IMF STAFF DISCUSSION NOTE

The African Continental Free Trade Area: Potential Economic Impact and Challenges

Lisandro Abrego, Mario de Zamaróczy, Tunc Gursoy, Salifou Issoufou, Garth P. Nicholls, Hector Perez-Saiz, and Jose-Nicolas Rosas May 2020

SPECIAL NOTE

Although the implementation of some operational aspects of the African Continental Free Trade Area (AfCFTA) have been temporarily suspended, the agreement would be a very important element to support post-pandemic recovery and to foster economic growth in the medium term in sub-Saharan Africa through the creation of larger and more integrated markets and the promotion of intracontinental trade.

Importantly, implementation of the AfCFTA will also reduce uncertainty on trading relations within the continent, which—together with an expanded and more integrated market—would foster both domestic and foreign direct investment and help boost economic activity as countries emerge from the pandemic.

Disclaimer:

This document was prepared before COVID-19 became a global pandemic and resulted in unprecedented economic strains. It, therefore, does not reflect the implications of these developments and related policy priorities. We direct you to the **IMF Covid-19 page** that includes staff recommendations with regard to the COVID-19 global outbreak.

The African Continental Free Trade Area: Potential Economic Impact and Challenges

Prepared by Lisandro Abrego, Mario de Zamaróczy, Tunc Gursoy, Salifou Issoufou, Garth P. Nicholls, Hector Perez-Saiz, and Jose-Nicolas Rosas

Authorized for distribution by Zeine Zeidane

DISCLAIMER: Staff Discussion Notes (SDNs) showcase policy-related analysis and research being developed by IMF staff members and are published to elicit comments and to encourage debate. The views expressed in Staff Discussion Notes are those of the author(s) and do not necessarily represent the views of the IMF, its Executive Board, or IMF management.

JEL Classification Numbers: F11, F12, F13, F15, F17 Keywords: AfCFTA, welfare, general equilibrium, trade barriers, inequality, structural reforms Authors' E-mail Address: labrego@imf.org, mdezamaroczy@imf.org, tgursoy@imf.org

labrego@imf.org, mdezamaroczy@imf.org, tgursoy@imf.org, sissoufou@imf.org, gnicholls@imf.org, hperez-saiz@imf.org

CONTENTS

ABBREVIATIONS AND ACRONYMS	_ 5
EXECUTIVE SUMMARY	_ 7
	_ 9
II. CONTEXT AND BACKGROUND	_10
A. Country Heterogeneity	_10
B. Current State of Trade in Africa	_10
C. Trade Regimes	_11
D. Barriers to Trade in Africa	_13
III. THE AFRICAN CONTINENTAL FREE TRADE AREA	_16
A. Broad Outline of the Agreement	_16
B. Potential Challenges	_18
IV. ASSESSING THE POTENTIAL BENEFITS AND COSTS OF THE AFCFTA	_19
A. Income, Welfare, and Trade Effects	_19
B. Distributional Effects	_22
C. Employment Effects	_23
D. Fiscal Revenue Impact	_24
V. MAXIMIZING AFCFTA BENEFITS WHILE MITIGATING CHALLENGES—POLICY OPTIONS	25
A. What Can Member Countries Do to Maximize the Economic Benefits of the AfCFTA?	_25
B. How Can Member Countries Mitigate Adverse Distributional and Employment Effects of the	
AfCFTA?	_28
C. How to Manage a Potential Adverse Fiscal Revenue Impact	_29
VI. CONCLUSION	_30
REFERENCES	_32
BOXES	
1. Operational Goals and Key Institutional Features of the AfCFTA Agreement	
2. Selected Labor Market Features in Africa	_26
APPENDICES I. Selected Indicators of African Countries, 2016	37
	_ 57

II. List of Signatory Countries to the AfCFTA	36
III. Firm-Level Evidence of Labor Reallocation in Africa	Error! Bookmark not defined.

APPENDIX TABLES

A1. Decision to Export, Firm Characteristics and Tariff Reduction	_ 39
A2. Employment Growth and Exporting Firms	_40

ABBREVIATIONS AND ACRONYMS

AfCFTA	African Continental Free Trade Area
AfDB	African Development Bank
AGOA	African Growth and Opportunity Act
AHS	Effectively applied tariff
AMU	Arab Maghreb Union
ASEAN	Association of Southeast Asian Nations
ASYCUDA	Automated System for Customs Data
AU	African Union
AUC	African Union Commission
BIAT	Boosting intra-African trade
CEMAC	Central African Economic and Monetary Community
CEN-SAD	Community of Sahel-Saharan States
CGE	Computable general equilibrium
COMESA	Common Market for Eastern and Southern Africa
DB	Doing business
EAC	East African Community
ECCAS	Economic Community of Central African States
ECOWAS	Economic Community of West African States
EPA	Economic partnership agreement
ESCAP	Economic and Social Commission for Asia and the Pacific
EU	European Union
GDP	Gross domestic product
GSP	Generalized system of preferences
GVC	Global value chain
IGAD	Intergovernmental Authority on Development
ILO	International Labor Organization
IMF	International Monetary Fund
IOC	Indian Ocean Commission
LAC	Latin America and the Caribbean
LDC	Least-developed country
LPI	Logistics performance index
MFN	Most-favored nation
NTB	Non-tariff barrier
NTM	Non-tariff trade measure

Purchasing power parity
Preferential trade arrangement
Quantitative restrictions
Regional economic arrangement
Regional Economic Outlook
Southern African Customs Union
Southern African Development Community
Sub-Saharan Africa
Tripartite Free Trade Area
United Nations Conference on Trade and Development
United Nations Economic Commission for Africa
Value-added tax
West African Economic and Monetary Union
World Bank
World Development Indicators
World Trade Organization

EXECUTIVE SUMMARY

In May 2019, African leaders launched the African Continental Free Trade Area (AfCFTA).¹ The corresponding agreement provides a framework for trade liberalization of goods and services and, once fully implemented, is expected to cover all 55 African countries, with an estimated combined GDP of US\$2.5 trillion and a population of over 1.2 billion. In terms of population, the AfCFTA will be the largest free trade area in the world.

Trade integration in Africa has long been seen by African policymakers as a mechanism for fostering prosperity. Several trade and regional economic integration groups have been formed over the years. The AfCFTA is the most ambitious initiative in this vein. It can support the realization of the continent's economic promise by helping raise productivity and investment, and thereby increase income levels and reduce poverty.

This Staff Discussion Note assesses income and welfare gains from trade liberalization under the AfCFTA and potential transitional costs for countries participating in the agreement. The note focuses on the potential effects of the AfCFTA on (1) income, welfare, and trade flows; (2) income distribution and employment; and (3) tax revenues. It also discusses key policy reforms needed to maximize the benefits of the AfCFTA.

The AfCFTA has the potential to increase income and welfare significantly for its member countries. Previous studies have estimated that African countries could reap long-term income gains of up to 5 percent from the reduction in trade barriers in the context of the AfCFTA. Our own work focuses on the estimation of changes in welfare and shows gains of up to 2.1 percent for the continent. However, these could be substantially underestimated given the static nature of the model, which does not include potential effects of the agreement on increased investment, innovation, and knowledge diffusion. The bulk of income and welfare gains would come from increased efficiency derived from reduced non-tariff barriers (NTBs), as intraregional import tariffs are already low. In our work, we also find that the largest proportional welfare gains would tend to go to smaller countries with open economies. These would also benefit from positive terms-of-trade changes. Countries starting with higher trade barriers would tend to gain more.

The AfCFTA would also have a strong impact on intraregional trade—which we estimate would expand by more than 80 percent—but relatively limited adverse effects on trade with nonmember countries ("trade diversion"). Increased intraregional trade would add about US\$60 billion to African exports and support ongoing diversification efforts.

¹ By late January 2020, 54 (of 55) member countries of the African Union (AU) had signed the AfCFTA agreement. See Appendix II for the full list of signatory countries.

THE AFRICAN CONTINENTAL FREE TRADE AREA

Maximizing potential welfare and income gains from the AfCFTA would require member countries to substantially—but strategically—reduce NTBs. It is important first to remove NTBs that impose the highest trade costs. In this regard, customs and administrative entry procedures, technical barriers to trade, and sanitary and phytosanitary measures should be tackled up-front. It would also be important to improve the quality of trade logistics and close Africa's infrastructure gap, particularly in the areas of ports and road networks.

The implementation of the AfCFTA could result in transitional costs for member countries. These could include (1) tax revenue losses from lower import tariffs; (2) higher income inequality; and (3) higher unemployment, especially where trade liberalization is not accompanied by reforms to make labor markets more flexible and workers more mobile to grasp new opportunities. Given the gradual nature of trade barrier reduction envisaged by the agreement, countries should have time to mitigate these potential costs.

For the continent as a whole, tax revenue losses from the elimination of import tariffs are estimated to be modest. This reflects the low level of effectively applied intraregional import tariffs, the rather modest level of intraregional trade, and a small reduction in imports from the rest of the world. Moreover, any tariff revenue losses are likely to be offset eventually by higher tax revenue from increased consumption and income, as a result of reduced trade barriers, especially NTBs. However, offsetting losses will depend crucially on countries pursuing the necessary steps to lower NTBs.

Limiting negative employment effects will require increasing formal labor market flexibility. Addressing adverse income distribution effects calls for broader and more efficient social safety nets. Training and retraining programs to adapt worker skills to new needs may also be necessary. These reforms should help accommodate the expected labor reallocation across sectors and firms. Increased labor mobility from the implementation of the freedom of movement protocol will also help facilitate adjustment to the reduction in trade barriers.

Improving revenue mobilization will be important. Given that income gains may take time to materialize, the corresponding revenue increases may not compensate for tariff revenue losses in the short term. In addition, higher revenues will also be needed to help finance infrastructure improvements and upgrade social safety nets to mitigate transitional costs from lowering trade barriers.

Finally, upholding the provisions of the agreement will be crucial for the success of the AfCFTA. An institutionally strong and effective AfCFTA secretariat, with the capacity to implement trade rules in line with the text of the agreement, will help build credibility and reduce trade policy uncertainty.

I. INTRODUCTION

1. Over the past century, African countries have created several regional economic

integration arrangements. The first two, the Southern African Customs Union (SACU), formed in 1910, and the East African Community (EAC), formed in 1919, are today among the most vibrant and successful regional arrangements on the continent. In 2019, there were over 15 regional integration arrangements, and many countries have overlapping memberships. The overriding objective of these arrangements is the promotion of intraregional trade to achieve faster economic growth and reduce poverty. The AfCFTA is the most ambitious initiative in this vein.

2. Past regional integration arrangements have delivered less than was originally envisaged, but they have contributed to a significant expansion of intra-African trade. Despite these integration arrangements, African intraregional trade trails that of other regions, and Africa's insertion into global value chains (GVCs) is still dominated by its exports of raw materials. As a result, past integration efforts have been considered as underperforming (de Melo and Tsikata 2015; Hailu 2014; Yang and Gupta 2005). Several reasons have been advanced for this underperformance, including lack of complementary domestic reforms to improve domestic supply responses and a low level of implementation of the arrangements, owing partly to the absence of strong institutional frameworks supporting them. Still, these arrangements have facilitated a large expansion of intra-African trade in the last couple of decades.

