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U.S. Trade and Investment with Sub-Saharan Africa: Recent Developments

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Abbreviations and Acronyms

Acronyms	Term
AAFA	American Apparel & Footwear Association
AAI	African Access Initiative
AEO	African Economic Outlook
AfDB	African Development Bank
AGOA	African Growth and Opportunity Act
AMU/UMA	Arab Maghreb Union
APDP	Automotive Production and Development Program
APIs	active pharmaceutical ingredients
AQIM	Al-Qaeda in the Islamic Maghreb
ARII	Africa Regional Integration Index
ATPC	Africa Trade Policy Center
AU	African Union
AUC	African Union Commission
AWEA	American Wind Energy Association
BEA	Bureau of Economic Analysis (U.S. Department of Commerce)
BIT	bilateral investment treaty
BNEF	Bloomberg New Energy Finance
BTS	Bureau of Transportation Statistics
BVGH	BIO Ventures for Global Health
CAGR	compound annual growth rate
CCIG	Catalytic Converter Interest Group
CEMAC	Economic and Monetary Community of Central Africa
CEN-SAD	Community of Sahel-Saharan States
CET	common external tariff
CFTA	Continental Free Trade Area
CHMO	cloud, hosted, managed, and outsourced (services)
CIA	U.S. Central Intelligence Agency
COMESA	Common Market for Eastern and Southern Africa
COPII-CER	Committee for Restructuring Regional Economic Communities in Central Africa
CRMs	certified reference materials
DRC	Democratic Republic of the Congo
EAC	East African Community
ECCAS	Economic Community of Central African States
ECOWAS	Economic Community of West African States
EU	European Union
EU-28	European Union, 28 member countries
EV	electric vehicle
EX-IM Bank	Export-Import Bank
FAO	Food and Agricultural Organization of the United Nations
FAS	Foreign Agricultural Service (U.S. Department of Agriculture)
FDI	foreign direct investment
FPSO	floating production, storage, and offloading
FSDPPs	floating or submersible drilling or production platforms
GAAR	General Anti-Avoidance Rule (India)
GAPCO	Gulf Africa Petroleum Corporation
GASME	Global Alliance of SMEs
GDP	gross domestic product
GE	genetically engineered

U.S. Trade and Investment with Sub-Saharan Africa: Recent Developments

Acronyms	Term
GM	General Motors
GMSA	General Motors South Africa
GNI	gross national income
GPS	Global Positioning System
Groupe BSIC	Le groupe Banque Sahélo-Saharienne pour l'Investissement et le Commerce
GSP	Generalized System of Preferences
GTA	Global Trade Atlas
GW	gigawatt
HDPE	high-density polyethylene
HIP	Hawassa Industrial Park (Ethiopia)
HRI	hotel, restaurant, and institution
HS	Harmonized Commodity Description and Coding System (Harmonized System) (international codes for traded goods)
HTS	Harmonized Tariff Schedule of the United States
ICSG	International Copper Study Group
ICT	information and communications technology
IGAD	Intergovernmental Authority on Development (East Africa)
IIE	Institute for International Education (United States)
IoT	Internet of Things
IPA	International Platinum Group Metals Association
ISAAA	International Service for the Acquisition of Agri-biotech Applications
ITA	U.S. International Trade Administration
JETRO	Japan External Trade Organization
LDPE	low-density polyethylene
LLDPE	linear low-density polyethylene
LPG	liquefied petroleum gas
M&A	mergers and acquisitions
MDPE	medium-density polyethylene
MFN	most-favored-nation
MIDP	Motor Industry Development Program
MIGA	Multilateral Investment Guarantee Agency (World Bank)
MINUSMA	United Nations Multidimensional Integrated Stabilization Mission in Mali
mt	metric tons
MVA	manufacturing value added
MW	megawatt
NAACAM	National Association of Automotive Component and Allied Manufacturers (South Africa)
NAFTA	North American Free Trade Agreement
NAIDP	National Automotive Industry Development Plan (Nigeria)
NCD	non-communicable diseases
NERSA	National Energy Regulator of South Africa
nesoi, n/o	not elsewhere specified or included
NGLs	natural gas liquids
NTM	nontariff measure
OECD	Organisation for Economic Co-operation and Development
OICA	Organisation Internationale des Constructeurs d'Automobiles (International Organization of Motor Vehicle Manufacturers)
OPIC	Overseas Private Investment Corporation (U.S.)
OPT	Optional Training Program (U.S. Department of Labor)
PE	polyethylene
PGMs	platinum group metals
ppm	parts per million

Acronyms	Term
PPPs	private-public partnerships
REC	Regional Economic Community
ROC	Republic of the Congo
ROW	rest of the world
SAA	South African Airways
SACU	Southern African Customs Union
SADC	Southern African Development Community
SBA	U.S. Small Business Administration
SMEs	small and medium-sized enterprises
SSA	sub-Saharan Africa
TDM	Trade Data Monitor
TFTA	Tripartite Free Trade Area
TIDCA	trade, investment, and development cooperation agreement
TIFA	trade and investment framework agreement
TRQ	Tariff-rate quota
UAE	United Arab Emirates
UEMOA	West African Economic and Monetary Union
UK	United Kingdom
ULSD	ultra-low-sulfur diesel
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UNECA	United Nations Economic Commission for Africa
UNIDO	United Nations Industrial Development Organization
UNSD	United Nations Statistics Division
UNWTO	United Nations World Tourism Organization
USAID	U.S. Agency for International Development
USCIS	U.S. Citizenship and Immigration Services
USDA	U.S. Department of Agriculture
USDOC	U.S. Department of Commerce
USDOS	United States Department of State
USGC	U.S. Grains Council
USGS	U.S. Geological Survey
USITC	U.S. International Trade Commission
USTR	U.S. Trade Representative
WAEMU	West African Economic and Monetary Union
WCO	World Customs Organization
WDI	World Development Indicators (World Bank)
WEF	World Economic Forum
WGI	World Governance Indicators (World Bank)
WTO	World Trade Organization

Executive Summary

This report was prepared by the U.S. International Trade Commission (Commission) at the request of the U.S. Trade Representative (USTR) in a letter received by the Commission on October 23, 2017. The USTR requested that this report provide information on the sectors in which U.S. trade in goods and services with sub-Saharan Africa (SSA) showed the fastest growth during the period 2010–16; highlight the key factors behind that growth; and identify the sectors and SSA markets that present the greatest potential for U.S. trade and foreign direct investment (FDI) with SSA. Further, the report describes exports of goods and services from U.S. small and medium-sized enterprises (SMEs) to SSA, provides country profiles of seven SSA countries, and summarizes SSA countries' AGOA utilization strategies as well as the status of regional integration efforts.

Highlights

The sectors in which U.S. exports of goods to sub-Saharan Africa (SSA) grew fastest between 2010 and 2016 were aircraft; floating oil platforms; natural gas and components; power generating equipment; and pharmaceuticals. Growth in these and other U.S. exports to SSA reflected rising incomes in the region, growing urbanization, the need for improved infrastructure, and expanding healthcare. Among U.S. services exported to SSA, sectors such as finance, insurance, and information and communications technology appear to have the most growth potential.

The sectors in which U.S. imports of goods from SSA between 2010 and 2016 grew fastest were cocoa, chocolate, and confectionery; apparel; refined copper; catalytic converters; and edible nuts. The growth in these and other U.S. goods imports from SSA mainly stemmed from certainty created following the long-term renewal of the African Growth and Opportunity Act (AGOA) to 2025; the increased presence of FDI in these sectors; SSA production cost advantages over other global suppliers; and expanding manufacturing capacity in SSA. Among the services sectors, U.S. imports of travel services from SSA increased the most during the 2010–16 period, reflecting in part stronger efforts by SSA countries to promote their tourism sectors.

The stock of U.S. FDI in SSA declined from 2010 to 2016. Mining (including crude petroleum) was the largest destination sector. Mauritius, South Africa, and Nigeria received the largest shares of U.S. FDI among SSA countries. The sectors with the greatest potential for U.S. FDI in SSA are professional and business services, financial services, textiles and apparel, renewable energy, and mining.

As of March 2018, 15 of 38 AGOA beneficiary countries have prepared strategies to identify sectors with the potential to increase exports to the United States under AGOA. Many of these countries are also part of SSA's Regional Economic Communities (RECs), which are working to lessen trade barriers that hamper AGOA utilization. The African Union and its eight RECs are working towards the end goal of a single, continent-wide market for Africa, which includes the Continental Free Trade Area.

Key Findings

Fastest-growing U.S. Exports of Goods to SSA

The fastest-growing U.S. exports of goods to SSA during 2010–16 came from diverse sectors, including agriculture, chemicals, natural resources, and high-technology manufacturing (table ES.1). All of these sectors have the potential to see continued growth in U.S. exports to SSA because the factors leading to their historical growth are likely to persist in the future.

Table ES.1 Fastest-growing U.S. exports to SSA countries, by digest sector, 2010–16

Product	2010	2012	2014	2016	Absolute change 2010–16	Compound annual growth rate
						(CAGR) 2010–16
					Million \$	
					Percent	
Aircraft	1,188	2,099	3,739	1,764	576	6.8
Ships, tugs, pleasure boats and floating structures (primarily floating oil platforms)	94	132	248	255	161	18.0
Natural gas and components (propane and butane)	9	15	234	162	153	60.7
Electric motors, generators, and related equipment (primarily power generating equipment)	187	255	193	306	119	8.5
Pharmaceuticals	187	357	418	277	90	6.8
Certain motor vehicle parts	249	336	406	338	89	5.2
Prepared or preserved vegetables, mushrooms, and olives	69	96	95	132	63	11.4
Polyethylene resins in primary forms	104	125	108	152	48	6.5

Source: Compiled from official statistics of the U.S. Department of Commerce (USDOC) (accessed October 10, 2017).

Note: For additional annual data, including 2017, see appendix G.

Factors Leading to Growth of U.S. Exports to SSA during 2010–16

In general, primary factors contributing to the growth of U.S. exports to SSA include, among other things, rising incomes, changing diets that incorporate processed foods, increasing government expenditures on health care, and policies that promote the expanded use of renewable energy. These and other sector-specific factors are noted below.

Aircraft: The value of U.S. exports of aircraft grew significantly, from about \$1.2 billion in 2010 to \$1.8 billion in 2016. This represented the largest value increase of any category of U.S. exports to SSA; in fact, because of variations in demand, exports rose as high as \$3.7 billion during 2014. Rising demand for passenger aircraft in some SSA countries has contributed to overall growth in U.S. aircraft exports to SSA. Ethiopian Airlines, Kenya Airways, and South African Airways are the three largest carriers in SSA by fleet size. All three airlines are committed to expanding and modernizing their fleets, boosting orders of new aircraft. New aircraft orders from carriers based in Angola and Nigeria also contributed to SSA's overall fleet growth and U.S. exports to the region.

Ships, Tugs, Pleasure Boats, and Floating Structures (primarily floating oil platforms): From 2010 to 2016, U.S. exports of goods in this category increased from \$94.2 million in 2010 to \$254.9 million in 2016, with a compound annual growth rate (CAGR) of 18.0 percent. In 2016, the two largest U.S. export destinations were Equatorial Guinea and Nigeria: over 95 percent of U.S. exports in this category to these two countries are floating oil platforms. ExxonMobil expanded operation of its drilling in Nigeria in 2015 and also operated two vessels for floating production, storage, and offloading in Equatorial Guinea. These operations accounted for the increased U.S. exports of such floating oil platforms to both countries.

Natural Gas and Components: U.S. exports of natural gas and components have grown because SSA countries are promoting the use of cleaner-burning fuels, both in homes and at power generation sites. In particular, the demand for U.S. exports has been stimulated, in part, by government policies designed to promote switching from solid fuels (charcoal, firewood) to relatively clean-burning liquefied petroleum gas (LPG)—specifically, propane and butane—for cooking, especially in West Africa. The United States rose from being a minor supplier of LPG to SSA in 2010 to being a top supplier by 2014. The increase in U.S. exports eroded market share for SSA suppliers in particular, as well as for European exporters.

Electric Motors, Generators, and Related Equipment: U.S. exports of electric motors and generators during 2010–16 also increased, partly due to higher investment in new power plants by SSA countries. Investment in power generation capacity in SSA stemmed from a variety of factors, including rising incomes, urbanization, a shift from on-site generation to grid power, and a desire to diversify energy sources. SSA countries are also increasing their support for renewable energy. Additional sources of funding for power generation in SSA are international programs, such as the United Nations’ Sustainable Energy for All and the U.S. Agency for International Development’s Power Africa, along with financing by export credit agencies and Chinese investment (including from the Export-Import Bank of China and other sources). Such investments are increasing the demand for U.S. power generation equipment in the region.

Pharmaceuticals: The product mix of pharmaceuticals to SSA countries has shifted from treatments for communicable diseases, such as malaria and HIV/AIDS, to treatments for cardiovascular conditions and cancer. Also, many SSA countries, including South Africa, Kenya, and Nigeria, have been consuming more generic pharmaceuticals in recent years. Some have also expanded the scope of their insurance programs to cover more diseases. U.S. exports of pharmaceuticals—generics in particular, and perhaps higher value ones as well—are expected to continue expanding as SSA governments spend more on healthcare, though the degree of expansion is unclear, given the existence of competition from low-cost Indian generics products and from future domestic production of these products in SSA countries.

Prepared and Processed Agricultural and Related Chemical Products: Rising per capita incomes and growing urbanization have led to changing diets in SSA countries. Increasingly urbanized populations in SSA are also eating out more and buying more food at grocery stores. These developments have strengthened demand for more processed food items, such as prepared and preserved vegetables. Some of these developments have also increased demand for other complementary goods, such as polyethylene resins to produce food packaging and plastic retail bags.

Factors Leading to Potential Growth of U.S. Exports to SSA

Besides the sectors discussed above, six other goods sectors with potential for future growth in U.S. exports have been identified for this report. These include sauces, condiments, and food ingredients; corn (part of the cereals sector); motor vehicles; ethyl alcohol; poultry; and refined petroleum products. The additional sectors were selected based on a review of relevant economic and trade journals, and/or the results from the gravity-model analysis. The gravity model predicts trade flows between the United States and SSA countries based on actual trade and certain characteristics of the bilateral relationships between these exporters and importers. The predicted trade flows generated by the model are compared to actual trade flows, and the results can be used to estimate the potential for U.S. trade flows with SSA countries in the future, given worldwide trade patterns and the data on bilateral characteristics. Among all sectors, the gravity model identifies five sectors that have the largest gaps between expected and actual U.S. export flows to SSA countries: aircraft (see above), pharmaceuticals (see above), motor vehicles, refined petroleum products, and cereals.

In addition to economic growth, rising income levels, and increased urbanization, the potential for future growth in U.S. exports of these products is also affected by changing diets (e.g., affecting consumption of sauces, poultry, and corn); increases in industrial production and changes to household cooking fuel use (e.g., for ethyl alcohol); and regulatory changes affecting the importation of used vehicles. Each of these factors is discussed in more detail below.

Sauces, Condiments, and Food Ingredients: In SSA, changing consumer tastes and expanding economies, particularly in West Africa, contribute to strong demand for U.S.-made foods and ingredients in this product group. Evidence suggests that the potential is high for continued growth in exports of processed foods and food exports to SSA, despite strong competition from EU food manufacturers in some segments of the market. Forecasts from U.S. government and industry sources predict that the rapid growth of the grocery, restaurant, and food manufacturing sectors will continue, since these sectors remain nascent in the region. This should generate strong demand for U.S. products, particularly in the segments of the market where investors (such as fast-food outlets) are U.S.-owned and thus accustomed to incorporating certain U.S. ingredients in their products.

Corn: There is significant potential for growth in U.S. corn exports to SSA. U.S. exports of yellow corn, used largely for poultry feed, could see future expansion as poultry production increases to meet growing meat demand from rising incomes and population. For instance, in Nigeria, domestic poultry production is expanding and modernizing to meet growing consumer demand, requiring greater quantities of imported corn for feed. In Ethiopia, plans for public and private sector investment to expand dairy and beef production will also likely bolster demand for feed corn.

Motor Vehicles and Parts: Though total U.S. exports of motor vehicles to SSA declined between 2010 and 2016, the gravity-model analysis indicates that the motor vehicle sector is one of those showing the greatest potential for U.S. exports to SSA. It is also important to note that 56 percent of U.S. exports of motor vehicles in 2016 were used vehicles, a much larger share than in most other parts of the world. The top four markets for total U.S. vehicle exports (Nigeria, Ghana, South Africa, and Benin) make up 81 percent of used vehicle exports from the United States to SSA. The gravity model singles out Angola, Ethiopia, and Kenya as the three SSA countries with the biggest gaps between potential and actual trade flows to the United States. However, certain obstacles must be overcome before this potential can be

realized. Angola was identified with the largest gap in U.S. exports of automobiles; in 2013–15 it was the fifth-largest destination in SSA for U.S. automotive exports, but U.S. exports fell thereafter. The decrease was partly due to a 2010 ban on imports of used vehicles that are more than three years old and a 2014 executive decree that restricted imports of many specific models. Ethiopia has also placed certain restrictions on the importation of vehicles, which include import taxes of up to 200 percent. Finally, U.S. exports of vehicles to Kenya are limited by the fact that Kenyans drive on the left, rather than the right, side of the road.

Ethyl Alcohol (ethanol): There is potential for growth of U.S. exports of ethanol to SSA for industrial and household use, as well as for automotive fuel use, albeit for different reasons. For industrial and household usage, SSA demand for ethanol from the manufacturing sector and from households (for cookstove fuel) is expected to continue to expand. For automotive fuel use, 10 SSA countries have renewable-fuel mandates or future blending targets in place that specify a percentage of gasoline content that should be composed of renewable fuels (e.g., ethanol, biodiesel). However, most SSA countries do not yet meet their targets, and it is not certain that the targets will be met in the future. In addition, growth of U.S. exports of fuel ethanol to SSA will require infrastructure for handling ethanol and for blending it with fossil fuels. Currently, many SSA countries import pre-blended petroleum products containing ethanol (often from the United Arab Emirates, which imports U.S. ethanol for fuel blending) to meet their renewable fuel mandates.

Poultry: Representatives from the U.S. poultry industry and the International Trade Centre in Geneva have identified poultry as a sector in which there is potential for growth in U.S. exports. Meanwhile, the Commission's gravity model analysis ranked South Africa, Benin, and Togo as the three countries with the largest gaps between potential and actual U.S. poultry export flows. In the top two underperforming markets, South Africa and Benin, the underperformance may be due to government policies restricting market access. However, as of 2017, U.S. exporters had increased their share of South African total imports in response to a relatively new tariff-rate quota (TRQ). In Benin, U.S. exports represent 5 percent (on average) of Benin's poultry imports, while the expected market share is closer to 10 percent. In general, SSA government policies on market access and responses to disease outbreaks (i.e., import bans), as well as the lack of cold chain infrastructure in some countries to keep chicken meat safe for use, are potential factors undermining U.S. performance in the SSA market.

Refined Petroleum Products: The Commission's gravity model identified South Africa, Tanzania, and Kenya as the SSA markets with the greatest gaps between predicted and actual U.S. export flows in this sector. These countries each import large quantities of gasoline, diesel, and jet fuel, but principally from non-U.S. sources. Two factors appear to underlie this gap. First, procurement systems in Tanzania and Kenya for sourcing refined petroleum products have favored a small group of marketers with connections to other countries. Second, differences in transportation fuel standards have favored refineries in other countries producing diesel with a higher sulfur content (i.e., more highly polluting) at lower cost. There is still a growing opportunity in Tanzania and Kenya for U.S. exports; however, U.S. companies may need to develop relationships with local marketers participating in these procurement systems (or set up local downstream operations and participate directly) in order to establish market share. At the same time, demand in South Africa and West Africa for U.S. refined petroleum products will depend on whether they adopt stricter fuel standards that favor U.S. fuel blends with lower concentrations of sulfur.

Fastest-growing Country Markets for U.S. Exports to SSA

The fastest-growing country markets for U.S. exports to SSA during 2010–16 were Côte d'Ivoire, Namibia, Togo, Sudan, Cameroon, and Mauritius (table ES.2). Refined petroleum products accounted for the majority of the expanding U.S. exports to Côte d'Ivoire, Namibia, and Togo. By contrast, electric generating sets and alternating current (AC) generators were the primary drivers of increased U.S. exports to Cameroon, while civilian aircraft and liquefied petroleum gas (propane and butane) drove the increase in U.S. exports to Mauritius. Meanwhile, U.S. exports to Togo increased significantly from 2010 to 2014, but declined from \$1.0 billion in 2014 to \$227 million in 2016. The decline was driven mainly by a decrease in the value of U.S. exports of refined petroleum products to the country, due mainly to a significant drop in prices of refined petroleum products.

Table ES.2 U.S. exports to SSA countries, by leading destination markets, 2010–16

Country	2010	2012	2014	2016	Absolute change	Compound annual
					2010–16	growth rate (CAGR) 2010–16
	Million \$					Percent
Côte d'Ivoire	160	185	234	286	126	10.2
Namibia	93	151	283	174	81	11.0
Togo	156	368	1,018	227	71	6.5
Sudan	0	55	77	55	55	0.0
Cameroon	130	250	298	176	47	5.3
Mauritius	38	94	34	85	47	14.2
All other SSA	15,929	20,679	22,823	11,882	-4,047	-4.8
Total	16,505	21,782	24,767	12,886	-3,619	-4.0

Source: Compiled from official statistics of the U.S. Department of Commerce (USDOC) (accessed October 10, 2017).

Third-country Competitors for U.S. Exports

Third-country suppliers may affect the potential for future growth of U.S. exports to SSA, in part because these countries (for instance, EU member countries) maintain strong historical ties with the region. The EU also has free trade agreements with several SSA countries, including a bilateral one with South Africa and a multilateral one with Madagascar, Mauritius, Seychelles, and Zimbabwe. Such agreements give European firms a competitive edge in exporting to these countries. Moreover, many EU countries are located closer to SSA markets than the United States is. Some emerging economies, such as China and India, have also increased their exports to SSA in part because their production costs (and hence their prices) are lower than those of the EU and the United States. In the fastest-growing U.S. export sectors, major third-country suppliers include China, the EU, and India (table ES.3).

Table ES.3 Selected products with substantial third-party competition in SSA, major suppliers' market share, 2016 (percent)

Product	U.S.	China	EU	India	All other
Aircraft	47	^a	39	^a	14
Ships, tugs, pleasure boats and floating structures (primarily floating oil platforms)	9	11	18	1	61
Natural gas and components (propane and butane)	18	^a	11	^a	71
Electric motors, generators, and related equipment (primarily power generating equipment)	12	26	45	4	13
Pharmaceuticals (formulated products)	2	6	45	33	14
Pharmaceuticals (diagnostic reagents and CRMs)	13	1	56	1	29
Prepared or preserved vegetables, mushrooms, and olives	11	22	31	2	34
Polyethylene resins in primary forms	11	3	7	1	78
Sauces and condiments	12	30	23	1	33
Food ingredients	6	6	51	1	36
Corn	7	0	1	^a	92
Motor vehicles (shares are for vehicles, parts are not included)	7	9	33	6	45
Ethyl alcohol, non-beverage (ethanol)	3	^a	7	34	56
Poultry	30	^a	43	^a	27
Refined petroleum products	2	^a	43	10	45

Source: IHS Markit, Global Trade Atlas (accessed between January and February, 2018).

Note: Statistics based on SSA region's reported import data. "Aircraft" refers to products classified under HS 88. "Propane and butane" refers to products classified under HS 2711.12 and 2711.13. "Formulated products" refers to products classified under HS 3004. "Diagnostic reagents and certified reference materials (CRMs)" refers to products classified under HS 3822. "Polyethylene resins in primary forms" refers to products classified under HS 3901. "Sauces and condiments" refers to products classified under HS 2103.90. "Food ingredients" refers to products classified under HS 2106.90. "Corn" refers to products classified under HS 1005.90. "Poultry" refers to products classified under HS 0207.14. "Refined petroleum products" refers to products classified under HS 2710, 2713, and 3811. "HS" refers to the Harmonized Commodity Description and Coding System (Harmonized System), which lists international codes for traded goods for tariff purposes. Sum of shares may not equal to 100 due to rounding.

^a The market share is smaller than 0.5 percent.

U.S. Exports of Services to SSA

Disaggregated data on U.S. exports to SSA are not available. However, the Bureau of Economic Analysis (BEA) publishes data on U.S. trade with Africa as a whole, which include exports to both SSA and the countries of North Africa.¹ U.S. exports of private services—which include all services exports except government-provided services—to all African countries increased at a CAGR of almost 4.1 percent during 2010–15 to \$13.7 billion, before decreasing to \$13.0 billion in 2016. This report discusses U.S. exports of services to SSA in the following five sectors: air transport services; education-related travel services; financial services; insurance services; and information and communication technology (ICT) services.

Air Transport Services: Air transport services include air passenger transport, air freight transport, and airport services. U.S. exports of air passenger transport services occur when U.S. carriers transport

¹ BEA does not publish discrete data on U.S. cross-border services trade with SSA. Africa, as referenced here, includes SSA countries as well as Egypt, Libya, Algeria, Morocco, Tunisia, Western Sahara, and outlying islands. USDOC, BEA, "Geographic Area Definitions," n.d. https://www.bea.gov/international/bp_web/geographic_area_definitions.pdf (accessed October 10, 2017).

foreign residents to and from the United States or between two foreign countries. U.S. exports of air freight transport services occur when airlines transport foreign goods between the United States and foreign countries or between two foreign ports. U.S. exports of airport services encompass the value of goods and services procured by foreign airlines at U.S. airports. While the number of passengers traveling to SSA on both U.S. and non-U.S. carriers increased during 2010–16, such travel accounts for a declining share of global passenger air transport. Delta Air Lines is currently the only carrier providing direct flights from the United States to the SSA market, with flights to Accra (Ghana), Dakar (Senegal), Johannesburg (South Africa), and Lagos (Nigeria). At the same time, demand for U.S. exports of airport services to SSA may increase in the coming years (i.e., through the provision of services to foreign airlines landing in U.S. airports). For example, Ethiopian and South African airlines have been making direct flights to the United States for decades while Kenya Airways and Ethiopian Airlines are planning new routes that serve U.S. destinations. This expansion could potentially lead these SSA airlines to purchase certain maintenance and other services at U.S. airports. In particular, Kenyan Airways anticipates a direct flight to New York beginning in 2018, serving 60,000 passengers yearly.

Education-related Travel Services: U.S. exports of education-related travel services include the expenses of students from foreign countries who come to pursue higher education or language studies in the United States. Education-related travel services exports include not just tuition and related fees, but also the money that these foreign students (typically called “international students”) spend on lodging, food, and other goods they buy while in the United States. Overall, the United States remains a competitive market for students from SSA, and SSA international student enrollment continues to grow at a relatively high rate. A ranking of the top 10 foreign destinations for African students saw the United States rise from fourth place overall in 2010 to second in 2014 (behind France, the historical leader). The U.S. government also led the first U.S. education trade mission to SSA in 2016, which included representatives of 25 U.S. colleges and universities, in an effort to recruit students and forge links with universities in the region. However, increasing competition from other anglophone countries overall, such as Australia, Canada and the UK, and uncertainty surrounding U.S. immigration policies have contributed to the decline of new international student enrollment in the United States.

