elasticity to distance estimates, Jebwab and Storeygard (2018) estimate that increased market access from improved roads, contributed an extra 5-10% to the observed urbanization over the 1960-2010. Applying these estimates to the proposed Trans African Highway (TAH) project which calls for increasing the current (2010) 1490 km network to 42000km, they estimate that, by 2040, the induced increased market access from the TAH would increase urbanization by 0.7%-6%. Supporting these findings, in an ideal setting to control for confounding influences, Ghani et al (2015) estimate that output levels increased by 49% over the decade for incumbent firms in the 0-10 km range while there was no growth for firms in the 10-50 km range. This output growth would have easily covered the costs of the upgrades. Gains would probably be less in Africa where population density is lower than in India, but the results are suggestive of what might be expected from the current 'big push' across Africa. However, the African road corridors cross several countries requiring cooperation for construction and for operation. And the 'weakest link' characteristic of road networks explains why regional institutions are needed to shore up weakest link countries through grants.⁵⁵

Soft infrastructure is equally important for connectivity. Good logistics are necessary to operate the close to seamless transport corridors necessary for successful regional integration. Good logistics – meaning efficient services, such as trucking services, freight-forwarding and handling, smooth terminal operation – are all necessary. Lack of well-functioning corridors impede the development of RVCs. This 'soft' side of infrastructure is complementary to the 'hard' infrastructure examined above. Extra trade costs due to poorly functioning logistics markets may be a greater barrier to trade than tariffs and NTBs.⁵⁶

Kunaka et al. (2018) estimate that during the period 2011-15, in spite of large increases in traffic, long-distance transport prices fell along the Northern corridor by between 26%

⁵⁵ ADB (2017) discusses how different characteristics of RPGs determine individual country contributions determine the effective supply of the RPG. the

⁵⁶ Teravaninthorn and Raballand (2009) were the first to show systematically that logistic markets like bilateral agreements and queuing systems, prohibition of cabotage, rather than road conditions and road controls contributed most to vehicle operating costs. They showed that operating costs (the costs of 'producing' transport) of trucking fleets were similar to those in Europe but that transport prices (the prices paid by users) were much higher. Balistreri et al. (2018) give supporting microsimulation evidence for SADC.

(Mombassa to Kampala) and 30% (Mombassa to Kigali). By contrast, for the same period, they estimate increases along the Central corridor by 79% (Dar to Kampala) and by 36% (Dar to Kigali). They attribute these increases to the road transport industry in Tanzania. Tanzania restricts the movement of foreign-registered vehicles through Tanzania by a Transit Goods Permit System required by the Tanzania Revenue Authority (See box 2)

Box 2. Transport corridors

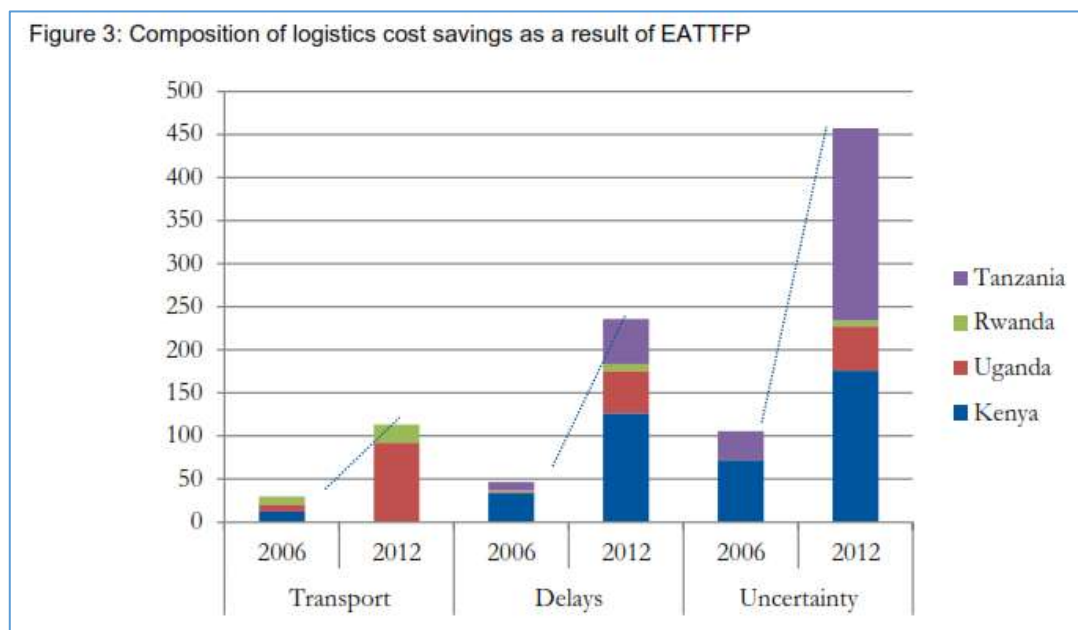
Maputo Development corridor. First planned in 1994 as a rehabilitation project for disused transport links, the Maputo Development Corridor (MDC) was the first SDI implemented at the regional level. It involved a partnership between Mozambique and South Africa and at the time represented an unprecedented level of economic co-operation between the two countries. First conceptualized as a transport corridor by the transport departments of the two governments, the intervention of South Africa's Department of Trade and Industry (DTI) turned it into the first of the regional SDI initiatives. Overall it has been viewed as a success (Thomas, 2009; De Beer, 2001).