3. This note assesses potential welfare gains and costs of the AfCFTA from an empirical standpoint and discusses policy options to address such costs and other challenges to the agreement's successful implementation. The analysis reveals that the potential gains from import tariff reduction alone are likely to be small, as intraregional tariffs are already low following extensive intraregional trade liberalization by past arrangements. However, once NTBs are substantially reduced, potential welfare gains would be significant. The largest proportional welfare gains would accrue to the smaller, more open economies. The size of welfare gains also depends on the initial level of trade restrictions. At the same time, the AfCFTA could affect income distribution, unemployment, and fiscal revenue, especially in the short term. It is our view, however, that the benefits of the AfCFTA would outweigh the costs. That said, to mitigate these potential attendant adjustment costs, policymakers would need to implement a complementary set of measures to strengthen the social protection framework, increase labor market flexibility, and mobilize domestic revenues.

4. The note has six sections. Section II provides some background and the context within which the AfCFTA agreement is being deployed. Section III summarizes the key features of the agreement, its status, and potential implementation challenges. Section IV outlines the potential benefits and costs associated with implementation of the agreement. Section V details suggested policy options to address potential adjustment costs stemming from the agreement. A conclusion is provided in Section VI.

II. CONTEXT AND BACKGROUND

5. Africa is a diverse and vast continent with a long-standing pursuit of trade integration to support growth and poverty reduction. The continent stands out in at least four areas: heterogeneity in country sizes, income levels, stages of development, and trade openness; diversity of trade regimes and trade policies; varying patterns of intraregional trade; and the lack of a continent-wide trading hub.

A. Country Heterogeneity

6. The African continent contains an assortment of countries in terms of size, income, and openness. In terms of size, seven countries have populations of less than 1.5 million, and three have over 100 million. Between these two extremes, there is a wide distribution in population size (Appendix I). Although Africa comprises 16 percent of the world's population, it has only 5 percent of its income. Half of Africa's countries (27), with 44.6 percent of the continent's total population, are categorized as low-income countries. The remainder are distributed between lower-middle-income (18 countries, 45.9 percent of the population), upper-middle-income (8 countries, with 9.5 percent of the population), and 1 high-income country (with 0.01 percent of the population). The continent also has a wide variation in trade openness, with gross exports and imports ranging from 38 percent to 140 percent of GDP. Finally, 15 African countries, with about 17 percent of the total African population and 7 percent of GDP, are landlocked.

B. Current State of Trade in Africa

7. Intraregional trade in Africa is relatively low, but rising, and dominated by food and manufactured goods. In 2017, 17 percent of Africa's total trade was conducted within the continent, rising from 9 percent in 2000.² In other regions, such as Europe and Asia, intraregional trade is over 50 percent. The expansion of intraregional trade in Africa has been supported by an increase in commodity exports, stronger macroeconomic conditions and institutions, and the establishment of regional economic arrangements (REAs; Arizala and others 2018). Much of the intraregional trade has been driven by the Southern African Development Community (SADC) and the EAC, which have the highest levels of intra-union trade, compared with other groupings on the continent. During 2000–17, intra-African trade was dominated by food and manufactured goods. In contrast, exports to the rest of the world were dominated by primary products, which accounted for about 60 percent of total exports. At the same time, chemicals, other manufactured goods, machinery, and transportation equipment represented close to 70 percent of total imports.

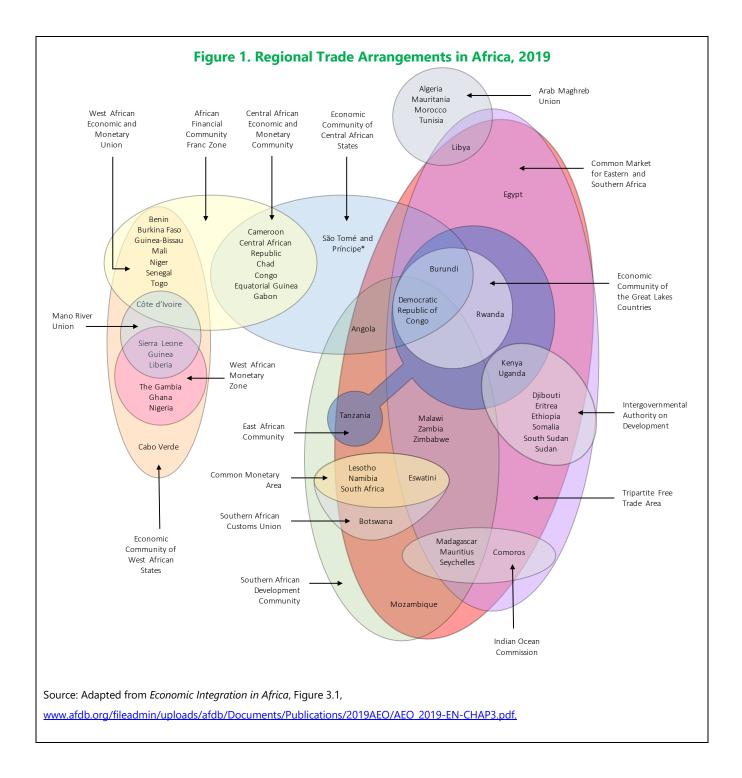
² Africa conducts most of its trade with countries outside the continent. Since 2000, Africa's direction of trade has shifted from the United States and Europe to China and Asia more generally.

8. Africa lacks a continent-wide trading hub. Unlike Asia, Europe, and North America, Africa does not have an economy that acts as a trading hub. South Africa operates, somewhat, as a hub for southern Africa, for which it is also a key supplier of intermediate goods. South Africa is a top-five trading partner for 14 African countries. At the same time, it is integrated, mostly upstream (forward integration), in GVCs with China, the United States, Germany, and India. The rest of Africa lacks a systemic global exporter that also imports value added from the rest of the continent. Given the shift in international trade from goods to tasks, for the AfCFTA to have a transformative effect on member countries, it would need to spur the development of the nascent supply chain on the continent. This would in turn provide a bridge for African countries to generate more downstream (backward) integration into GVCs and by doing so reap more gains from their participation in international trade.

C. Trade Regimes

9. Africa is characterized by a plethora of trade regimes. Three broad elements characterize the trade regimes on the continent. First, there are preferential trade agreements between individual African countries and countries outside the continent. These include agreements under the general system of preferences (GSP), granting duty-free treatment for least-developed countries, and preferential access to the US market under the African Growth and Opportunity Act. Second, there are regional trade agreements between African countries and regions outside Africa. This category includes the various economic partnership agreements the European Union has negotiated with various African countries and regional groups on the continent. These also call for the partial and gradual liberalization of African markets to EU imports. Third, there is a web of intra-African trade agreements, including eight REAs and four subregional groups (Figure 1).

10. Existing intra-African trade arrangements have been viewed as underperforming, although they have played a role in the expansion of intraregional trade. Several studies (Hailu 2014; Yang and Gupta 2005; de Melo and Tsikata 2015) have identified key factors that have influenced the effectiveness of these arrangements. These include a low level of implementation of the arrangements, partly owing to the lack of a strong institutional framework supporting them. Relatedly, multiple and overlapping memberships in regional trade integration groups have also led to complexity, lax enforcement, and uncertainty. In practice, this has often resulted in less trade liberalization among member countries than envisaged in the arrangements. At the same time, infrastructure bottlenecks have kept trade costs high, while lack of complementary reforms to improve domestic supply responses and upgrade worker skills have hindered economies of scale. Despite these shortcomings, intraregional trade arrangements have contributed to a significant expansion of intra-African trade in the last two decades.



D. Barriers to Trade in Africa

11. While intra-African trade agreements have gradually facilitated a large reduction in tariffs on goods (Table 1)³, NTBs remain high for most African countries (Figure 2). NTBs can be classified into three broad categories: (1) non-tariff trade measures (NTMs); (2) infrastructure gaps; and (3) other trade-related transaction costs. The extent of NTMs in selected African countries is presented in Table 2, which shows that technical and sanitary/phytosanitary barriers are the two most prevalent NTMs in Africa. Large infrastructure gaps and significant trade-related transaction costs also present barriers to trade in Africa, as shown in Table 3. The table shows that several

	Intra- regional	Effectively Applied (AHS)	Most Favoured Nation (MFN)
Africa	5.0	11.8	12.5
AU-recognized regional economic communities			
Arab Maghreb Union (AMU)	5.0	8.9	14.0
Common Market for Eastern and Southern Africa (COMESA)	5.0	8.9	11.0
Community of Sahel-Saharan States (CEN-SAD)	12.0	12.1	13.1
East African Community (EAC)	0.0	11.6	12.8
Economic Community of Central African States (ECCAS)	9.0	14.4	14.6
Economic Community of West African States (ECOWAS)	11.0	12.4	12.2
Intergovernmental Authority on Development (IGAD)	9.0	13.5	16.1
Southern African Development Community (SADC)	4.0	7.7	9.2
Other preferential trade agreements			
Central African Economic and Monetary Community (CEMAC)	0.0	18.5	17.8
West African Economic and Monetary Union (WAEMU)	9.0	12.4	12.2
Southern African Customs Union (SACU)	0.0	6.0	7.7
Indian Ocean Commission (IOC)	0.0	5.0	5.1
Comparators			
Latin America and the Caribbean (LAC)		9.9	10.5
Association of Southeast Asian Nations (ASEAN)	1.0	5.0	6.3
Southern Common Market (MERCOSUR)	0.0	11.1	12.1

Sources: Economic Integration; Africa, Table 3.1,

www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/2019AEO/AEO_2019-ENCHAP3.pdf; World Integrated Trade Solutions (WITS); and IMF staff estimates.

¹AHS—effectively applied tariff (simple average); MFN—most-favored nation—tariff (simple average). For IGAD, the entries for AHS and MFN tariffs are for 2016 for Kenya and Uganda, 2015 for Ethiopia, and 2013 for Sudan.

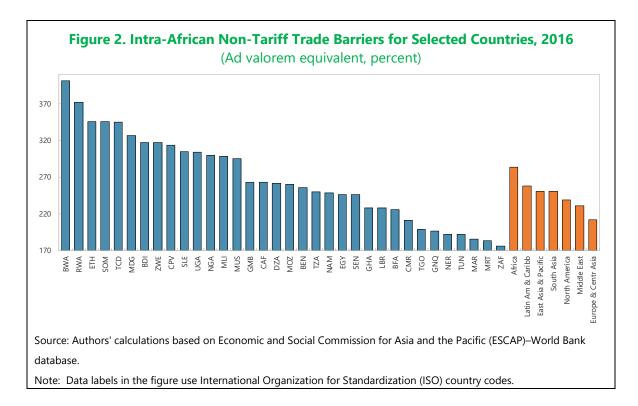
indicators related to the quality of ports, air transportation, and other measures of infrastructure efficiency are low in Africa compared with other regions. The reduction in ground transportation

(continued)

³ Unilateral trade liberalization has also contributed to a significant reduction in tariffs imposed on non-African countries, which fell from 21.7 percent in 1997 to 11.8 percent in 2016.