Financial Services: U.S. banks provide corporate finance, investment banking, and foreign exchange services to large private sector clients through their SSA subsidiaries. Demand for financial services is expected to grow quickly from a low base as SSA countries become wealthier. Many SSA countries have been experiencing income growth, urbanization, globalization, and increased investment, all of which drive demand for financial services. Mineral wealth also creates demand for capital investment financing, illustrated by Citigroup’s 2013 decision to open a branch in the Democratic Republic of the Congo (DRC) in its “mining capital” of Lubumbashi. Technology will also affect the prospects for financial services exports to SSA. Customers in the region are increasingly using mobile devices to make digital payments, facilitated by payment services like Kenya’s M-Pesa. This expands the pool of potential customers, as even low-income and underbanked people in SSA increasingly have mobile phones. The large size of U.S. banks and the wide scope of services they provide, as well as the rate of innovation in the U.S. financial technology sector, may help U.S. firms compete in SSA.

Insurance Services: In SSA, insurance services are primarily provided through affiliate transactions (e.g., through the subsidiaries of U.S. insurance firms located in SSA). A small number of U.S. insurers are active in SSA. For instance, AIG provides insurance to businesses and government organizations through subsidiaries in Kenya, South Africa, and Uganda. In 2016, AIG accounted for about 2 percent of the South African market by premiums written. Overall, insurance demand—particularly health insurance demand—is expected to grow in SSA as countries in the region become wealthier, though so far growth

in insurance penetration has lagged behind growth of gross domestic product (GDP) in the region. Technology will boost the insurance sector as well, as consumers can increasingly buy insurance, pay premiums, and submit claims with mobile phones. Technological innovation may help U.S. firms take advantage of market growth in SSA.

ICT Services: Over the past few decades, U.S. ICT companies have been relatively absent from SSA due to poor ICT infrastructure, the difficulty of maintaining operations in underdeveloped economies, and perceptions that the financial benefits of operating in many SSA countries do not outweigh the costs and risks. As a result, most U.S. companies operating in the region have focused their attention on South Africa, and many of these activities have commenced only in the past few years. In the near term, most opportunities for ICT firms will likely be focused in South Africa, the SSA country with arguably the best ICT infrastructure. Due to ongoing efforts to build broadband networks in most African countries, U.S. firms will also be able to offer a variety of advanced ICT services to companies in many African countries from data and cloud centers based in South Africa.

Exports by U.S. Small and Medium-sized Enterprises

In 2015, the latest year for which data are available, goods exports to SSA by U.S. SMEs were approximately \$5.8 billion, a decrease from 2010. Over 40 percent of the 2015 exports were concentrated in South Africa and Nigeria. Also in that year, about half of U.S. SME goods exports were concentrated in machinery manufacturing equipment, transportation equipment, and chemical manufacturing. The slowdown in U.S. SME exports between 2010 and 2015 was attributable to both a decline in the number of U.S. SMEs exporting to the region (mostly to Nigeria) and a decrease in the average amount of exports per U.S. SME engaged in trade activity with SSA.

Official studies and academic literature have not provided authoritative or comprehensive information about the obstacles U.S. SMEs have faced in exporting to SSA. However, some information about obstacles to U.S. SME exports in general is known, such as SMEs' inability to find foreign business partners, problems with receiving and processing foreign payments, and difficulties paying high tariffs. Relative to larger firms, U.S. services SMEs have also found poor intellectual property protection and heavy foreign taxation to be particular hindrances.

Fastest-growing U.S. Imports of Goods from SSA

The fastest-growing U.S. imports of goods from SSA represent a range of sectors, including agriculture, apparel and textiles, industrial equipment, and natural resources (table ES.4).

Table ES.4 Fastest-growing U.S. imports from SSA countries, by digest sector, 2010–16

Product	2010	2012	2014	2016	Absolute change	Compound annual
					2010–16	growth rate (CAGR)
	Million \$					2010–16
						Percent
Cocoa, chocolate, and confectionery	1,038	1,001	1,206	1,298	260	3.8
Apparel	795	871	1,028	1,036	241	4.5
Spices ^a	38	55	87	241	203	36.0
Copper and related articles (primarily refined copper)	10	8	111	114	105	50.7
Centrifuges and filtering and purifying equipment (primarily catalytic converters)	205	224	273	291	86	6.0
Edible nuts	88	115	153	167	79	11.3

Source: Compiled from official statistics of the U.S. Department of Commerce (USDOC) (accessed October 10, 2017).

^a For discussion of spices (natural vanilla) imports, see table 3.2 in chapter 3.

Factors Leading to Growth of U.S. Imports from SSA during 2010–16

In general, the primary factors contributing to the growth of U.S. imports from SSA include, among other things, certainty created following the long-term renewal of AGOA to 2025; FDI in the SSA region; U.S. companies offering contracts to SSA suppliers; cost-competitiveness of SSA production; and the expansion of manufacturing facilities in SSA. These and other sector-specific factors are noted below.

Cocoa, Chocolate, and Confectionery: U.S. imports of cocoa products from SSA increased from \$1.0 billion in 2010 to \$1.3 billion in 2016, or by 3.8 percent per year (table ES.4). This increase has been driven by both demand and supply factors. U.S. demand for chocolate products has risen, driven by an increase in disposable income and domestic consumers' interest in the possible health benefits of chocolate products. In addition, a decline in cocoa prices, most noticeably from SSA countries, has spurred U.S. imports and consumption. This has led to a slight overall increase in U.S. imports of cocoa beans from all sources and a slight shift towards SSA suppliers and away from suppliers in Asia and Central and South America. Looking ahead, U.S. chocolate production is forecast to increase slightly over the next five years. If this occurs, imports of cocoa beans from SSA countries are likely to increase correspondingly, since SSA countries accounted for 80 percent of U.S. cocoa bean imports in 2016.

Apparel: U.S. imports of apparel from SSA grew at a CAGR of 4.5 percent during 2010–16, from \$795.2 million in 2010 to over \$1.0 billion in 2016. Kenya, Lesotho, Mauritius, and Madagascar accounted for over 90 percent of all U.S. apparel imports from SSA in 2016. SSA countries' key competitive advantages as suppliers of apparel to the United States are the duty-free preferences awarded under AGOA, the liberal rules of origin available for apparel under the "third-country fabric provision," and, in 2015, the long-term renewal of AGOA to 2025, which gave firms more confidence to invest in and source from the region. China's declining competitiveness as an apparel producer, due to its rising labor costs, also contributed to increasing U.S. imports of apparel from SSA. Regional integration efforts (including infrastructure investment) among SSA countries will encourage a larger demand for locally produced upstream inputs, such as yarns and fabrics for SSA apparel manufacturers, and therefore increase their potential to supply more apparel to the U.S. market.

Copper and Related Articles: From 2010 to 2016, total U.S. imports of copper and related articles from SSA rose by \$104.6 million, of which \$100.5 million was due to increased U.S. imports of refined copper from the Democratic Republic of the Congo (DRC). The increase was largely due to FDI in mining in the DRC, such as in two foreign-owned mines there—Tenke Fungurume and Mutanda—that started production in 2009 and 2010. Imports of refined copper from the DRC are eligible for duty-free treatment under GSP, which gives the DRC a competitive advantage over other third-party suppliers. U.S. refined copper imports from SSA have the potential to continue to grow due to new mine development projects and increased production, particularly in the DRC.

Centrifuges and Filtering and Purifying Equipment: Between 2010 and 2016, U.S. imports of centrifuges and filtering and purifying equipment from SSA grew by \$86 million (table ES.4). Of this growth, \$67 million was due to an increase in imports of catalytic converters, nearly all supplied by South Africa. The increase was likely due in part to the award of a contract by General Motors to both General Motors South Africa and Tenneco South Africa. This contract, which extends to 2022, was to supply catalytic converters for use with V-6 engine vehicles manufactured in North America. However, U.S. production of cars and other vehicles in 2018 and 2019 is expected to remain below 2016 levels, so it is unclear whether import volumes of catalytic converters will continue to grow.

Edible Nuts: U.S. nut imports from SSA countries rose from \$87.7 million in 2010 to \$166.9 million in 2016, a CAGR of 11.3 percent (table ES.4). The rise was partly driven by higher U.S. demand, as nut consumption is perceived to foster health and wellness. Moreover, SSA producers of both cashews (Côte d'Ivoire, Ghana and Mozambique) and macadamia nuts (Kenya and South Africa) have responded to increased global demand and higher prices with increased plantings. Production of cashews and macadamia nuts in the major SSA nut-growing countries is expected to grow in the next several years, potentially further increasing those countries' share of the U.S. market. Reportedly, South Africa has the potential to become the world's largest producer and exporter of macadamia nuts, as producers there are expanding the area planted in macadamia nuts more rapidly than are producers in Australia.

Factors Leading to Potential Growth of U.S. Imports from SSA under AGOA

Besides the sectors discussed above, a review of relevant economic and trade journals identified two additional goods sectors—footwear and raw cane sugar—as potentially enabling the United States to expand its imports from SSA under AGOA, as discussed below.

Raw Cane Sugar: U.S. imports of raw cane sugar from SSA declined in value by 8.2 percent from 2010 to 2016. This decrease is mainly due to a decline in U.S. domestic sugar prices, which averaged 23 percent less in 2016 than in 2010. U.S. imports from SSA may rise in the future owing to changes to EU sugar policies and the fact that WTO tariff-rate quotas (TRQs) allocated to SSA countries have been unfilled. EU beet sugar production had been subject to price supports and production quotas under the EU's Common Agricultural Policy since 1968. However, in 2013 the EU agreed to terminate the sugar production quota system at the end of the 2016/17 marketing year. These policy changes are expected to substantially increase EU beet sugar production, thus cutting EU sugar imports by half, including imports from SSA. Therefore, the U.S. market is likely to be the next most attractive alternative destination for SSA raw cane sugar exports, although the increase would be subject to WTO TRQ limits.

Footwear: U.S. imports of footwear from SSA under AGOA increased from \$0.4 million in 2010 to \$23.7 million in 2016. During 2010–16, Ethiopia replaced South Africa as the leading SSA exporter of footwear to the United States, accounting for 93 percent of U.S. footwear imports from AGOA-eligible countries in 2016. Ethiopia’s key competitive advantages include an abundant, low-cost labor force, a large supply of livestock that has supported the development of leather shoe production, an ample supply of low-cost electricity from a large hydroelectric power dam, and duty-free access to the U.S. market under AGOA. SSA footwear production and exports to the United States are likely to continue growing through 2025. The 2015 renewal of AGOA offers footwear firms in Ethiopia and other eligible SSA countries several more years of “duty-free certainty,” encouraging continued sourcing from the region.

Fastest-growing Country Sources for U.S. Imports from SSA under AGOA, 2010–16

The fastest-growing suppliers of U.S. imports from SSA under AGOA during 2010–16 were Kenya, Madagascar, Mauritius, and Ethiopia (table ES.5). These countries are among SSA’s largest exporters of apparel and footwear to the United States, mainly under AGOA.

Table ES.5 U.S. imports for consumption under AGOA, by source markets, 2010–16

Country	2010	2012	2014	2016	Absolute change 2010–16	Compound annual growth rate
						(CAGR) 2010–16 ^a
Million \$						Percent
Kenya	221	288	417	391	170	10.0
Madagascar	0	0	^b	94	94	^a
Mauritius	118	160	218	188	70	8.1
Ethiopia	7	18	36	61	55	44.0
Tanzania	2	10	17	37	35	64.7
Ghana	2	17	57	30	28	56.1
Mauritania	26	0	0	48	21	10.4
Lesotho	280	301	289	295	15	0.9
Mozambique	^b	^b	1	1	1	^a
Rwanda	^b	^b	^b	1	1	^a
All other SSA	38,024	31,744	10,839	8,304	-29,719	-22.4
Total	38,680	32,538	11,874	9,451	-29,229	-20.9

Source: USITC DataWeb/USDOC (accessed December 8, 2017).

^a CAGR not provided because 2010 value was zero or near zero.

^b Less than \$500,000.

U.S. Services Imports from SSA

U.S. imports of private services from all African countries posted an overall CAGR of 1.7 percent during 2010–16 and totaled \$8.0 billion in 2016. Travel services accounted for the largest share (49.4 percent) of U.S. imports of private services from Africa in 2016.

U.S. imports of travel services reflect U.S. residents’ purchases of goods and services, such as food and lodging, while traveling abroad for personal, business, health, and education purposes. U.S. imports of travel services from Africa totaled \$3.9 billion in 2016. Such imports increased at a CAGR of 2.8 percent

during 2010–16, slightly faster than the 1.7 percent CAGR for total U.S. imports of private services from the continent. The United Nations World Tourism Organization (UNWTO) expects overall visitor arrivals in SSA to continue to grow, and the U.S. share of those arrivals has been relatively stable in recent years. This suggests that both U.S. visitor arrivals to and the value of travel services imports from SSA are likely to increase. Tourism providers in SSA are working to better integrate themselves in the online travel market, where around 50 percent of travel is now booked, and to take advantage of the growth in SSA-bound business travelers owing to increasing FDI in SSA.

Potential Sectors and SSA Markets for U.S. FDI

In 2016, U.S. FDI stock in SSA totaled \$29.0 billion. The three largest destinations for U.S. FDI in SSA were Mauritius (\$7.0 billion), South Africa (\$5.1 billion), and Nigeria (\$3.8 billion). Overall, 60.4 percent of U.S. investment in Africa was in the mining sector (which includes crude petroleum), 7.1 percent in manufacturing, and 32.5 percent in other industries (including services and agriculture).

Qualitative analysis shows that professional and business services, financial services, textiles and apparel, renewable energy, and mining are the sectors that likely present the greatest potential for U.S. outward FDI to SSA. The mining sector, which mainly includes oil and natural gas, comprises the majority of U.S. FDI positions in Africa in terms of value. In SSA, the largest destinations for FDI within the mining sector are Nigeria, Angola, and Equatorial Guinea. However, a decline in commodity prices has tempered investor interest in the sector: U.S. FDI stock in Nigeria’s mining sector declined by 44.4 percent from 2010 to 2016, and U.S. FDI stock in Angola’s mining sector in 2016 was 65.5 percent lower than in 2010. Nonetheless, the International Monetary Fund regional outlook report suggests that commodity prices should rise after 2017 and may spur additional investment in the mining sector in SSA, making the mining sector one of the sectors that presents potential for U.S. outward FDI to SSA.

As mentioned in the Commission’s hearing testimony, services—particularly professional and business services—have been identified as the sector where the United States may have the strongest competitive edge in Africa. U.S. FDI stock in Africa in the professional, scientific, and technical services industry surged by over 120 percent from 2010 to 2016. Additionally, as capital access and financial intermediation become more important, investment in financial services in SSA will likely increase. Services constitute the majority of recent greenfield projects and M&A deals in SSA, though as noted above, the value of these deals remains below that of mining.

Although manufacturing makes up a small percentage of the overall U.S. FDI position in Africa, manufacturing-related greenfield investment from the United States experienced some of the most consistent growth in SSA from 2010 to 2016. Sectors seeing such investment include textiles, alternative/renewable energy, and chemicals. Regional experts indicate that, given increasing costs of apparel production in other countries, especially China, the textile and apparel sector in SSA holds future potential for U.S. investors. Further, SSA’s renewable energy sector, where the number of FDI projects has seen steady growth, could be one in which U.S. firms have an advantage, considering the strength of U.S. engineering in this field.

Significant Factors Impacting U.S. FDI

Macroeconomic and institutional factors have shaped U.S. FDI in SSA, as well as SSA FDI in the United States. Countries with large domestic markets and higher per capita GDP, such as South Africa, have

been leading destinations in terms of inward and outward FDI position with the United States. Moreover, countries with low costs of doing business, such as Mauritius, have had an edge in attracting U.S. FDI compared to other SSA countries. In addition, SSA countries with good institutions are more attractive to foreign investors because they provide a predictable, stable, and transparent political environment. Finally, countries with relatively developed infrastructure, such as South Africa and Kenya, have also attracted more FDI than other SSA countries.

Major Third-country Investors

According to the United Nations Conference on Trade and Development (UNCTAD), the largest single-economy investors into Africa (including the countries of North Africa) in 2015, besides the United States (\$59 billion), were the United Kingdom (UK) (\$58 billion), France (\$54 billion), China (\$35 billion), South Africa (\$22 billion), and Italy (\$22 billion). In the aggregate, EU member countries were the largest source of FDI stock in Africa.

EU's FDI stock in Africa totaled \$322 billion in 2016. Leading destination markets for EU's outward FDI to SSA were South Africa, Nigeria, Angola, and Mauritius. Historical commercial ties have contributed significantly to the EU's FDI in SSA. For instance, from 2010 to 2016, the UK accounted for the majority of greenfield and M&A deals in South Africa and Nigeria, both of which are former British colonies. Similarly, Portugal made up the majority of EU's greenfield investment projects in Angola, a former Portugal colony. A majority of the Portuguese investments were financial services projects, primarily new bank branches opened by several large Portugal-based banks.

China's FDI in SSA is one of the largest in the region, amounting to \$31 billion in 2015. South Africa, the DRC, and Nigeria have been the largest recipients of Chinese FDI, which has been primarily concentrated in the region's extractive industries. Strong Chinese government support, linkages between China's trade and investment in the region, and the country's interests in securing natural resources and access to global supply chains in the region have all helped explain the size and growth of Chinese FDI in SSA. Meanwhile, state-owned enterprises (SOEs) are prominent in China's natural resource and energy industries, and have predominated in this form of Chinese investment within SSA. China's massive "One Belt, One Road" infrastructure initiative has included Africa in its purview, and many of the firms involved in its associated infrastructure development are state-owned.

Country Profiles

The Commission's report profiles seven countries selected by USTR. These countries are Cameroon, Côte d'Ivoire, Ethiopia, Kenya, Mauritius, Nigeria, and South Africa. In 2016, 6 of the countries were ranked among the 10 largest economies in SSA by GDP, with Nigeria being the largest and South Africa, the second largest (table ES.6). Côte d'Ivoire and Ethiopia experienced the fastest economic growth, while Nigeria had its first recession since 2010 due to decreasing oil production and prices.

Table ES.6 Overview of Cameroon, Côte d'Ivoire, Ethiopia, Kenya, Mauritius, Nigeria, and South Africa, 2016

	Cameroon	Côte d'Ivoire	Ethiopia	Kenya	Mauritius	Nigeria	South Africa
Macroeconomics							
GDP ranking in SSA	9	8	5	4	24	1	2
GDP ^a (billion \$)	32.2	36.4	72.4	70.5	12.2	404.7	295.5
GDP per capita ^a (\$)	1,374.5	1,535.0	706.8	1,455.4	9,630.9	2,175.7	5,274.5
GDP growth (%) (2015–16)	4.5	8.3	7.6	5.8	3.8	-1.6	0.3
Trade (billion \$)							
With the world							
Goods	7.0	21.4 ^b	20.8	19.5	6.6	68.1	151.8
Commercial services ^c	3.6	3.5	6.0	5.8	5.0	21.4	29.8
With the United States							
Goods	0.3	1.5	1.1	0.9	0.4	6.1	11.4
Private services ^d	^e	^e	^e	^e	^e	2.8	4.7
FDI (billion \$)							
With the world							
Inward FDI stock	6.9	7.6	13.7	11.2	4.6	94.2	136.8
With the United States							
Inward FDI stock	-0.1 ^f	0.2	^e	0.4	7.0	3.8	5.1

Source: World Bank, “World Bank Analytical Classifications,” World Development Indicators database (accessed January 3, 2018); IHS Markit, Global Trade Atlas database (accessed January 10, 2018); USITC DataWeb/USDOC (accessed November 7, 2017); USDOC, BEA, Interactive data, International Transactions, Services, & IIP, International Services, table 2.3 (accessed November 13, 2017); WTO, Statistics Database, Time Series on International Trade, “Trade in Commercial Services, 2005–onward (BPM6)” (accessed November 7, 2017); UNCTAD, FDI/TNC database, “Foreign Direct Investment: Inward and Outward Flows and Stock, Annual, 1970–2016 “ (accessed February 1, 2017); USDOC, BEA, International Transactions Account database, “Foreign Direct Investment Position in the United States on a Historical-cost Basis” and “U.S. Direct Investment Position Abroad on a Historical-cost Basis” (both accessed November 20, 2017).

^a In current nominal terms.

^b Data for trade in goods with Côte d'Ivoire are based on 2015 data, the latest year for which data for goods trade are available.

^c Based on 2015 data, the latest year for which services trade data with the world are available for these countries. The WTO term “commercial services” is roughly equivalent to the term “private services,” which excludes government-provided services.

^d Based on reported services trade statistics from the Bureau of Economic Analysis (BEA) under the U.S. Department of Commerce (USDOC).

^e Data not available.

^f FDI stocks or positions include equity and inter-company loans. Negative FDI stocks or positions often happen when the loans from the affiliate to its parent exceed the loans and equity capital given by the parent to the affiliate. Source: OECD, “Foreign Direct Investment Statistics Explanatory Notes.” (accessed February 5, 2017).

Among the countries profiled, South Africa accounted for the largest volume of goods and services trade with the world as well as with the United States in 2016, followed by Nigeria (table ES.6). In 2016, South Africa was the largest recipient of inward FDI stock from the world, while Mauritius had the largest inward FDI stock from the United States (table ES.6). Three countries—Mauritius, Nigeria, and South Africa—have each signed a trade and investment framework agreement (TIFA) with the United States; these agreements establish a strategic framework and principles for bilateral dialogue on trade and investment issues. Kenya has the highest AGOA utilization rate among the countries profiled (96.8 percent), followed by Nigeria (88.8 percent) and Ethiopia (86.2 percent).

Selected AGOA Strategies

The most recent extension of AGOA, authorized by the Trade Preferences Extension Act of 2015, encouraged beneficiary countries to develop national AGOA strategies to improve their AGOA utilization rates, and encouraged the African Union’s Regional Economic Communities to do the same on a regional level.

To date, 15 out of 38 AGOA beneficiary countries have prepared specific national AGOA strategies—typically in conjunction with the U.S. Agency for International Development. Although these strategy documents are at various stages of development, they all have the same goal: to enhance AGOA utilization by identifying sectors that have the potential to increase exports to the United States under AGOA (table ES.7).

Table ES.7 Countries that have completed national AGOA strategies in high-priority industries and products

AGO beneficiary country	Agricultural and food processing	Textile, apparel, footwear and leather products	Jewelry and other mining	Handicrafts	Other light manufacturing ^a
Botswana	•	•	•	•	•
Burundi	•	•	•		•
Ethiopia	•	•			
Ghana	•	•	•	•	
Kenya	•	•			•
Lesotho	•	•	•	•	•
Madagascar	•	•	•	•	•
Malawi	•	•	•		
Mali	•	•	•	•	
Mauritius	•	•	•		•
Mozambique	•	•	•		•
Rwanda	•	•			•
Senegal	•	•		•	•
Tanzania	•	•		•	
Togo	•	•	•	•	
Zambia	•		•		

Source: Compiled from national AGOA strategy documents; Government of Togo, *Operational Action Plan for the Short and Medium Term Use of AGOA*, August 1, 2017; Government of Malawi, *Strategic Plan 2011–2016*, September 2011, 10.

Note: While not specifically an AGOA strategy, Malawi has a national export strategy dated 2011–16.

^a Other light manufacturing includes categories such as headgear, toys, sporting goods, plastic, glass and other ceramic products.

Recent Developments in SSA Regional Integration

While regional economic integration has long been a goal of some African leaders, in recent years the African Union (AU) has been working to rationalize this effort. In particular, the AU is working with eight regional economic blocs, the Regional Economic Communities (RECs), toward the end goal of a single, continent-wide market for the African Economic Community (AEC), which includes the Continental Free Trade Area (CFTA). Until recently there has been little progress toward the CFTA. However, on March 21, 2018, 44 out of the 55 members of the African Union signed the agreement at a summit in Kigali, Rwanda.

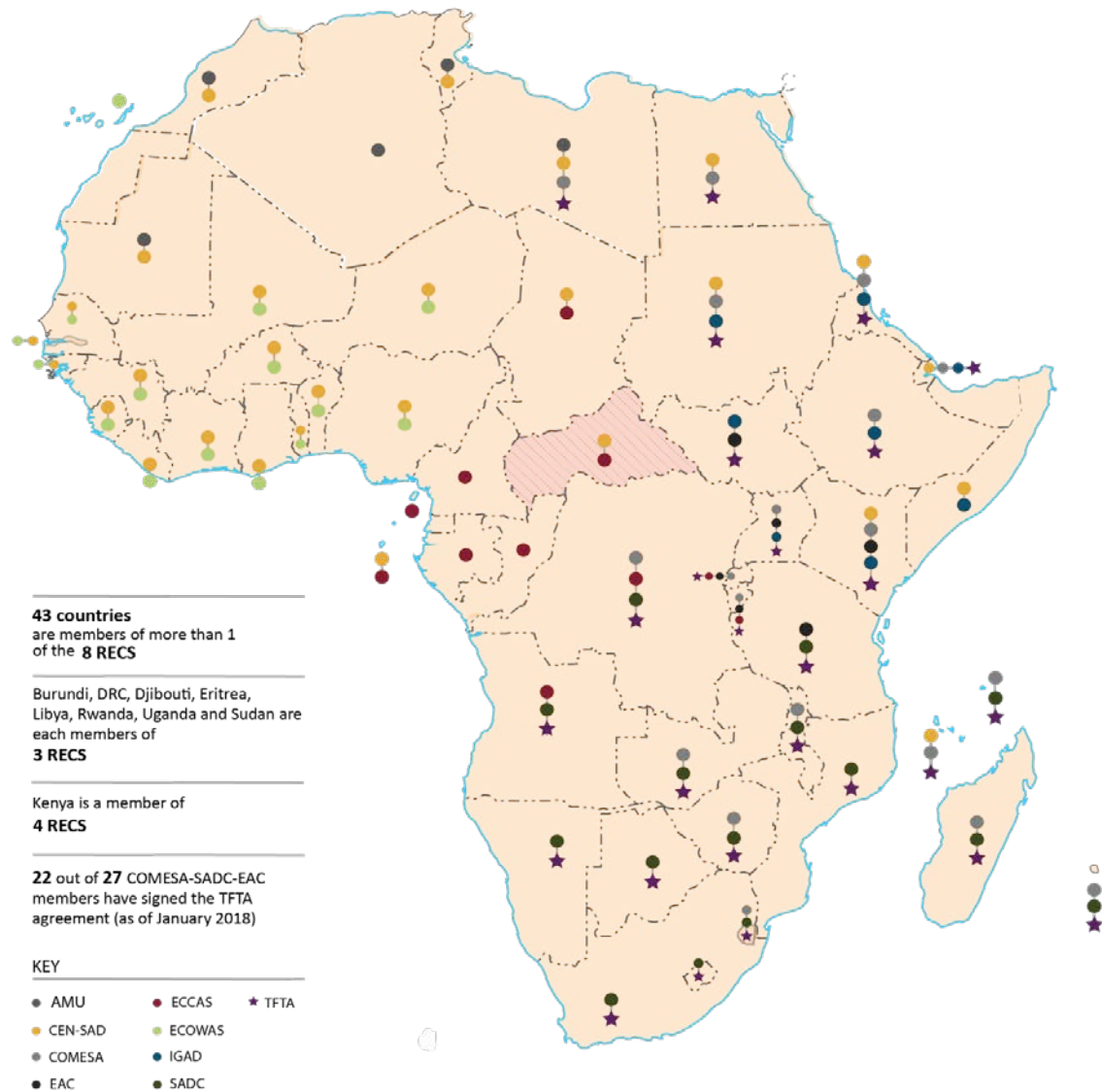
The eight RECs include the Arab Maghreb Union (UMA), the Community of Sahel-Saharan States (CEN-SAD), the Common Market for Eastern and Southern Africa (COMESA), the East African Community (EAC), the Economic Community of Central African States (ECCAS), the Economic Community of West African States (ECOWAS), the Intergovernmental Authority on Development (IGAD), and the Southern African Development Community (SADC). This report also examines three other regional economic blocs highlighted in USTR's *2016 Biennial Report on the Implementation of the Africa Growth and Opportunity Act*: the Southern Africa Customs Union (SACU), the Economic Community of Central African States (known by its French acronym CEMAC), and the West African Economic and Monetary Union (WAEMU).