The MDC has provided a demonstration effect for other corridors and SDIs in Africa. The corridor links South Africa's most industrialized, but effectively land-locked northern and eastern regions (Gauteng and Mpumalanga provinces) to the Mozambican port of Maputo, and centers on a system of road, rail, border posts, port and terminal facilities. It has created a host of industrial and commercial opportunities along the 590km route from Johannesburg to Maputo, which is now populated with steel mills, petrochemical plants, quarries, mines and smelters, sugar cane and forestry plantations, and manufacturing facilities. The N4 Maputo Toll Road, developed and operated via a 30-year concession contract, has become one of the showpiece PPPs in southern Africa. By 2002 it facilitated over US\$5 billion in private sector investments into regional infrastructure development, industrial development and natural resources exploitation and beneficiation.

Northern and Central Corridor. The Northern Corridor is a multi-modal corridor, encompassing road, rail, pipeline and inland waterways transport. The main road network runs from Mombasa Sea Port through Kenya and Uganda to Kigali in Rwanda, Bujumbura in Burundi and to Kisangani in the Democratic Republic of Congo. The Central corridor runs inland from Dar Es Salaam to Dodoma and to Rwanda and Burundi. The Northern Corridor Transit and Transport Agreement (NCTTA) for regional cooperation was signed in 1985 and revised in 2007. Its eleven protocols are to facilitate interstate and transit trade between Burundi, Democratic Republic of Congo, Kenya, Rwanda, Uganda, and South Sudan since 2012. NCTTA has built smart partnerships with EAC and COMESA for implementation of trade and transport facilitation instruments agreed under the tripartite arrangement. These include many components of the logistics markets: (i) one-Stop Border Posts; (ii) Integrated Border Management systems; (iii) Electronic Single Window System, and; (iv) a regional Overload Control System.

Logistics performance has benefitted from a \$219million East Africa Trade and Transport Facilitation Project (EASTTFP). Estimates of the logistics cost savings in the figure below (ex-ante [ex-post] estimates in 2006 [2012] shows that although coastal countries benefitted most, so did the landlocked countries, Rwanda and Uganda. Kunaka et al. (2018) estimate that during the period 2011-15, in spite of large increases in traffic, long-distance transport prices fell along the Northern corridor by between 26% (Mombassa to Kampala) and 30%

(Mombassa to Kigali). By contrast, for the same period, they estimate increases along the Central corridor by 79% (Dar to Kampala) and by 36% (Dar to Kigali).



Source: Kunaka et al. (2018, figure 3)

Fleets were upgraded (average age of 7 years), adoption of GPS devices across all size fleets ranged between 30% and 60%, with some lag in improvements for Tanzania. Importantly, to increase trucking efficiency, the East African Community Tripartite Agreement on Road Transport aimed at harmonizing road and vehicle standards, vehicle insurance policies, and market access.

Kunaka et al. attribute their estimate of higher prices for the Central Corridor to the road transport industry in Tanzania. Tanzania restricts the movement of foreign-registered vehicles through Tanzania by a Transit Goods Permit System required by the Tanzania Revenue Authority.

Low costs for air transport will also be necessary for the supply chains of time-sensitive products. The launch by the African Union (AU) of the Single African Air Transport Market (SAATM) initiative in January 2018 signed by 22 nations representing 75% of intra-African air transport is one of the flagship projects of the AU Agenda 2063. If applied, this represents an important further step towards the liberalization of air transport. There have been some developments in deregulating markets in some parts of Africa like Mozambique last year which opened its domestic market to foreign airlines.⁵⁷

⁵⁷ Box 3.8 in AEO 2019 discusses progress and obstacles encountered so far. It documents the market failures in the logistics services in air transport and the launch by the African Union (AU) of the Single African Air Transport Market (SAATM) initiative in January 2018. The box also details the quasi-natural experiment contrasting air traffic growth in Morocco and Tunisia. A spectacular traffic growth followed the open-skies

8.2 Peace and security

African States are highly heterogeneous states along multiple dimensions (ethno-linguistic, religious and biological). Typically, REC membership includes resource-rich and resource-poor, coastal and landlocked countries, large and small in population, area and economies. Take as an example the dispersion in subsoil mineral assets, where rents from extraction are high. Evidence from the geography of mineral deposits (i.e. where the deposits are located relative to the border) shows that the probability of conflicts increases in payoff asymmetry which is determined by the location of the mineral deposits. Thus, taking two neighbors where one has oil deposits and the other none, or when the two have oil deposits but one has its deposit close to the border and the other far away, these countries are more likely to enter into conflict than others (Caselli et al., 2015). In the same vein, Cali and Mulabdic (2017) find evidence that conflicts following trade shocks from variations in export prices are mostly for point-source commodities (oil and minerals), and that these conflicts are shorter when countries trade intensely.

Regional integration affects international security through two channels. First, when trade-creating exchange takes place, the opportunity cost of war increases. Second, as political scientists have argued, the creation of supranational institutions when regional integration is deep, reduces international insecurity through dialogue and the exchange of information on military capabilities. Discussions among members spill over to political issues diffusing political disputes that could escalate into political conflicts. Sufficiently deep RTAs reduce information asymmetries as partners know each other better. Then incentives for countries not to report their true options in an attempt to extract concessions are reduced. These two channels reduce the probability of costly conflicts.