THE AFRICAN CONTINENTAL FREE TRADE AREA

costs is especially critical to encourage intraregional trade, given the geography of the continent (World Bank 2009). Some continental initiatives have been launched in recent years to address infrastructure gaps, but they will take time to produce effects.⁴



12. The low quality of trade logistics is another important barrier to intraregional trade. The IMF *Regional Economic Outlook* (IMF 2019) estimates that a rise in the quality of African trade logistics to the global level could reduce the cost of cross-border movement of goods significantly and increase intraregional trade by over 12 percent.

13. In addition, an enabling business environment, access to credit, and adequate human capital are all critical to support intraregional trade (IMF 2019). A more fully developed regional financial infrastructure can also help facilitate further intraregional trade. This infrastructure could include harmonizing regional payment systems to further facilitate cross-border payments; creating swap arrangements across central banks and a multicurrency clearing center to reduce risks from trading in different national currencies; and better coordinating the supervision of pan-African banks.

⁴ The Presidential Infrastructure Champion Initiative was launched in 2011 and the Program for Infrastructure Development in Africa was adopted in 2012.

	(14)	(Number of measures in place)							
	SPS	TBT	ADP	CV	SG	SSG	QR	TRQ	XS
Benin	6	2							
Botswana	3	103							
Burkina Faso	6								
Burundi	8	13							
Cabo Verde	4								
Cameroon		8							
Central African Republic	3	10							
Congo, Republic of	5	3							
Côte d'Ivoire	19						15		
Congo, Democratic Republic of	2								
Egypt	87	207	15						
Eswatini, Kingdom of	2	1							
Ethiopia					1				
Gabon		2							
The Gambia	2	2							
Ghana	5	9							
Guinea	11	1							
Kenya	92	770							
Liberia	1	3			3				
Madagascar	37								
Malawi	16	18							
Mali	21	2					20		
Mauritius	17	8					9		
Morocco	56	26	13		4			16	
Mozambique	6	14							
Namibia	20	1							
Nigeria Rwanda	29 1	8 215							
Senegal	7	215 14							
Seychelles	4	4					6		
South Africa	61	278	32		3		0	53	62
Tanzania	2	292	52		5			55	02
Тодо	11	272							
Tunisia	2	27			3			13	
Uganda	56	999			5			15	
Zambia	4	88			1				
Zimbabwe	6	1							
Africa	587	3068	60		15		50	82	62

Table 2. African Union: Non-Tariff Trade Measures, 2018

Source: World Trade Organization.

Note: ADP = anti-dumping; CV = countervailing; QR = quantitative restrictions; SG = safeguards; SPS = sanitary and phytosanitary; SSG = special safeguards; TBT = technical barriers to trade; TRQ = tariff-rate quotas; and XS = export subsidies.

Table 3. Infrastructure Gaps and Trac (Uni	de-Relat its as ind		nsaction	Costs ii	n Africa	a, 2012-	-16
Variable	Africa	Sub- Saharan Africa	Advanced Economies	Middle East and North Africa	South America	Central America	South Asia
Level of infrastructures:							
Container port traffic per capita (WDI)	0.09	0.07	0.75	0.31	0.12	0.38	0.09
Air transport passengers, per capita (WDI)	0.23	0.25	2.6	1.36	1.43	0.93	0.1
Quality of port infrastructure,(1=low to 7=high) (WDI)	3.64	3.64	5.35	4.34	3.65	4.15	3.51
Liner shipping connectivity index (max=100) (WDI)	14.38	12.72	50.64	24.68	24.16	16.36	27.27
Infrastructure efficiency score, (1=low to 5=high) (LPI)	2.32	2.34	3.75	2.59	2.56	2.43	2.45
Customs efficiency score, (1=low to 5=high) (LPI)	2.35	2.39	3.58	2.44	2.52	2.5	2.42
International shipments efficiency score, (1=low to 5=high) (LPI)	2.52	2.52	3.56	2.81	2.76	2.81	2.68
Timeliness efficiency score, (1=low to 5=high) (LPI)	2.87	2.86	4.09	3.12	3.21	3.1	3.03
Overall logistics efficiency score, (1=low to 5=high) (LPI)	2.49	2.51	3.74	2.71	2.77	2.69	2.62
Trading costs:							
Burden of customs (1=inefficient to 7=efficient) (WDI)	3.6	3.6	5.0	4.0	3.5	3.7	3.8
Time to export (days) (DB)	29.3	30.9	10.2	21	19.8	15.4	30
Time to import (days) (DB)	36.4	38.5	9.3	25.6	24.3	15.3	31.5
Cost to export (USD per container) (DB)	2,149	2,302	1,054	1,340	1,809	1,181	1,696
Cost to import (USD per container) (DB)	2,819	3,056	1,102	1,600	2,020	1,329	1,877

Sources: World Bank Doing Business Database (DB); Logistics Performance Database (LPI) and World Development Indicators (WDI). All databases are provided by the World

Bank.

Units— Container port traffic per capita: Annual number of flow of containers of twenty-foot equivalent units (TEUs), divided by total population. Air transport passengers, per capita: Annual number of air transport passengers carried, divided by total population. Quality of port Infrastructure: It measures business executives' perception of their country's port facilities and scores ranked from 1 (extremely underdeveloped) to 7. Liner shipping connectivity index: It captures how well countries are connected to global shipping networks; the maximum value was 100 in 2004. Infrastructure efficiency score: Quality of trade- and transport-related infrastructure ranked from 1 (lowest quality) to 5. International shipments efficiency score: Efficiency of the clearance process ranked from 1 (lowest efficiency) to 5. Timeliness efficiency score: Timeliness of shipments in reaching destination within the scheduled or expected delivery time ranked from 1 (lowest timeliness) to 5. Overall logistics efficiency score: Composite index of previous LPI indicators, ranked from 1 to 5. Burden of customs: It measures business executives' perceptions of their country's efficiency of customs procedures; ranked from 1 (lower efficiency) to 7. LPI variables are from 2016. DB and WDI variables are averaged for 2012-15.

III. THE AFRICAN CONTINENTAL FREE TRADE AREA

A. Broad Outline of the Agreement

14. By the end of January 2020, 54 (of 55) member countries of the African Union (AU) had signed the AfCFTA agreement (see Appendix II). Once fully implemented, the AfCFTA is expected to cover all 55 African countries, with an estimated combined GDP of US\$2.5 trillion and a population of over 1.2 billion. In terms of population, it will be the largest free trade area in the world. The AfCFTA can support the realization of the continent's economic promise. It has the potential to raise Africa's low productivity and promote higher investment, thereby helping increase income levels and reduce poverty.

15. The AfCFTA builds on negotiations of the Tripartite Free Trade Area (TFTA). The TFTA is composed of the Southern African Development Community (SADC), the Common Market for Eastern and Southern Africa (COMESA), and the EAC.⁵ The AfCFTA has eight strategic objectives:

⁵ The AfCFTA is an overall framework agreement of which various protocols, annexes, and appendices form an integral part. Most of the details still need to be negotiated. Thus far, agreement has been reached on the objectives, principles, and institutions and on a work plan for completing the negotiations.

(1) creating a single market for goods and services, facilitated by the movement of people;
 (2) contributing to the movement of capital and people and facilitating investment;
 (3) creating a continental customs union;
 (4) expanding intra-African trade;
 (5) resolving the challenges of overlapping memberships in REAs;
 (6) promoting sustainable and inclusive economic development;
 (7) boosting industrial development; and
 (8) enhancing competitiveness. The AfCFTA also seeks to build on the integration already achieved by existing REAs, which are expected to contribute to its institutional structure. In the long run, the REAs' trade functions are expected to be consolidated at the continental level. The operational objectives and key institutional features of the AfCFTA are presented in Box 1.

Box 1. Operational Objectives and Key Institutional Features of the AfCFTA

The AfCFTA agreement has seven operational objectives. These are to (1) eliminate tariffs and non-tariff barriers to trade in goods progressively; (2) liberalize trade in services progressively; (3) cooperate in matters of investment, intellectual property rights, and competition policy; (4) cooperate in all trade-related areas; (5) cooperate in customs matters and the implementation of trade facilitation measures; (6) establish a mechanism for the settlement of disputes concerning members' rights and obligations; and (7) establish and maintain an institutional framework for the implementation and administration of the AfCFTA.

The agreement foresees the creation of a regional institutional framework for its operations. Article 9 outlines an institutional framework for the establishment and functioning of the AfCFTA. It includes the creation of an assembly (to provide strategic guidance on the agreement); a council of ministers (among other things, to ensure effective implementation and enforcement of the agreement); a committee of trade ministers (among other things, to implement the decisions of the council of ministers); and an autonomous secretariat, responsible for coordinating and implementing the agreement. The composition and role of these bodies are laid out in the agreement. The secretariat, to be established by the assembly, is the only organ of the AfCFTA that has been given a legal personality. While operationally autonomous, it would be financed by the African Union's budget. The council of ministers of trade determines the roles and responsibilities of the secretariat. That said, the agreement already contemplates specific roles for the secretariat under the protocol on rules and procedures on the settlement of disputes and the protocol on services.

16. The AfCFTA envisages the gradual elimination of tariff and non-tariff barriers to trade on the continent.

• The agreement sets the path for the elimination of tariffs on 90 percent of tariff lines. Countries can implement tariff reductions over a longer period for 7 percent of tariff lines and maintain existing tariffs for the remaining 3 percent of tariff lines, provided that the value of trade under these does not exceed 10 percent of the total trade with Africa. For services, member countries have also agreed to propose liberalization through a requestand-offer approach, based on seven identified priority sectors: logistics and transport, financial services, tourism, professional services, energy services, construction, and communications. • The mechanism for reducing NTBs is laid out in Annex 5 of the agreement.⁶ It envisages the creation of institutional structures for the elimination of NTBs, a general categorization of NTBs, reporting and monitoring tools, and facilitation of resolution of identified NTBs. Signatories are obligated under this annex to publish their NTB reduction plans. The annex outlines the broad categories of NTBs under the agreement as follows: trade and restrictive practices tolerated by governments, customs and administrative entry procedures, technical barriers to trade, sanitary and phytosanitary measures, and other barriers (including transportation).

17. A protocol on free movement of people and an action plan for boosting intra-African trade (BIAT) have also been proffered alongside the AfCFTA. Adoption of this protocol and plan will help advance the cause of the AfCFTA. The protocol on the free movement of people seeks to extend visa-free entry to all African countries, a feature already in place in some REAs. At the same time, the BIAT plan contains elements of the AfCFTA agenda, including trade facilitation and customs harmonization.