These RECs and the other African regional economic blocs feature overlapping memberships. As shown in figure ES.1, 43 countries are members of more than one REC. This phenomenon—dual, triple, and even quadruple REC memberships—may lead to challenges when member countries attempt to harmonize multiple policy agendas.

When the RECs were founded, they had not yet negotiated all of the intended regional components, such as a free trade area or a customs union. The RECs agreed to monitor the progressive negotiation of these integration components based on the AEC roadmap. In some instances these components are still works in progress (table ES.8). Also in some cases, not all members of the REC have agreed upon specific integration components (e.g., free trade areas and common external tariffs). According to the African Union Commission's index of regional integration, the EAC is the most integrated REC, followed by SADC and ECOWAS.

For all three of the most integrated RECs—EAC, SADC and ECOWAS—intra-REC trade peaked in 2012–13 and has since declined. Yet intra-REC trade has declined at a slower rate than each REC's trade with the rest of the world. One key advantage of intra-Africa trade compared with trade with the rest of the world is that intra-Africa trade is often resilient to global price shocks, as SSA countries trade a more diverse set of products with each other than they do externally. Specifically, intra-Africa trade is less reliant on primary commodities than trade with countries outside the continent.

Figure ES.1 Map of Regional Economic Communities and their overlapping memberships



Source: Compiled by the USITC from Mo Ibrahim Foundation, *Regional Integration: Uniting to Compete*, 2014 and updated with the following: AU, "Member State Profiles" (accessed March 13, 2018); UMA, "Member Countries" (accessed March 13, 2018); CEN-SAD, "Communiqué Final de la Session Extraordinaire" [Final communiqué of the extraordinary session], February 16, 2013; COMESA, "COMESA Member States" (accessed March 13, 2018); EAC, "Partner States" (accessed March 18, 2013); ECCAS, "Etats Members [Member States]," accessed March 13, 2018; ECOWAS, "Member States" (accessed March 13, 2018); IGAD, "The IGAD Region" (accessed March 13, 2018); SADC, "Member States" (accessed March 13, 2018).

Note: Countries shaded in orange are members of the African Union in good standing; countries sanctioned (the Central African Republic) are shaded in pink with dashes; TFTA=Tripartite Free Trade Area between EAC, COMESA, and SADC members.

Table ES.8 Key integration components of RECs and other relevant economic blocs

REC	Free trade area	Customs union	Currency or monetary union
EAC	Yes	Yes	In progress
SADC	13 out of 15 members since 2015	In progress	No
ECOWAS	Yes	Yes	In progress
UMA	Incomplete	No	No
IGAD	Incomplete	No	No
ECCAS	Yes	No	No
COMESA	16 out of 19 members since 2016	In progress	No
Other regional economic blocs highlighted in USTR's report			
SACU	Yes	Yes	Partial ^a
WAEMU	Yes	Yes	Yes
CEMAC	Yes	Yes, with exceptions ^b	Yes

Source: USTR, *2016 Biennial Report on the Implementation of the Africa Growth and Opportunity Act*, June 2016, 60–63; AEO, “Trade Policies and Regional Integration in Africa,” 2017, 86–91; AU Commission, *The Status of Integration in Africa V (SIA V)*, 2014, 3; USTR, “East African Community” (accessed March 13, 2018); EAC, “Overview of the EAC” (accessed March 13, 2018); SADC, “Free Trade Area,” 2012; ETLs, “About ETLs” (accessed March 2018); Dersso, “East Africa and the Intergovernmental Authority on Development,” October 2014; USTR, “Common Market for Eastern and Southern Africa” (accessed March 13, 2018); COMESA, “Sixteen Countries Now in Free Trade Area,” April 29, 2016; USTR, “Southern African Customs Union” (accessed March 13, 2018); SACU, “Agreements” (accessed March 13, 2018); USITC, email correspondence with staff at the Office of the U.S. Trade Representative, March 13, 2018.

^a Four of five members use national currencies with exchange rates pegged to the South African rand. Botswana left SACU's monetary union in 1975, but it still ties its currency to the rand using a weighted currency basket. Wang et al., “The Common Monetary Area in Southern Africa,” July 2007.

^b Each CEMAC member has tariff lines for certain products for which the applied rates are higher or lower than the common external tariff (CET). WTO, *Trade Policy Review Report by the Secretariat Countries*, June 24, 2013, 34–36.

Chapter 1

Introduction

Purpose and Scope

This report, *U.S. Trade and Investment with Sub-Saharan Africa: Recent Developments*, was requested by the U.S. Trade Representative (USTR) in a letter received by the U.S. International Trade Commission (USITC or Commission) on October 23, 2017.²

In his request letter, the USTR asked that the Commission conduct an investigation and provide a report on U.S. trade and investment with sub-Saharan Africa (SSA).³ The USTR asked that the report focus primarily on the years 2010–16, but where appropriate examine longer-term trends since 2000. The USTR also asked that the report provide, to the extent practical, the most recent 2017 data on U.S. trade flows of goods with SSA. The USTR asked that the report provide information in the following five categories: (1) U.S. exports of goods and services as well as U.S. foreign direct investment (FDI) to SSA; (2) U.S. imports of goods and services from SSA; (3) profiles of selected SSA countries; (4) SSA countries' national AGOA strategies; (5) developments in regional integration in SSA.

More specifically, the USTR requested that the report contain the following information:

1. An overview of U.S. exports of goods and services to SSA, which should, to the extent information is available:
 - Identify the sectors in which U.S. exports of goods and services to SSA have increased the most, in both value and percentage terms, and indicate the key factors behind this growth.
 - Identify the countries to which U.S. exports of goods and services have increased the most, in both value and percentage terms, and indicate the key factors behind this growth.
 - Based on a review of quantitative and qualitative information, identify non-crude petroleum sectors and SSA markets that present the greatest potential for U.S. exports of goods and services and for U.S. foreign direct investment (FDI). Also, identify significant factors impacting U.S. exports and FDI in these sectors, as well as principal third-country suppliers and investors in these sectors and SSA markets.
 - Provide a brief description of the exports of goods and services from U.S. small and medium-sized enterprises to SSA and describe the challenges that U.S. SMEs face when exporting to SSA.
2. An overview of U.S. imports of goods and services from sub-Saharan Africa, which should, to the extent information is available:
 - Identify the sectors in which SSA exports of goods and services to the United States have increased the most, in both value and percentage terms, and indicate the key factors behind this growth. Data on goods should include both AGOA⁴ and non-AGOAs imports.

² Appendix A contains a copy of the request letter.

³ It should be noted that the term sub-Saharan Africa (SSA) has different statutory meanings. In this report, SSA refers to the 49 countries listed in 19 U.S.C. § 3706, including South Sudan, which was added in 2012.

⁴ For a detailed description of the African Growth and Opportunity Act (AGOA) program, see appendix E.

- Identify the SSA countries from which imports of goods and services to the United States have increased the most, in both value and percentage terms, and indicate the key factors behind this growth. Data on goods should include both AGOA and non-AGOAs imports.
 - Based on a review of quantitative and qualitative information, identify non-crude petroleum sectors and SSA markets that present the greatest potential to increase exports of goods under AGOA to the United States. Identify sectors and SSA markets that present the greatest potential to increase services exports and FDI, and indicate significant factors impacting SSA companies' achieving such exports and FDI.
3. Provide profiles of the markets in Cameroon, Côte d'Ivoire, Ethiopia, Kenya, Mauritius, Nigeria, and South Africa that include information on macroeconomic indicators, goods and services trade, and FDI flows in those countries.
 4. Provide a summary of recent developments of regional integration efforts in sub-Saharan Africa, including progress on the negotiation of the Continental Free Trade Agreement.
 5. Briefly summarize the AGOA strategies that have been developed by SSA countries.

Approach and Sources of Information

In preparing the report, the Commission focused primarily on the years 2010–16 and long-term trends since 2000 where appropriate. The Commission has also provided the most recent 2017 data on U.S. goods trade with SSA in appendix G. The Commission reviewed and used relevant trade and investment data, reviewed the relevant trade literature, and obtained information from industry sources through telephone interviews. In addition, in order to identify sectors that present the greatest potential for growth in U.S. trade in goods with SSA, the Commission used a gravity model to identify goods sectors in which U.S. trade with SSA countries fall below their potential.⁵ The Commission also considered information obtained at the Commission's public hearing held on January 23, 2018, as well as from briefs and other written submissions received in connection with the hearing and in response to the Commission's notice of investigation published in the *Federal Register* on November 22, 2017.⁶

The data used in the report that relate to trends in U.S. exports to and imports from SSA are derived from official trade statistics published by the U.S. Department of Commerce (USDOC). In addition, data from the Global Trade Atlas database were used to describe trends in export flows from major third-party suppliers to SSA markets. The Commission used services trade data published by the USDOC's Bureau of Economic Analysis (BEA) and by the World Trade Organization (WTO). Foreign direct investment (FDI) data were largely drawn from BEA; Eurostat and other foreign-government data sources; the Financial Times' fDi Markets database; and the Bureau van Dijk's Zephyr database. Other sources of information for the report included academic literature and industry reports; U.S. government publications; publications from regional organizations in SSA countries, such as the African Development Bank, and other international institutions, including the Organization for Economic Cooperation and Development (OECD), the World Bank, the WTO, and the United Nations; and from foreign government sources, particularly SSA governments' publications that set out their national AGOA strategies.

⁵ For a further discussion of the gravity model framework, see appendix F.

⁶ Reference appendices B, C, and D.

To identify the goods sectors and SSA markets that present the greatest potential for growth in U.S. exports to and imports from SSA, the Commission used three complementary approaches. The first approach was to consider the historical growth in U.S. trade with SSA countries during 2010–16. Sectors in which U.S. exports to and imports from SSA rose the most during this period are likely to continue to rise in the future. The second approach was to apply an analytical framework known as the gravity model, which can be used to predict trade flows between countries. In this case the predictions involved trade flows between the United States and SSA countries, based on actual trade and certain characteristics of the bilateral relationship between these exporters and importers, such as the distance between countries, a common language, shared borders, and colonial and other ties. The predicted trade flows generated by the model were compared to actual trade flows, and could be used to estimate the potential U.S. trade flows with SSA countries, given worldwide trade patterns and the data on bilateral characteristics. Since the gravity model used data on average 2013–15 trade flows for 235 countries and territories and 250 product groups, it reflected not only trade flows between the United States and SSA countries, but also trade flows between SSA countries and their third-party trading partners.⁷ Finally, a review of relevant economic and trade journals was conducted to identify potential growth sectors for U.S. trade with SSA.

Organization of the Report

This report is divided into six chapters. Following the introduction in chapter 1, chapter 2 provides an overview of U.S. exports of goods and services to SSA during 2010–16, identifying the leading sectors and SSA markets for such exports and examining exports to SSA by U.S. small and medium-sized enterprises.⁸ Chapter 3 gives an overview of U.S. imports of goods and services from SSA during the same period, with a particular focus on U.S. imports from SSA countries under AGOA. Both chapters 2 and 3 also examine the potential for future growth of U.S. trade with SSA based on the Commission’s analysis of current trends and available secondary research, as well as the results of the gravity model. Chapter 4 then provides an overview of U.S. inward and outward FDI with SSA, examining the sectors and SSA markets where U.S. FDI is most prevalent. The chapter also discusses FDI by third countries in SSA.

Chapter 5 presents seven SSA country profiles, as mentioned above. Each profile summarizes the country’s macroeconomic environment, its trade in goods and services with the United States and foreign markets, and its current inward FDI. Finally, chapter 6 discusses the most recent progress by SSA countries in developing strategies for expanding their exports to the United States under AGOA.⁹ Chapter 6 concludes with a summary of SSA’s regional integration efforts to date and discusses the impact of these initiatives on African countries’ ability to trade with each other and the world.

⁷ The 2016 data on worldwide trade flows of goods were not available in time to be included in the gravity model analysis.

⁸ The 2017 data on U.S. goods trade with SSA countries are included in appendix G. The 2017 data on U.S. trade with SSA countries were not available until February 2018, which precluded a detailed analysis of 2017 data on U.S. trade with SSA countries in the report.

⁹ Trade Preferences Extension Act of 2015, Pub. L. 114–27, June 29, 2015, 129 Stat. 368.

Chapter 2

U.S. Exports of Goods and Services to SSA

Introduction

In response to the request letter from the U.S. Trade Representative (USTR), this chapter provides an overview of U.S. goods and services exports to SSA countries for 2010–16 through a series of sector-specific profiles. It also identifies the sectors and SSA markets with the greatest potential for future growth in U.S. exports. The chapter concludes with a description of exports to SSA by U.S. small and medium-sized enterprises (SMEs) for the period 2010–15, the latest years for which such data are available, and examines the challenges faced by SME exporters.¹⁰

The first part of the chapter identifies U.S. goods exports to SSA that have grown the most in value during 2010–16 and indicates the key factors behind this growth.¹¹ In addition, the chapter highlights the non-crude petroleum sectors and SSA markets that, based on the available information, present the greatest potential for U.S. exports of goods. It also describes significant factors affecting U.S. exports in these sectors, as well as listing principal third-country suppliers in the sectors.

The second part of the chapter identifies the sectors in which U.S. exports of services to SSA grew the most during 2010–16, indicates the key factors behind their growth during this period, and lists the

¹⁰ Sector-specific data on exports by U.S. SMEs are limited.

¹¹ The request letter also asks the Commission to identify the sectors in which U.S. exports to SSA have increased the most in percentage terms. A table giving information about those sectors is presented in appendix G. The sector in which U.S. exports to SSA rose the most in percentage terms—natural gas—also had a significant increase in absolute value and is covered in detail in this chapter. While the remaining sectors saw significant increases in U.S. exports to SSA in percentage change terms, most did not merit detailed discussion in this report because they started from a very low base, and despite the high growth rates, were exported in relatively negligible amounts (see appendix G). The only two exceptions are rail locomotive and rolling stock, and fresh or frozen fish. First, U.S. exports of rail locomotive and rolling stock increased from \$74.3 million in 2010 to \$290.6 million in 2017, but the overall value of these exports has fluctuated significantly in recent years. The reason for the fluctuation is that the exports tend to reflect low-volume, high-value purchases that may not repeat year to year and are mainly related to major rail infrastructure projects. South Africa announced a project in 2014 with locomotives ordered from China, the United States, and Europe. *International Railway Journal*, “Transnet South Africa Orders 1064 Locomotives,” March 17, 2014. Second, the growth in U.S. exports of fresh or frozen fish was due almost entirely to high exports of frozen whiting and hake in 2017, particularly to South Africa and several countries in West Africa. Whiting and hake caught in the United States are similar to several species produced in SSA and are therefore familiar to consumers there. As a result, these species are likely to be in demand as seafood consumption increases in tandem with growth in per capita incomes. In addition, overall U.S. exports of whiting and hake increased dramatically in 2017, including to non-SSA countries. Sea Harvest website, “Cape Hake,” <http://seaharvest.co.za/article/cape-hake/> (accessed March 30, 2018). Meanwhile, the 2017 U.S. trade data with SSA did not arrive in time to provide a detailed analysis of the most recent developments in this report. However, these data are shown in appendix G.

services sectors and SSA markets that present the greatest potential for U.S. exports of services.¹² These sectors were chosen for analysis because they account for a substantial share of U.S. and world exports to SSA and play an important role in infrastructure and overall regional development.

Key Findings

Rising per capita incomes and increasing urbanization have led to steady growth in U.S. exports of numerous products to SSA: poultry meat, yellow feed corn, sauces and condiments, and polyethylene resins. With incomes rising, the people of SSA have changed some of their dietary patterns to include eating more protein, consuming more processed foods, and eating out more. The demand for more protein, in particular, has boosted U.S. exports of frozen poultry meat to SSA, as well as feed corn for the region's developing poultry industry, especially in Nigeria and Senegal. Increasingly, urbanized populations in SSA are also buying more food at grocery stores. Overall, these developments have increased demand for more processed food items, such as sauces and condiments, as well as prepared and preserved vegetables. Some of these developments have also increased demand for other complementary goods, such as polyethylene resins for the local production of food packaging and plastic retail bags.

Other U.S. export opportunities, although significant, may occur irregularly. For instance, demand for high-value items like large commercial aircraft is not consistent from year to year. The same is true of the demand for power generating equipment, which is largely dependent on major infrastructure projects. At the same time, U.S. exports of private services (i.e., non-government services) to all African countries increased in most years during 2010–16. While U.S. participation in SSA services markets remains small, U.S. exports in certain sectors such as finance and information and communication technology (ICT), among others, may grow in the near future. This growth would be due to efforts by U.S. firms to expand their SSA presence, increasing wealth in the region, and technological innovation, among other factors.

Based on information obtained during the investigation, the Commission also found multiple impediments to U.S. exports to SSA. Most of these barriers could potentially be overcome, such as Angola's restrictive list of approved cars, antidumping duties limiting sales of U.S. poultry in South Africa, the ban on poultry and egg imports into Nigeria, bans or restrictions on imports of genetically engineered grains in multiple SSA countries, and lack of infrastructure (e.g., lack of transportation or cold chain supply networks to support trade in perishable goods). One barrier that cannot be overcome is driving laws: SSA countries where vehicles drive on the left side of the road are unlikely to produce high demand for U.S. automobiles that are designed to be driven on the right side of the road.

¹² Disaggregated data on U.S. services exports both to SSA and to the vast majority of individual SSA countries are unavailable. The Bureau of Economic Analysis (BEA) of the U.S. Department of Commerce publishes data only for U.S. services trade with Africa as a whole (which include exports to both SSA and the countries of North Africa) and for South Africa and Nigeria. Further, these data are often incomplete, as values for certain years and services industries are unavailable or are suppressed in order to avoid disclosing information on individual companies.

U.S. Goods Exports

Fastest-growing U.S. Exports to SSA during 2010–16

During 2010–16, a relatively small number of products accounted for the majority of U.S. exports to SSA countries, in terms of absolute growth in the value of these exports (table 2.1).¹³ The factors driving this growth are laid out in the individual sector profiles.

Table 2.1 Fastest-growing U.S. exports to SSA countries, 2010–16

Product	2010	2012	2014	2016	Absolute	Compound
					change	annual growth
	Million \$				2010–16	rate (CAGR)
						2010–16
						Percent
Aircraft	1,188	2,099	3,739	1,764	576	6.8
Ships, tugs, pleasure boats, and floating structures (primarily floating oil platforms)	94	132	248	255	161	18.0
Natural gas and components (propane and butane)	9	15	234	162	153	60.7
Electric motors, generators, and related equipment (primarily power generating equipment)	187	255	193	306	119	8.5
Pharmaceuticals	187	357	418	277	90	6.8
Certain motor-vehicle parts	249	336	406	338	89	5.2
Prepared or preserved vegetables, mushrooms, and olives	69	96	95	132	63	11.4
Polyethylene resins in primary forms	104	125	108	152	48	6.5
All other	14,418	18,367	19,326	9,500	-4,918	-6.7
Total	16,505	21,782	24,767	12,886	-3619	-4.0

Source: USITC DataWeb/USDOC (accessed October 10, 2017).

Note: These merchandise sectors, known as “digest” sectors, are defined by the Commission. Each USITC digest sector encompasses a number of 8-digit subheadings in the *Harmonized Tariff Schedule of the United States* (HTS), which classifies tradable goods. The sectors are listed and defined in USITC, “Frequently Asked Questions,” *Shifts in U.S. Merchandise Trade 2015*, September 2016. https://www.usitc.gov/sites/default/files/research_and_analysis/tradeshifts/2015/d3/digest_hts8_dir_final.pdf.

U.S. Goods Exports to SSA with Significant Growth Potential

In addition to the sectors that have shown trade growth over the historical period 2010–16, this report also profiles sectors (and SSA markets) that present the greatest future potential for U.S. goods exports. This potential was determined using three complementary approaches. The first approach took into account the historical growth in U.S. exports for these products during 2010–16. U.S. exports that have

¹³ For 2011, 2013, and 2015 data on fastest growing U.S. exports to SSA countries, see appendix G.

increased the most during this period were deemed likely to continue to increase in the future.¹⁴ The second approach was based on an economic framework called the gravity model, which is used to identify goods sectors in which U.S. exports to SSA countries fall below their potential.¹⁵ The third approach was a review of secondary sources, including economic and trade journals. In general, there is significant overlap between the products identified as having export potential using the three approaches discussed above.¹⁶

Table 2.2 outlines the sectors identified as having export potential under these three approaches. The sectors identified as having U.S. export potential based in part on past growth are listed first.

Table 2.2 Approaches used to identify U.S. goods sectors with export potential to SSA

Product	Past trade growth	Gravity model	Literature and industry sources
Aircraft	•	•	•
Ships, tugs, pleasure boats, and floating structures (primarily floating oil platforms)	•		
Natural gas and components (propane and butane)	•		•
Electric motors, generators, and related equipment (primarily power generating equipment)	•		•
Prepared and preserved vegetables	•		•
Pharmaceuticals	•	•	•
Polyethylene resins in primary forms	•		•
Sauces, condiments, and food ingredients			•
Corn (subset of cereals)		•	•
Motor vehicles and parts ^a	•	•	•
Ethyl alcohol			•
Poultry			•
Refined petroleum products		•	

Source: Compiled by the USITC.

^a Motor-vehicle parts identified by past trade growth; finished motor vehicles identified by the gravity model and industry sources.

Top Growth Markets for U.S. Exports to SSA during 2010–16

In addition to discussing top growth sectors for U.S. exports to SSA during the period 2010–16, the Commission's analysis also identifies the countries that were top growth markets during the period. The

¹⁴ While high historical growth rates in a sector indicate that growth is likely to continue, this is not always the case. For example, a region that was initially lacking in some product could reach a saturation point, or technologies or tastes could change and render a product obsolete. Therefore, the first approach was complemented by two other approaches in determining future potential for U.S. goods exports.

¹⁵ For a detailed explanation of the gravity model framework, see appendix F.

¹⁶ For a full discussion of the analytical approaches used to identify potential growth sectors for U.S. exports to SSA, see chapter 1.

six markets to which U.S. goods exports increased the most, in absolute value terms,¹⁷ include Côte d'Ivoire, Namibia, Togo, Sudan, Cameroon, and Mauritius (table 2.3).

Table 2.3 U.S. exports to SSA countries, by leading destination markets, 2010–16

Country	2010	2012	2014	2016	Absolute change 2010–16	Compound annual growth rate (CAGR)
						2010–16
Million \$						Percent
Côte d'Ivoire	160	185	234	286	126	10.2
Namibia	93	151	283	174	81	11.0
Togo	156	368	1,018	227	71	6.5
Sudan	0	55	77	55	55	^a
Cameroon	130	250	298	176	47	5.3
Mauritius	38	94	34	85	47	14.2
All other SSA	15,929	20,679	22,823	11,882	-4,047	-4.8
Total	16,505	21,782	24,767	12,886	-3,619	-4.0

Source: USITC DataWeb and official statistics of the U.S. Department of Commerce (USDOC) (accessed October 10, 2017).

^a CAGR not provided because the 2010 value was zero.

Different product groups and collections of product groups, some of them described further in the sector profiles, made these six countries the leading growth markets for U.S. exports during the 2010–16 period. In some cases, a single product group accounted for the majority of the increased U.S. exports, such as refined petroleum products in Togo and Namibia. For the other countries, multiple product groups drove the increase in U.S. exports.

Diverging reasons may explain why refined petroleum products drove the increase in U.S. exports to Togo and Namibia. Whereas Namibia acquired the petroleum products for internal consumption, Togo acts as a hub for petroleum product trade in West Africa. U.S. exports to Namibia of corn also recorded significant increases during 2010–16.

The increase in U.S. exports to Côte d'Ivoire involved more diverse sectors. Refined petroleum products and civilian aircraft and parts led the growth, but polyethylene resins and rice also contributed significant increases during 2010–16. The increase in U.S. exports of civilian aircraft and parts to the country was mainly due to delivery of one Gulfstream G550 for use as the country's presidential plane in 2016.¹⁸ The growth in U.S. exports of polyethylene resins is likely driven by rising demand for plastic goods in Côte d'Ivoire,¹⁹ while the increase in U.S. rice exports to Côte d'Ivoire is likely due to rising per capita income, which leads to a preference for higher-quality rice, some of which is supplied by the United States.²⁰

The bulk of the growth in U.S. exports to Cameroon during 2010–16 was spread among electric generating sets and alternating current (AC) generators. Trade in the first category, power generating

¹⁷ U.S. exports to Sudan are not discussed because the data lack continuity from 2010 to 2016, given the partition of the country in mid-2011. Since the endpoint data do not represent the same economy, comparing the data would be misleading.

¹⁸ Davies, "2016 Business Jet Delivery Tracker," January 11, 2016.

¹⁹ SelectUSA, "Côte d'Ivoire—Plastic Material and Resins," June 10, 2016.

²⁰ Nigatu et al., "Sub-Saharan Africa Is Projected to Be the Leader in Global Rice Imports," October 2, 2017.

equipment, is volatile, as it largely depends on discrete power generating projects. Between projects, trade in these products often drops precipitously. In Mauritius, liquefied petroleum gas (LPG) partially drove an increase in U.S. exports. Mauritius started operating the largest onshore liquefied petroleum gas (LPG) storage facility in Africa in 2014, facilitating an increase in U.S. exports of LPG to the country.²¹

The following section profiles each of the top seven product groups²² in terms of the absolute growth of U.S. exports to SSA during 2010 to 2016, as well as six more products identified as having export potential. Each profile provides a description of the items in the product group; presents data on U.S. exports to major SSA countries; lists key factors that contributed to U.S. export growth from 2010 to 2016; lists significant factors that affect U.S. exports in these sectors; and identifies principal third-country suppliers in these sectors and SSA markets.