Deep RTAs (Customs Unions and Common Markets) require agreement on a broader set of issues (harmonization of regulations and standards, free movement of goods and factors) than do shallow RTAs like FTAs that involve little political institutions integration. To reach agreement, deep RTAs require more encompassing political institutions. If countries design RTAs to pacify interstate relations, a history of conflicts should enhance the creation of deep RTAs.⁵⁸ By contrast, in a purely economic framework in which RTAs have no effect on the probability of conflict, two partners that have more issues of dispute would have fewer incentives to create an RTA.

Using data on militarized interstate disputes from the Correlates of War project covering the period 1950-1991, Vicard (2012) finds that membership in a deep RTA reduces the probability of a dispute escalating into war by two-thirds. This gives direct support to the often-mentioned objective of peace in RECs (e.g. ECOWAS and EAC). Furthermore, in a

agreement signed between the EU and Morocco in December 2006. By contrast, traffic growth in Tunisia and other North African countries that did not enter into an open-skies agreement had much slower traffic growth.

⁵⁸The early days of European integration under the European Steel and Coal Community is such an example. Martin et al. (2012) build a bargaining model where rational states will enter into an RTA if the expected economic gains from trade creation and the security gains resulting from a decrease in the probability of disputes degenerating into war exceed the political costs of entering the RTA. They give evidence, not including African countries, that country-pairs with large economic gains from RTAs and high probability of conflict are more likely to sign an RTA.

cross-section for 2005 where he controls for past membership in RTAs, he finds that deep RTAs are signed between countries that have many interstate disputes and that interstate disputes reduce incentives to form shallow RTAs that are found to be mainly driven by economic determinants. Vicard also finds support for the Schiff and Winters (2003) conjecture that a deep RTA with a CET leading to asymmetric gains among unbalanced members involving one poor member or one oil exporter increases the risk that disputes will escalate into war.

Viewed in this light, the costs associated with negotiating the deep African RTAs (SACU, CEMAC, and UEMOA) have been borne by colonizers. Increased trade among members then raised the opportunity cost of future wars among members by increasing their inter-dependence. Taken together, the findings illustrate the relationship between trade integration and other areas of interstate cooperation. Interpreted more broadly, these findings provide evidence of the non-traditional gains from RTAs that explain the different strategies of integration across the RECs. In this light, the RECs are the regulating institutions in a world where no supranational institution enforces property rights satisfactorily.⁵⁹

Cooperation on security is on the rise. Through negotiation and engagement with the member states of the United Nations, Africa has started to develop its own African Standby Force (ASF), an indication of beginnings of delegation of authority to the supra-national level (see Annex A4). The ASF has been declared to be in a state of readiness with a Rapid Deployment Capability to intervene within 14 days in cases of genocide and gross human rights abuses. The African Union declared the full operationalization of the ASF in January 2016. The ASF policy framework states that in an emergency, the AU should take a preliminary preventive action, while preparing for a more comprehensive action that could include the participation of the United Nations (Apuuli, 2018: 169).

The ASF is to serve as a rapid reaction force comprising 15 000 troops drawn from regional forces. For East Africa the East African Standby Force (EASF); the ECCAS FOMAC Standby Force for Central Africa; The ESF for ECOWAS West Africa States; the North African Regional Capability (NARC) for North Africa; and for the South the SSF SADC (Apuuli, 2018: 165). The full operationalization and readiness of the ASF declared by the African Union in 2016 provides Africa with the capacity to address its peace and security challenges.

This security organization along geographical lines is an application of the principle of subsidiarity. This type of set up should contribute to the sustainability of the ASF, a major achievement for Africa and for its 'developmental regionalism' vision based on bottom-up cooperation starting at the regional level. African countries contribute 38071 personnel across the nine UN peacekeeping missions in Africa – of which one, UNAMID is a joint operation with the AU (UNECA, 2017: 23). Among the ASF successes, ECOWAS member states prevailed on the outgoing president of Gambia who had refused to leave office after losing the 2017 presidential election. The AU also has its own military mission in Somalia to destroy Al-Shabaab strongholds in central Somalia.

⁵⁹ See Fernandez and Portes (1998) for a discussion of the non-traditional gains from RTAs.

9 Conclusions

Efforts towards regional integration in Africa started in the 1980s in a configuration of geographically artificial states under high trade and communication costs where leaders of these young post-independence states were reluctant to encourage the erosion of national sovereignty and the emergence of supra-national sovereignty. The Abuja Treaty marked the beginning of a second phase when regional cooperation and integration started in earnest along eight Regional Economic Communities (RECs) that would set out the path for the creation of the AEC by 2028 following a 'variable geometry'. When the Tripartite FTA (TFTA) was launched among 28 members in 2015, the principle of the 'acquis'—whereby anything agreed upon under the RECs, cannot be undone until there is full agreement by all participants—prevailed. This approach was necessary to mitigate the unequal distribution of benefits between countries. It is evident in the trilemma (Pan African solidarity under special and differential treatment; shallow integration under large integration; deep integration under small membership) negotiators are facing in completing phase I negotiations for the continental FTA (AfCFTA) launched in May 2019

From the start, it was hoped that the ambitious integration agenda would lead to a convergence of preferences among members to help build trust for the provision of Regional Public Goods (RPGs) needed for successful integration. The brief review of milestones in African integration shows that many treaties were signed with Regional Organisations (ROs) set up to provide them. Provision of RPGs (increased connectivity, improvements in the management of shared river basins), did take place and is progressing, but it has been slowed by the need to accommodate national sovereignty where the protagonists of African regional integration are member states rather than supra-national bodies with decision-powers. For example, regional integration of infrastructure combined with regionalization of regulated firms would have encouraged a stable regulatory policy that would have lessened capture by national monopolies. Reductions in policy-imposed barriers to trade (tariffs and NTBs) are still work in progress as is the integration of labor and capital markets. In sum, the slow convergence of preferences detected among the less heterogeneous European populations over a sixty-year integration journey is yet to take place across African countries.