18. The agreement will be implemented in two phases. Phase I, which went into effect at the end of May 2019, provides a framework for the liberalization of trade in goods and services and a mechanism for dispute settlement.⁷ Phase II will cover competition policy, investment, and intellectual property rights. Negotiations for Phase II are scheduled to begin soon, with an expected conclusion date at the end of 2020. However, this may now be delayed due to the Covid-19 pandemic. The next milestone will be the creation of a continental customs union and then the ultimate transition to a continental single market. The dates for these milestones are undefined.

B. Potential Challenges

19. To reap the full potential benefits of the AfCFTA, member countries must address the long-standing challenges that have troubled REAs, along with other emerging issues. In particular, the work ahead should include the following.

 Clarifying the process of absorbing existing REAs into the AfCFTA and their subsequent role: The agreement (Article 19) states that REAs would be permitted to maintain their integration arrangements where such arrangements are deeper than those of the AfCFTA. However, one of the general objectives of the agreement is to "resolve the challenges of multiple and overlapping memberships and expedite the regional and continental integration processes" (Article 3). There is no specific protocol on relations between the AfCFTA and existing REAs. An additional issue is the status of the relationship between the AfCFTA and other regional trade agreements in Africa that have not been recognized as building blocks of the AFCFTA,

⁶ The protocol on trade in goods also includes annexes on tariff concessions, rules of origin, customs cooperation, trade facilitation, technical barriers to trade, sanitary and phytosanitary measures, and transit and trade remedies.

⁷ This followed the receipt of the 22nd ratification instrument by the chairman of the African Union Commission (AUC). As of late January 2020, 29 countries had ratified the agreement and deposited the instrument with the AUC.

such as the Indian Ocean Commission, Southern African Customs Union, and Mano River Union.

- Implementing a rules-based system for trade under the AfCFTA would depend on a strong secretariat: This is required to reap the potential rewards of the AfCFTA. The scope and meaning of the legal personality (from which these powers would flow) of the secretariat needs to be clarified (Erasmus 2019). The secretariat should have the legal authority to conduct monitoring and oversight, along with the capacity to provide technical assistance and practical guidance.
- Managing the political economy aspects of the AfCFTA without compromising its economic benefits: The appropriate handling of the agreement's political economy will buttress the success of negotiations, smooth ratification processes, and keep the momentum of implementation of the various planned phases of the AfCFTA. The trade literature shows that trade agreement negotiations are more protracted when there are more countries at the negotiation table and between countries that are poorer and less open (Moser and Rose 2012). This is relevant for the AfCFTA, with its numerous members and relatively low income and trade openness. Addressing the legitimate concerns of interest groups is important to ensure the political viability of the agreement. While this may involve some trade-offs in terms of efficiency, it would be crucial to ensure that the economic benefits of the AfCFTA are not compromised in the process.
- Resisting the temptation of making the AfCFTA an obstacle to trade liberalization with countries outside Africa: It would be a mistake to use the AfCFTA to shield domestic markets from global markets and competition, preferring an inward-looking approach to trade and development. Instead, the creation of the AfCFTA provides an opportunity for Africa to negotiate trade agreements with overseas REAs from a position of strength. The AfCFTA should be complemented by a gradual reduction in most-favored-nation tariffs. In this way, the AfCFTA would expand African countries' global trade share, especially with more technologically advanced economies, and promote income convergence. Such trade connections could also help institutionalize the reforms required to ensure that the AfCFTA becomes a success.

IV. ASSESSING THE POTENTIAL BENEFITS AND COSTS OF THE AFCFTA

A. Income, Welfare, and Trade Effects

20. The welfare effects of preferential trade arrangements are theoretically ambiguous (Krugman 1991; Limao 2016). This is the case even when the arrangements do not affect members' terms of trade and when there are no other distortions. Lower trade barriers allow countries to expand trade within membership (trade creation), which increases welfare. At the same time, the

removal of trade barriers among members may reduce trade with more efficient countries outside the membership (trade diversion), thus reducing welfare. The impact of reducing trade barriers on efficiency and welfare depends on whether trade diversion or trade creation dominates. When considering terms-of-trade effects and second-best scenarios (that is, including additional distortions) the assessment is further complicated—both terms-of-trade movements and the presence of other (non-trade-related) distortions can reinforce or offset welfare gains from increased efficiency owing to trade liberalization. Whether preferential trade arrangements increase or decrease welfare is therefore an empirical question. General-equilibrium-based empirical studies typically find that preferential trade arrangements have a positive effect on welfare, with the size of the gains depending largely on initial conditions (for example, level of trade barriers and the extent of trade liberalization).

21. Empirical studies find that the AfCFTA would increase overall income and welfare for the majority of African countries. These studies are based on ex ante simulations using multisector, multi-country computable general equilibrium (CGE) trade models. They consider both import-tariff elimination and NTB reduction. The size of income and welfare gains varies, depending on the specific features of the model: some studies (Chauvin, Ramos, and Porto 2016) find income gains of up to 5 percent (Table 4). Virtually all studies find relatively small gains from the elimination of import tariffs and significantly larger gains from reduction of NTBs. These results are intuitive since, as previously discussed, intraregional tariffs in Africa are low, while NTBs are large. These studies also show that gains vary greatly across countries, but most countries see their welfare rise as a result of the reduction in trade barriers, especially NTBs.

	Tariff	Removal	NTB R	eduction	Tariff Removal a	nd NTB Reductio
-	GDP	Welfare	GDP	Welfare	GDP	Welfare
Jensen & Sandrey (2015)	0.6		1.0		1.5	
Mevel & Karingi (2012)	0.01	0.2				
Chauvin, Ramos, & Porto (2016)	1.3	0.5	3.7*	2.2*	5.0	2.6
Vanzetti, Peters, & Knebel (2018)	0.1		0.8		1.0	
Saygili, Peters, & Knebel (2018)	0.7					
AFDB (2019)		0.1		1.3		1.4

Table 4. Traditional CGE Model Estimates of Income and Welfare Gains from the AfCFTA

Note: Non-tariff barriers (NTBs) take into account both Non-Tariff Measures (NTMs) and Transactions Costs (TCs) as defined by Chauvin, Ramos, and Porto (2016). The authors assume scenarios with a 50 percent reduction in NTMs and a 30 percent reduction in TCs in all goods by 2027. Jensen and Sandrey (2015) assume a 50 percent reduction in NTBs, while Vanzetti, Peters, and Knebel (2018) assume a 100 percent reduction in NTBs.

22. Recent work at the IMF has used newer, quantitative trade models to estimate the AfCFTA's potential welfare effects. Abrego and others (2019) find very small welfare gains from import tariff elimination and much larger gains from a moderate reduction in NTBs. In their baseline simulations (perfect competition, with a 35 percent reduction in NTBs; Table 5), there is an overall welfare gain of 2.6 percent for sub-Saharan Africa (SSA) and 2.1 percent for the continent as a whole. As is standard in general equilibrium trade models, the reduction in tariffs and NTBs affects welfare both through consumption and output (by reducing distortions) and thereby improves efficiency. A notable feature of the model used by Abrego and others (2019) is that international

prices are endogenous, allowing for changes in the terms of trade. Therefore, in addition to changes in efficiency, terms-of-trade movements also affect welfare outcomes, and this has a material impact on the distribution of welfare gains across countries. The authors also find that the size of overall welfare gains for the continent is very similar under imperfect competition, suggesting that, overall, scale effects are not very strong in Africa. Global welfare also increases, albeit modestly, under the various scenarios considered. Importantly, the restrictive features of the model used in Abrego and others (2019) likely underestimate the welfare benefits from the reduction in trade barriers. In particular, the model is static and therefore does not include capital accumulation, innovation, or knowledge diffusion effects that may arise from increased trade openness. The model does not consider intermediate inputs in production either.

	(Percent)		
	Tariff Elimination	NTB Reduction (35 percent)	Tariff Elimination and NTB Reduction
Welfare increase in SSA	0.07	2.1	2.6
Welfare increase in Africa	0.05	1.7	2.1
Welfare increase in the rest of the world	0.00	0.00	0.00
Welfare increase world	0.00	0.03	0.04

23. This study also reveals that while all African countries experience increased welfare from a reduction in NTBs, these benefits are unequally distributed. By far, the largest proportional gains go to countries with the most open economies, which also tend to be the smallest economies. In contrast, the larger economies are less open and tend to benefit less, because of adverse terms-of-trade movements, which offset efficiency gains, among other reasons. Unsurprisingly, welfare gains also tend to rise with the extent of trade-barrier reduction. From a sectoral perspective, the study also reveals that tradeable sectors, particularly manufacturing, which accounts for over 60 percent of welfare gains, and agriculture—16 percent—are the key drivers of estimated welfare changes for the vast majority of countries, particularly for the smallest economies.⁸ The distribution of welfare gains differs across world regions, with some regions seeing their welfare decline, albeit very modestly, suggesting that they are adversely affected by trade diversion or terms-of-trade changes.

24. The AfCFTA would have a strong impact on intra-African trade volumes, but its effects on overall trade would be limited. Abrego and others (2019) estimate intra-African trade growth of more than 80 percent owing to the AfCFTA, which represents an increase of about US\$60 billion in African exports. Trade growth is very similar under the different model structures (perfect and imperfect competition) considered in the study. However, given that the initial level of these trade flows is modest, the continent's total trade grows only by 8 percent. The study reports considerable

⁸ Some of the manufacturing sectors that expand the most in the small economies are electricity generation, machinery, chemicals, and textiles.

variation of results among African countries, with those facing initially higher trade barriers generally showing stronger trade growth. Econometric analysis at the firm level for African countries also shows that the reduction in trade barriers has a positive effect on firms' decisions to export (Appendix III).

B. Distributional Effects

25. International trade has often been seen as a key factor behind the increase in inequality in recent decades, although this is not necessarily supported by empirical studies. It is well-known from trade theory that, in addition to the level of income, trade can also affect income distribution, notably among factors of production.⁹ While in principle undesired distributional effects from trade could be offset by compensating losers, compensation is difficult to implement in practice, and it rarely happens. The recent international backlash against free trade reflects to a large extent the perceived key role of trade in increased inequality. Empirical work conducted over the past decades has often focused on the impact of trade policy changes on the distribution of income between skilled and unskilled labor, or the so-called skill premium (defined as the difference in the wages of skilled and unskilled workers). However, there is broad consensus among economists, arising from this work, that the increase in wage inequality seen in many countries in recent decades has been driven mainly by skill-rewarding technical change, with trade playing only a small role (see, for example, Pavcnik 2017; Helpman 2016).