Aircraft

This product group includes civilian aircraft (both commercial and private), balloons, helicopters, and gliders. It also includes engines and parts for these aircraft. The Boeing Company accounts for the majority of all U.S. aircraft exports to SSA by value and unit. Manufacturers like Gulfstream and Textron Aviation (which is home to the Cessna, Beechcraft, and Hawker brands²³) also export smaller aircraft to service charter, cargo, and logistics needs in the region.²⁴

Overview of U.S. Exports

Civilian aircraft, engines, and parts accounted for the bulk of U.S. aircraft exports to SSA.²⁵ Between 2010 and 2016, Ethiopia, Kenya, South Africa, Angola, and Nigeria were the leading SSA export destinations for these goods (table 2.4). Except for 2016, these five countries accounted for over 80 percent of all U.S. aircraft exports to SSA by value for each year during this period. The overall value of U.S. aircraft exports to SSA fluctuated significantly over the period, because SSA countries' aircraft orders feature small-volume, high-value purchases that may not repeat from year to year. This is especially true given that list prices for new large commercial aircraft range from \$85 million to \$400 million dollars per aircraft.²⁶

²¹ Ion News, "Mauritius to Be Home to Largest On-land LPG," March 19, 2014.

²² The top seven product groups exclude motor vehicle parts because the discussion of U.S. exports of motor vehicles and motor vehicle parts to SSA are combined and counted in the sector "motor vehicles and parts."

²³ See related USITC report on the industry: *Business Jet Aircraft Industry: Structure and Factors Affecting Competitiveness*, 2012, <https://www.usitc.gov/publications/332/pub4314.pdf>.

²⁴ Textron Aviation, "Delivery of 10 Cessna Turboprops," November 14, 2017; George, "Business Aircraft Growth Ahead in Africa," May 20, 2015.

²⁵ The U.S. Census Bureau revised goods export data from January 2004 through December 2008 as a result of an analysis of the aircraft industry. In addition, to avoid revealing sensitive business information, the Census Bureau began suppressing export data for certain 10-digit Schedule B commodity classifications related to the aircraft industry with the release of the January 2009 merchandise trade report on March 13, 2009. To account for the suppression of commodity detail, the Census Bureau began publishing a new commodity classification series titled "Civilian Aircraft, Engines, and Parts" under Schedule B code 8800.00.0000. U.S. Census Bureau, "Aircraft Industry Trade Data Changes," June 10, 2009, <https://www.census.gov/foreign-trade/statistics/notices/aircraft/index.html>.

²⁶ Boeing, "About BCA," <http://www.boeing.com/company/about-bca/> (accessed January 17, 2018).

Table 2.4 Aircraft: U.S. exports to SSA and to selected SSA countries, 2010–16

Product and destination country	2010	2011	2012	2013	2014	2015	2016	Absolute	Compound
								change	annual
	Million \$							2010–16	growth rate (CAGR)
									2010–16
									Percent
Aircraft	1,187.8	1,570.0	2,098.8	1,340.9	3,739.3	2,602.9	1,763.8	576.0	6.8
Civilian aircraft, engines, and parts	1,158.5	1,521.0	2,071.0	1,319.7	3,718.5	2,570.4	1,674.6	516.1	6.3
Ethiopia	490.9	482.3	1,070.2	506.1	1,433.1	1,327.7	445.2	-45.7	-1.6
Angola	72.4	385.8	50.4	32.7	215.9	35.0	406.6	334.2	33.3
South Africa	268.0	228.1	462.4	231.9	236.1	336.1	325.8	57.8	3.3
Nigeria	132.6	164.9	136.1	127.9	109.8	121.6	97.1	-35.5	-5.1
Kenya	69.4	60.4	130.4	216.3	1,233.6	629.5	57.5	-11.9	-3.1
All other SSA	125.2	199.5	221.5	204.9	490.0	120.5	342.3	217.1	18.3

Source: USITC DataWeb/USDOC (accessed January 30, 2018). Civilian aircraft, engines, and parts come under HTS subheading 8800.

Key Factors Affecting U.S. Exports, 2010–16

U.S. exports of civilian aircraft, engines, and parts to SSA increased from \$1.2 billion in 2010 to \$1.7 billion in 2016 (a compound annual growth rate, or CAGR, of 6.3 percent). Though exports to Angola grew the most in absolute value from 2010 to 2016, Ethiopian Airlines has been the strongest and most profitable airline in Africa. Also, there was a notable increase in aircraft exports to Kenya and Ethiopia in 2014 and 2015 due to the delivery of several aircraft orders.²⁷

Ethiopian Airlines, Kenya Airways, and South African Airways are the three largest carriers in SSA by fleet size.²⁸ All three airlines placed orders for, and took delivery of, new aircraft to replace and expand their existing fleets during this time period. As part of its Vision 2025 strategy to build Africa’s largest airline,²⁹ Ethiopian Airlines ordered 51 aircraft and took delivery of 33 aircraft from Boeing (United States) between 2010 and 2016.³⁰ During that same period, Kenya Airways upgraded its fleet with the delivery of 10 aircraft from Boeing and 10 aircraft from Bombardier (Canada).³¹ South African Airways, whose fleet is primarily supplied by Airbus European Union (EU),³² placed orders for at least 26 aircraft between 2010 and 2016.³³

New aircraft orders from carriers based in Angola and Nigeria also helped drive SSA’s overall fleet growth and growth in U.S. exports to the region during this period.³⁴ TAAG-Angola ordered three planes and took delivery of five more from Boeing³⁵ as part of a growth strategy designed to open new routes

²⁷ See, for example, Boeing, “Orders and Deliveries” (accessed January 17, 2018).

²⁸ Airfleets.net Website, <http://www.airfleets.net/home> (accessed December 17, 2017).

²⁹ IATA, “Ethiopian Airlines” (accessed January 24, 2017).

³⁰ Boeing, “Orders and Deliveries” (accessed January 17, 2018).

³¹ Afreximbank, “Kenya Airways—Dreamliner,” March 31, 2014.

³² Throughout this report EU refers to the 28-member European Union as of 2016.

³³ Airbus, “SAA Airbus A330,” February 8, 2011; Airbus, “SAA A320 Delivery,” July 23, 2013.

³⁴ Boeing, “Boeing, TAAG Angola Airlines Delivery,” May 3, 2016.

³⁵ TAAG, “FROTA TAAG Fleet,” <http://www.taag.com/en/Travelling-with-TAAG/Fleet> (accessed January 23, 2018).

to Europe, China, and South America.³⁶ Nigeria's Arik Air, the largest carrier in West Africa, operates a fleet primarily supplied by Boeing;³⁷ Arik Air ordered aircraft from Boeing in the past and plans to order more new aircraft in the future to expand its international services.³⁸

Potential for U.S. Exports

As discussed in the previous section, the aircraft product group was one of the top growth sectors of U.S. exports to SSA from 2010 to 2016. This group was identified by Commission gravity modeling results (see appendix F) as one of the sectors with the widest gaps between potential and actual U.S. exports to SSA. The model results indicate that South Africa, Nigeria, Sudan, and Niger are the four SSA countries with the greatest gaps between expected and actual U.S. exports of aircraft. However, due to the high cost of commercial aircraft, the potential for new growth is limited. This means that most future demand must come from existing major SSA airlines, which have recently had problems financing purchases of U.S. aircraft.³⁹

With two main airlines, Comair and South African Airways, South Africa was one of the top five export destination markets for U.S. exports of civil aircraft to SSA from 2010 to 2016 (table 2.4). In 2017 Airbus projected that traffic to South Africa would be among the top 20 fastest-growing air traffic flows worldwide in the next 20 years.⁴⁰ Comair placed orders for 16 Boeing planes and took delivery of 8 during 2010–16.⁴¹ South African Airways, the government-operated national carrier, primarily uses a fleet of EU-manufactured aircraft.⁴² Similarly, the International Trade Administration (part of the U.S. Department of Commerce) predicted in 2017 that South African Airways would invest in a fleet upgrade of as many as 20 new aircraft in the coming years, representing a significant export opportunity.⁴³ Recent reports, however, indicate that SAA may lease, rather than purchase, the new aircraft due to ongoing financial difficulties.⁴⁴

Nigeria is also one of the top five export destinations for U.S. aircraft in SSA, and in 2016 the International Trade Administration rated the country's aerospace/aviation/avionics sectors as a "best prospect" for U.S. exports.⁴⁵ However, the capacity of Nigeria's current commercial fleet exceeds customer demand and is underutilized as a result, while the country's airline industry more generally is

³⁶ CAPA, "TAAG Partners with Emirates," July 22, 2016.

³⁷ Arik Air, "Arik Air, Boeing Strengthen Partnership," September 26, 2012.

³⁸ CAPA, "Arik Air Deliver on Long Haul," July 16, 2013.

³⁹ As part of its sub-Saharan Africa Initiative, the Export-Import Bank (Ex-Im Bank) of the United States provided over \$3.8 billion in loan guarantees to support U.S. aircraft exports to most major airlines in SSA during 2010–15. However, the bank's charter requires that any financing over \$10 million be approved by three of its five board members. Since 2015 there has not been a quorum of the board, and the bank's financing of U.S. aircraft exports to SSA has been limited as a result. Ex-Im Bank, "Annual Reports" (accessed January 31, 2018).

⁴⁰ Airbus, *Global Market Forecast 2017–2036*, 2017.

⁴¹ Boeing, "Orders and Deliveries" (accessed January 17, 2018). Comair, "Fleet," <http://www.comair.co.za/about-us/fleet> (accessed March 25, 2018).

⁴² South African Airways, "Our Aircraft Fleet" <https://www.flysaa.com/plan-book/travel-information/fleet> (accessed January 23, 2018).

⁴³ ITA, "South Africa—Aerospace," July 21, 2017.

⁴⁴ Peyper, "SAA Will Continue to Lease Aircraft," *fin24*, March 20, 2017; BBC NEWS, "South African Airways Is on Verge of Bankruptcy," August 3, 2017.

⁴⁵ ITA, "Nigeria—Aerospace/Aviation/Avionics," June 20, 2016.

hampered by poor infrastructure, such as the lack of airport infrastructure.⁴⁶ These factors limit the potential for future growth in U.S. aircraft exports to the country.

Famine, low worldwide oil prices, the creation of South Sudan in 2011, and ongoing conflicts in and around Sudan have impeded the development and diversification of its economy. These issues will likely limit the possibility of U.S. aircraft exports to Sudan in the near future.⁴⁷

Aside from the 2014 purchase of a new Boeing 737 to serve as the presidential jet,⁴⁸ Niger did not import any large commercial aircraft during 2010–16. Niche aircraft leasing services in the country primarily use U.S.-manufactured Beechcraft and Cessna aircraft to serve tourists.⁴⁹

Though U.S. exports of aircraft to SSA increased from 2010 to 2016, growth in these exports is contingent on SSA aviation industry reforms and development. Inadequate infrastructure, high taxes, and regional governance challenges contribute to a high cost of doing business for SSA airlines.⁵⁰ The use of older aircraft burdens some SSA fleets with higher fuel and maintenance costs,⁵¹ which are then passed on to consumers, suppressing demand. Low worldwide oil prices beginning in late 2014 hurt several economies in SSA⁵² that also use government funds to support their national carriers. The delayed implementation of the Yamoussoukro Decision, which would liberalize air transportation across Africa, presents an additional regulatory challenge to U.S. aircraft exports to SSA.⁵³ More recently, shrinking foreign capital holdings have prompted the governments of Nigeria, Angola, and Sudan, among others, to withhold ticket revenues from foreign airlines operating in their countries in an effort to boost foreign capital reserves. This move has prompted international carriers to stop servicing certain routes and to cancel cooperative agreements with some SSA airlines, suppressing consumer demand.⁵⁴

U.S. Export Competition with Third-country Suppliers

Global exports to SSA listed under the international Harmonized Commodity Description and Coding System (HS) 88—aircraft, spacecraft, and parts—totaled \$3.7 billion in 2016.⁵⁵ The United States accounted for 47 percent of global exports of these goods in 2016 to SSA, followed by the EU (39 percent) and Canada (4 percent) (table 2.5).⁵⁶

⁴⁶ Eze, “Nigeria: Underutilization of Commercial Aircraft,” October 27, 2017; ThisDay, “At ICAO Conference, Africa’s Airport Infrastructure, Taxation Take Centre Stage,” November 26, 2017.

⁴⁷ CRS, *Sudan and South Sudan: Current Issues*, October 5, 2012.

⁴⁸ Reuters, “Niger Delivery of Presidential Jet,” September 4, 2014.

⁴⁹ See, for example: Alpha Aviation Niger, <http://alphaviationniger.com/fleet/index.html>.

⁵⁰ Still, “Civil Aviation in SSA,” September 22, 2016.

⁵¹ Airfleets.net website, <http://www.airfleets.net/home> (accessed December 17, 2017).

⁵² McGroarty, “Fall in Oil Prices Threatens Africa’s Growth,” December 11, 2014.

⁵³ The Yamoussoukro Decision is a stalled agreement signed by 44 member states of the African Union in 2002 who committed to creating a single air transport market. *Economist*, “The Yamoussoukro Indecision,” December 4, 2015.

⁵⁴ Dzimwasha, “Airlines Currency Crunch,” January 13, 2017.

⁵⁵ There is a discrepancy between the export totals reported by the United States, EU, and Canada under HS 88 and the import totals reported by SSA countries. This is potentially due to a difference in how trade statistics denote when an aircraft is ordered vs. when an aircraft is delivered. Additionally, because HS code 8800 is unique to U.S. export statistics, the 2-digit code HS-88, which is used by all countries, has been used for comparison.

⁵⁶ IHS Markit, Global Trade Atlas database (HS subheading 88, accessed January 23, 2018).

Table 2.5 Aircraft: EU exports to selected SSA countries, 2010–16

	2010	2011	2012	2013	2014	2015	2016
	Million \$						
South Africa	224.5	890.8	425.6	356.6	667.9	438.9	532.9
Nigeria	222.4	45.4	144.6	53.8	206.9	141.6	91.9
Angola	88.2	103.3	91.5	39.9	163.6	74.5	21.5
Ethiopia	10.8	23.6	16.3	18.6	17.6	34.8	287.2
Namibia	3.7	4.2	62.9	291.8	4.1	5.7	1.6
Total	549.6	1,067.3	741.0	760.8	1,060.2	695.5	935.1

Source: IHS Markit, Global Trade Atlas database (HTS subheading 88; accessed January 16, 2018).

As is the case in other global aircraft markets, the primary competition for Boeing and other U.S. aircraft manufacturers comes from the EU. While the EU also reported growth in its exports of aircraft to SSA between 2010 and 2016, U.S. aircraft exports to SSA grew faster than those of the EU during this time period.⁵⁷ Airbus, headquartered in Toulouse, France, is Europe’s leading manufacturer of commercial aircraft and accounts for the majority of all EU aircraft exports to SSA by value and unit.

Ships, Tugs, Pleasure Boats, and Floating Structures

This product group covers all boats, including cruise ships, excursion boats, ferryboats, cargo ships, barges, fishing vessels, factory ships, yachts, motorboats, sailboats, rowboats, tugs and pusher craft, dredgers, warships, and lifeboats. It also covers floating structures, including floating cranes, floating docks, floating and submersible drilling or production platforms, rafts, buoys, and beacons.⁵⁸

Overview of U.S. Exports

U.S. exports of ships, tugs, pleasure boats, and floating structures to SSA increased from \$94.2 million in 2010 to \$254.9 million in 2016, representing a CAGR of 18.0 percent (table 2.6). The largest subcategory of these exports was HS 8905, a broad class containing products ranging from light-vessels to floating oil platforms.⁵⁹ Equatorial Guinea and Nigeria were the leading destinations for U.S. exports of HS 8905 between 2010 and 2016.

⁵⁷ Ibid.

⁵⁸ All products discussed in this section are contained within chapter 89 of the Harmonized Tariff Schedule of the United States (ships, boats, and floating structures).

⁵⁹ HS 8905 covers “light-vessels, fire-floats, dredgers, floating cranes, and other vessels the navigability of which is subsidiary to their main function; floating docks; floating or submersible drilling or production platforms.”

Table 2.6 Ships, tugs, pleasure boats, and floating structures: U.S. exports to SSA and to selected SSA countries, 2010–16

Product and destination country	2010	2011	2012	2013	2014	2015	2016	Absolute change	Compound annual growth rate (CAGR)
								2010–16	2010–16
Million \$								Percent	
Ships, tugs, pleasure boats, and floating structures	94.2	144.9	132.5	103.0	247.7	129.3	254.9	160.6	18.0
Light-vessels, floating or submersible drilling or production platforms	28.4	94.7	55.4	36.4	170.2	73.7	229.1	200.6	41.6
Equatorial Guinea	0.0	0.1	0.0	0.0	0.0	0.0	180.0	180.0	^a
Nigeria	23.4	88.5	50.6	34.6	63.6	71.1	47.4	24.0	12.5
All other SSA	5.0	6.1	4.8	1.8	106.6	2.6	1.7	-3.4	-16.7

Source: USITC DataWeb/USDOC (accessed February 26, 2018). Ships, tugs, pleasure boats, and floating structures mainly come under HS 89; light-vessels, floating or submersible drilling or production platforms come under HS 8905.

^a CAGR not provided because the 2010 value was zero.

One important subcategory of HS 8905 is “floating or submersible drilling or production platforms” (FSDPPs), which includes large mobile oil platforms designed for use in deeper offshore locations unsuitable for traditional stationary platforms.⁶⁰ Because these platforms are high-value, low-volume goods, U.S. exports to SSA for this subcategory fluctuated markedly during the period. They ranged from 30.3 percent of total U.S. exports of goods under HS 89 in 2010 to 90.1 percent in 2016, and accounted for over 50 percent in 2011, 2014, 2015, and 2016. Equatorial Guinea and Nigeria were the largest destinations for U.S. exports of FSDPPs during the period.⁶¹ Notably, both Equatorial Guinea and Nigeria are members of the Organization of Petroleum Exporting Countries (OPEC) and share in the vast oil reserves found off the two countries’ coasts in the Gulf of Guinea.⁶²

Key Factors Affecting U.S. Exports, 2010–16

In 2016, Equatorial Guinea and Nigeria were responsible for 100 percent of U.S. exports of FSDPPs to SSA.⁶³ Exports of FSDPPs to Equatorial Guinea (\$180 million) and Nigeria (\$47.4 million) accounted for 70.7 percent and 18.6 percent respectively of total U.S. exports of goods under HS 89 to SSA in 2016. Notably, there were no U.S. exports of FSDPPs to Equatorial Guinea between 2010 and 2015.⁶⁴

One factor that increased U.S. exports of FSDPPs to SSA was the expansion of investments in oil drilling off the coasts of Equatorial Guinea and Nigeria. ExxonMobil operates floating production, storage, and

⁶⁰ Floating or submersible drilling or production platforms constitute HS 8905.20.

⁶¹ USITC DataWeb/USDOC (HTS subheading 8905; accessed February 23, 2018).

⁶² OPEC, “Member Countries” http://www.opec.org/opec_web/en/about_us/25.htm (accessed March 5, 2018); Johnson, Baxter, Bartis, and Long, *Promoting International Energy Security*, vol. 4, *The Gulf of Guinea*, RAND, 2012, 9, https://www.rand.org/content/dam/rand/pubs/technical_reports/2012/RAND_TR1144z4.sum.pdf.

⁶³ FSDPPs come under HTS subheading 8905.20.

⁶⁴ USITC DataWeb/USDOC (HTS subheading 8905; accessed February 23, 2018).

offloading (FPSO) units, an important subset of FSDPPs, in both Equatorial Guinea and Nigeria.⁶⁵ In 2015, ExxonMobil completed investments in its project designed to increase oil production to 65,000 barrels per day off the coast of Nigeria.⁶⁶ Investments for this project included modifications and improvements to the FPSO unit.⁶⁷ In October 2017, ExxonMobil continued to expand offshore operations in Equatorial Guinea by drilling new oil wells in the Zafiro oil field.⁶⁸

Potential for U.S. Exports

Demand for FSDPPs, and more specifically for FPSO units, is likely to increase in the future. According to one forecast, the global FPSO market is estimated to reach \$53.6 billion by 2023.⁶⁹ Africa was the second-largest location for the 178 FPSO units operating worldwide in 2017, with Nigeria being the leading locale for FPSO units in Africa.⁷⁰

The Commission's gravity model identified Liberia, the Republic of the Congo, and Angola as the SSA markets with the greatest gaps between expected and actual U.S. export flows.⁷¹ Like Equatorial Guinea and Nigeria, all of the countries singled out by the gravity model border the Gulf of Guinea and have their own potential offshore oil reserves in the region.⁷² Liberia is a potential SSA market for increased U.S. exports due to its undeveloped oil and gas industry, coupled with its supply of offshore oil fields.⁷³ The Republic of the Congo was the fourth-largest oil-producing SSA country during the period, and it is expected to surpass Equatorial Guinea to become the third-largest producer in 2018.⁷⁴ This growth could explain the projected gap reported by the gravity model for U.S. exports to the Republic of the Congo. Angola is a member of OPEC and a major oil-producing country in SSA. There is room for oil drilling and production growth in Angola, as it is projected to have 9.5 billion barrels of oil reserves.⁷⁵ However, as described above in regard to exports of FSDPPs, overall U.S. exports of goods in this category can be sporadic and hard to estimate.

There are signs that U.S. companies are expanding oil drilling and extracting operations to each of these three countries, which may increase future U.S. exports of FPSO units specifically and FSDPPs in general. For example, ExxonMobil is interested in operating FPSO units off the coast of Liberia and is actively

⁶⁵ Mobil Equatorial Guinea Inc., an affiliate of ExxonMobil, operates the Serpentina FPSO in the Zafiro field off the shores of Equatorial Guinea. OGD editors, "ExxonMobil Unit Extends FPSO Contract," May 12, 2017; ExxonMobil, "Zafiro Blend" (accessed February 27, 2018).

⁶⁶ ExxonMobil's Erha North Phase 2 project is located 60 miles off the shore of Nigeria and four miles north of the Erha oil field. The Erha North Phase 2 project includes seven wells and is expected to produce an additional 165 million barrels from the area. ExxonMobil, "ExxonMobil Starts Oil Production at Erha," 16, 2015; Offshore Technology, "Erha Deepwater Development" (accessed February 27, 2018).

⁶⁷ Offshore Technology, "Erha Deepwater Development" (accessed February 27, 2018).

⁶⁸ Offshore Engineer, "ExxonMobil Assessing Equatorial Guinea Well," December 11, 2017; Government of Equatorial Guinea, Ministry of Mines, Industry and Energy, "ExxonMobil Makes New Oil Find in Equatorial Guinea," December 11, 2017.

⁶⁹ Energias Market Research, "Floating Production Storage and Offloading (FPSO) Crucial," December 20, 2017.

⁷⁰ Ibid.

⁷¹ See appendix F for more information about the gravity model.

⁷² USDOC, ITA, "Liberia—Oil and Gas," July 12, 2017; USDOC, ITA, "Republic of Congo—Petroleum Sector," July 18, 2017; USDOC, ITA, "Angola—Oil and Gas," July 17, 2017.

⁷³ USDOC, ITA, "Liberia—Oil and Gas," July 12, 2017.

⁷⁴ USDOC, ITA, "Republic of Congo—Petroleum Sector," July 18, 2017; The Oil and Gas Year, "Republic of Congo Overview" (accessed March 5, 2018).

⁷⁵ USDOC, ITA, "Angola—Oil and Gas," July 17, 2017.

searching for profitable oil wells in the area.⁷⁶ Angola is another SSA country where ExxonMobil is planning to expand drilling operations; two FPSO units are anticipated to begin operating off the Angolan coast in 2018.⁷⁷ As of 2017, oil production in the Republic of the Congo was rising, in part due to the Moho Nord Project—the largest oil project in the country’s history. This project uses FPSO units, but is being operated by Total S.A., a French-based oil and gas company.⁷⁸ As a result, total French exports of goods in this category to the Republic of the Congo during 2010–16 (\$119.6 million) greatly exceeded U.S. exports (\$12.4 million).⁷⁹

U.S. Export Competition with Third-country Suppliers

The United States was the source for 9 percent of SSA imports of goods under HS 89 in 2016. Other notable suppliers included China (11 percent) and the EU (18 percent).⁸⁰ Nigeria, Côte d’Ivoire, South Africa, and Ghana were four of the five largest SSA recipients of U.S. exports of goods in this category in 2016.⁸¹ While the United States was not the largest exporter of these goods to any of these countries, it did fall within each country’s top four sources. The United States is likely to experience continued competition from third-party suppliers in these countries, as discussed below.

In 2016, Nigerian imports of goods under HS 89 totaled \$727.2 million. China was the largest source, accounting for 25.8 percent of imports, while the United States was the second-largest exporting country, responsible for 22.0 percent of imports.⁸² The majority of Chinese exports to Nigeria fell within the broad HS 8905 subcategory ranging from light-vessels to FSDPPs, with other significant subcategories including cruise ships, yachts, and other floating structures.⁸³ China remained invested in the Nigerian oil industry even during periods of low oil prices. By chartering Chinese FPSOs to other companies, and agreeing on repayment only after successful drilling took place, China could continue to export equipment to the country during a down market.⁸⁴

China (\$21.2 million), France (\$3.1 million) and the United States (\$0.9 million) were the largest sources of exports in this category to Côte d’Ivoire in 2015.⁸⁵ Total exports to Côte d’Ivoire varied widely throughout the period, ranging from \$1.7 million in 2011 to \$2.7 billion in 2013, further illustrating the sporadic nature of trade in this category.⁸⁶ More than half of Côte d’Ivoire’s imports from China under HS 89 were classified in the category encompassing cruise ships, excursion boats, cargo ships, ferries, and other similar vessels designed to transport persons or goods.⁸⁷ Considering that cruise ships cost

⁷⁶ Offshore Energy Today, “COPL Not Giving Up on Liberian Offshore Block,” September 27, 2017.

⁷⁷ ExxonMobil, “Angola” (accessed February 27, 2018).

⁷⁸ The Oil and Gas Year, “Republic of Congo Overview” (accessed February 27, 2018); USDOC, ITA, “Republic of Congo—Petroleum Sector,” July 18, 2017.

⁷⁹ IHS Markit, Global Trade Atlas database (HS subheading 89, accessed February 28, 2018).

⁸⁰ Ibid.

⁸¹ Equatorial Guinea is the largest recipient of U.S. exports of HS 89, but is excluded from this analysis due to lack of data. USITC DataWeb/USDOC (HTS subheading 89; accessed February 23, 2018).

⁸² IHS Markit, Global Trade Atlas database (HS subheading 89, accessed February 16, 2018).