Progress at integration. Two measurable outcomes summarize progress at integration. First, indicators of increased intra-REC trade show a regionalization of trade. Bilateral trade costs between REC members have fallen over the past 25 years, though not more rapidly than bilateral trade costs among other developing countries engaged in preferential trade agreements. Intra-regional trade has increased among some REC members following implementation of preferential tariffs among members. Over the decade 2005-2015, new exports of manufactures (defined as HS4-level manufactures) have gone towards geographically closer partners. All-in-all, the evidence suggests that African borders are less thick. Measures of changes in light intensity as one moves along cross-border highways over the period 2000-13 show that the landscape of activity has become more evenly distributed across space.

Second, indicators of the extent of supply chain trade along the RECs over the period 1990-2015 show that, to the extent that members have entered into value chains, this has been with partners outside the RECs. Moreover, their participation has been on the downstream side (i.e. their value-added exports enter mostly as inputs into the exports of importing countries). In short, African countries still have to produce a complete product to enter a new product line. Since ASEAN and MERCOSUR regional value chains have developed significantly over the same period, it would appear that intra-regional trade costs have not fallen enough across Africa to enter into regional value chains.

Challenges ahead. In the longer term, the greatest challenge will be dealing with the growing trans-border externalities, a reflection of globalization. This will require cooperation to get the collective action necessary for an optimal supply of RPGs. This is why regional integration arrangements are increasingly referred to in terms of “regional Cooperation and Integration”.

Two shorter-term challenges will have to be met for a meaningful continental FTA. Up until now, the RECs were the preferred drivers of regional cooperation and integration in Africa. The AfCFTA is an opportunity to advance African integration beyond these RECs that emerged for geopolitical rather than economic reasons. This will require harmonizing the currently different rules of origin across the RECs. Adopting simple and transparent rules, as was done in the case of the ASEAN FTA, will be necessary to validate the preferential market access intended by the AfCFTA. Simple, transparent rules mean avoiding product-specific-rules. This would reduce the costs of meeting proof of origin. Simple rules of origin would encourage the development of regional value chains. So far, however, product-specific rules or origin have been used extensively for the Tripartite FTA. The same appears to be in the offing for the AfCFTA.

Second, the multilateral Trade Facilitation Agreement (TFA) negotiated at the WTO is another opportunity to reduce the still high trade costs across Africa. All African countries that are members of the WTO participate in the TFA. The TFA encourages the application of best practices on Trade Facilitation recommended by the World Customs Organization. The TFA has two characteristics promising for success. First, it is relatively easy to monitor progress. Second, as opposed to reductions in tariffs and NTBs, the TFA is about reducing costs rather than about transferring rents. Estimates from improvements in the scores of indices of trade facilitation on time spent in customs in the paper suggest that reachable improvements would result in significant reductions in trade costs. However, a ‘bottom up approach’ with leeway was necessary to reach an agreement. This means that low-income countries have extensive leeway in implementing the Agreement and high-income countries are not under the obligation to provide technical assistance. While this flexibility may be welcome, not implementing these time-savings measures would result in a loss of competitiveness for those countries relative to countries implementing them.

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Annex to

A Primer on African Integration with a Hard look at Progress and Challenges Ahead

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ANNEX

The AfCFTA in the broader landscape of African integration

In recognition of the immensity of the challenge set out in the ACFTA, some have described the ongoing engagements at regional integration in Africa in terms of ‘developmental regionalism’ (Ismail et al., 2018). Though not couched in these terms, ‘developmental regionalism’ is all about delegation of national authority. It rests on four pillars built around cooperation:

- i) fair trade integration (i.e. Special and Differential Treatment (SDT));
- ii) Cooperation on transformative industrialization leading to Regional Value Chains (RVCs);
- iii) Cooperation on cross-border Infrastructure Investment (i.e. the provision of Regional Public Goods (RPGs);
- iv) Cooperation on Democracy, Governance and Peace and Security.

The OAU transformed into the AU in 2002 also espoused a new doctrine of non-indifference to abuse of human rights within member states thereby placing human rights at the center of its major priorities. This new doctrine also empowers the AU to intervene within its member states in cases of massive human rights abuses, crimes against humanity and genocide (Matlose, 2018). This approach made further progress at the 50th OAU/AU year anniversary in 2013 when the AU adopted its Agenda 2063 “The Africa we want”.

This annex situates the ACFTA in the steps towards African integration. Section A1 summarizes the two-phase architecture and key areas. Section A2 presents the challenges at bringing to a close the negotiations for phase I.