26. Some of the empirical literature finds that the contribution of trade liberalization to inequality is context specific. Pavcnik (2017) shows that the nature of trade policy changes, trade patterns, and the level of mobility of workers and capital are key determinants that may affect inequality. Some empirical studies find that the negative effect on inequality may dissipate in the long run, but the adjustment process can take a long time and feature strong localized and sectoral effects (Autor and others 2014; Dix-Carneiro and Kovak 2017).¹⁰

27. Studies on the impact of the AfCFTA on inequality are inconclusive. Using a traditional CGE model and a sample of six African countries, Chauvin, Ramos, and Porto (2016) find large heterogeneity across countries. For instance, the AfCFTA appears to benefit richer households in some countries and poorer households in others, and rural households gain more than their urban counterparts in certain countries. Model-based simulations in the *Regional Economic Outlook* (IMF 2019) also show a heterogeneous impact of the AfCFTA on inequality across countries—income inequality decreases in poor countries that export agricultural goods and increases in countries that export manufacturing goods because of a higher skill premium. However, the effect in the medium term tends to become generally muted. Although more research is needed in this area, there are two reasons for inequality not to rise rapidly in the wake of the AfCFTA. First, existing intraregional tariffs are already low and would be removed gradually, so their elimination should not have a

⁹ In a seminal article, Stolper and Samuelson (1941) used the well-known Heckscher-Ohlin model to explain how trade policy affects the relative return of factors of production and thereby income distribution.

¹⁰ See Goldberg and Pavcnik (2007) and Helpman (2016) for other reviews of the literature on globalization and inequality.

strong impact on inequality. Second, although NTBs are large, their removal would also entail a gradual process. As a result, the authorities should have time to gauge the unfolding effects of trade opening and be able to take corrective actions.

28. Capital-skilled labor complementarity may also cause changes in the skill premium and thereby in inequality. A reduction in the price of capital goods, owing to a reduction in trade barriers, will increase the demand for capital goods. If capital and skilled labor are complementary in the production of goods, this would raise the productivity and wages of skilled labor. In addition, the existence of capital-skill complementarity favors an increase in the demand for skilled workers, which would also increase their wages and thus the skill premium. Focusing on this channel and using a modeling framework based on Parro (2013), Perez-Saiz (2019) shows that the AfCFTA would increase the skill premium. Assuming elimination of import tariffs and a substantial reduction in NTBs (by 35 percent), the change in the skill premium in SSA would be on average close to 1 percent. However, there is significant dispersion across African countries, with smaller countries tending to experience larger changes in the skill premium. Econometric analysis at the firm level also provides some evidence of an "exporter wage premium": exporting firms pay higher wages than other firms (Appendix III). This exporter wage premium has been found in studies on Africa (Van Biesebroeck 2005; Duda-Nyczak and Viegelahn 2018) and in other regions in the world. Conversely, there is little evidence that importing firms pay a positive wage premium.

C. Employment Effects

29. Labor markets in Africa feature relatively high unemployment, widespread informality, and somewhat less flexible formal markets (Box 2). Although there is considerable country heterogeneity, International Labor Organization (ILO) data suggest that unemployment in Africa is somewhat higher than in other regions in the world, especially for skilled workers. Some indicators (such as unionization and collective bargaining prevalence) also point to higher formal labor market inflexibility relative to other regions, though informality remains widespread. These features may be important to how trade liberalization could affect overall employment levels in Africa.

30. Traditional trade models assume frictionless labor markets, which implies perfect internal labor mobility and no effect of trade on overall employment. In markets without search costs, minimum wages, trade unions, or other frictions, trade openness should not have any effect on the level of employment. In these models, when trade barriers are reduced and the relative prices of goods change, some sectors expand and others contract, and a perfectly mobile labor force reallocates across (or within) sectors, while wages adjust. CGE trade models typically incorporate these features, which—together with their usual static nature—does not make them amenable to assess the effects of trade liberalization on overall employment.

31. Recent empirical studies have found that rapid trade liberalization leads to transitional unemployment, although they do not point to strong evidence of labor reallocation across industries. Although in the long term increased trade openness is associated with higher output, in the short and medium term, rapid increases in imports have been associated with a rise in unemployment. Pavcnik (2017) shows that frictions that impede workers' movement across

THE AFRICAN CONTINENTAL FREE TRADE AREA

industries, firms, or locations are crucial to understanding the effect on unemployment. Recent international evidence, based on partial equilibrium (sectoral) models, shows that these frictions can be significant, and in some countries the adverse effects of trade liberalization on local labor markets have persisted for many years after liberalization (Dix-Carneiro and Kovak 2017; Menezes-Filho and Muendler 2011; Pavcnik, 2017). In addition, partial equilibrium models show that most trade-induced labor reallocation occurs at the intra-industry level, from the less to the more productive firms, rather than across industries (Wacziarg and Wallack 2004; Levinsohn 1999).

32. More work is needed to understand the potential effects of the AfCFTA on

employment. Existing AfCFTA studies based on general equilibrium models usually assume full employment and perfect labor mobility across sectors.¹¹ An exception is UNCTAD (2018), which uses a CGE model that allows for changes in overall employment and estimates a long-term increase in employment of 1.2 percent because of the AfCFTA. However, the static nature of the model does not consider the transitional dynamics to the new long-term equilibrium. Although it seems plausible to expect higher overall employment levels in the long run from reduced trade barriers under the AfCFTA, the transitional dynamics could be more complex and feature transitional unemployment, given labor market characteristics (Box 2). However, without explicit consideration of transitional effects in a dynamic model, it is hard to assess the potential impact of the agreement on aggregate employment in the short to medium terms. For example, firm-level evidence suggests that expansion of export activities may be less conducive to employment growth than other activities (Appendix III). Because the exporting firms tend to employ more skilled workers, expansion of these firms may not be able to absorb all unskilled trade-displaced labor and may also be less conducive to unskilled labor employment growth (Haltiwanger and others 2004).

D. Fiscal Revenue Impact

33. The reduction in trade barriers stemming from the AfCFTA would affect tax revenues through four channels. First, a direct reduction in tax revenue is to be expected from the removal of tariffs on intra-continental imports. Second, trade diversion owing to lower tariffs would also reduce revenues. Third, higher GDP, owing to increased efficiency, would lead to more revenue. Fourth, higher consumption, because of increased imports and income, would also raise revenue. Importantly, the last three channels would reflect the impact not only of tariff removal but also of NTB removal. In sum, the net impact of the AfCFTA on tax revenues would depend on the combined effect of the four channels.

34. Most studies estimate AfCFTA-induced tax revenue losses from tariff reduction using CGE models. Estimates tend to focus on tax revenue losses from tariff removal. These losses range from 0.03 percent to 0.22 percent of GDP (or about US\$1 billion to US\$7 billion) for the continent.¹² These relatively small estimates reflect the already low level of intraregional tariffs in Africa and the modest level of intraregional trade. Results also reflect limited trade diversion.

¹¹ By design, partial equilibrium studies focus on specific sectors and do not draw conclusions on the effects of increased trade openness on economy-wide employment.

¹² Abrego and others (2019); Jensen and Sandrey (2015); Mureverwi (2016); Saygili, Peters, and Knebel (2018).

35. When both tariff and NTB reductions are considered, general equilibrium analysis yields different results. In this setting, tax revenue increases for virtually all countries; the modest revenue losses from import tariff removal are more than offset by increases in revenue from higher consumption and income (Abrego and others 2019).¹³ In addition, revenue increases tend to be proportional to welfare gains and feature relatively large differences across the continent.¹⁴ However, given that income gains may take time to materialize, revenue increases may not compensate for tariff removal losses in the short term. Therefore, adequate revenue mobilization reforms may still be needed, even if the AfCFTA's net effect on revenue is positive in the long term.

V. MAXIMIZING AFCFTA BENEFITS WHILE MITIGATING CHALLENGES—POLICY OPTIONS

36. The AfCFTA presents opportunities and challenges. It has the potential to increase welfare significantly for its member countries insofar as NTBs are substantially reduced. That said, the implementation of the AfCFTA could also result in costs, including potentially higher income inequality and transitional unemployment. Therefore, to reap the benefits of the AfCFTA fully and mitigate its related costs, African countries need to pursue a concomitant ambitious and broadbased reform agenda.

A. What Can Member Countries Do to Maximize the Economic Benefits of the AfCFTA?

37. To tap the potential benefits of the AfCFTA, there are two areas that need to be tackled urgently. These are (1) reducing the infrastructure deficit (notably in roads and ports) by building on ongoing efforts; and (2) reducing other critical NTBs, such as customs and administrative requirements, that directly affect the capacity of economies to move traded merchandise within and outside their borders.

¹³ Abrego and others (2019) use an elasticity of 1 when estimating the impact on revenue from income and consumption taxes. This may be on the conservative side. Jalles (2017), for example, estimates an average elasticity of 1.22, which would result in more positive AfCFTA effects on tax revenue.

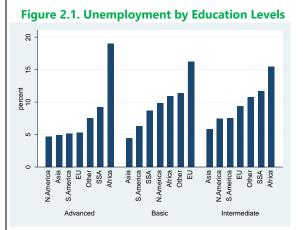
¹⁴ IMF (2019) estimates revenue effects using non-CGE methods, considers a common average tariff rate, and uses very fine product–country level data. Estimates consider only the effect of tariff removal and use most-favored-nation -based tariffs in their calculations, which results in higher revenue losses compared with CGE-based models.

Box 2. Selected Labor Market Features in Africa

Labor markets in Africa are characterized by a high level of labor supply, yet substantial unemployment. With a rate of almost 70 percent, sub-Saharan Africa has the highest labor force participation rate in the world. However, for the entire African continent, the low level of female labor participation in northern Africa reduces this rate significantly, to less than 50 percent (Figure 2.1). The unemployment rates for workers with advanced education is particularly high (Figure 2.2). In addition, the skill premium is high for workers with advanced education, but differences among African countries are sizable (Figure 2.3).

There is also evidence that formal labor markets in Africa lack flexibility. Figure 2.4 shows two indicators related to the degree of flexibility of labor markets in Africa. Labor union participation rates in Africa are among the highest in the world (slightly above those in the European Union), especially in northern Africa. Collective bargaining prevalence is comparable in Africa to that in the rest of the world.

However, it is important to bear in mind the high degree of informality in Africa. According to the International Labour Organization (ILO), 86 percent of employment on the continent is informal, compared with 69 percent in Asia and 40 percent in the Americas (ILO 2018). This suggests that labor markets may actually be more flexible than the above figures for the formal sector suggest. That said, lack of flexibility in formal markets may still be a constraint to the reallocation of labor following a reduction in trade barriers.



Source: International Labor Organization. 2007-17 averages.

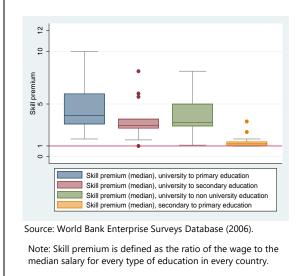
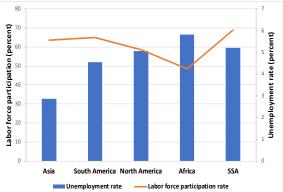


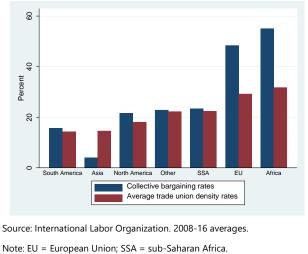
Figure 2.3. Skill Premium in Africa





Source: International Labor Organization. 2008-16 averages.