⁸³ Major subcategories of Chinese exports to Nigeria in 2016 included HS 8901, HS 8903, HS 8905, and HS 8907. IHS Markit, Global Trade Atlas database (HS subheading 89, accessed February 16, 2018).

⁸⁴ Offshore Energy Today, “Chinese Driller Signs ‘Innovative’ Rig Deal in Nigeria,” November 16, 2016 ;

⁸⁵ Trade data were unavailable for 2016. IHS Markit, Global Trade Atlas database (HS subheading 89, accessed February 16, 2018).

⁸⁶ IHS Markit, Global Trade Atlas database (HS subheading 89, accessed February 16, 2018).

⁸⁷ Ibid.

upwards of \$1.4 billion, it is likely that third-party exports to Côte d'Ivoire consisted entirely of smaller vessels.⁸⁸

The Netherlands were responsible for more than half of South Africa's imports under HS 89 in 2016, and nearly all were classed in the category ranging from light-vessels to FSDPPs. In comparison, the United States accounted for only 4.3 percent of imports and was the fourth-largest supplier.⁸⁹ In 2016, the Royal Dutch Shell company (Shell), based in the Netherlands, was the third-largest offshore oil and gas company based on revenues and the fifth-largest based on the total number of rigs.⁹⁰ In 2015, Shell was awarded the rights to drill two deepwater wells off the coast of South Africa, in part due to South Africa's urgency about expediting offshore oil and gas exploration under Operation Phakisa.⁹¹ South Africa's determination to expand oil and drilling operations off its coast may promote future opportunities for third-country exporters of offshore drilling equipment.

Two-thirds of Ghanaian imports in this sector were from Spain in 2016, followed by imports from the United States at only 9.1 percent.⁹² Nearly all of Ghana's imports from these two countries were categorized as "other floating structures," which include rafts, buoys, and beacons, among other goods.⁹³

South Korea is another notable third-country supplier of goods under HS 89 to SSA and was the global leader in exports under HS 8905 in 2016.⁹⁴ Samsung Heavy Industries, based in South Korea, produced and shipped an FPSO unit destined for Nigeria in late 2017.⁹⁵ The company also built the first facility in Africa designed to manufacture FPSO units at the LADOL Freezone Tarkwa Bay yard in Nigeria.⁹⁶ The United States faces additional competition from SSA countries themselves. Nigeria's Lagos Deep Offshore Logistics Base has already spent \$300 million on facilities designed to manufacture FPSO units. Similarly, Angola's Porto Amboim Estaleiros Navais shipyard manufactured and installed two modules to an FPSO unit designed to operate off Angola's coast.⁹⁷

⁸⁸ Nugent, "Hope Floats," *Atlantic*, June 2009, <https://www.theatlantic.com/magazine/archive/2009/06/hope-floats/307441/>.

⁸⁹ IHS Markit, Global Trade Atlas database (HS subheading 89, accessed February 16, 2018).

⁹⁰ Duddu, "Oil Giants: The Ten Biggest Offshore Oil and Gas Companies by Revenue," *Offshore Technology*, July 17, 2016, <https://www.offshore-technology.com/features/featureoil-giants-the-ten-biggest-offshore-oil-and-gas-companies-by-revenue-4944982/>; Odell, "Top 10 Offshore Driller Survey Sees Some Shakeup," *Offshore*, February 15, 2017, <http://www.offshore-mag.com/articles/print/volume-77/issue-2/top-10-drillers/top-10-offshore-driller-survey-sees-some-shakeup.html>.

⁹¹ Operation Phakisa was launched by the South African government in 2013 and focuses on quickly implementing strategies to promote growth in certain sectors. Phakisa means "hurry up" in Sesotho. News24Wire, "Shell Gets Nod to Drill Wells in SA's Orange Basin," October 19, 2015; Government of South Africa, Department of Environmental Affairs, "Operation Phakisa—Oceans Economy" (accessed March 6, 2018).

⁹² IHS Markit, Global Trade Atlas database (HS subheading 89, accessed February 16, 2018).

⁹³ *Ibid.*

⁹⁴ *Ibid.*

⁹⁵ *Offshore*, "Egina FPSO Sets Sail for Nigeria," November 2, 2017.

⁹⁶ Energias Market Research, "Floating Production Storage and Offloading (FPSO) Crucial," December 20, 2017.

⁹⁷ Maslin, "African FPSOs," January 1, 2016.

Natural Gas and Components

Natural gas is a mixture of hydrocarbons that are in a gaseous state at standard atmospheric conditions of temperature and pressure. It is composed primarily of methane, but also contains byproducts commonly known as natural gas liquids (NGLs): ethane, propane, butane, and pentanes. NGLs are separated from methane and cleaned at a gas processing plant, but can also be produced from petroleum at refineries and petrochemical facilities.

Overview of U.S. Exports

U.S. exports of natural gas (including NGLs) to SSA grew rapidly from 2010 to 2016, rising by \$153 million and increasing at a CAGR of 60.7 percent (table 2.7). These exports mostly consisted of butane and propane, which are often referred to as liquefied petroleum gas (LPG) and sold together as a blend.⁹⁸ U.S. exports of LPG to SSA increased from 140,000 barrels in 2010 to 5 million barrels in 2016.⁹⁹ The value of these exports rose over the same period by \$142 million, despite global NGL prices declining by more than half.¹⁰⁰ Top destinations for U.S. LPG exports in the region include Ghana, South Africa, and Nigeria, all coastal countries which also supply neighboring markets with LPG.

Table 2.7 Natural gas and components: U.S. exports to SSA and to selected SSA countries, 2010–16

Product and destination country	2010	2011	2012	2013	2014	2015	2016	Absolute	Compound
								change	annual
	Million \$							2010–16	growth rate
									(CAGR)
									2010–16
									Percent
Natural gas and components	9.4	27.7	15.4	30.9	234.3	213.5	162.3	152.9	60.7
Liquefied petroleum gas	7.9	25.0	0.0	28.6	230.4	199.6	149.5	141.6	63.2
Ghana	0.0	0.0	0.0	26.2	72.1	38.0	65.0	65.0	^a
South Africa	0.0	0.0	0.0	0.0	69.9	49.2	35.0	35.0	^a
Nigeria	7.9	9.8	0.0	0.0	44.4	42.8	0.0	-7.9	-100.0
All other SSA	0.0	15.2	0.0	2.4	44.0	69.6	49.4	49.4	320.3

Source: USITC DataWeb/USDOC (accessed January 30, 2018).

^a CAGR not provided because the 2010 value was zero.

Key Factors Affecting U.S. Exports, 2010–16

LPG has a wide variety of uses, providing heat, light, and power for residential and commercial applications. It is typically sold to end users in small, pressurized cylinders that keep the fuel in a liquid state until consumption, making it relatively easy to distribute and store.¹⁰¹ LPG also offers a cleaner-burning alternative to charcoal and fuelwood, commonly used cooking fuels in developing countries that

⁹⁸ The ratio of butane and propane in LPG varies in different countries and regions. LPG consumed in SSA tends to contain a much higher share of butane (which does not vaporize and burn well at cold temperatures) than LPG sold in colder climates. World Bank, *West Africa LPG Market Development Study*, 2001, 107–8.

⁹⁹ USITC DataWeb/USDOC (HTS subheadings 2711.12 and 2711.13; accessed December 18, 2017).

¹⁰⁰ EIA, Natural Gas Database, “Natural Gas Spot and Futures Prices (NYMEX)” (accessed December 7, 2017).

¹⁰¹ By contrast, electricity requires transmission lines, and natural gas is typically distributed through a system of pipelines. Elgas, “How an LPG-Propane Cylinder Works,” <http://www.elgas.com.au/blog/1976-how-lpg-cylinder-works-how-a-propane-tank-works> (accessed January 17, 2017).

contribute to indoor air pollution and deforestation.¹⁰² The World Health Organization estimates that exposure to indoor air pollution from biomass such as charcoal and fuelwood is directly responsible for about 1.3 million premature deaths worldwide per year, mostly affecting children under 5 years of age.¹⁰³ Consequently, many countries in SSA have adopted subsidies, educational programs, and other initiatives encouraging the use of LPG for cooking.

Growth in SSA demand contributed to rising U.S. LPG exports to the region during the period. Within SSA, the top markets are concentrated in West Africa.¹⁰⁴ Many countries in the region import LPG through Ghana and Nigeria, but the largest users are Nigeria, Senegal, and Côte d'Ivoire, which made up about 80 percent of West Africa's LPG consumption.¹⁰⁵ Accordingly, rising U.S. exports to Ghana and Nigeria reflect demand growth in the broader area.¹⁰⁶ Countries in SSA have different levels of experience with promoting LPG use: Senegal first implemented a *butanisation* program in the 1970s, while Cameroon introduced its first master plan for LPG in 2016.¹⁰⁷ Some countries subject storage and cooking equipment used for LPG to significant value-added taxes and tariffs, while others offer or previously offered subsidized pricing for LPG and associated equipment to encourage adoption.¹⁰⁸ While several SSA countries, such as Nigeria, have domestic crude petroleum and natural gas resources that could be processed to produce LPG, much of this production is exported.¹⁰⁹ In other cases, such as Ghana, SSA petroleum refineries meet some of the regional demand for LPG, and imports make up the shortfall.¹¹⁰

Growth in the U.S. supply of LPG was also a major driver of rising U.S. exports. U.S. production of hydrocarbons started to rebound in the late 2000s, spurred by advances in extraction techniques for crude petroleum and natural gas found in low-permeability onshore formations like shale rock. Most of the growth in U.S. NGL output came from natural gas separation, but NGLs are also produced from refining petroleum. Natural gas plant field production of butane rose from 57 million barrels in 2010 to 107 million barrels in 2016. Natural gas plant field production of propane increased even more, from

¹⁰² IEA, "Energy for Cooking in Developing Countries," 2006, 424–28.

¹⁰³ Ibid.

¹⁰⁴ Argus Media, "LPG as a Cooking and Heating Fuel," 2014, 2.

¹⁰⁵ LPG Business Review, "Understanding LPG in West Africa," July 26, 2016.

¹⁰⁶ The United States exported significant amounts of LPG in 2014 and 2015, but exports to Nigeria have since fallen to zero. Nigeria is currently a net exporter of LPG, but also irregularly imports LPG to stabilize local markets. For this reason, U.S. exports could periodically resume when there is another arbitrage opportunity or unexpected demand from consumers in Nigeria and neighboring countries. Akpan, "Nigeria's LPG Market Rises," February 6, 2018; Asu, "Nigeria's Gas Export Remains High," June 22, 2017.

¹⁰⁷ Schlag and Zuzarte, "Market Barriers to Clean Cooking Fuels," April 2008, 11; Van Leeuwen, Evans, and Hyseni, "Increasing the Use of Liquefied Petroleum Gas," 2017, 2.

¹⁰⁸ For example, Ghana phased out subsidies on LPG in 2013; Nigeria has tariffs averaging nearly 40 percent for LPG-related equipment (cylinders, valves, and other accessories). Reuters, "Ghana Scraps Fuel Subsidy," May 31, 2013; Okere, "LPG Association Calls for Removal of Tariff," February 9, 2017.

¹⁰⁹ For example, Nigeria exports a lot of its natural gas production because the country lacks the infrastructure needed to transport it to domestic markets. Some production of NGL-containing natural gas is also flared as a result of these infrastructure constraints. Platts, "Nigeria Aims to Reduce Fuel Imports Further," April 28, 2017.

¹¹⁰ Ghana does have a natural gas processing plant at Atuabo that opened in 2015, but it is designed to produce about 180,000 metric tons of LPG a year (as of 2016, Ghana's domestic consumption was 280,000 metric tons). Industry representative, telephone interview by USITC staff, December 15, 2017; Purvin & Gertz, "Regional Outlook: Sub-Saharan Africa," July 2011, 7.

214 million barrels to 427 million barrels over the same period.¹¹¹ Overall U.S. exports of butane grew from 8 million barrels in 2010 to 40 million barrels in 2016, while overall U.S. exports of propane grew from 40 million barrels to 292 million barrels over the same period.¹¹²

The United States transformed itself from a minor supplier of LPG to SSA in 2010 to a top supplier by 2014. The increase in U.S. exports mostly eroded market share for SSA suppliers as well as European exporters. The United States contributed more regional LPG imports from 2014 to 2016 than top local supplier Equatorial Guinea, even though over 30 percent of regional imports still originated from local suppliers.¹¹³

Potential for U.S. Exports

While the rate of export growth may slow, the factors supporting increased U.S. exports of LPG to SSA are long-term trends. In fact, under most of the U.S. Energy Information Administration's long-term forecast scenarios, overall U.S. energy exports are anticipated to continue to grow into the 2030s.¹¹⁴ Most countries in SSA are still at the relatively early stages of LPG adoption, with high potential for further demand growth. As of 2013, the share of the population in most West African countries using solid fuels rather than LPG or electricity equaled or exceeded 95 percent; the exceptions were Cabo Verde, Senegal, Nigeria, Côte d'Ivoire, Ghana, and Benin.¹¹⁵

SSA governments and industry are still developing new techniques for making LPG more accessible. In 2017, companies in Tanzania and Kenya ran pilot programs using smart meters to allow households to pay as they consume LPG and to use associated equipment in order to mitigate the high upfront costs for LPG stoves, pressurized cylinders, and full cylinders of fuel.¹¹⁶ The infrastructure for importing and distributing LPG is also improving. Nigerian National Petroleum Corporation, in a joint venture with Sahara Energy, acquired two new LPG vessels in 2017 that can deliver up to 38,000 cubic meters of LPG imports.¹¹⁷ Perhaps most importantly, some SSA countries are pursuing larger-scale uses for LPG. Taking advantage of the simpler logistical requirements for LPG, Ghana is developing Africa's first LPG-fired power plant in Tema. The 400 megawatt power plant will also be able to generate power from natural gas or diesel, but is primarily designed for LPG and will include on-site LPG storage and a transportation

¹¹¹ EIA, Petroleum and Other Liquids database, "Natural Gas Plant Field Production" (accessed January 2, 2018). Note that some EIA publications reflect the definition for LPG used by the agency before January 2014. According to this definition, LPG includes ethane, propane, normal butane, and isobutane.

¹¹² EIA, Petroleum and Other Liquids database, "Exports" (accessed January 2, 2018).

¹¹³ Based on annual import values for SSA countries that reported their trade data. IHS Markit, Global Trade Atlas database (HS 2711.12 and 2711.13; accessed November 20, 2017).

¹¹⁴ These long-term forecast scenarios include the Energy Information Administration's baseline scenario that serves as a point of comparison for other scenarios, for example, if oil prices end up being significantly higher than expected or economic growth stalls. EIA, *Annual Energy Outlook 2017*, January 5, 2017.

¹¹⁵ "Solid fuels" refer to firewood and charcoal. Van Leeuwen, Evans, and Hyseni, "Increasing the Use of Liquefied Petroleum Gas," 2017, 3–4.

¹¹⁶ Senelwa, "Smart LPG Meters Out in Kenya, Tanzania," October 24, 2017.

¹¹⁷ The capacity of the two vessels totals about 240,000 barrels of oil equivalent, using LPG conversion factors from BP's *Statistical Review of World Energy 2017*, June 2017, 48; Nigerian National Petroleum Corporation, "NNPC JV Takes Delivery of Two LPG Carriers," January 23, 2017.

pipeline. Running the plant entirely on LPG should roughly double Ghana's total LPG consumption.¹¹⁸ The project broke ground in April 2017 and is expected to be fully operational by the end of 2018.¹¹⁹

The Commission's gravity model identified Mauritania and Tanzania as the SSA markets with the largest gaps between expected and actual U.S. export flows to SSA. However, most of the global exports to Mauritania were natural gas from neighboring Algeria; U.S. exports of natural gas cannot compete with those, because shipping liquefied natural gas (LNG) is more expensive than land-based natural gas trade, and Mauritania does not have a regasification terminal. Tanzania also appears unlikely to become a growing market for U.S. natural gas or NGL exports. Tanzania reports significant LPG imports, mostly coming from Europe. Swiss-based Oryx Energies controls much of the country's LPG marketing and infrastructure,¹²⁰ likely limiting the potential for U.S. exports to capture market share.

U.S. Export Competition with Third-country Suppliers

The United States contributed 18 percent of SSA's imports of LPG in 2016; other major suppliers were the United Arab Emirates (UAE) (11 percent) and the EU (11 percent).¹²¹ U.S. LPG exports to SSA will likely continue to face competition from these suppliers.

The UAE remains a major global producer and exporter of LPG. In February 2017, the UAE announced a 10-year LPG supply agreement with energy trader Vitol.¹²² The EU is a net importer of LPG, although some individual EU countries, as well as Norway (not an EU member), export LPG.¹²³ The ports of Amsterdam, Rotterdam, and Antwerp (referred to as ARA) also report substantial exports, due to their large storage capacity for energy products and high volume of two-way trade.¹²⁴ Egypt borders the SSA region and has supplied between \$30 and \$100 million of butane exports to Sudan annually; exports to Sudan and other SSA countries could grow as Egypt ramps up its natural gas production from the Zohr "supergiant" field.¹²⁵ U.S. exports to West Africa could also face increased competition from Argentina, which has been consistently exporting butane to Senegal since 2013 and contributed 4 percent of SSA's LPG imports in 2016.¹²⁶ Argentina's Vaca Muerta field contains the second-largest reserves of shale gas in the world and has geologic properties similar to those of Eagle Ford, a liquids-rich shale formation in

¹¹⁸ Industry representative, telephone interview by USITC staff, December 15, 2017.

¹¹⁹ Power Technology, "Bridge Power Project, Tema," <http://www.power-technology.com/projects/bridge-power-project-tema/> (accessed December 15, 2017).

¹²⁰ Oryx Energies, "Oryx Energies Completes New LPG Expansion Phase," December 15, 2016.

¹²¹ Based on dollar values for SSA countries that reported their imports. IHS Markit, Global Trade Atlas database (HS 2711.12 and 2711.13; accessed November 17 and 20, 2017).

¹²² Vitol markets energy products internationally but has been expanding its ties to Africa; the trader has a stake in the Sankofa offshore oil and gas project in Ghana and is involved in Africa's downstream sector through its joint venture Vivo Energy. Kassem, "Adnoc Takes the 10-Year View," February 22, 2017; Vasagar, "Oil Trader Vitol Targets Africa Expansion," February 5, 2017.

¹²³ AEGPL and Argus Media, *European LPG Sector: Overview 2016*, 2016, 8.

¹²⁴ *Petroleum Economist*, "Europe: Better at ARA," January 1, 2007.

¹²⁵ The Zohr field was discovered in August 2015 and is estimated to be the largest natural gas discovery in the Mediterranean Sea. Egypt started producing natural gas from Zohr in December 2017 at a rate of 350 million cubic feet of gas per day. Output is expected to rise to 2.7 billion cubic feet per day by the end of 2019. Egyptian exports to Sudan are based on years for which Sudan reported import data (2010, 2011, 2012, and 2015). IHS Markit, Global Trade Atlas database (HS 2711.13; accessed November 20, 2017); El Wardany, "Why One Giant Gas Field Is a Big Deal," December 19, 2017.

¹²⁶ IHS Markit, Global Trade Atlas database (HS 2711.13; accessed November 20, 2017).

the United States.¹²⁷ Argentinian oil company YPF is investing heavily to develop Vaca Muerta and is targeting a 5 percent annual increase in overall oil and gas production through 2022.¹²⁸

While these upcoming natural gas projects could create additional competition for U.S. LPG exports, U.S. production of NGLs is projected to nearly double between 2017 and 2050.¹²⁹ Given the United States' endowment of shale gas resources and the high potential growth in SSA demand for LPG, U.S. LPG exports to SSA are likely to continue growing.

Electric Motors, Generators, and Related Equipment

This product group includes two main types of products: (1) electric motors, which convert electricity into mechanical energy for a wide range of applications; and (2) power generation equipment, including electric generators and generating sets. A generating set is a combination of a prime mover—a device that generates mechanical energy, such as a gas turbine, steam turbine, or diesel or other reciprocating engine—and the generator that converts the mechanical energy to electrical energy. When the prime mover and generator are imported together, they are included in this product group. When they are imported separately, the generator is included in this product group, but the prime mover is in a different product group. Several related products, such as magnets, are also included in this product group.

Overview of U.S. Exports

U.S. exports of electric motors, generators, and related equipment to SSA increased from \$187 million in 2012 to \$306 million in 2016 (a CAGR of 8.5 percent) (table 2.8). The growth in exports was primarily driven by an increase in U.S. exports of power generation equipment, particularly turbine generating sets in HS 8502.39¹³⁰ and large alternating current (AC) generators in HS 8501.64; the largest exports in 2016 were to Angola, Cameroon, Ghana, and South Africa.¹³¹ U.S. turbine exporters are a mix of large firms and SMEs, which exported a range of product sizes and types during the period. Exports of power generation equipment are typically tied to contracts related to certain projects, and therefore may be high in a particular year when a power plant is under construction, only to drop substantially in the following year after a project is completed.

¹²⁷ “Liquids-rich” is used to describe unprocessed natural gas containing relatively high amounts of NGLs. Mander, “Argentina’s YPF to Invest \$30 Bn,” October 25, 2017; EIA, “Argentina Seeking Increased Natural Gas Production,” February 10, 2017.

¹²⁸ Mander, “Argentina’s YPF to Invest \$30 Bn,” October 25, 2017.

¹²⁹ Baumgarten, “U.S. Set to Become Net Energy Exporter,” February 6, 2018.

¹³⁰ HS 8502.39 includes most generating sets that use turbines (such as gas, hydro, and steam turbine generating sets), but does not include reciprocating-engine generating sets or wind turbine generating sets.

¹³¹ Exports of large AC motors (HS 8501.53) to South Africa also increased by \$36 million during 2010–16. But the rest of this section will focus on power generation equipment, since that accounted for the largest increase in export value. USITC DataWeb/USDOC (accessed December 8, 2017).

Table 2.8 Electric motors, generators, and related equipment: U.S. exports to SSA and to select SSA countries, 2010–16

Product and destination country	2010	2011	2012	2013	2014	2015	2016	Absolute change	Compound annual growth rate (CAGR)
								2010–16	2010–16
Million \$								Percent	
Electric motors, generators, and related equipment	187.4	191.1	255.2	204.9	193.0	205.7	306.4	119.0	8.5
Other electric generating sets and AC generators	99.0	78.8	98.3	71.9	74.1	57.8	199.7	100.7	12.4
Angola	0.5	10.4	52.0	0.5	0.9	0.7	97.0	96.5	137.5
Cameroon	0.4	0.0	0.1	6.3	0.1	6.2	33.0	32.6	111.4
Gabon	44.1	0.0	1.8	9.1	8.9	0.0	3.6	-40.5	-34.2
Ghana	0.2	0.4	0.3	0.0	0.0	1.7	47.1	46.9	159.9
Guinea	0.0	2.9	0.0	0.0	0.0	25.6	0.0	0.0	0.0
Nigeria	12.0	2.4	26.2	2.5	5.8	1.6	0.4	-11.7	-44.0
Senegal	0.0	49.4	0.0	0.0	1.3	0.0	0.0	0.0	0.0
South Africa	1.9	6.4	10.9	4.5	8.5	9.0	13.5	11.6	39.1
Tanzania	0.0	0.0	0.0	39.2	39.2	0.0	0.0	0.0	0.0
Togo	36.2	0.0	0.0	0.0	0.0	0.0	0.0	-36.2	-100.0
All other SSA	3.8	6.8	7.1	9.8	9.3	13.0	5.1	1.3	5.1

Source: USITC DataWeb/USDOC (accessed December 8, 2017). Other electric generating sets come under HS 8502.39. “AC generators” refers to AC generators greater than 750 kVA (HS 8501.64).

Key Factors Affecting U.S. Exports, 2010–16

U.S. exports benefited from investment in new power plants in the SSA. Investment in power generation capacity is being driven by a number of factors, including economic growth, population growth, urbanization, an increase in households with electricity, rising incomes, higher consumption rates, a shift from on-site generation to grid power, and a desire to diversify energy sources.¹³² Public policies are changing within the region, including increasing support for renewable energy.¹³³ Finally, international programs (such as the UN Program Sustainable Energy for All and the U.S. Power Africa program), export

¹³² A small portion of the increase in demand in the region will be offset by increasing energy efficiency. Despite the large number of drivers, significant challenges to increasing generation capacity in the region remain, such as the lack of creditworthy power purchasers and lack of a track record with these projects. Castellano et al., *Brighter Africa*, February 2015, 11–12, 13–16; PwC, *A New Africa Energy World*, July 2015, 28; Deloitte, *Sub-Saharan Africa Power Trends*, 2017, 4; KPMG, *Sub-Saharan Africa Power Outlook 2016*, 2016, 8.

¹³³ A number of countries in SSA are planning to increase renewable energy generation capacity. For example, South Africa’s Integrated Resource Plan (IRP) 2010–2030 set a goal of 7 gigawatts (GW) of renewable energy capacity by 2020 and 17.8 GW by 2030. The first request for proposals under South Africa’s Renewable Energy Independent Power Producer Procurement Program was issued in August 2011, with subsequent requests for proposals following. As of August 15, 2017, 3.3 GW of renewable energy capacity was in operation. Ethiopia is planning to add over 13 GW from the 2014/15 fiscal year to 2019/20, with hydro, wind, and other renewables driving the capacity increases. NERSA, *Monitoring Renewable Energy Performance*, September 2017, 3, 7; Eberhard, Kolker, and Leigland, *South Africa’s Renewable Energy IPP*, May 2014, 1; Government of Ethiopia, National Planning Commission, *Growth and Transformation Plan II*, May 2016, 179.

credit agency financing, and Chinese investment (including from the Export-Import Bank of China and other sources) are providing additional funding for power generation in SSA.¹³⁴

The types of power plants constructed in SSA vary by country, depending on both the available resources and government policies.¹³⁵ For example, in South Africa, solar and wind accounted for a majority of capacity additions during 2010–16.¹³⁶ In Angola and Kenya, on the other hand, a mix of hydro and fossil fuel capacity was added during 2010–15, and capacity additions in Nigeria were dominated by fossil fuels. Net geothermal capacity additions, on the other hand, were made primarily in Kenya.¹³⁷ The investments in plants using fossil fuels drove orders for new gas and steam turbines in the region, which were significantly higher in 2013–16 than during 2011–12.¹³⁸

U.S. manufacturers benefited from investments in power generation capacity, primarily supplying equipment for natural gas power plants.¹³⁹ U.S. turbine exporters are a mix of large firms and SMEs, which exported a range of product sizes and types. For example, PW Power Systems supplied three gas turbine generators to Guinea in 2015.¹⁴⁰ General Electric (GE) was contracted to supply equipment for projects in a range of countries, including Angola, Ghana, and Tanzania.¹⁴¹ GE also exported a steam turbine to Côte d'Ivoire that was used to convert a simple-cycle gas turbine plant to a combined-cycle plant (which uses the waste heat from the gas turbines to generate steam that turns a steam turbine).¹⁴² U.S. gas turbine manufacturer Solar Turbines, a subsidiary of Caterpillar, is active in the region, with offices in Angola and Nigeria.¹⁴³ Smaller firms are also active in exporting to SSA. Combustion Associates, for example, exports to Benin, Cameroon, Ghana, and Nigeria.¹⁴⁴ Capstone Turbine, which produces

¹³⁴ Historically, the Export-Import Bank of China provided the majority of financing for projects built by Chinese companies in SSA. Castellano et al., *Brighter Africa*, February 2015, 9; KPMG, *Sub-Saharan Africa Power Outlook 2016*, 2016, 8; IEA, *Boosting the Power Sector in Sub-Saharan Africa: China's Involvement*, July 6, 2016.