A.1. The African Continental Free Trade (AfCFTA): Architecture and Key Areas

Even though it is in the continuation of the Abuja Treaty of 1994, through the lens of history, the launch of the AfCFTA negotiations on March 18 2018, the entry into force on May 30 2019 is an important event in the history of African integration.⁶⁰ Trading under the AfCFTA is to start on July 1, 2020. The AfCFTA only applies to members that have deposited their instruments of ratification.

The real value of the ACFTA will only be recognized in the generations to come, as in the case of European integration. If successful, the AfCFTA would be a landmark as important as were the three other phases of integration identified by Matthews (2018), namely: a) the Pan-African congresses between 1900 and 1945; b) the inauguration of the Organization of African Unity (OAU) in 1963; c) the creation of the African Union (AU) and more recently the creation of NEPAD in 2002. The closer antecedent was an ECA paper of 2012 proposing to fast-track intra-African trade by establishing the AfCFTA. That paper argued for enhanced

⁶⁰ The agreement came into force, once 22 countries had deposited their instrument of ratification with the AUC chairperson. Note that the large countries with arguably the most inward-looking trade policies were the last to come on board. A regularly updated ratification barometer can be found here <https://www.tralac.org/documents/resources/infographics/2605-status-of-afcfta-ratification/file.html>

efforts to boost intra-African trade, the building of regional value chains, and diversification of Africa's economies (AU, 2012).⁶¹

Although separate from the AfCFTA processes, the Free Movement of Persons, Right of Residence and right to Establishment was also presented for signature but only 30 countries signed it.⁶² This hesitation to commit to enable cross-continental migration and the freer movement of persons raises doubts about the commitment of African governments to work toward open borders and full integration. Likewise, the slow progress at open skies⁶³ shows the hesitations at deep integration.

The AfCFTA supports the establishment of an African Economic Community, the end goal of the Abuja Treaty. It seeks to consolidate gains at integration made by the RECs. The AU's Action plan on Boosting Intra-African Trade (BIAT) complements the AfCFTA. It has for objective to double intra-African trade between 2012 and 2022.⁶⁴

Figure A1 describes the Agreements establishing the AfCFTA and the status of completion for phase I that covers Goods and Services and the establishment of a Dispute Settlement Mechanism (DSM). The sequencing follows the usual sequencing of integration (Free Trade Area, Customs union, common market with free movement of capital and services but different national regulations; economic union with free movement of labor, harmonized tax rates and common monetary and fiscal policy). The establishment of a Customs Union is not mentioned in figure A1, though it is the logical next step once FTA status has been reached. Notably, in recognition of the complementarity between trade in goods and trade in services, services are included in Phase I.

Phase II covers 'behind-the-border' measures increasing the depth of integration whose importance was recognized in Aria V (UNECA, 2012). Phase II is to improve inter-country cooperation in three areas: competition policy, on investment, and on intellectual property, this through the associated protocols shown in table A1. A draft legal text reflecting the three protocols was to be submitted by January 2020. Currently, the deadline for submitting the legal text has been extended to January 2021.

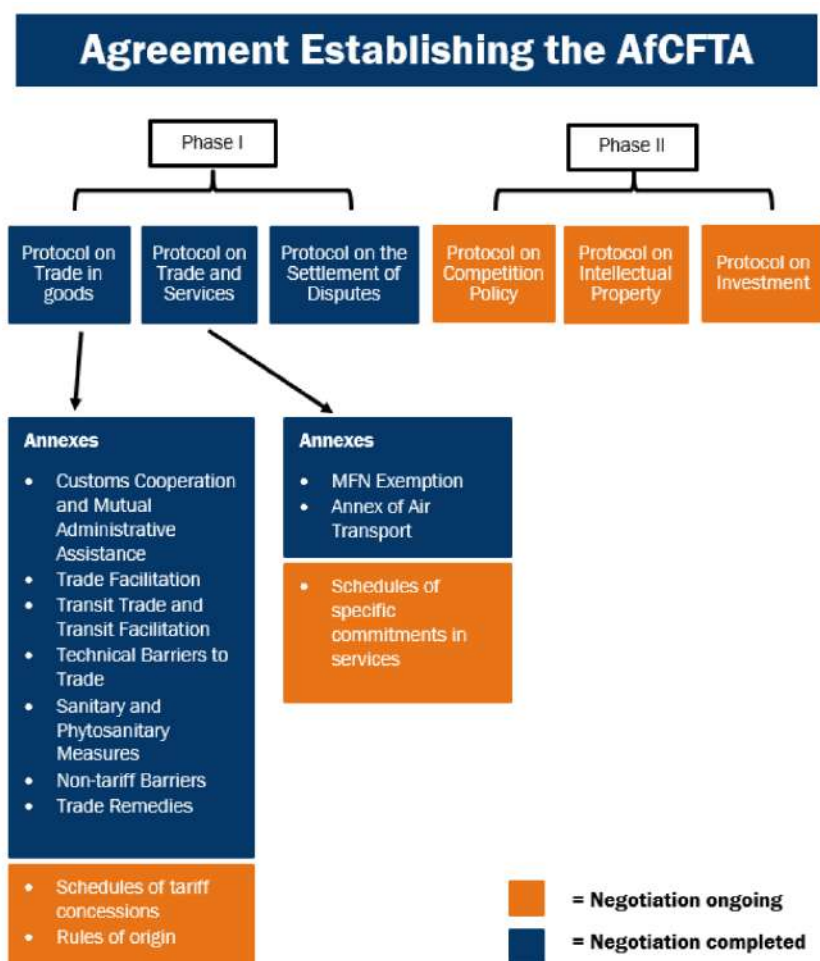
⁶¹ See <https://www.uneca.org/pages/action-plan-boosting-intra-africa-trade>

⁶² See the AU Free Movement of Persons Protocol https://www.ilo.org/africa/areas-of-work/labour-migration/policy-frameworks/WCMS_671953/lang--en/index.htm

⁶³ See the discussion on labor mobility in AEO2019 chapter 3 and the discussion on the Single African Air Transport Market Initiative of 2018 in box 3.8 on open skies.