38. Reducing Africa's large infrastructure deficit in roads and ports can increase

competitiveness across the continent. With relatively low road density (IMF 2019), African countries need to extend their road network—while upgrading existing roads—to improve access to African and global markets.¹⁵ This should be accomplished by scaling up existing continental infrastructure initiatives within a strategy aimed at strengthening rural-urban links, developing trade corridors, and incorporating a continental perspective. This effort could be particularly important for reducing trade costs in landlocked countries. Improving ports and their efficiency would also help reduce trade costs. Port development should be part of a coordinated African transportation strategy to ensure efficient use of resources and reduce costs and time at customs. It is also important to eliminate bottlenecks faced by many landlocked countries in reaching their transit ports. At the same time, regulatory frameworks and institutional capacity should be strengthened to attract private sector participation in the construction, operation, and maintenance of transportation infrastructure. That said, efficient public investment in areas unlikely to receive private financing (for example, rural roads and rural telecommunications) should continue, along with improvement of public investment.

39. Improving trade facilitation is another priority area for reform. Addressing onerous customs procedures and boosting efficiency could reduce costs and facilitate trade. African countries could take a number of steps to achieve this, including making sure that all customs locations have information technology systems that support core processes and are adequately used by traders and officials; adopting and enforcing effective governance policies for customs and other border agencies; enhancing customs control of preferential origin rules to prevent revenue losses and build trust among trading countries; introducing modern risk-analysis techniques and appropriate equipment for nonintrusive inspections and faster turnaround in laboratory sample testing; and deepening modernization efforts, with a focus on reducing costs and delays faced by international traders. This will require pressing forward with modernization processes, intensifying training, and implementing quality-based management. Other deficiencies in customs procedures and operations could be addressed by increasing the professionalization of customs agencies.

40. Ensuring a strong governance framework for the AfCFTA is also important. The resolute implementation of the provisions of the AfCFTA could help improve the business environment in Africa, if it reduces uncertainty over trading rules and market access. Making the AfCFTA a framework that reduces trade uncertainty within and among African countries is an essential ingredient to unlocking private sector decisions to expand existing and start new businesses to take advantage of the agreement.

¹⁵ At 3.4 km per 1,000 inhabitants, road density in sub-Saharan Africa is less than half of the global average, and paved road density, at 0.7 km per 1,000 inhabitants, is one-fifth of the global average (Gwilliam 2011).

B. How Can Member Countries Mitigate Adverse Distributional and Employment Effects of the AfCFTA?

41. Policies promoting inclusive growth are critical for mitigating potential adverse distributional and employment effects of the AfCFTA. As the AfCFTA raises income, member countries will need to adopt market-friendly measures to ensure that the key transmission channels to the population function efficiently. This could involve four mutually reinforcing initiatives:
(1) improving the functioning of product markets; (2) improving the flexibility of the labor market; (3) enhancing social protection programs; and (4) encouraging investment and innovation, within the context of a well-defined transformation strategy.

42. More efficient product markets could help transmit broader benefits of trade liberalization to the population. Country authorities will need to guard against industry concentration that uses market power to block price reductions or the introduction of more variety of goods to the population as a result of the AfCFTA. This can be done through enhanced competition and the introduction of a fair trading and competition commission that can limit monopolistic practices. At the same time, reform of rules on firms' entry into the market and exit, including modernizing bankruptcy rules, should be considered.

43. More flexible labor markets could help mitigate the potential adverse employment effects of trade liberalization under the AfCFTA. Specific measures could include addressing distortions in labor costs and easing restrictions on labor reallocation across sectors, firms, occupations, and regions. A renewed emphasis on promoting education, training, and retraining would also be important. In addition, member countries will need to promote freedom of movement of labor and remove barriers to workers' mobility.

44. Enhanced social programs would be necessary for a well-functioning AfCFTA. These programs could include broadening and strengthening of social safety nets for the provision of targeted assistance to those adversely affected by trade liberalization. Targeted training programs to ease worker mobility across industries and promote employment, along with other active labormarket programs, could help cushion the adverse short-term effects of economic adjustment and prevent negative long-term effects.

45. A well-designed transformation strategy, built on investment and innovation, could support economic growth and job creation. This strategy should promote productivity growth and moving up the global value chain through greater innovation and investment (both foreign and domestic). This would increase firms' ability to seize new opportunities made available by trade liberalization under the AfCFTA and help expand employment opportunities. Efficient implementation of this strategy could be supported by ratification of the freedom of movement protocol of the AfCFTA and improvements in development and trade financing.

46. Better-functioning financial markets are needed. These should make it easier to secure loans based on credit histories. In this way, credit markets could help facilitate a more flexible labor

market. In addition, better-functioning credit markets will improve firms' access to long-term competitive financing to expand production and facilitate more extensive trade. More generally, improvements in credit markets that provide expanded access to financial services to the wider population will increase efficiency and enhance gains from trade.

C. How Can Member Countries Manage a Potential Adverse Fiscal Revenue Impact of the AfCFTA?

47. Revenue mobilization should be guided by country-specific reform strategies. Some African countries, that have experienced significant increases in revenue mobilization, have adopted measures to reduce base-narrowing exemptions through eliminating tax exemptions, revising investment codes, and getting rid of tax distortions. They have also invested in the basic building blocks of effective and modern tax policy and administration, including taxpayer segmentation. At the same time, once implemented, continuous improvements in the functioning of these systems are needed, especially through strengthening capacity and coverage.

48. Other revenue boosting measures could also be deployed. These could include initiatives to reach sectors that are difficult to tax, by introducing a simplified tax regime for small businesses; changing the value-added tax (VAT) threshold to better target high-value businesses; investing in (or expanding) digitalization; and pursuing reforms in information and communication technologies. This would help reduce compliance costs and simplify registration, filing (through e-filing), payment (through e-payment), audit, collection enforcement, and appeals. Developing (or leveraging) existing platforms to combine domestic revenue and customs operations and to simplify customs clearance operations and adopting automated systems across tax and customs administrations would also boost revenue.

49. Even without an adverse revenue impact from the agreement, African countries still need to mobilize additional resources to implement the AfCFTA. Resources to finance investment to fill the continent's infrastructure gap are needed. Additional public resources will also be required to strengthen social protection frameworks to address adverse distributional effects that may arise from the reduction in trade barriers. The fiscal space to cover these needs could come from revenue mobilization or reprioritization of expenditures. Other modes of financing, such as user fees or public-private partnerships, could contribute to fiscal space while mitigating fiscal risks.

50. To be successful, revenue-enhancing efforts will require a sustained political commitment. At the same time, transparency and outreach will be needed to mobilize support for the reforms and help change taxpayer culture and improve tax compliance.

VI. CONCLUSION

51. The AfCFTA is a crucial initiative that could have a transformative impact on African

economies. Building on progress already made by the existing REAs, the AfCFTA aims at deepening economic integration on the continent. Various models in the literature show that the potential income and welfare gains from the AfCFTA are significant—most would derive from NTB reductions. Lowering NTBs beyond the levels typically assumed in the literature can significantly increase the size of gains. In addition, the economic restructuring that the implementation of the AfCFTA could unleash would offer African economies new opportunities for a deeper backward (as opposed to the current forward) integration in global value chains. This process would also expand trade, as well as employment and income for African workers.

52. To get there, African countries need to reduce the high costs of trading within the continent. The highest costs stem from NTBs, which must be substantially and strategically reduced. Among those that ought to be tackled first are inefficient customs and entry requirement procedures and technical barriers to trade. The reduction in the infrastructure deficit and the improvement of the low quality of trade logistics are also crucial to deepening continental free trade and integration. Member countries must also overcome political economy issues in the distribution of the gains from the AfCFTA, the setting up of the AfCFTA secretariat, and the management of special interest groups within and across countries.

53. Addressing potential AfCFTA costs would require a complementary set of reforms.

These costs are likely to come from the AfCFTA's potential adverse impact on income distribution and employment and, to a lesser extent, from the potential loss in net fiscal revenues in some countries, especially in the short term. African governments would need to adopt policy reforms to mitigate these costs, while supporting sustainable and inclusive growth, which is fundamental to the success of the AfCFTA.

- Income inequality: Trade-induced income inequality is country-specific, but where present, it poses a challenge to policymakers. Although more research in this area is needed, the already low intraregional tariffs and the proposed gradual removal of NTBs in the wake of the agreement mean that AfCFTA-induced inequality may not rise rapidly. As a result, the authorities should have time to gauge the unfolding effects of trade opening and be able to take corrective actions.
- *Employment:* The international experience outside Africa suggests that transitional unemployment, due to trade liberalization, can be persistent over time. Although more research is needed to determine the potential effects of the agreement on employment, policies aimed at increasing labor market flexibility and social protection can help deal with transitional unemployment. In addition, more gradual liberalization in sectors that may not be able to withstand immediate increased competition from imports may be called for. This flexibility is already envisaged by the AfCFTA through an allowance for the gradual removal of trade barriers.

• *Tax revenues:* In general, net revenue losses from the removal of import tariffs are likely to be small. Importantly, the combination of tariff removal and NTB reduction would increase domestic consumption and income and result in higher net revenues in virtually all countries. While these net revenue gains may take time to materialize, transitional revenue losses from tariff removal appear manageable.

REFERENCES

Abrego, L., M. A. Amado, T. Gursoy, G. P. Nicholls, and H. Perez-Saiz. 2019. "African Continental Free Trade Agreement: Welfare Gains Estimates from a General Equilibrium Model." IMF Working Paper 19/124, International Monetary Fund, Washington, DC.

Acemoglu, D. 2003. "Patterns of Skill Premia." Review of Economic Studies 70 (2).

- African Development Bank (AfDB). 2019. "Integration for Africa's Economic Prosperity." Chapter 3 in *African Economic Outlook 2019*, African Development Bank.
- Arizala, F., M.Bell, M. MacDonald, M.Mlachila, and M.Yenice. 2018. "Regional Spillovers in Sub-Saharan Africa. Exploring Different Channels." IMF Spillover Note 18/1. International Monetary Fund, Washington, DC.
- Autor, D. H., D. Dorn, G. H. Hanson, and J. Song. 2014. "Trade Adjustment: Worker-Level Evidence." *Quarterly Journal of Economics* 129 (4): 1799–860.
- Bernard, A. B., J. B. Jensen, S. J. Redding, and, P. K. Schott. 2007. "Firms in International Trade." *Journal of Economic perspectives* 21 (3): 105–30.
- Chauvin, D., N. Ramos, and G. Porto. 2016. "Trade, Growth, and Welfare Impacts of the CFTA in Africa." <u>https://editorialexpress.com/cgi-bin/conference/download.cgi?db_name=CSAE2017&paper_id=749</u>.
- Coady, M. D., and A. Dizioli. 2017. "Income Inequality and Education Revisited: Persistence, Endogeneity, and Heterogeneity." IMF Working Paper 17/126, International Monetary Fund, Washington, DC.
- Costinot, A., and A. Rodriguez-Clare. 2014. "Trade Theory with Numbers: Quantifying the Consequences of Globalization." In *Handbook of International Economics*, vol. 4, 197–261.
- De Melo, J., and Y. Tsikata. 2015. "Regional Integration in Africa: Challenges and Prospects." In *The Oxford Handbook of Africa and Economics*, vol. 2, edited by Célestin Monga and Justin Yifu Lin. Oxford: Oxford University Press.
- Dix-Carneiro, R., and B. K. Kovak. 2017. "Trade Liberalization and Regional Dynamics." *American Economic Review* 107 (10): 2908–46.
- Duda-Nyczak, M., and C. Viegelahn. 2018. "Exporting, Importing and Wages in Africa: Evidence from Matched Employer-Employee Data." ILO Working Paper, International Labour Organization, Geneva.