¹³⁵ Castellano et al., *Brighter Africa*, February 2015, 17–20; KPMG, *Sub-Saharan Africa Power Outlook 2016*, 2016, 7.

¹³⁶ While a majority of capacity additions in South Africa were renewable power plants during 2010–16, South Africa has significant coal generation capacity under construction and plans to procure additional natural gas-generated electricity. KPMG, *Sub-Saharan Africa Power Outlook 2016*, 2016, 8; CoalSwarm, Global Coal Plant Tracker database (accessed January 18, 2018); Bloomberg New Energy Finance, BNEF database (accessed February 5, 2018).

¹³⁷ UN Statistics Division, Energy Statistics Database (accessed January 4, 2018); NERSA, *Monitoring Renewable Energy Performance*, September 2017, 7.

¹³⁸ As noted above, gas and steam turbines are included in HS 8502.39 if exported with the generator. Burke and Haight, 35th to 41st Power Generation Order Surveys, *Diesel and Gas Turbine Worldwide*, 2011–17.

¹³⁹ This discussion will cover turbines generally, though some may be exported as turbines rather than turbine generating sets.

¹⁴⁰ PW Power Systems, “PW Power Systems to Provide,” April 14, 2015; PW Power Systems, “PW Power Systems Announces,” 2015; IHS Markit, Global Trade Atlas database (accessed January 17, 2018).

¹⁴¹ Information is not available on whether all of these turbines were manufactured in the United States. Energy Business Review, “Angola to Enhance,” November 7, 2012; Power Engineering, “APR Energy to Provide,” December 6, 2013; Power Engineering International, “GE to Build 1200 MW,” January 28, 2015; Cenpower Generation Company Limited website, <http://www.cenpowergen.com/project.html> (accessed March 27, 2018). Jacobsen Elektro AS, “Kinyerezi I 150MW Power Plant” (accessed January 5, 2018).

¹⁴² Todd, “Doing Business in Africa,” March 11, 2016, 13; Azito Energie, “Azito Energie Inaugurates,” June 30, 2015.

¹⁴³ Solar Turbines, “Worldwide Locations,” 2017.

¹⁴⁴ Thomas, “Ex-Im Bank: Supporting U.S. Business,” January 26, 2017.

microturbines (small turbines for on-site power generation), has supplied customers in SSA, including Nigeria and South Africa.¹⁴⁵

U.S. manufacturers have supplied or been contracted to supply equipment for some renewable energy projects in the region, including geothermal and hydroelectric projects.¹⁴⁶ However, as will be discussed below, most of SSA demand for renewable energy equipment has been supplied by non-U.S. manufacturers.

Potential for U.S. Exports

As noted, electric motors, generators, and related equipment is one of the top growth sectors for U.S. exports to SSA from 2010 to 2016. It was also an industry identified by a literature review and industry sources as a sector in which there is a large potential for future growth in United States exports to SSA. The gravity model analysis identified Nigeria, South Africa, and Ethiopia as the SSA markets with the greatest gaps between expected and actual U.S. export flows.

The underperformance of U.S. exports reflects the demand mix in these countries, as well as the variation in the U.S. industry by product type. Ethiopia and South Africa, for example, invested extensively in renewable energy generation capacity during this period, including wind capacity.¹⁴⁷ U.S. wind turbine manufacturers, as will be explained below, are primarily focused on the domestic market and nearby markets in North and South America. Wind projects in Ethiopia and South Africa have primarily been supplied from plants in Europe and China.¹⁴⁸

Nevertheless, electricity demand in Africa is expected to increase significantly, and countries are expected to invest in a range of technologies (including both renewable and nonrenewable). This includes investments in natural gas plants.¹⁴⁹ U.S. turbine producers are likely to benefit from this demand, and the potential for additional exports is reflected in recent contract signings, though year-to-year variations in export levels are likely, given variations in the timing of order deliveries.¹⁵⁰ However, the extent to which U.S. producers will benefit from the growth in the renewables market or continued strong demand for on-site power generation equipment (such as diesel reciprocating engine generators),¹⁵¹ where they have had only a small market presence (as discussed below), is unclear.

¹⁴⁵ The turbines supplied for one project in South Africa used methane biogas rather than natural gas. Capstone Turbine website, <https://www.capstoneturbine.com/case-studies> (accessed January 17, 2018); Capstone Turbine, “Swineline Farm,” 2016; Capstone Turbine, “Capstone Turbine Corporation Receives,” December 27, 2011.

¹⁴⁶ For example, see Geothermal Development Associated website, February 8, 2011, <http://www.gdareno.com/eburru-has-left-the-building/>; Chorin, “Trump’s Ready Argument,” January 25, 2017.

¹⁴⁷ Bloomberg New Energy Finance, BNEF database (accessed February 5, 2018).

¹⁴⁸ South Africa has local-content requirements for wind projects (requiring a certain percentage of the value of the project to be sourced locally), but firms have been able to continue to import nacelles and blades for these projects, as there is no local production of either of these components. (The nacelle houses the main components of the wind turbine, such as the gearbox, generator, and shafts.) Bloomberg New Energy Finance, BNEF database (accessed February 5, 2018); IHS Markit, Global Trade Atlas database (HS subheadings 8502.31; accessed February 5, 2018); Government of South Africa, Energy Department et al., “Independent Power Producers Procurement Programme (IPPPP),” March 31, 2017, 40–41.

¹⁴⁹ Castellano et al., *Brighter Africa*, February 2015, 4, 21.

¹⁵⁰ Qualitative information on contracts and potential future exports is compiled from press releases, media reports, and email with industry.

¹⁵¹ Burke and Haight, 35th to 41st Power Generation Order Surveys, *Diesel and Gas Turbine Worldwide*, 2011–17.

U.S. Export Competition with Third-country Suppliers

The leading exporters of power generation equipment to SSA during 2010–16 were the EU (with 45 percent of global exports to SSA), China (26 percent), and the United States (12 percent).¹⁵² The leading destinations in SSA for global exporters were South Africa (22 percent), Nigeria (15 percent), Angola (11 percent), Ghana (11 percent), and Kenya (11 percent).¹⁵³

The United States, as mentioned, has a diverse export industry producing turbines for fossil fuel plants, and the competitiveness of this industry is reflected in the larger share of the market captured by U.S. producers. The United States was the second-largest supplier of turbines and turbine generating sets (excluding wind and hydro turbines) to SSA, accounting for 32 percent of exports to the region in 2016. The main competitor was the EU, which accounted for 54 percent of exports to SSA.¹⁵⁴

The EU and China are the leading suppliers of most other types of power generation equipment to SSA. For example, wind projects in SSA have primarily been supplied by the EU and China.¹⁵⁵ The United States has a large wind turbine manufacturing industry, but as noted above, it is not focused on supplying the market in SSA. The three largest U.S. manufacturers of wind turbine nacelles are GE and EU-based Siemens and Vestas.¹⁵⁶ Siemens and Vestas were the two largest suppliers to SSA, based on projects completed during 2010–17.¹⁵⁷ However, these are Europe-based manufacturers (with U.S. plants primarily serving markets in the Americas), and they have opted to source from non-U.S. plants for SSA projects.¹⁵⁸ GE is planning to supply a 100 MW wind farm in Kenya, but the company has multiple global production locations, so it is not clear whether it will source from their U.S. plant for this project.¹⁵⁹

The United States is not a significant exporter to SSA in the area of reciprocating engine generating sets (most commonly demand is for diesel generating sets in SSA). The EU supplied 40 percent of the \$1.1 billion exports of this product to SSA in 2016, and China 32 percent. The United States supplied

¹⁵² Global exports of these goods to SSA totaled \$2.6 billion. These data include exports of hydro, gas, steam, and wind turbines, AC generators, and generating sets. (While turbines exported separately are not included in the product group covered here, in order to understand the competitive situation in the region, the USITC found it necessary to include these products in this analysis.) The data include parts of steam turbines and hydro turbines, but not of other turbines and of generating sets, where there is a large volume of unrelated products in the parts category. IHS Markit, Global Trade Atlas database (HS subheadings 8406.81, 8406.82, 8406.90, 8410.11, 8410.12, 8410.13, 8410.90, 8411.81, 8411.82, 8501.61, 8501.62, 8501.63, 8501.64, 8502.11, 8502.12, 8502.13, 8502.20, 8502.31, 8502.39, 8502.40; accessed January 7, 2018).

¹⁵³ IHS Markit, Global Trade Atlas database (HS subheadings: same as above; accessed January 18, 2018).

¹⁵⁴ IHS Markit, Global Trade Atlas database (HS subheadings 8406.81, 8406.82, 8406.90, 8411.81, 8411.82, 8501.61, 8502.39; accessed March 2, 2018).

¹⁵⁵ Bloomberg New Energy Finance, BNEF database (accessed February 5, 2018); IHS Markit, Global Trade Atlas database (HS subheadings 8502.31; accessed February 5, 2018).

¹⁵⁶ AWEA, “U.S. Wind Energy Industry Manufacturing and Supply Chain,” 2017, 2.

¹⁵⁷ Bloomberg New Energy Finance, BNEF database (accessed February 5, 2018).

¹⁵⁸ IHS Markit, Global Trade Atlas database (HS subheading 8502.31; accessed February 5, 2018); David and Fravel, “U.S. Wind Turbine Export Opportunities in Canada and Latin America,” July 2012, 2, 7, 9, 19–20, 26, 38.

¹⁵⁹ The Overseas Private Investment Corporation (OPIC) provided funding for the project, but indicated that there would be no U.S. procurement for the project. OPIC, “Non-confidential Business Project Summary,” n.d. [https://www.opic.gov/sites/default/files/files/kipeto-info-summary\(1\).pdf](https://www.opic.gov/sites/default/files/files/kipeto-info-summary(1).pdf) (accessed February 5, 2018).

only 1 percent of exports to SSA in 2016.¹⁶⁰ European firms have several advantages in exporting to the region, including lower tariff rates due to trade agreements (such as EU’s free trade agreement with South Africa and Madagascar).¹⁶¹ In addition, the electric grid in SSA generally operates at the same frequency (50 hertz) as the grid in Europe.¹⁶²

Pharmaceuticals

The pharmaceuticals category covers a wide range of goods which seek to prevent, diagnose, treat, or cure diseases in both humans and animals. Three product categories are broken out below: formulated products, diagnostic reagents/certified reference materials (CRMs), and vaccines. Bulk active pharmaceutical ingredients, whether generic or proprietary, are manufactured and then formulated into dosage-form products (e.g., pills) for consumer use. These formulated products are usually distributed to consumers as over-the-counter goods (no prescription needed), via prescriptions from healthcare providers, or onsite at healthcare facilities. Diagnostic reagents are used to diagnose medical conditions, and CRMs are used in quality control and instrument calibration. Vaccines help provide immunity to numerous diseases.

Overview of U.S. Exports

U.S. pharmaceutical companies supplying SSA markets are generally multinational, with global operations. U.S. total exports of pharmaceuticals to SSA countries increased by \$90 million during 2010–16, for a 7 percent CAGR (table 2.9). Formulated products, diagnostic reagents, and CRMs accounted for about 70 percent of such exports to SSA in 2016; the top three SSA markets were South Africa, Nigeria, and Kenya.

¹⁶⁰ IHS Markit, Global Trade Atlas database (HS subheadings 8202.11, 8502.12, 8502.13, 8502.20; diesel generating sets are in HS subheadings 8502.11, 8502.12, and 8502.13; accessed March 2, 2018).

¹⁶¹ South Africa has a bilateral agreement with the EU known as the Trade, Development, and Cooperation Agreement (TDCA); it established a free trade area that covers 90 percent of bilateral trade between the EU and South Africa. Together with several other southern African countries, Madagascar has an Economic Partnership Agreement (EPA) with the EU. WTO, Tariff Analysis Online, <http://tao.wto.org> (accessed April 19, 2018); European Commission, “South Africa,” n.d. (accessed April 19, 2018); EEAS, “Madagascar and the EU,” December 5, 2016.

¹⁶² Some U.S. manufacturers primarily produce 60 hertz generators (the frequency used in the United States). The U.S. does, however, export generators both to markets that use 50 hertz and to markets that use 60 hertz. IHS Markit, Global Trade Atlas database (accessed April 19, 2018). Information on products manufactured in the United States is based on a review of manufacturer and supplier websites.

Table 2.9 Pharmaceuticals: U.S. exports to SSA and to selected SSA countries, 2010–16

Product and destination country	2010	2011	2012	2013	2014	2015	2016	Absolute	Compound
								change	annual
	Million \$							2010–16	growth rate
									(CAGR)
								2010–16	2010–16
									Percent
Pharmaceuticals	186.5	250.7	356.5	413.3	418.3	353.3	276.6	90.1	6.8
Formulated products	63.2	83.1	104.2	124.9	123.5	134.1	125.9	62.7	12.2
South Africa	47.0	59.3	79.5	94.3	89.7	116.1	107.1	60.1	14.7
Kenya	4.3	5.5	3.7	3.6	5.2	3.8	6.8	2.6	8.1
Sudan	0.0	0.9	0.9	0.6	2.1	1.6	2.2	2.2	^a
All other SSA	12.0	17.3	20.1	26.4	26.5	12.7	9.9	-2.1	-3.2
Diagnostic reagents/certified reference materials	31.5	27.0	41.8	48.2	58.8	42.6	70.4	38.9	14.3
South Africa	12.3	14.4	17.7	25.9	23.4	23.6	39.4	27.0	21.3
Kenya	0.9	1.4	5.9	5.8	6.5	1.4	8.7	7.8	45.7
Nigeria	2.9	2.1	4.9	3.7	3.4	5.5	6.1	3.1	12.8
All other SSA	15.3	9.0	13.2	13.0	25.5	12.1	16.3	1.0	1.1
Vaccines, human and veterinary	61.7	116.5	182.2	199.6	199.6	139.2	44.7	-17.0	-5.2
South Africa	16.6	10.2	14.0	12.1	10.0	14.9	20.9	4.3	3.9
All other SSA	45.1	106.3	168.1	187.5	189.6	124.3	23.8	-21.3	-10.1
All other pharmaceuticals	30.1	24.1	28.4	40.5	36.4	37.3	35.6	5.5	2.8

Source: USITC DataWeb/USDOC (commodity group CH019; accessed December 8, 2017). Formulated products come under HS 3004; diagnostic reagents/certified reference materials come under HS 3822; vaccines, human and veterinary come under HS 3002.20 and 3002.30.

^a CAGR not provided because the 2010 value was zero.

Key Factors Affecting U.S. Exports, 2010–16

U.S. total exports of pharmaceuticals to SSA countries increased by about 48 percent during 2010–16, growing from about \$187 million in 2010 to a peak of about \$418 million in 2014 before declining over 2015–16 to \$277 million.¹⁶³ Formulated products, vaccines for human and veterinary use, diagnostic reagents, and CRMs accounted for about 85 to 95 percent of the annual value of U.S. total exports of pharmaceuticals to the region during 2010–16.¹⁶⁴ However, the product mix changed substantially in 2016, as a strong increase in U.S. exports of dosage-form products, diagnostic reagents, and CRMs (from \$176.7 million to \$196.3 million) offset a substantial decline in exports of vaccines (from \$139.2 million to \$44.7 million). South Africa, Kenya, and Nigeria were the largest markets in 2016 for total U.S. exports of formulated products, reagents, and CRMs, valued at \$146.4 million, \$15.5 million, and \$7.4 million, respectively.¹⁶⁵

¹⁶³ USITC DataWeb/USDOC (commodity group CH019; accessed December 8, 2017). The U.S. pharmaceutical industry generally includes all companies operating in the United States, including those with foreign parents.

¹⁶⁴ Diagnostic reagents are products “intended for use in diagnosis of disease or other conditions, including a determination of the state of health, in order to cure, mitigate, treat, or prevent disease or its sequelae.” FDA, “Overview of IVD Regulation,” March 19, 2015. CRMs are used as standards in quality control, measurement validation, or instrument calibration. NIST, “Standard Reference Materials: SRM Definitions,” August 25, 2016.

¹⁶⁵ USITC DataWeb/USDOC (commodity group CH019; accessed December 8, 2017). Vaccines help provide immunity to numerous diseases. World Health Organization, “Vaccines,” n.d. (accessed February 28, 2018).

Numerous factors spurred the SSA market expansion and change in product mix. These included increased urbanization and growing national and individual income levels, especially in Kenya and Nigeria; an ongoing escalation of occurrences of noncommunicable diseases (NCDs)—such as cardiovascular conditions and cancer—versus communicable diseases such as malaria and AIDS/HIV, largely because of the growing income levels and related lifestyle shifts; and growing governmental spending on healthcare.¹⁶⁶ SSA consumption of medicines has also been fostered by the establishment of numerous private-public partnerships; a growing number of patient-assistance and charitable donation programs sponsored by multinational pharmaceutical companies; and initiatives promoted by international collaborative partnerships that focus on increasing access to cancer diagnosis and treatments.¹⁶⁷

Moreover, many SSA countries, including South Africa, Kenya, and Nigeria, have been consuming more generic pharmaceuticals in recent years.¹⁶⁸ Several SSA countries have implemented government regulations promoting consumption of generics (e.g., legislation in South Africa, enacted in December 1997, requires that patients filling prescriptions be informed of generic alternatives).¹⁶⁹ Generics generally cost less than proprietary brand-name products and, therefore, reduce costs for SSA governments and consumers. Some SSA countries, such as Kenya, have also expanded the scope of their insurance programs to cover more diseases, potentially expanding the use of lower-cost generics to curb healthcare costs.¹⁷⁰ These factors likely have helped boost SSA consumption of pharmaceuticals, including generics (and perhaps higher-value pharmaceutical exports) from the United States.¹⁷¹

Potential for U.S. Exports

The pharmaceuticals product group is also identified by the Commission's gravity model analysis and industry sources as a leading sector in which there is a large potential for future growth in U.S. exports, for several reasons. First, a number of factors are driving growth of the sector as a whole. Overall, the African pharmaceutical market is expected to reach \$65 billion by 2020, after increasing from about \$5 billion in 2003 to over \$20 billion in 2013. The increase was fueled by growth in both per capita

¹⁶⁶ Lo, "Nurturing an African Pharma Boom," July 25, 2016; *African Business Magazine*, "Pharmaceuticals: India's Generics Flow into Africa," January 19, 2012; Okonjo-Iweala, "Fulfilling the Promise of Sub-Saharan Africa," June 2010; *Economic Times*, "Nigeria New Attraction for Indian Pharma Firms," November 29, 2017; World Bank, World Development Indicators database (accessed January 9, 2018).

¹⁶⁷ Industry representatives, telephone interviews by USITC staff, November 20 and 24, 2017; industry representatives, email messages to USITC staff, November 22 and December 19, 2017; BVGH, "African Access Initiative (AAI): BVGH Overview," July 19, 2017; "Novartis, ASCP and ACS Join Forces to Fight Cancer," November 15, 2017; *African Business Magazine*, "Pharmaceuticals: India's Generics Flow into Africa," January 19, 2012.

¹⁶⁸ The FDA says, "A generic drug is a medication created to be the same as an existing approved brand-name drug in dosage form, safety, strength, route of administration, quality, and performance characteristics." It also states: "New brand-name drugs are usually protected by patents . . . that prohibit others from selling generic versions of the same drug. . . . Once these patents and marketing exclusivities expire (or if the patents are successfully challenged by the generic drug company), the generic drug can receive full approval and can be sold." FDA, "Generic Drug Facts," October 5, 2017.

¹⁶⁹ McNeil, Jr., "South Africa's Bitter Pill for World's Drug Makers," *New York Times*, March 29, 1998.

¹⁷⁰ FDA, "Generic Drug Facts," October 5, 2017; McNeil, "As Cancer Tears through Africa," October 7, 2017; Dent et al., *Africa's Emerging Cancer Crisis: A Call to Action*, June 2017.

¹⁷¹ Holt et al., *Insights into Pharmaceuticals and Medical Products*, April 2015, 6.

income and national health infrastructures and by an increase in noncommunicable diseases.¹⁷² Moreover, pharmaceutical foreign direct investment flows into SSA are increasing demand for pharmaceuticals, including U.S. exports. The investment flows range from direct investment in pharmaceutical manufacturing to expanding in-country health services. In 2015, for example, Kilitch Drugs, an Indian company, formed a joint venture with an Ethiopian firm because of monetary incentives from the Ethiopian government (e.g., large matching loans and substantial import tax exemptions on imported products).¹⁷³ More recently, it was reported in 2017 that Nigeria specified healthcare spending levels in its annual budget, thereby increasing national demand for pharmaceuticals.¹⁷⁴ Such programs, in tandem with a wide variety of investment models used by industry, have been spurring development of healthcare facilities, services, and diagnostics, particularly in rural areas, all of which bolsters demand for pharmaceuticals.¹⁷⁵

The patient-assistance programs and collaborative initiatives underway in SSA have also played a role. Many companies offer patient-assistance programs, including charitable donation programs. Two such programs were launched in 2017 by pharmaceutical companies Pfizer and Cipla to “charge rock-bottom prices for 16 common chemotherapy drugs,” initially in six SSA markets.¹⁷⁶ Moreover, two collaborative initiatives announced in 2017 also focus on cancer diagnosis and treatments. One was the African Access Initiative, a collaborative effort between BIO Ventures for Global Health (BVGH), pharmaceutical and biotechnology companies, and SSA governments, which focuses on improving cancer management in SSA countries. It is initially operating in Cameroon, Côte d’Ivoire, Kenya, and Nigeria.¹⁷⁷ The second initiative is a partnership between Novartis, the American Society for Clinical Pathology, and the American Cancer Society to improve access to cancer treatments and diagnostics. In another collaborative venture, Bristol-Myers Squibb, AmeriCares, the Clinton Health Access Initiative, and Duke University are partners in programs in Africa and Southeast Asia to treat patients co-infected with hepatitis C and HIV.¹⁷⁸

Industry sources and the Commission’s gravity model identified South Africa, Nigeria, and Kenya as the SSA markets with the greatest gaps between expected and actual U.S. export flows.¹⁷⁹ The Commission’s gravity analysis indicates that whereas India is sending substantially more pharmaceutical exports to these three markets than expected, the United States is sending significantly less. Reasons for the high level of exports from India include ongoing alliances during the past decade between Africa and India; strong growth expected in certain SSA markets, including Nigeria; active market expansion efforts by

¹⁷² Lo, “Nurturing an African Pharma Boom,” July 25, 2016. Nigeria, for example, is said to have both a growing SSA market and an expanding health infrastructure. *Economic Times*, “Nigeria New Attraction for Indian Pharma Firms,” November 29, 2017.

¹⁷³ BMI Research, “Pharmaceuticals and Healthcare Outlook for 2016: Sub-Saharan Africa,” November 24, 2015.

¹⁷⁴ *New African Magazine*, “Health in Africa: Building an African Pharmaceutical Industry,” June 29, 2017.

¹⁷⁵ Lo, “Nurturing an African Pharma Boom,” July 25, 2016; *African Business Magazine*, “Pharmaceuticals: India’s Generics Flow into Africa,” January 19, 2012; *New African Magazine*, “Health in Africa: Building an African Pharmaceutical Industry,” June 29, 2017; Ex-Im Bank, “Ex-Im Bank Provides \$1 Billion,” July 18, 2000.

¹⁷⁶ McNeil, “As Cancer Tears through Africa,” October 7, 2017. Pfizer is headquartered in the United States; Cipla is headquartered in India.

¹⁷⁷ BVGH, “African Access Initiative (AAI): BVGH Overview,” July 19, 2017.

¹⁷⁸ Bristol-Myers Squibb, “HCV Developing World Strategy” (accessed January 12, 2018).

¹⁷⁹ Industry representatives, telephone interviews by USITC staff, November 20 and 24, 2017.

individual companies in India; and the substantial supplies of lower-cost generic products India provides.¹⁸⁰

Although the gravity model identified pharmaceuticals as a sector with potential, prospects for future U.S. exports of pharmaceuticals to SSA are mixed. Given the combined, progressive impact of private-public partnerships, patient-assistance programs, the demographic shift to NCDs, and the collaborative partnerships and initiatives that are ramping up,¹⁸¹ it is possible that companies in the United States will expand their share of the SSA market, particularly through the provision of more innovative proprietary products.¹⁸² However, it is unknown at this time if (or what share of) such exports will be shipped from the United States or if India and other producers of less expensive pharmaceuticals will continue to be the dominant suppliers to SSA. The picture is further clouded by the focus of several SSA governments, including Nigeria and South Africa, on expanding domestic production.¹⁸³

U.S. Export Competition with Third-country Suppliers

The two largest product categories exported by U.S. pharmaceutical companies to SSA are formulated products and diagnostic reagents/CRMs. In 2016, the United States accounted for 2 percent of global exports of formulated products (HS 3004) to SSA, compared to the EU (45 percent), India (33 percent), and China (6 percent). During the same year, the United States accounted for 13 percent of global exports of diagnostic reagents and CRMs (HS 3822) to SSA, compared to the EU (56 percent) and China and India (1 percent each).

China, the EU, and India are major third-party suppliers to SSA countries for formulated products. China and India largely supply lower-cost generic pharmaceuticals.¹⁸⁴ As shown in table 2.10, the EU and India accounted for the majority of world exports of formulated products to SSA in 2016. The EU was the largest supplier of these products to South Africa (51 percent), and India was the largest supplier of these products to Kenya and Nigeria (60 percent and 46 percent, respectively).¹⁸⁵

In comparison, as shown in table 2.11, the EU and the United States accounted for the majority of world exports of diagnostic reagents and CRMs to SSA (and individually to South Africa and Kenya) in 2016.¹⁸⁶

¹⁸⁰ Ngangom, "India and Africa's Partnership for Access to Medicines," August 10, 2016; Berman, "India Looks to Increase Generic Drug Exports to Africa," December 8, 2015; *Economic Times*, "Nigeria New Attraction for Indian Pharma Firms," November 29, 2017.

¹⁸¹ African Access Initiative (AAI) exports to SSA countries are expected to start in 2018. Industry representatives, email messages to USITC staff, November 22 and December 19, 2017; BVGH, "African Access Initiative (AAI): BVGH Overview," July 19, 2017.

¹⁸² Industry representatives, telephone interviews by USITC staff, November 20 and 24, 2017; industry representatives, email messages to USITC staff, November 22 and December 19, 2017.