⁶⁴ The BIAT has seven clusters : seven clusters namely, Trade Facilitation, Trade Policy, Productive capacities, Trade related Infrastructure, Trade Finance, Trade Information and Factor Market integration

Figure A1: The AfCFTA Agreement and annexes



Source: Signé and van der Ven « Keys to Success for the AfCFTA negotiations” figure 2.

Key features in the agreement are described in Table A1. For the Protocol on Goods, the modalities for liberalization envisage a 5-year liberalization phase down period for Non-LDCs and 10 year liberalization phase-down period for LDCs. The modalities allow for a total of 10 percent of tariff lines to be either excluded or declared to be sensitive products. For Non-LDCs the liberalization phase-down period for these tariff lines is 10 years while LDCs are allowed 13 years. A special dispensation has been added for seven LDCs (Djibouti, Zimbabwe, Ethiopia, Madagascar, Sudan, Zambia) that will allow for a total of 15 percent of tariff lines to be excluded at entry into force of the AfCFTA. This group of seven will have a 15-year period to reach 10%. This time frame is longer than the usual 10-year period for the elimination of ‘substantially all trade’ at the WTO. It is in line with long time periods agreed in the interim EPAs concluded by African regions with the EU.

Table A 1: The AfCFTA: Key features

Agreement establishing the African Continental Free Trade Area	Protocol on Trade in Goods	<ul style="list-style-type: none"> • Elimination of duties and quantitative restrictions on imports • Imports shall be treated no less favourably than domestic products • Elimination of non-tariff barriers • Cooperation of customs authorities • Trade facilitation and transit • Trade remedies, protections for infant industries and general exceptions • Cooperation over product standards and regulations • Technical assistance, capacity-building and cooperation
	Protocol on Trade in Services	<ul style="list-style-type: none"> • Transparency of service regulations • Mutual recognition of standards, licensing and certification of services suppliers • Progressive liberalisation of services sectors • Service suppliers shall be treated no less favourably than domestic suppliers in liberalised sectors • Provision for general and security exceptions
	Protocol on Dispute Settlement	<ul style="list-style-type: none"> • To be agreed
	Phase 2 negotiations	<ul style="list-style-type: none"> • Intellectual property rights • Investment • Competition policies

Source: Parshotam (2018: Table 1)

More challenging will be the elimination of NTBs, at least those that are encapsulated in NTMs since many TBTs and SPS measures have a precautionary rather than a protectionist motive. For the others, close monitoring, as in the case of EAC with its Common Market Scorecard (CMS), should be the first step.⁶⁵ This will be a challenge, especially in the large-membership RECs, ECOWAS and COMESA, where differences in preferences and governance, across members are great (e.g. Egypt and Mauritius are both members of COMESA).

⁶⁵ In the case of the CMS, the list of NTBs was agreed across countries from a list of potential NBs. See <https://d3n8a8pro7vhmx.cloudfront.net/eatradehub/pages/2893/attachments/original/1481012380/East-Africa-Common-Market-Scorecard-2016.pdf?1481012380>.

For Services negotiations, five priority sectors - Transport, Communication, Finance, Tourism and Business services –have been selected for Member States to begin making requests and offers. A schedule of commitments is yet to be developed for the identified priority sectors. The final compromises on Goods, suggest that reaching a compromise on Services will be equally difficult. As Services are complementary to many manufacturing activities, this will limit the development of regional value chains. Moreover ‘variable geometry’ coupled with the ‘acquis’ negotiation principles will add another layer of complexity in the process and might end up introducing further distortions.

A.2 A workable dispute settlement mechanism will be necessary

A realistic implementable Dispute Settlement Mechanism and contingent-protection measures will be necessary. Annexes are still to be finalized. This represents a challenge for negotiators because reducing barriers to trade in goods and services will bring large redistribution within and across countries. Losers will fight to prevent the redistribution of rents.⁶⁶

The private sector will be responsible to implement the rules once the legal arrangements will have been concluded. Consultation with the private sector has been minimal compared with the still ongoing TFTA negotiations that took place over a seven-year period. Bringing the private sector on board will be important. The proposed 0.2% levy on imports from outside the continent faces legal objections at the WTO. These objections are discussed in UNECA (2017, chp7) also referred to as Aria 8 to emphasize continuity in Assessing Regional Integration in Africa (ARIA).