- Erasmus, G. 2019. "The AfCFTA Institutions: Could the Secretariat Hold the Key to Implementation? Tralac Working Paper US19WP01/2019.
- Goldberg, P. K., and N. Pavcnik. 2007. "Distributional Effects of Globalization in Developing Countries." *Journal of Economic Literature*, 45 (1): 39–82.
- Gwilliam, K. 2011. "Africa's Transport Infrastructure: Mainstreaming Maintenance and Management." World Bank, Washington, DC.
- Hailu, M. B. 2014. Regional Economic Integration in Africa: Challenges and Prospects." *Mizan Law Review* 8 (2): 299–332.
- Haltiwanger, J., A. Kugler, M. Kugler, A. Micco, and C. Pages. 2004. "Effects of Tariffs and Real Exchange Rates on Job Reallocation: Evidence from Latin America." *Journal of Policy Reform* 7 (4): 191–208.
- Helpman, E. 2016. "Globalization and Wage Inequality." NBER Working Paper, National Bureau of Economic Research, Cambridge, MA.
- International Monetary Fund (IMF). 2018. *Regional Economic Outlook: Sub-Saharan Africa—Domestic Revenue Mobilization and Private Investment,* Chapter I. Washington, DC, April.
- ———. 2019. *Regional Economic Outlook: Sub-Saharan Africa* Recovery Amid Elevated Uncertainty, Chapter 3. Washington, DC, April.
- International Labour Organization (ILO). 2018. "Women and Men in the Informal Economy: A Statistical Picture." Geneva.
- Jalles, J. T. 2017. "Tax Buoyancy in Sub Saharan Africa: An Empirical Exploration." African Development Review 29 (1): 1–15.
- Jensen, H., and R. Sandrey. 2015. "The Continental Free Trade Area—A GTAP Assessment." Trade Law Centre, Stellenbosch, South Africa.
- Karingi, S., and S. Mevel. 2012. "Deepening Regional Integration in Africa: A Computable General Equilibrium Assessment of the Establishment of a Continental Free Trade Area Followed by a Continental Customs Union. Paper presented at the 15th Global Trade Analysis Project Conference, Geneva, June 27–29.
- Katz, L. F., and K. M. Murphy. 1992. "Changes in Relative Wages, 1963–1987: Supply and Demand Factors." *Quarterly Journal of Economics* 107:35–78.

- Krugman, P. 1991. "The Move to Free Trade Zones." In *Policy Implications of Trade and Currency Zones: A Symposium*. Kansas City: Federal Reserve Bank.
- Levinsohn, J. 1999. Employment Responses to International Liberalization in Chile." *Journal of international Economic*, 47 (2): 321–44.
- Limao, N. 2016. "Preferential Trade Arrangements." In *Handbook of Commercial Policy*, vol. 1B, edited by K. Bagwell and Robert W. Staiger, 279–367. Amsterdam: Elsevier.
- Menezes-Filho, N. A., and M. A. Muendler. 2011. "Labor Reallocation in Response to Trade Reform." NBER Working Paper, National Bureau of Economic Research, Cambridge, MA.
- Mevel, S., and S. Karingi. 2012. "Deepening Regional Integration in Africa: A Computable General Equilibrium Assessment of the Establishment of a Continental Free Trade Area Followed by a Continental Customs Union." In *Proceedings of the African Economic Conference*.
- Moser, C., and A. K. Rose. 2012. "Why Do Trade Negotiations Take So Long?" *Journal of Economic Integration*, 280–90.
- Mureverwi, B. 2016. "Welfare Decomposition of the Continental Free Trade Area." Paper presented at the 19th Conference on Global Economic Analysis, Washington, DC, June 15–17.
- Organisation for Economic Co-operation and Development (OECD). 2010. Seizing the Benefits of Trade for Employment and Growth. OECD, International Labour Organization, World Bank, and World Trade Organization final report. Prepared for submission to the G20 Summit meeting, Seoul, November 11–12.
- Parro, F. 2013. "Capital-Skill Complementarity and the Skill Premium in a Quantitative Model of Trade." *American Economic Journal: Macroeconomics* 5 (2): 72–117.
- Pavcnik N. 2017. "The Impact of Trade on Inequality in Developing Countries." Dartmouth College Working Paper, Dartmouth, NH.
- Perez-Saiz, H. Forthcoming. "Trade and the Skill Premium: The Case of the African Continental Free Trade Agreement." IMF Working Paper, International Monetary Fund, Washington, DC.
- Saygili, M., R. Peters, and C. Knebel. 2018. "African Continental Free Trade Area: Challenges and Opportunities of Tariff Reductions." United Nations Conference on Trade and Development Research Paper 15, Geneva.
- Stolper, W. F., and P. A. Samuelson. 1941. "Protection and Real Wages." *Review of Economic Studies* 9 (1): 58–73.

- United Nations (UN). 2015. "World Population Prospects, Revision." Department of Economic and Social Affairs, New York.
- United Nations Economic Commission for Africa, African Union, and African Development Bank. 2012. Assessing Regional Integration in Africa V: Towards an African Continental Free Trade Area. Addis Ababa.
- ———. 2017. Assessing Regional Integration in Africa VIII: Bringing the Continental Free Trade Area About. Addis Ababa.
- United Nations Conference on Trade and Development (UNCTAD). 2012. *Non-tariff Measures to Trade: Economic and Policy Issues for Developing Countries*. Developing Countries in International Trade Series. Geneva.

UNCTAD 2018

- Van Biesebroeck, J. 2005. "Exporting Raises Productivity in Sub-Saharan African Manufacturing Firms." *Journal of International Economics* 67 (2): 373–91.
- Vanzetti, D., R. Peters, and C. Knebel. 2018. "Non-tariff Measures: Lifting CFTA and ACP Trade to the Next Level." United Nations Conference on Trade and Development Research Paper 14, Geneva.

Vijil, M., L. Wagner, and M. Woldemichael. 2019. "Import Uncertainty and Export Dynamics." World Bank Policy Research Working Paper No. 8793, World Bank, Washington, DC.

- Wacziarg, R., and J. S. Wallack. 2004. "Trade Liberalization and Intersectoral Labor Movements." *Journal of international Economics* 64 (2): 411–39.
- World Bank. 2005. *Global Economic Prospects. Trade, Regionalism, and Development*. Washington. DC: World Bank.
- World Bank 2009. ESCAP-World Bank Trade Cost Database. Accessed at www. Unescap.org/resources/escap-world-bank-trade-cost-databank
- Yang, Y., and S. Gupta. 2005. "Regional Trade Arrangements in Africa: Past Performance and the Way Forward." IMF Working Paper 05/36, International Monetary Fund, Washington, DC.

Appendix I. Selected African Country Indicators, 2016¹

					Po	rcent	
	GDP PPP	Openness (Percent of GDP,	Population (Millions of		Average	Effective Non- Trade Measures	- Trade within Africa as a ratio of total
Country	(US\$bns)	goods/services)	persons)	Income Group	Tariffs	(NTM)	trade
Egypt	1,132.1	31	90.2	Lower middle	6.6	14.6	
Nigeria	1,090.1	21	183.6	Lower middle	11.3	15.0	8.9
South Africa	742.2	61	55.6	Upper middle	4.5	2.7	19.0
Algeria	609.6	58	40.8	Upper middle	8.9	14.6	2.8
Morocco	281.4	77	34.5	Lower middle	3.8		4.8
Angola	185.6	55	27.4	Lower middle	10.2 ^a	9.5	6.5
Sudan	178.0	24	39.6	Lower middle	12.1 ^d	16.0	4.0
Ethiopia	177.4	36	91.2	Low	12.1 ^a	2.5	7.2
Kenya	152.9	37	45.5	Lower middle	10.6 ^b	3.9	15.3
Tanzania	150.3	41	48.7	Low	8.6	21.1	20.5
Гunisia	130.5	92	11.4	Lower middle	3.9 ^a		6.6
Ghana	121.2	89	27.6	Lower middle	10.8	3.8	11.8
Côte d'Ivoire	88.3	62	24.3	Lower middle	10.6 ^a	14.3	25.1
Cameroon	84.6	41	23.7	Lower middle	15.8 ^b	3.6	16.8
Jganda	83.4	46	36.6	Low	7.9 ^a	2.4	25.7
Zambia	65.3	73	16.7	Lower middle	4.0 ^a	2.5	41.4
Democratic Republic of the Congo	65.0	56	84.1	Low	10.2 ^b	9.5	32.3
Senegal	39.6	54	15.4	Low	9.0	18.2	26.0
Mali	38.2	64	18.3	Low	7.6	4.6	50.4
	37.5	69	24.9	Low	9.4 ^a	9.5	8.8
Madagascar Botswana	37.5	95	24.9	Upper middle	0.6	9.5	49.7
libya	37.4		6.4	Upper middle			49.7
Gabon	35.8	 71	1.9	Upper middle	 14.4 ^c	 1.8	6.4
Mozambique	35.8	107	28.8	Low	4.2 ^b	9.5	29.7
Burkina Faso	33.0	63	18.4	Low	9.6"	4.3	20.6
Zimbabwe	32.4	65	14.5	Low	5.7 ^a		83.5
Equatorial Guinea	31.2	76	0.8	Upper middle	15.6 ^e		9.3
Republic of Congo	29.7	177	4.2	Lower middle	16.4	9.5	28.1
Chad	29.0	64	11.9	Low	14.2 ^c	9.5	7.4
Namibia	26.3	92	2.3	Upper middle	1.0	9.5	57.2
Mauritius	26.0	96	1.3	Upper middle	0.8	6.8	15.0
Guinea	24.4	88	12.7	Low	11.9 ^d	9.5	14.1
Benin	23.6	46	10.8	Low	11.6	9.5	18.1
Rwanda	22.8	55	11.6	Low	7.3	4.8	32.4
Malawi	21.1	75	18.6	Low	4.2 ^a	5.0	37.7
South Sudan	20.7	119	12.2	Low		9.5	
Niger	20.4	50	18.2	Low	9.6	9.5	18.3
Somalia	18.0	77		Low		9.5	
Mauritania	16.4	89	3.8	Lower middle	11.4 ^b	9.5	9.5
Годо	12.2	87	7.6	Low	10.3	9.5	31.6
Eswatini, Kingdom of	11.1	89	1.1	Lower middle	0.6 ^b	9.5	85.5
Sierra Leone	10.9	62	7.2	Low	10.3 ^d	9.5	20.2
Eritrea	8.8	26	5.8	Low	5.4 ^f	9.5	5.5
Burundi	7.8	30	10.5	Low	6.1 ^a	9.5	32.5
esotho	6.6	119	1.9	Lower middle	2.4 ^b	9.5	68.4
iberia	5.8	91	4.4	Low	12.2 ^b	9.5	2.0
Cabo Verde	3.5	104	0.5	Lower middle	10.9 ^a	9.5	2.2
The Gambia	3.4	44	2.0	Low	12.7 ^c	9.5	34.4
Djibouti	3.3	77	1.0	Lower middle	17.6 ^b		15.9
Central African Republic	3.2	54	4.9	Low	13.9 ^a	9.5	14.0
Guinea-Bissau	2.9	63	1.7	Low	9.9 ^b	5.5	13.2
Seychelles	2.5	200	0.1	High	4.3	9.5	8.0
Comoros	1.3	62	0.8	Low	7.4 ^b	5.5	15.4
São Tomé and Príncipe	0.6	80	0.8	Lower middle	10.4	 9.5	18.2
Total Africa	6057.8		1170.4				
Proportion of world (percent)	4.8		16.1				
vedian	30.5	63.8	11.9		9.6	9.5	17.5