¹⁸³ Holt et al., *Insights into Pharmaceuticals and Medical Products*, April 2015, 5; Berman, "India Looks to Increase Generic Drug Exports to Africa," December 8, 2015.

¹⁸⁴ Lo, "Nurturing an African Pharma Boom," July 25, 2016; *African Business Magazine*, "Pharmaceuticals: India's Generics Flow into Africa," January 19, 2012; *African Business Magazine*, "India, China Challenge Big Pharmaceutical Companies in Africa," December 10, 2014. India has a partial-scope free trade agreement with Nigeria, but it is unknown if this contributes to India's share of the SSA market. India does not have free trade agreements with South Africa or Kenya. China does not have free trade agreements with South Africa, Kenya, or Nigeria.

¹⁸⁵ Lo, "Nurturing an African Pharma Boom," July 25, 2016; IHS Market, Global Trade Atlas database (HS heading 3004; accessed December 6, 2017, and January 10 and 11, 2018).

¹⁸⁶ IHS Market, Global Trade Atlas database (HS heading 3822; accessed January 25, 2018).

The EU is a major source of exports of the products classified in HS 3004 and 3822, including products exported from U.S. companies operating in the EU, because of Europe's proximity and because of the companies' business models which, in turn, determine the country of origin for their exports.¹⁸⁷

Table 2.10 Formulated products (HS 3004): Shares of world exports in 2016 to SSA and selected SSA countries (percent)

	EU	India	China	United States	All other
SSA	45	33	6	2	14
Nigeria	18	46	23	0.4	13
Kenya	21	60	3	1	15
South Africa	51	24	1	9	15

Source: IHS Markit, Global Trade Atlas database (HS heading 3004; accessed December 6, 2017 and January 10 and 11, 2018).

Note: Sum of shares may not equal to 100 due to rounding.

Table 2.11 Diagnostics reagents and CRMs (HS 3822): Shares of world exports in 2016 to SSA and selected SSA countries (percent)

	EU	India	China	United States	All other
SSA	56	1	1	13	29
Nigeria	31	1	1	16	51
Kenya	52	4	1	24	19
South Africa	74	^a	1	23	3

Source: IHS Markit, Global Trade Atlas database (HS heading 3822; accessed January 25, 2018).

Note: Sum of shares may not equal to 100 due to rounding.

Prepared or Preserved Vegetables, Mushrooms, and Olives

This product group consists of prepared and preserved mushrooms, olives, tomato paste, and dried and shelled pulses (split peas, peas, beans, and lentils). These products are for human consumption and can be marketed directly to consumers; be sold for hotel, restaurant, and institutional (HRI) or food processor use; or undergo further processing or repackaging.

Overview of U.S. Exports

Between 2010 and 2016, U.S. exports to SSA of this product group grew an average of 11.4 percent annually; in absolute terms, these exports increased \$62.8 million during that period (table 2.12). In 2016, the leading SSA markets for U.S. exports were Ethiopia, Sudan, South Africa, Nigeria, and Djibouti (table 2.12). U.S. exports to Ethiopia and Djibouti were mostly split peas and peas, to Sudan mostly lentils and tomato paste, to Nigeria mostly tomato paste, and to South Africa a combination of peas, tomato paste, and pinto beans.¹⁸⁸

¹⁸⁷ Many pharmaceutical firms are global multinational companies that can supply SSA markets from the United States or from their overseas operations, largely depending on changes in their business models. For example, companies' production locations may shift as they optimize global supply chains and rationalize their manufacturing operations.

¹⁸⁸ Compiled from official statistics of the U.S. Department of Commerce (USDOC) (accessed November 29, 2017).

Table 2.12 Prepared or preserved vegetables: U.S. total exports to SSA and to selected SSA countries, 2010–16

Product and destination country	2010	2011	2012	2013	2014	2015	2016	Absolute change 2010–16	Compound annual growth rate (CAGR) 2010–16
									Percent
Million \$									
Prepared or preserved vegetables	68.7	105.7	96.1	117.0	95.2	102.7	131.5	62.8	11.4
Ethiopia	15.2	19.9	13.5	9.5	6.8	19.7	36.1	20.9	15.4
Sudan	0.0	14.3	5.7	7.6	5.4	14.6	14.6	14.6	^a
South Africa	7.2	4.6	5.4	10.8	9.3	8.6	10.1	2.9	5.6
Nigeria	1.8	3.5	3.9	14.1	23.3	12.0	9.6	7.8	31.9
Djibouti	6.7	8.2	7.1	13.8	8.4	11.7	9.0	2.3	5
All other SSA	37.7	55.2	60.5	61.3	42.0	36.2	52.1	14.5	5.6

Source: USITC DataWeb/USDOC (accessed November 29, 2017).

^a CAGR not provided because the 2010 value was zero.

Key Factors Affecting U.S. Exports, 2010–16

U.S. exports to SSA of the overall product group for prepared or preserved vegetables, mushrooms, and olives exhibited strong growth between 2010 and 2016 (table 2.12). This is a broad product group with a wide variety of vegetable products that have differing factors affecting future growth potential. Pulses (e.g., lentils, peas, and beans) and tomato paste account for the biggest share of U.S. exports to SSA. As a result, the following discussion focuses on these products.

There is a tradition of consuming pulses and tomato paste in SSA countries, where these are often integral ingredients for local dishes. Hence, as the population grows, so does demand for these food staples. SSA demand for tomato paste has expanded because imported tomato paste is more convenient and inexpensive than fresh, local tomatoes.¹⁸⁹ Pulses are considered an affordable source of protein and minerals. Moreover, their long shelf life, which allows them to be shipped through long, inefficient supply chains, combined with population growth, has contributed to rising consumption.¹⁹⁰ The United States is a reliable supplier of high-quality products in both of these categories.¹⁹¹

In addition to the common competitive factors, each product category has unique characteristics. The United States has a diverse product offering in the pulse product category; it is also the only producer of pinto beans, and thus has an advantage for that particular type of bean.¹⁹² In addition, SSA is a price-sensitive market, and while the United States is able to compete on delivered cost in western SSA

¹⁸⁹ Malet, “Tomato-Paste Colonialism,” June 2, 2017.

¹⁹⁰ Pulse consumption per capita is expected to continue to grow 2.5 percent a year through 2025. OECD and FAO, “Agriculture in Sub-Saharan Africa: Prospects and Challenges,” 2016, 81; FAO, “Pulses Contribute to Food Security,” 2016.

¹⁹¹ Weaver, “Chinese Trade Team Tours U.S. Pea Industry,” October 22, 2013; industry expert, telephone interview by USITC staff, January 12, 2018.

¹⁹² Industry expert, telephone interview by USITC staff, January 12, 2018.

countries such as Ghana and Senegal, it is less competitive in eastern SSA with beans from Ethiopia (a net exporter, as noted below) or China because of shipping cost disadvantages.¹⁹³

Some U.S. pulse exports to SSA are through U.S. food aid programs.¹⁹⁴ This explains much of the growth of U.S. exports to Ethiopia (table 2.12), as well as Commission gravity model results that suggest that U.S. exports to Ethiopia, Djibouti, Kenya, Tanzania, and Cameroon outperformed expectations in recent years.¹⁹⁵ All of these countries receive U.S. food aid. For example, in 2015–16, Ethiopia experienced one of the worst droughts in decades, resulting in an influx of food aid that included \$36 million of pulses from the United States.¹⁹⁶ Even food aid can provide some export growth, albeit at lower prices, and develop consumer appreciation for the quality of U.S. pulses, possibly resulting in commercial trade in the future.¹⁹⁷

For tomato paste, the United States is cost competitive because of the efficiency and economies of scale of U.S. tomato processors. U.S. tomato processors also have reliable access to low-priced tomatoes for processing. The United States continued exporting tomato paste in 2017 despite higher import tariffs imposed by the Nigerian government in March 2017 on tomato concentrate.¹⁹⁸ The tariffs were partly in response to two Nigerian tomato paste plant closures (Dangote and Erisco Foods) between November 2016 and January 2017, with Erisco Foods moving operations to China.¹⁹⁹ The plants closed, in part, because of the difficulty of sourcing tomatoes for processing.²⁰⁰ Locally, poor roads and lack of storage facilities make it difficult to get tomatoes to processing facilities before they spoil.²⁰¹ Also, tomato pest outbreaks, such as the leaf miner moth in 2016, can cause local tomato supply shortages and run up the price of tomatoes for processing.²⁰² Additionally, foreign currency shortages have limited the ability of processing plants to import machinery, spare parts, and raw materials.²⁰³ Nigerian processors also lack access to financing, market information, and insurance. Because of these factors, growing Nigerian consumer demand for tomato paste is largely met by imports.²⁰⁴

¹⁹³ Ibid.

¹⁹⁴ Examples of aid programs are Food for Progress and the McGovern-Dole Food for Education programs. The World Food Programme reports that significant quantities of U.S. food aid is sent in the form of peas, lentils, and beans to SSA. Food products donated for relief or charity provided for in chapters 1 through 16 when shipped individually in bulk are not covered by chapter 98. World Food Programme, Food Aid Information System database (accessed January 10, 2018); U.S. government official, email message to USITC staff, January 11, 2018; U.S. Census Bureau, Schedule B, Chapter 98, note 3, <https://www.census.gov/foreign-trade/schedules/b/2018/c98.html> (accessed January 11, 2018).

¹⁹⁵ USITC gravity model results.

¹⁹⁶ USDA, FAS, *Ethiopia: Ethiopia's Ag Imports Continue Growing*, February 7, 2017, 3; USDA, FAS, *Ethiopia: Grain and Feed Annual*, March 18, 2016, 1.

¹⁹⁷ Industry expert, telephone interview by USITC staff, January 12, 2018.

¹⁹⁸ Nigerian import tariffs were raised from 5 to 50 percent with an additional levy of \$1,500/mt. Ekeghe and Alekhuogie, "FG Bans Importation of Packaged Tomato Paste," March 28, 2017.

¹⁹⁹ Ohuocha, "Second Nigerian Tomato Paste Plant Shuts," January 18, 2017; EPA Monitoring, "Nigerian Government Adopts Trade Measures against Tomato Imports," May 15, 2017.

²⁰⁰ Ibid.

²⁰¹ Ohuocha, "Second Nigerian Tomato Paste Plant Shuts," January 18, 2017.

²⁰² Sanchez, "Why Tomato Paste Is Such a Big Deal in Nigeria," November 2016.

²⁰³ Ohuocha, "Second Nigerian Tomato Paste Plant Shuts," January 18, 2017.

²⁰⁴ EPA Monitoring, "Nigerian Government Adopts Trade Measures," May 15, 2017.

U.S. tomato paste exports could also be affected in the future by Nigerian government efforts to support local production through levying tariffs on imports.²⁰⁵ The same plant that began moving operations to China in early 2017 announced plans in late 2017 to partner with a consortium of Asian paste producers to open a tomato processing plant in northern Nigeria, with completion scheduled for 2020.²⁰⁶

Potential for U.S. Exports

U.S. pulse and tomato paste exports to SSA could increase in the future if local SSA production continues to lag behind growing consumer demand. For pulses, yield and production growth in SSA countries has been stagnant; moreover, SSA government policies could encourage farmers to switch from pulses to other, more profitable crops.²⁰⁷ U.S. food aid policies and allocations could also impact future U.S. pulse exports to SSA by affecting the quantity of food aid exports and also establishing preferences for the quality and characteristics of U.S. pulses that could lead to future commercial exports. For tomato paste, as discussed above, SSA production capacity will be determined by the number of processing plants and their ability to access raw materials.

The Commission's gravity model identified South Africa, Ghana, and Nigeria as the SSA markets with the greatest gaps between expected and actual U.S. export flows. Ghana and Nigeria import large quantities of tomato paste from China.²⁰⁸ Nigeria also received Italian exports of prepared, preserved tomatoes, although Italian exports to Nigeria dropped from \$33.1 million in 2013 to \$0.7 million in 2016.²⁰⁹ Exports to South Africa in this category are mostly tomato paste and dried beans.²¹⁰ China has the largest share of the South African tomato paste market, although the United States saw exports increase from \$38,900 in 2014 to \$2.4 million in 2016.²¹¹ China also has the largest share of the bean market, followed by Ethiopia and Canada, all three of which have lower delivered costs than the United States.²¹²

U.S. Export Competition with Third-country Suppliers

In 2016, the United States accounted for 11 percent of global exports of prepared and preserved vegetables, mushrooms, and olives to SSA, compared to China (22 percent) and the EU (31 percent).²¹³

The United States mainly faces competition in SSA from local SSA production and from exports from China, with some additional competition from the EU. China is the primary competitor for both pulses and tomato paste.²¹⁴ For pulses, Ethiopia is a net exporter, and both Ethiopia and China have advantages in terms of shipping costs in eastern SSA. Because of this, the United States is most competitive for pulses in southern and western SSA countries.

²⁰⁵ Ibid.

²⁰⁶ Branthome, "Nigeria: A New Plant?" August 11, 2017.

²⁰⁷ Nedumaran et al., "Grain Legumes Production, Consumption and Trade Trends," 2015, 1; Akibode, "Trends in the Production, Trade, and Consumption of Food-legume Crops," 2011, 64–65, 55–56.

²⁰⁸ Malet, "Tomato-Paste Colonialism," June 2, 2017.

²⁰⁹ IHS Market, Global Trade Atlas database (accessed February 5, 2018).

²¹⁰ Ibid.

²¹¹ Ibid.

²¹² Ibid.

²¹³ Ibid. These are for USITC digest sector AG019.

²¹⁴ USITC, *Overview of Cuban Imports of Goods and Services*, March 2016, 168, 171.

U.S. tomato paste competes with Chinese tomato paste in Nigeria and Ghana.²¹⁵ China has the largest market share and has lower production costs than U.S. tomato paste manufacturers. As noted, China also has an advantage in terms of shipping costs in eastern and northern SSA markets; a Nigerian tomato paste manufacturer (Erisco Foods) moved production to China in 2017.²¹⁶ On the other hand, U.S. tomato paste is higher in quality than the low-quality, diluted tomato paste that is typically exported from China.²¹⁷

Polyethylene Resins in Primary Forms

Polyethylene (PE) resins are used to make a number of downstream products, such as clear packaging and thermoplastics. The PE resins product group includes low-density polyethylene (LDPE), linear low-density polyethylene (LLDPE), and medium-density polyethylene (MDPE), as well as high-density polyethylene (HDPE), ethylene-vinyl acetate copolymers, ethylene-alpha-olefin copolymers, and polymers of ethylene not elsewhere specified or included in primary forms (includes elastomeric products). Downstream application products of polyethylene include food packaging, film, bottles, housewares, and food containers.

Overview of U.S. Exports

U.S. export increases during 2010–16 were primarily driven by HDPE shipped to Nigeria, South Africa, and Côte d'Ivoire. From 2010 to 2016, U.S. exports of polyethylene to SSA increased by \$47.9 million dollars, with a CAGR of 6.5 percent (table 2.13).

Table 2.13 Polyethylene resins: U.S. exports to SSA and to selected SSA countries, 2010–16

Product and destination country	2010	2011	2012	2013	2014	2015	2016	Absolute change	Compound annual growth rate (CAGR)
								2010–16	2010–16
Million \$								Percent	
Polyethylene resins	104.0	107.9	124.9	144.5	108.5	125.2	151.9	47.9	6.5
Nigeria	34.8	47.9	41.6	63.6	56.9	46.7	48.7	13.9	5.8
South Africa	33.9	33.1	36.2	42.0	23.1	22.9	31.9	-2.0	-1.0
Côte d'Ivoire	11.1	3.9	12.7	8.6	10.4	16.6	17.3	6.1	7.7
All other SSA	24.1	23.0	34.4	30.2	18.1	38.9	54.0	29.9	14.4

Source: USITC DataWeb/USDOC (HTS subheading 3901; accessed December 12, 2017).

²¹⁵ Malet, "Tomato-Paste Colonialism," June 2, 2017; One Source Food Solutions, "Paste: Spectacular Growth of US Exports," 2013, 2.

²¹⁶ Olawunmi, "Erisco Foods Begins Relocating Operations to China," November 3, 2016; EPA Monitoring, "Nigerian Government Adopts Trade Measures," May 15, 2017.

²¹⁷ Malet, "Tomato-Paste Colonialism," June 2, 2017.

Key Factors Affecting U.S. Exports, 2010–16

Demand for U.S. PE was focused in a few SSA markets during 2010–16. Nigeria accounted for 32 percent of total U.S. exports of PE to SSA in 2016. The country's demand for PE is driven by packaging. Nigeria's plastics and packaging sector has grown in recent decades, from roughly 50 companies in the 1960s to more than 3,000 manufacturers currently, according to Nigeria's National Agency for Food and Drug Administration and Control (NAFDAC).²¹⁸ Some sources estimate African annual PE consumption to be over one million metric tons per year, most of which must be supplied by imports.²¹⁹

Demand for consumer goods in Nigeria has seen rapid growth in the last five years, and this sector's growth reflects that demand, as PE is an input for items such as packaging of final products.²²⁰ Within the country, plastic packaging has come to replace glass, especially in the pharmaceutical and cosmetic industries. Growing demand for packaged local foods, which has been spurred by the 40 percent growth of organized retail grocery outlets during 2009–14, has also boosted Nigeria's demand for PE.²²¹ Additionally, two of Nigeria's top five export sectors are dependent on imported PE resin: (1) prepared foodstuffs, beverages, spirits and vinegar, and tobacco, and (2) plastic, rubber, and articles thereof.²²²

In contrast to its growing demand, Nigeria's domestic supply of PE is limited, as the country has only one producer of PE (specifically, HDPE and LLPDE)—Indorama Eleme Petrochemicals Ltd., with a capacity of 120,000 tons per year.²²³ This producer's capacity remained unchanged from 2013–16 and is not expected to change in the next five years.²²⁴ The increasing gap between Nigeria's domestic demand and supply contributed to the need to import these products during the period.

U.S. exports of PE to South Africa accounted for 21 percent of total exports by value to SSA in 2016. Exports to South Africa decreased by value but increased by quantity from 2010 to 2016.²²⁵ In 2010, the export values and quantities totaled \$33.9 million and 19.1 million kilograms (\$1.77/kg), respectively, and in 2016 they were \$31.9 million and 21.7 million kilograms (\$1.47/kg).²²⁶ In South Africa, PE is widely used for manufacturing containers, dispensing bottles, wash bottles, tubing, computer components, and various molded laboratory equipment, with its most common use being in plastic bags.²²⁷ South Africa consumed about 565,000 tons of PE in 2014, and imports met about 35 percent of this demand.²²⁸ The country's growing middle class has increased the demand for plastic. Plastics have also been named a priority sector for development by the government.²²⁹

²¹⁸ AsokoInsight. "Nigeria Plastic Production Q4 2017" (accessed December 12, 2017).

²¹⁹ ICIS News, "Outlook '16: Africa Is an Attractive but Challenging Market," January 12, 2016.

²²⁰ ICIS Chemical Business, "Market Outlook: Africa Polymers Attract Interest," February 2, 2016; Vanguard, "Why We Can't Set Up a Polyethylene Plant in Nigeria," October 4, 2017; Fairtrade, "The Nigerian Plastics, Printing, and Packaging Sector," 2017.

²²¹ Fairtrade, "The Nigerian Plastics, Printing, and Packaging Sector," 2017.

²²² Nigeria Data Portal, Foreign Trade in Goods Statistics (accessed December 14, 2017).

²²³ ICIS News, "Outlook '16: Africa Is an Attractive but Challenging Market," January 12, 2016.

²²⁴ Ibid.

²²⁵ USITC DataWeb/USDOC (HTS subheading 3901; accessed December 16, 2017).

²²⁶ Table 2.13 and USITC DataWeb/USDOC (HTS subheading 3901; accessed December 16, 2017).

²²⁷ Greve, "Sasol Inaugurates R1.9bn Polyethylene Plant," January 14, 2017.

²²⁸ Ibid.

²²⁹ Slater, "Local Plastics Sector Shows Solid Performance," January 15, 2016.

U.S. exports of PE to Côte d'Ivoire accounted for 11 percent of the total of U.S. exports to SSA by value in 2016. Côte d'Ivoire used PE to make plastic consumer products, plastic garbage bags, plastic cups, and containers for the food processing industry.²³⁰ Demand for plastic goods in Côte d'Ivoire has increased substantially in recent years in tandem with growth in the country's agriculture sector.²³¹ From 2009 to 2015, Côte d'Ivoire's share of agricultural products as a percentage of its total exports increased from 53 to 65 percent. Increased trade in the country's cocoa and cashew nuts resulted in increased demand for other agribusiness products, such as sacks and bags for packaging.²³²

In the United States, there is ample supply of affordable shale gas as feedstock, and this has contributed to various PE expansion projects by Chevron Phillips, Dow Chemical, Equistar (LyondellBasell), ExxonMobil, Formosa, INEOS and Sasol (joint venture), Nova, PTTGC, and Shell.²³³ The increased PE production in the United States has also fed the growth in U.S. PE exports to SSA.

Potential for U.S. Exports

PE is one of the sectors in which U.S. exports to SSA have increased the most from 2010 to 2016. Several research reports estimate that there is potential for the United States to continue expanding its exports to SSA in this sector. This section discusses potential U.S. exports in terms of the larger picture of global PE supply and demand, the three highest-ranked U.S. export markets in SSA analyzed in the previous section, and the trade gaps indicated by the gravity model.

In 2016, Africa represented 4 percent of global PE demand.²³⁴ An industry analysis stated that African PE demand is expected to grow by an average of 7.1 percent annually from 2013 to 2023, considerably faster than the forecasted annual growth rate of 4.2 percent in global PE demand.²³⁵ This demand in Africa is driven by food and consumer-item packaging.²³⁶ Meanwhile, some SSA governments, such as Côte d'Ivoire, have identified rubber and plastics as an export sector to develop as part of broader economic development strategies, which would also likely increase the demand for PE in the future.

The use of plastics is expected to grow in both Nigeria and South Africa. In Nigeria, as noted earlier, plastic packaging has been a replacement for glass. In addition, rapid growth in the consumer goods sector has been a major driver of packaging demand. Both of these trends are expected to continue.²³⁷ At the same time, South Africa's Department of Trade and Industry expects demand to grow for packaged food and for the plastics used in the automotive industry. Downstream uses for plastics and key opportunities for the growing plastics sector include automotive interior and exterior products, food packaging, medical products, buildings (pipes, flooring, and building sheet), and electrical and electronics cables, appliances, and casing components.²³⁸

²³⁰ Export.gov, "Côte d'Ivoire—Plastic Material and Resins," June 10, 2016.

²³¹ Ibid.

²³² WTO, "Annex 3: Côte d'Ivoire," September 14, 2017.

²³³ Hydrocarbon Processing, "IHS: Asia Driving Strong Global Demand for Polyethylene," January 25, 2017.

²³⁴ Ibid.

²³⁵ Platts Petrochemical Analytics, "Shale Gas to Polyethylene: Global Outlook to 2023," n.d. (accessed January 10, 2018).

²³⁶ Hydrocarbon Processing, "IHS: Asia Driving Strong Global Demand for Polyethylene," January 25, 2017.

²³⁷ *BusinessNews (Nigeria)*, "Plastic Sub-sector to Grow by 7% by 2025," May 7, 2015; *African Review of Business and Technology*, "African Packagers Rise to Challenge of Increased Demand," December 28, 2016.

²³⁸ Government of South Africa, Department of Trade and Industry, "Plastics," n.d. (accessed December 20, 2017).

In June 2014, the government of Côte d'Ivoire set up the National Export Council in order to implement its National Export Strategy. This strategy aims to diversify Ivorian exports to include products with high added value, find new markets, and align processes with international standards. In 2015, the council drew up a document that specifically identified rubber and plastics as one of the priority sectors.²³⁹ This will likely increase the country's demand for imported PE, as Côte d'Ivoire does not produce HDPE, LDPE, or LLDPE.

The Commission's gravity model identified Kenya, Somalia, and Angola as the three SSA countries with the biggest gaps between expected and actual U.S. export flows. The reasons for the gaps, however, may not be easily overcome. In Kenya, PE is a raw material for plastic bags, and there has been a history of legislation against the product. In 2007, the Kenyan government issued a ban against plastic bags below 0.3 millimeters (0.11 inches) in thickness. In 2011, Kenya's National Environmental Management Agency declared a ban on plastic bags below 0.6 millimeters in thickness as a way to help the environment.²⁴⁰ These incremental bans were not considered effective enough, and finally in 2017 all plastic bags, regardless of thickness, were banned.²⁴¹ The High Court of Kenya dismissed a case by importers requesting the ban be dropped. The ruling stated that environmental concerns were more important than commercial interests.²⁴²

Somalia is another potential market indicated by the gravity model. However, the model does not take into account terrorist or piracy events that are deterrents to trade. Somalia has struggled with significant risk for piracy and armed robbery against ships in the Gulf of Aden and Indian Ocean. If the security situation were to improve, Somalia's economy would likely benefit from food packaging and other consumer products that are made from PE. Analysis of the composition of Somalia's GDP by end use shows that 72.1 percent is spent in the area of household consumption,²⁴³ a category that includes plastic packaging for food, plastic bags, and other PE products. Somalia does not have any factories that produce PE and would therefore need to import it.

Angola is another potential market indicated by the gravity model. However, the economy of Angola is dependent on the volatile oil sector: oil and its supporting activities account for more than 70 percent of government revenue and 90 percent of the country's exports. Revenue from the oil sector was used to fund infrastructure projects to rebuild after a 27-year civil war that ended in 2002.²⁴⁴ Products such as HDPE pipes were critical for sewage and water networks,²⁴⁵ and LLDPE can be used to build water storage tanks to collect rainwater.²⁴⁶ Up until 2014, the government was spending around \$15 billion annually on infrastructure. However, when Angola's oil production dipped and the economy slowed, the HDPE pipe manufacturer Fibrex saw its orders decrease 60 to 70 percent.²⁴⁷ The government cut spending, which affected numerous related projects.²⁴⁸ At present, the International Monetary Fund

²³⁹ WTO, "Annex 3: Côte d'Ivoire," 201, September 14, 2017.

²⁴⁰ *Eagle* online, "Kenya Bans Plastic Bags," March 28, 2017.

²⁴¹ Osman, "Will Kenya's War on Plastic Be Successful This Time?" August 31, 2017.

²⁴² BBC News, "Kenya Plastic Bag Ban Comes into Force," August 28, 2017.

²⁴³ CIA, *The World Factbook*, January 17, 2018.

²⁴⁴ *Ibid.*

²⁴⁵ England, "Angolan Industrial Sector Counts the Cost of Cheap Oil," May 6, 2015.

²⁴⁶ Rainbow Reservoirs, "Water Storage Tanks and Reservoirs" (accessed January 17, 2018).

²⁴⁷ England, "Angolan Industrial Sector Counts the Cost of Cheap Oil," May 6, 2015; Global Economy.com, "Angola: Economic Growth," n.d. (accessed January 15, 2018).