As recognized in Aria8 (chp.6), realizing these interconnected benefits depends on ‘getting right’ critical policies: tackling NTBs, harmonizing rules of origin, supporting the movement of people, improving hard and soft infrastructure. Importantly, the distribution of benefits will be uneven even if, in the aggregate, well-designed measures lead to a larger pie. Trade remedies (Anti-dumping, countervailing and safeguard measures) are inevitable and desirable if well-designed, to a large extent along WTO lines. This will be a challenge for at least two reasons. First, as of early 2019, 8 African countries are not yet WTO members so they lack knowledge of the intricacies of WTO law.⁶⁷ Second, competent resources (mostly legal expertise) are scarce.⁶⁸

Pooling resources at the regional level would alleviate resource scarcity. Pooling would also help in the application of remedies since these have to be applied by all members of a customs union to prevent goods from transiting through other members. Implementing a workable remedy regime will require some delegation of authority to the supra-national level, and hence trust. This is a great challenge under current expertise and current

⁶⁶ Even in the case of the EAC where a CET has now been in place for over a decade, the Sensitive list is long with sugar still having a 100% tariff at the insistence of Kenya obliging other members to adopt Stays of Application formalizing exceptions.

⁶⁷ The 8 countries are Algeria, Comoros, Equatorial Guinea, Ethiopia, Sao Tome-et-Principe, Somalia, South Sudan, Sudan.

⁶⁸ Aria8, p. 95 reports that South Africa has a staff of 20 in its remedy authority and Egypt a staff of 200.

budgetary capabilities of the RECs. Absent a working remedy regime, countries will resort to import prohibitions, supplementary tariffs or more opaque border measures.

The Advisory Center on WTO Law (ACWL) was established in 2001 to help LDCs take advantage of the Dispute Settlement mechanism at the WTO to enforce foreign market access already negotiated at previous multilateral rounds. Bown and McCulloh (2010) give evidence that the ACWL has had some modest success in helping developing countries self-enforcement foreign market access. Disputes will be inevitable in any comprehensive reductions in barriers to trade. An equivalent to the ACWL at the Africa continental level will be needed to provide expertise and the legal capacity to deal with trade remedies.

Achieving the right levels of ambition will be needed to avoid “...an eternal schedule of official meetings, missed deadlines and implementation (and compliance) deficiencies” (Aria8, p. 92)).

A3: Towards harmonized rules of origin

AfCFTA members will have to agree on a set of common preferential RoO. This has always proven to be a headache for all PTAs: they are complex, opaque, and difficult to assess. Because of the sheer membership size and the fact that RoO are different across the RECs, agreeing on a common set of RoO will be a huge challenge for AfCFTA. As a reminder, RoO have been a stumbling bloc, delaying conclusion of the TFTA because negotiators. During the TFTA negotiations, a decision was taken to apply Product-Specific Rules of Origin (PSRO) “...entailing the highly onerous, time-consuming and technically demanding process of determining particular rules for over 5000 products” (Aria8, p. 88).

During the AfCFTA negotiations so far, West and Central Africa have preferred general RoO. These might resemble those in East Asia and the Pacific if the negotiations are not entirely controlled by the private sector. On the other side, Egypt, South Africa and Kenya pushed for Product Specific Rules of Origin with South Africa lobbying for the adoption of the SADC RoO where negotiations are at a sector or product-specific basis. Under this scenario, the political-economy mechanism would resemble that which has prevailed in the North-South agreements of the EU and those of the US that led to restrictive PSRO. Taking South Africa as the North, the result would be costly RoO that would “deny preferences” to the low-income partner (e.g. Ethiopia, Mozambique, Tanzania, Zambia). Moreover, when the Northern partner would have comparative advantage in the upstream capital-intensive sector like weaving in T&A or the making of engines in the automobile sector, RoOs create a captive market in the low-income partner where under bilateral cumulation assemblers have no choice but to source from the Northern partner. This denial of preferences combined with a captive market for the upstream activities of the Northern partner have been documented in the case of the EU and US FTAs.⁶⁹

The opacity of the current rules is evident from the description of the current rules in table A.2. These rules are a brake on the development of RVCs. Their complexity and disparity across RECs favor capture by special interest groups. The challenge

⁶⁹. Cadot et al.(2005) and Conconi et al. (2018) give evidence that this capture occurred under NAFTA.

facing the AfCFTA negotiations on RoO is to design rules that are simpler and easier to apply than the current ones described in table A2. These rules will satisfy no one partner, but they are necessary for the development of RVCs if this continues to be an overarching objective of the AfCFTA.

Table A 2 Main Characteristics of rules of origin: RECs and comparators

Agreement	Authority Certification (validity)	Exemptions	Regime-wide Rules			Main origin criteria	
Columns	(6)	(7)	(3)	(4)	(5)	(1)	(2)
	Certification		Cumulation	Tolerance	Absorption	Ad valorem Percentage	PSRO
EAC	Yes(6,0)	0(No)	No terms in texts	No	No	YES(AB)	N.A.
SADC	Yes(0,5)	1000 (Yes)	Yes	Yes	Yes	No	24
ECOWAS	Yes(6,0)	0(No)	No terms in texts	No	No	YES(AB)	N.A.
COMESA	Yes(12,5)	600 (Yes)	Yes	No	Yes	YES (NAB)	91
TRIPARTITE	?	?	Yes	Yes	Yes	No	28
ASEAN	Yes(12,3)	200(No)	Yes			YES (AB)	?
MERCOSUR	Yes(6,2)	0(No)	Yes				?