Sources: World Integrated Trade Solutions; and IMF, World Economic Outlook database, April 2018.

Note: a-2015; b-2014; c-2013; d-2012; e-2007; f-2006. Bns = billions; PPP = purchasing power parity ¹ No data are available for the Republic of Saharawi, a full member of the African Union, which also signed the AfCFTA agreement.

	Signed Treaty	Ratified Treaty
lgeria	$\sqrt{-}$	
ngola	\checkmark	
3enin	\checkmark	
Burkina Faso	\checkmark	5/29/2019
Burundi	\checkmark	
Botswana	\checkmark	
Cabo Verde	\checkmark	
Cameroon	\checkmark	10/31/2019
Central African Republic	$\overline{\mathbf{v}}$	
Chad	\sim	7/1/2018
Comoros		// //2010
Congo, Republic of		2/10/2019
		2/10/2019
Congo, Democratic Republic of	~	12/1//2016
Côte d'Ivoire	N /	12/16/2018
Djibouti	\sim	2/1/2019
gypt	\sim	4/8/2019
Equatorial Guinea	\checkmark	7/7/2019
Eswatini, Kingdom of	\sim	7/1/2018
Ethiopia	\checkmark	4/10/2019
Eritrea, The State of		
Gabon	\checkmark	7/7/2019
Ghana	\checkmark	5/10/2018
Guinea	\checkmark	7/1/2018
Guinea-Bissau	\checkmark	
Kenya	\checkmark	5/10/2018
_esotho	\checkmark	
_iberia	$\overline{\mathbf{v}}$	
libya	2	
Vadagascar		
Valawi		
		2/1/2010
/lali	N /	2/1/2019
Aauritania	N /	2/11/2019
/lauritius	\sim	10/8/2019
Aorocco	\sim	
Nozambique	\sim	
Namibia	\checkmark	Feb' 2019
liger	\checkmark	6/8/2018
Vigeria	\checkmark	
Saharawi, Republic	\checkmark	4/29/2019
Rwanda	\checkmark	5/26/2018
São Tomé and Príncipe, Democratic Republic of	\checkmark	6/27/2019
Senegal	\checkmark	Apr '19
Seychelles	\checkmark	
Sierra Leone	\checkmark	4/29/2019
Somalia	√	7/2//2013
South Africa		2/10/2019
South Sudan		2/10/2019
	N - /	
Sudan		
Tanzania	N	
The Gambia	N	4/16/2019
ōgo	\sim	4/1/2019
Funisia	\checkmark	
Jganda	\checkmark	11/28/2018
Zambia	\checkmark	
Zimbabwe	\checkmark	5/24/2019
Fotal	54	29
	i i i i i i i i i i i i i i i i i i i	ì
Sourcos: Atrican Union wohnago https://au.int//	list-atrican-countries-sigr	ned-establisment-africa
Sources: African Union webpage, <u>https://au.int//</u>		

Appendix II. List of Signatory Countries to the AfCFTA

¹ Date on which the AfCFTA instrument of ratification was deposited with the African Union Commission chairperson.

Appendix III. Firm-Level Evidence of Labor Reallocation in Africa

Although firm-level characteristics are important factors to explain the decision to export, other factors, such as the level of tariffs, also play a role. Table A1 shows the result of the authors' probit regression (unpublished) on the decision to export. It uses detailed firm-level data for a sample of African firms. The regression shows that firm age, firm size (using various size indicators), and firm origin (foreign versus domestic) are key factors that explain the decision to export. Using changes in tariffs across countries and years, the regression also shows evidence that the decision to export is positively affected by large reductions in import tariffs faced by firms.¹

There is also evidence that exporting firms pay higher wages than other firms. Detailed firm-level and employee-level data show that African firms that export pay salaries that are almost 18 percent higher than firms that do not export (Duda-Nyczak and Viegelahn 2018). This is called the "exporter wage premium," and it has also been found in other studies on Africa (Van Biesebroeck 2005) and on other regions in the world.² Conversely, there is little evidence that importing firms pay a positive wage premium.

Firm-level evidence suggests that export activities may be less conducive to employment growth than other activities. Table A2 shows that firms that export reduce employment growth by 1.2 percent, compared with similar firms that do not export. Exporting firms also tend to show higher labor productivity. This evidence is consistent with Bernard and others (2007) who show that exporting firms tend to be larger, be more productive, employ more skilled workers, and pay higher wages. This suggests that exporting firms may not be able to absorb all unskilled trade-displaced labor and thus may not contribute to unskilled-labor employment growth (Haltiwanger 2004).

¹ Using a related database, Vijil, Wagner, and Woldemichael (2019) also find that uncertainty about the time required to clear imported inputs affects survival rates for new exporters, reducing the number of firms that continue to serve the foreign market beyond their first year.

² Since exporting firms tend to be much larger than non-exporting firms, the wage premium for exporters may result from a scale effect.

	(1)	(2)	(3)	(4)	(5)
	Exporter	Exporter	Exporter	Exporter	Exporter
LatePeriod		0.0154	0.0807	-0.0435	-0.0297
		(0.0968)	(0.0986)	(0.0998)	(0.104)
Reduct 5 percentile		0.506***			
		(0.167)			
LatePeriod x Reduct 5 percentile		0.933***			
		(0.196)			
Reduct 10 percentile			0.916***		
			(0.236)		
LatePeriod x Reduct 10 percentile			0.443***		
			(0.146)		
Reduct 15 percentile			. ,	1.154***	
				(0.186)	
LatePeriod x Reduct 15 percentile				0.352***	
				(0.117)	
Reduct 20 percentile				, , , , , , , , , , , , , , , , , , ,	-0.785***
					(0.106)
LatePeriod x Reduct 20 percentile					0.110
					(0.0857)
Firm age	0.00688***	0.00685***	0.00682***	0.00679***	0.00686**
C .	(0.000995)	(0.000996)	(0.000996)	(0.000995)	(0.000997
Small size	-0.275***	-0.271***	-0.273***	-0.270***	-0.274***
	(0.0839)	(0.0842)	(0.0842)	(0.0842)	(0.0842)
Medium size firm	-0.239***	-0.234***	-0.234***	-0.231***	-0.235***
	(0.0568)	(0.0569)	(0.0569)	(0.0569)	(0.0570)
Number workers (log)	0.200***	0.201***	0.201***	0.201***	0.202***
	(0.0254)	(0.0255)	(0.0255)	(0.0255)	(0.0255)
Sales (log)	0.0640***	0.0647***	0.0649***	0.0664***	0.0644***
	(0.00752)	(0.00756)	(0.00756)	(0.00758)	(0.00757)
Foreign firm	0.316***	0.330***	0.328***	0.329***	0.330***
	(0.0386)	(0.0393)	(0.0393)	(0.0393)	(0.0394)
Constant	-2.295***	-2.327***	-2.309***	-2.334***	-1.596***
	(0.170)	(0.147)	(0.147)	(0.147)	(0.150)
Observations	17,569	16,926	16,926	16,926	16,926
Year fixed effects	YES	YES	YES	YES	YES
Country fixed effects	YES	YES	YES	YES	YES

Note: Robust standard errors are in parentheses.

*** p<0.01, ** p<0.05, * p<0.1.

Source: Authors' calculations.

Note: Probit regression on the probability of exportation by firms using firm-level data from the World Bank Enterprise Survey Database. The sample is divided into two periods (2005–08 and 2013–16). The variable "Reduct X percentile" is equal to 1 if the country where the firm is located experiences a great reduction in tariffs faced by exporter firms in the late period compared with the early period (the country is ranked in the X highest percentile of tariff reduction). The interaction terms suggest that firms are more likely to export in countries where tariffs have been reduced the most, controlling for other factors.

	(1)	(2)	(3)
		Labor	
	Employment	Productivity	Sales
VARIABLES	Growth	Growth	Growth
Exporter	-1.222***	1.786**	0.788
1	(0.423)	(0.877)	(0.853)
Firm age	-0.0862*	0.00450	-0.177***
C C	(0.0504)	(0.0225)	(0.0218)
Small size firm	3.764***		
	(0.955)		
Medium size firm	2.284***	2.171**	1.420
	(0.678)	(0.969)	(0.929)
Large size firm		4.038**	2.240
-		(1.894)	(1.804)
Number of workers (log)	3.311***	-4.162***	-1.856***
	(0.317)	(0.592)	(0.557)
Sales (log)	-0.718***	2.285***	1.859***
	(0.0980)	(0.219)	(0.208)
Foreign firm	-0.810*	2.383***	1.213
	(0.450)	(0.900)	(0.852)
Labor productivity	4.75e-06*	-2.70e-05***	-2.70e-05***
	(2.46e-06)	(7.24e-06)	(6.63e-06)
Constant	8.264***	30.94***	42.07***
	(2.212)	(3.465)	(3.484)
Observations	18,204	16,501	16,914
R squared	0.048	0.112	0.137
Year fixed effects	YES	YES	YES
Country fixed effects	YES	YES	YES

Note: Robust standard errors are in parentheses.

*** p<0.01, ** p<0.05, * p<0.1.

Source: Authors' calculations.

Note: Regression on employment growth and other relevant variables. Firm-level data are used from the World Bank Enterprise Survey Database. "Employment growth" in the firm (percent) is compared with the previous year. "Labor productivity growth" (in percent) is compared with the previous year. "Exporter" is an indicator variable equal to 1 if the firm exports to other countries in the current period.