Notes: N.A. Not applicable

Col (1) Percentage calculations combined with change of tariff heading. Across the board (Yes, AB), not across the board (Yes, NAB). (No): criterion not applied

Col (2) Number of PSRO approximated by number of pages in appendices on legal text

Col (3) Cumulation: Bilateral, diagonal, or full

Col (4) Tolerance/*de minimis*. Maximum percentage of non-originating materials that do not affect origin of final product (e.g. 15% in SADC)

Col (5). Absorption/*roll-up*. Part of non-originating materials that have acquired originating status by meeting specific manufacturing processes can maintain originating status.

Col (6): Certification by competent authorities of the exporter including designated private ones. No possibility of self-certification by any FTA here. In parenthesis: time limit in months for the importer/exporter to conclude the importation of goods under certificate followed by record keeping in years of good claiming preferential tariff treatment.

Col (7): Exemption provision on maximum amount not requiring origin certification. In parenthesis allowance for minor amendments to certificate if it contains errors

Source: Authors' compilation from OECD-WB database. Cols. (1)-(5) and Tripartite from UNCTAD (2019, chp, 2, table 2. Cols. (6)-(8)).

Setting up RoO will also have to deal with the regime-wide rules. These cover provisions on certification and verification aspects and provisions on cumulation. As reported in table A2, there are few differences in certification and verification methods across the African RECs and with comparators; so agreeing on certification and verification should be relatively easy, especially if, as suggested by recent evidence, administrative costs are not as high as previously estimated. It might then be easier to agree first on the harmonization of rules governing certification and verification. By contrast, provisions on cumulation differ across

RECs. Cumulation rules specify the treatment of intermediates from other countries in the bloc or countries with special status in terms of cumulation. Furthermore, cumulation rules are often associated with different PSRO. This makes it difficult to assess how strict they are. Thus, even though full cumulation is mechanically less stringent than diagonal cumulation, proving cumulation may be very resource intensive discouraging firms from using preferences.

To sum up, the accumulating evidence on the effects of RoO around the world is that they go well-beyond their role of preventing trade deflection and preventing superficial assembly operations. They are largely in the hands of the powerful partners and their firms. To reduce the extent of these outcomes, in addition to harmonization across the RECs, RoOs for AfCFTA should be simplified and relaxed. As suggested in the AEO2019, chapter 3, the AfCFTA would be well advised to follow up on the lead taken by ASEAN: a wholly-obtained criterion for agricultural products coupled with an across-the-board value-added criterion for industrial products and no PSRO requirements.

A.4: Examples of delegation of authority: Peer Review Mechanism and Standby Force

Beyond the AfCFTA, two other initiatives show some delegation of authority beyond the State:

- (i) the African Peer Review Mechanism (APRM), part of the African Governance Architecture (AGA);
- (ii) The African Standby Force (ASF), part of the African Peace and Security Agenda.

The African Peer Review Mechanism (APRM). By becoming members of APRM, countries voluntarily subject themselves to be examined in governance areas within established guidelines. Teams of African governance experts led by a Panel of Eminent Persons assess and critique a country's performance based on key indicators. The APRM covers simultaneous evaluations around four distinct pillars: democracy and good political governance; economic governance and management; corporate governance, and; socio-economic development. It has 37 members with 21 members having already undertaken a first country review.⁷⁰

The APRM is unique in both scope and breadth, with the review process extending to all levels of government, parliamentary and judiciary as well as the private sector and the civil society organizations. APRM is a truly indigenous locally-owned initiative designed by Africans for Africans. Heads of State have extended the role of the APRM to monitor progress towards the SDGs and are seeking to mobilize funding. There is recognition that the APRM is still to move beyond the importance of governance towards pragmatic action. The APRM has been hailed as the most comprehensive assessment tool ever developed in Africa (Sawyer and Jerome, 2018: 140).

The African Standby Force (ASF). The ASF is part of the African Peace and Security Architecture which receives support from the AU and is carried out at the REC level. The AU

⁷⁰ Three Africa-based institutions designated as strategic partners provide technical support to the APRM: the African Development Bank; the United Nations Economic Commission for Africa (UNECA) and the United Nations Development Programme (UNDP)

declared the full operationalization of the ASF in 2016. The ASF policy framework states that in an emergency, the AU should take a preliminary preventive action while preparing for a more comprehensive action that could include the participation of the United Nations.⁷¹

This developmental vision of regional integration is that trade integration on its own will not succeed in increasing intra-regional trade. Regional integration will only succeed if the basic norms and values that underpin it are based on solidarity or Ubuntu. With solidarity, the larger economies, Nigeria, South Africa, Egypt, Kenya and others would heed the words of Nelson Mandela who urged his fellow compatriots to base their relations with the Continent on the 'principles of equity, mutual benefit and peaceful cooperation' (Ismail et al, 2012). It remains that, in practice, States will need persuasive evidence that it is in their self-interest to cooperate.

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⁷¹ Africa8 documents areas of significant progress (UNECA, 2017: 23). Among others, ECOWAS States prevailed on the outgoing president of Gambia to leave office, following his defeat in the country's election and the regional military forces supported the incoming president during his initial period in office in 2017. African countries contribute 38 071 personnel across the nine United Nations peacekeeping missions in Africa. The AU has its own military mission in Somalia against Al-Shabab and against Boko Haram in West Africa.

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