²⁴⁸ Brock, "Angola Halves Growth Forecast, Cuts Spending," July 11, 2016; Global Economy.com, "Angola: Government Spending, Percent of GDP" (accessed January 16, 2018).

predicts an economic growth in Angola of about 1.5 percent per year through 2022.²⁴⁹ If the government sees an uptick in oil production and prices, it could generate more revenue for spending on infrastructure projects and therefore greater demand for PE products.

U.S. Export Competition with Third-country Suppliers

Middle Eastern countries such as Saudi Arabia and Qatar are major sources that outrank the United States in quantity of PE exported to SSA. In 2016, Côte d'Ivoire imported PE primarily from Saudi Arabia (34.63 million kg), Qatar (23.00 million kg), and the United States (15.33 million kg).²⁵⁰ A main factor influencing the competitiveness of the United States compared to third-country suppliers is price, which among other things is affected by the cost of the input raw material in making the final polymer product. The raw material ethane is made from crude oil or natural gas.²⁵¹ If a country has oil or natural gas production capabilities, PE producers are likely to benefit from access to the needed input raw material. With Saudi Arabian exports of PE to Côte d'Ivoire priced at \$1.24/kg, Qatar at \$1.28/kg, and the United States at \$1.29/kg in 2016, the higher proportion of exports to Côte d'Ivoire of PE from Qatar and Saudi Arabia is likely due to lower ethane feedstock costs in the Middle Eastern countries.²⁵²

In 2016, South Africa imported PE primarily from Saudi Arabia (92.75 million kg), Singapore (31.63 million kg), Thailand (24.32 million kg), and the United States (20.03 million kg).²⁵³ As in Côte d'Ivoire, price was a significant factor affecting the source of imports. The prices for exported PE were Saudi Arabia, \$1.16/kg; Singapore, \$1.17/kg; Thailand, \$1.31/kg; and the United States, \$1.45/kg.²⁵⁴ Producers in the Middle East continue to benefit from their advantageous ethane feedstock costs.²⁵⁵ In 2016, Nigeria imported PE primarily from Saudi Arabia (70.60 million kg), the United States (40.94 million kg), and Qatar (35.43 million kg).²⁵⁶ The prices were Saudi Arabia, \$1.51/kg; the United States, \$1.50/kg; and Qatar, \$1.51/kg.²⁵⁷

Sauces, Condiments, and Food Ingredients

This section covers “sauces, condiments, and soups” and “infant formulas, malt extracts, and other edible preparations.” Both product groups are part of the larger processed food industry. The sauces, condiments, and soups product group includes items such as ketchup, mustard, mayonnaise, tomato sauces, and broth. These items are generally ready for consumption and may be sold to consumers through either retail or foodservice channels. The infant formulas, malt extracts, and other edible preparations product group includes a wide range of items, many of which are used as ingredients in the manufacture of other foods. Examples include powdered concentrates used to flavor foods or change their nutritional content, and syrup concentrates used in the manufacture of beverages. The two

²⁴⁹ Global Economy.com, “Angola: Economic Growth Forecast” (accessed January 11, 2018).

²⁵⁰ IHS Markit, Global Trade Atlas database (HS 3901; accessed December 12, 2017).

²⁵¹ Essential Chemical Industry Online, “Poly(ethane) (Polyethylene),” April 27, 2017; Frazier, “This Is Exactly How Natural Gas Gets Turned,” April 7, 2017.

²⁵² Hydrocarbon Processing, “IHS: Asia Driving Strong Global Demand for Polyethylene,” January 25, 2017.

²⁵³ IHS Markit, Global Trade Atlas database (HS 3901; accessed December 12, 2017).

²⁵⁴ Ibid.

²⁵⁵ Hydrocarbon Processing, “IHS: Asia Driving Strong Global Demand for Polyethylene,” January 25, 2017; Mistry, *India to Outweigh Chinese Polyolefin Demand Growth*, September 2014, 3.

²⁵⁶ IHS Markit, Global Trade Atlas database (HS 3901; accessed January 19, 2018).

²⁵⁷ Ibid.

product groups are covered together in this section because they reflect some of the same trends in SSA markets.

Overview of U.S. Exports

Between 2010 and 2016, U.S. exports of sauces, condiments, and soups to SSA grew by \$28 million, a CAGR of 10.3 percent (table 2.14). The largest SSA markets for these exports were Nigeria, Sierra Leone, and The Gambia. U.S. exports of infant formulas, malt extracts, and other edible preparations grew by \$16 million, a CAGR of 2.4 percent. The largest SSA markets for these exports were South Africa and Djibouti, but Nigeria and Ghana are also major markets and are growing more quickly.

Table 2.14 Sauces, condiments, and food ingredients: U.S. exports to SSA and to selected SSA countries, 2010–16

Product and destination country	2010	2011	2012	2013	2014	2015	2016	Absolute change	Compound annual growth rate (CAGR)
								2010–16	2010–16
Million \$								Percent	
Sauces, condiments, and soups	35.1	43.4	49.8	57.9	65.1	65.0	63.2	28.1	10.3
Mayonnaise	29.8	36.3	42.3	48.7	55.6	54.7	53.1	23.3	10.1
Sierra Leone	1.4	2.5	4.9	4.3	7.3	11.4	11.1	9.6	40.5
Gambia	4.5	7.4	6.8	12.7	12.2	10.4	10.8	6.3	15.6
Nigeria	8.5	5.9	9.4	8.6	14.1	14.4	10.4	1.9	3.4
All other SSA	15.4	20.4	21.3	23.1	22.0	18.4	20.8	5.5	5.2
Infant formulas, malt extracts, and other edible preparations	99.9	109.4	97.9	115.8	118.1	125.9	115.5	15.6	2.4
Miscellaneous food preparations	38.9	49.8	48.3	53.4	68.8	70.3	72.0	33.1	10.8
Nigeria	4.9	10.4	10.3	14.1	17.4	14.5	13.4	8.5	18.4
Ghana	0.6	1.1	1.5	1.1	2.3	4.0	4.3	3.7	38.2
All other SSA	33.4	38.3	36.5	38.2	49.1	51.8	54.3	20.9	8.4

Source: USITC DataWeb/USDOC (accessed November 29, 2017). Mayonnaise comes under Schedule B 2103.90.9020; miscellaneous food preparations come under HTS 2106.90.

Key Factors Affecting U.S. Exports, 2010–16

The United States is a globally competitive producer of the sauces, condiments, and food ingredients contained in both product groups described above, and exports account for a small but rapidly increasing share of industry revenues, growing from 4.7 percent in 2010 to 6.9 percent in 2016.²⁵⁸ Export markets have become increasingly important because the U.S. domestic market for traditional condiments, such as mayonnaise, declined during the 2010–16 period, largely due to nutritional trends that favor healthier products.²⁵⁹ Exports to SSA make up a small share of industry exports at present; however, U.S. exports to the region are growing faster than in most other markets, as suggested by the data above. Still, U.S. competitiveness in West Africa is limited by the distance and freight time, customs

²⁵⁸ Stivaros, *Seasoning, Sauce and Condiment Production*, October 2017.

²⁵⁹ Ibid.

barriers, and the relatively small size of each individual market, according to the U.S. Department of Agriculture.²⁶⁰

In SSA, changing consumer tastes and expanding economies, particularly in West Africa, contributed to strong demand for U.S.-made foods and ingredients in both of the product groups described above. West Africa is the most urbanized part of SSA, and Ghana, Nigeria, and Sierra Leone (shown in the table 2.14 above) have all experienced rapid growth in per capita income. The Gambia has grown more slowly but is more urbanized than other SSA countries because of its small size. As a result, the population in these four aforementioned SSA countries has shifted its eating patterns toward more meat, wheat products, beverages, and processed foods, and people eat more meals in restaurants.²⁶¹ At the same time, as described below in relation to specific product groups, West Africa has recently attracted investment from multinational food retailers and manufacturers. All of these factors generate demand for processed foods and food ingredients that the United States produces.

In the sauces, condiments, and soups product group, increased U.S. exports to SSA during 2010–16 have primarily been driven by the expansion of the food retail sector in West Africa, including grocery chains and restaurants. New, larger grocery stores and restaurants generate demand for sauces and condiments, such as mayonnaise and tomato sauces, because these outlets tend to carry a wide range of products and cater to the shifts in consumers' eating patterns described above. Some of this expansion has been the result of foreign direct investment; some, the result of the countries' domestic investment. An analysis of the most promising retail markets in SSA noted that 25 shopping centers were under construction in Nigeria as of 2015, and a large shopping mall opened in The Gambia in 2014.²⁶² Similarly, the South African grocery chain ShopRite opened six new stores in Nigeria in 2013 and 2014.²⁶³ In Sierra Leone, the country's largest supermarket opened in 2016.²⁶⁴

The fast food sector is also growing rapidly in the region, with both national and international chains expanding. This is particularly true in Nigeria, where the high number of foreign workers generates extra demand for fast food.²⁶⁵ U.S. chains found in the region include KFC and Domino's in Ghana and Nigeria. Both companies appear to have expanded their footprint in the region during 2010–16.²⁶⁶ Fast food chains generate demand for products such as ketchup, mayonnaise, and beverage concentrates that may often be imported from the United States.

Finally, demand for the food ingredients included in the "miscellaneous food preparations" (HTS subheading 2106.90) is affected by foreign direct investment in the food manufacturing sector, which has increased during 2010–16 as multinational snack food and beverage companies have responded to the growth in local SSA markets. Since 2010, there have been new inflows of foreign direct investment by companies such as Nestlé, Coca-Cola, and Unilever, particularly in Ghana.²⁶⁷ As production of manufactured foods grows in these countries, so does demand for inputs under HTS 2106.90. These operations likely explain some of the rapid increase in U.S. exports of miscellaneous food preparations to Ghana.

²⁶⁰ USDA, FAS, *Ghana: Retail Foods*, May 22, 2017; USDA, FAS, *Nigeria: Retail Foods*, March 11, 2014.

²⁶¹ Staatz, "Strengthening Regional Agricultural Integration in West Africa," July 26, 2017.

²⁶² A.T. Kearney, *Retail in Africa: Still the Next Big Thing*, 2015.

²⁶³ USDA, FAS, *Nigeria: Retail Foods*, March 11, 2014.

²⁶⁴ Awoko, "Sierra Leone News: Choithram Opens Biggest Supermarket," April 4, 2016.

²⁶⁵ Veselinovic, "How Africa Is Giving Fast Food a New Spin," CNN, December 11, 2015.

²⁶⁶ Searcey and Richtel, "Obesity Was Rising as Ghana Embraced," October 2, 2017.

²⁶⁷ Farole and Winkler, *Making Foreign Direct Investment Work for Sub-Saharan Africa*, 2013.

Potential for U.S. Exports

Evidence from U.S. government analysts working in the region,²⁶⁸ as well as the International Trade Centre in Geneva, suggests that the potential for continued growth in exports of processed foods and food ingredients to SSA is high.²⁶⁹ Results from the gravity model identified Senegal, Côte d'Ivoire, and Kenya as the SSA markets with the widest gaps between predicted and actual U.S. export flows of soups, sauces, and condiments, and South Africa and Senegal as the SSA markets with the widest gaps between predicted and actual U.S. export flows of infant formulas, malt extracts, and other edible preparations. At present, France is the leading supplier of these products to Senegal and Côte d'Ivoire, likely due to the countries' historical ties and shared language.²⁷⁰

The growth of the grocery, restaurant, and food manufacturing sectors in SSA are all expected to continue, since these sectors remain nascent in the region. For example, even in Ghana, which has a comparatively developed grocery sector, supermarket sales only account for 4 percent of retail food sales.²⁷¹ In Nigeria, the figure is 2 percent.²⁷² In cases where this growth involves U.S. retailers, U.S. food suppliers may have a competitive advantage. Walmart reportedly plans to enter Nigeria in the near future through its South African affiliate Massmart, which would likely increase the availability of a wide range of packaged foods in that country.²⁷³ In the fast food sector, Pizza Hut has expressed interest in entering Ghana. Overall, the fast food sector in SSA is expected to expand by \$3.7 billion between 2015 and 2019, part of an overall \$10 billion expansion of the foodservice sector from \$39 billion to \$49 billion.²⁷⁴ Continued increases in investment in food manufacturing are also expected, since such investment is intended primarily to meet demand from within the region, which will likely continue to grow.²⁷⁵ Consistent with this trend, Togo, Côte d'Ivoire and Cameroon have been developing the capability to increase their manufactured food product exports under AGOA.²⁷⁶

U.S. Export Competition with Third-country Suppliers

During the 2010–16 period, the United States accounted for an average of 12.4 percent of global exports of sauces and condiments to SSA under HS 2103.90, while China accounted for 30.2 percent and the EU for 23.4 percent. For exports of food ingredients under HS 2106.90, the U.S. accounted for 6.1 percent of global exports to SSA, compared with market shares of 6.3 percent for China and 50.7 percent for the EU.²⁷⁷

²⁶⁸ USDA, FAS, *Ghana: Retail Foods*, May 22, 2017; USDA, FAS, *Nigeria: Retail Foods*, March 11, 2014.

²⁶⁹ According to the International Trade Centre's Export Potential Map, U.S. exports of miscellaneous food preparations (HS 2106.90) to Africa have the potential to grow from \$75 million to \$287 million, making the product group a leading gap in trade with the region. International Trade Centre, Export Potential Map interactive tool, 2016.

²⁷⁰ The gravity model analysis takes shared language and past colonial ties into account, but may not fully capture the significance of the relationship in all cases.

²⁷¹ USDA, FAS, *Ghana: Retail Foods*, May 22, 2017.

²⁷² USDA, FAS, *Nigeria: Retail Foods*, March 11, 2014.

²⁷³ Ibid.

²⁷⁴ Veselinovic, "How Africa Is Giving Fast Food a New Spin," CNN, December 11, 2015.

²⁷⁵ Farole and Winkler, *Making Foreign Direct Investment Work for Sub-Saharan Africa*, 2013.

²⁷⁶ USITC, hearing transcript, January 23, 2018, 17, 25 and 46 (testimony of the Embassies of Togo, Côte d'Ivoire, and Cameroon).

²⁷⁷ IHS Markit, Global Trade Atlas database (accessed February 16, 2018).

Other suppliers, particularly in the EU, export similar processed food products to SSA and have the advantages of reduced distance and greater experience in the market. In addition, because other countries have invested more heavily in grocery and food manufacturing in West Africa than has the United States, these companies may prefer to use suppliers from their home country in some cases. Where U.S. companies—such as KFC and Domino’s—have invested, the likelihood of increased U.S. exports is higher.

The United States competes with the EU and China for market share in SSA. For sauces and condiments, China is the leading supplier to SSA, followed by the EU. During 2010–16, China’s exports of sauces and condiments under HS 2103.90 averaged \$124 million, compared to \$96 million for the EU and \$51 million for the United States (most U.S. exports in this category were of mayonnaise, as shown in the table). On a product basis, competition between the United States and China is probably somewhat limited, since the sauces and condiments historically manufactured and used by China and the United States are different. However, China and the United States compete in many of the same markets, with exports from both countries sent mostly to West Africa, and Nigeria a top market for both. The EU’s exports to the region, by contrast, are likely similar to those of the United States, but competition is limited because the two suppliers tend to focus on different markets. Between the United States and the EU, the top five markets do not overlap at all, with EU exports more often sent to francophone countries.²⁷⁸ In addition, EU exports to the United States’ top three markets are smaller than U.S. exports to these countries.

EU suppliers hold a more distinct advantage in the food ingredients sector of the SSA market. During 2010–16, EU exports to SSA under HS 2106.90 averaged \$477 million, compared to an average of \$57 million for the United States (and \$59 million for China). There was also more overlap in destination markets, with South Africa and Nigeria being the top two destinations for both the EU and the United States. Ghana (the third-largest market for the United States) was China’s largest export market, followed by Nigeria. However, for both sauces and condiments and food ingredients, China and the EU exported less to the region in 2015 and 2016 than they had in 2013 and 2014, while U.S. exports continued to grow, suggesting that exports from the United States had not yet reached their full potential.

Corn

Corn (also known as maize) belongs to the cereals product group, which also includes wheat, rice, and other grains, other than for planting. Yellow corn, which accounts for the majority of U.S. corn production, is used for livestock feed and industrial uses. White corn is primarily used for human consumption.

Overview of U.S. Exports

At the cereal product group level (includes wheat, rice, and other grains in addition to corn), U.S. exports decreased an average of 10.8 percent annually between 2010 and 2016, from \$1367.9 million in 2010 to \$690.4 million in 2016, because of lower wheat and rice exports. However, at the individual product

²⁷⁸ The top five markets for EU exports were Angola, Cameroon, Gabon, Mali, and the Democratic Republic of the Congo.

level, U.S. exports of corn to SSA recorded a CAGR of 79.4 percent from 2010 to 2016 (table 2.15). U.S. corn exports to SSA are mostly yellow corn, with some white corn exports to South Africa.²⁷⁹

Table 2.15 Corn: U.S. exports to SSA and selected SSA countries, 2010–16

Product and destination country	2010	2011	2012	2013	2014	2015	2016	Absolute change 2010–16	Compound annual growth rate (CAGR) 2010–16
	Thousand \$							Percent	
Corn, other than for planting	2,555	1,064	1,694	3,690	7,980	5,637	85,185	82,630	79.4
South Africa	215	0	261	268	838	1,004	32,691	32,476	131.0
Nigeria	99	183	61	3,145	7,000	25	26,050	25,951	153.1
Senegal	0	0	0	0	0	0	8,298	8,298	^a
All other SSA	2,241	881	1,373	276	143	4,607	18,146	15,906	42.1

Source: USITC DataWeb/USDOC (accessed November 29, 2017). Corn, other than for planting, comes under HS 100590.

^a CAGR not provided because the 2010 value was zero.

Key Factors Affecting U.S. Exports, 2010–16

U.S. exports of the overall grains product group fell significantly during 2010–16. However, U.S. corn exports saw substantial growth, from \$2.6 million in 2010 to \$85.2 million in 2016 (table 2.15), with most growth occurring in 2016. The United States is the global leader in corn production and exports and is an efficient, low-cost corn producer, with high yields and efficient transportation and logistics.²⁸⁰ The United States is a consistent supplier of high-quality corn. It is more cost competitive in western and southern SSA because transportation costs are lower to there than to eastern and northern SSA.

While U.S. exports of both white and yellow corn to SSA have expanded, there are different reasons for growth for each one. Growth for white corn is dependent on the South African market, where people consume large amounts of white corn in the form of “pap,” similar to polenta.²⁸¹ Between 2010 and 2015, U.S. corn exports to South Africa grew sharply, though from a low base, rising from \$0.2 million in 2010 to \$1.0 million in 2015 (table 2.15). In 2016, corn exports jumped to \$32.7 million to fill a drought-induced South African corn production shortage.²⁸² Yellow corn, on the other hand, is primarily being used to feed expanded poultry production in Nigeria and Senegal. Between 2010 and 2014 (the latest available data), chicken production in Nigeria and Senegal grew a combined 23 percent, with imported corn a major feed source.²⁸³ The U.S. grain industry has identified future growth potential in SSA, and there have been efforts to modernize SSA poultry feeding.²⁸⁴ Training has been provided to poultry producers from Côte d’Ivoire, Guinea, Senegal, and Tanzania to improve poultry feed efficiency through

²⁷⁹ Compiled from USITC DataWeb/USDOC (accessed November 29, 2017).

²⁸⁰ USDA, FAS, PSD Online database (accessed March 5, 2018).

²⁸¹ Stoddard, “White or Yellow? South Africans Face Corn Conundrum,” January 20, 2016.

²⁸² USDA, FAS, *South Africa Grain and Feed Update*, March 15, 2017, 11.

²⁸³ FAO, FAOSTAT database (Production—Livestock Primary, accessed December 7, 2017).

²⁸⁴ U.S. Grains Council, “USGC Leaders Assess Sub-Saharan Africa as Next Frontier,” December 10, 2015.

greater use of modern feed rations, and Tanzania eliminated a high value-added tax on animal feed sales.²⁸⁵

Although genetically engineered (GE) crops are allowed in South Africa, and an estimated 90 percent of South Africa’s corn acreage is planted with GE seed, South Africa had delayed approval of a number of GE corn varieties approved in the United States, which restricted U.S. corn exports to South Africa.²⁸⁶ These GE corn traits (“events”) were approved in late 2016.²⁸⁷ Before 2016, corn exported to South Africa mostly originated in Argentina for yellow corn and in Mexico for white corn.²⁸⁸

Potential for U.S. Exports

A review of the literature reveals growth potential for U.S. corn exports to two SSA countries: Nigeria and Ethiopia. In Nigeria, there is growing consumer demand for poultry meat resulting from rising incomes and populations.²⁸⁹ Per capita consumption of poultry meat in Nigeria in 2014 was 1.73 kg, well below the 37.57 kg in South Africa²⁹⁰ and 50.0 kg in the United States.²⁹¹ As domestic Nigerian poultry production expands and modernizes to meet local demand, the country will require greater quantities of imported corn for feed.²⁹² In Ethiopia, there are plans for public and private sector investment to expand dairy and beef production, which will drive up feed corn demand.²⁹³ Possibly in part because of the above-mentioned factors, Commission gravity model results suggest that U.S. exports have outperformed expectations in recent years in Nigeria and Ethiopia.

A specific demand-side factor that could depress or boost growth of U.S. corn exports to SSA is NTMs in the form of SSA policies that either restrict or approve of GE corn.²⁹⁴ Many of these policies were developed to prevent cultivation of GE grains in order to protect African production from contamination with GE material. Because of the closeness and importance of the EU market to Africa, African countries seek to gain and maintain access to that market, which requires labeling any food or feed with greater than 0.9 percent GE content and maintains a close-to-zero tolerance for unapproved biotech events in

²⁸⁵ U.S. Grains Council, “Industry Development Comes from USGC Food,” January 22, 2015; U.S. Grains Council, “Council Begins West African Poultry Training Program,” March 31, 2017; U.S. Grains Council, “USGC Trains Côte d’Ivoire Poultry Producers,” June 8, 2017; U.S. Grains Council, “USGC Supports Tanzanian Industry in Eliminating Tax,” August 11, 2017.

²⁸⁶ ISAAA, “Biotech Country Facts and Trends, South Africa,” November 29, 2017; U.S. Grains Council, “South Africa Approves Biotech Corn Events,” December 9, 2016. USDA, FAS, *South Africa: Agricultural Biotechnology Annual*, November 20, 2017, 6; USDA, FAS, *South Africa: Agricultural Biotechnology Annual: Biotechnology in South Africa. GAIN Report*, November 20, 2017.

²⁸⁷ U.S. Grains Council, “South Africa Approves Biotech Corn Events,” December 9, 2016.

²⁸⁸ Ibid.

²⁸⁹ Mulder, Nan-dirik, “Time for Africa: Modern Poultry Industry,” February, 2017; FAO, *The State of Agricultural Commodity Markets*, 2015, 5.

²⁹⁰ South Africa imports a large share of the poultry it consumes. Should other SSA countries import poultry rather than producing it internally, growth opportunities for U.S. corn exports to SSA would be smaller, but feed demand in the United States would rise if the poultry is sourced from the United States. For further discussion of U.S. exports of poultry to SSA, see the write-up on frozen chicken meat later in this chapter.

²⁹¹ FAO, FAOSTAT database (Food Supply—Livestock and Fish Primary Equivalent, accessed November 30, 2017).

²⁹² Industry expert, interview by USITC staff, Washington, DC, November 29, 2017.

²⁹³ U.S. Grains Council, “USGC Exploring Future Market Opportunities in Ethiopia,” July 14, 2017.

²⁹⁴ Industry expert, interview by USITC staff, Washington, DC, November 29, 2017.

feed or food.²⁹⁵ Although the EU doesn't require labeling of dairy or meat products from animals fed GE corn, SSA policies prohibiting the importation of GE grains remain in place in some countries, restricting access for U.S. corn.²⁹⁶ For example, Algeria and Kenya prohibit the importation of GE grains, and Angola and Ethiopia only allow imports of GE grains in the form of food aid.²⁹⁷ Although there is no evidence suggesting immediate plans to change these policies, expansion of U.S. corn exports to SSA could be even greater, with market penetration in additional countries, should SSA countries lift biotechnology restrictions.

The Commission's gravity model was also used to identify markets with potential for export growth in this commodity. However, this analysis was performed at the digest level of cereals, so its results were likely affected by trade in rice and wheat as well as that of corn. Of the countries identified at the digest level,²⁹⁸ only Senegal imports significant quantities of corn, and the United States could increase its exports of poultry feed to Senegal as poultry production expands to meet growing meat demand from rising incomes and population.²⁹⁹ Annual per capita consumption of poultry meat in Senegal in 2013 (the latest data available) was only 4.62 kg.³⁰⁰ Senegalese poultry farmers are working to modernize production practices and incorporate feed rations to increase productivity.³⁰¹ Supply-side factors affecting export growth are not expected to change from the current factors discussed above. U.S. corn producers have capacity to meet additional export demand by expanding production, assuming normal weather conditions.

U.S. Export Competition with Third-country Suppliers

The United States accounted for 7 percent of total exports by value of corn, other than seed corn, to SSA in 2016. Argentina (31 percent) supplied the largest share of corn to SSA, followed by intra-SSA exports from South Africa (25 percent), Mexico (23 percent), and Brazil (5 percent).³⁰²

In SSA, U.S. corn competes both with intra-SSA corn exports from South Africa, and with corn from other exporters, primarily Argentina, Mexico (white corn), Brazil, and increasingly the Ukraine. Market shares fluctuate greatly from year to year, based on weather-related fluctuations in corn production in the United States, SSA, and other exporting countries. The U.S. share of corn exports to SSA grew from 1 percent in 2010 to 7 percent in 2016, but varied from year to year. It is likely to remain below shares of

²⁹⁵ ISAAA, "Policy Reforms Key in Biotech/GM Crops Adoption," September 6, 2017; USDA, FAS, *EU-27 Agricultural Biotechnology Annual*, August 3, 2012, 23, 28.

²⁹⁶ Industry expert, interview by USITC staff, Washington, DC, November 29, 2017.

²⁹⁷ USDA, FAS, *Algeria: Agricultural Biotechnology Annual*, December 4, 2016, 1–3; USDA, FAS, *Kenya: Agricultural Biotechnology Annual*, December 14, 2017, 4; USDA, FAS, *Angola: Agricultural Biotechnology Annual*, December 6, 2017, 2–3; USDA, FAS, *Ethiopia: Agricultural Biotechnology Annual*, December 21, 2016, 2–3.

²⁹⁸ Côte d'Ivoire and Benin were also identified, but both countries import mostly rice and only limited quantities of corn. Nontariff measures (NTMs) affecting GE corn limit the likelihood of additional U.S. corn exports to Côte d'Ivoire. The model also identified South Africa as the SSA country with one of the biggest gaps between expected and actual U.S. exports. However, most cereal exports to South Africa are rice and wheat; South Africa is usually a net corn exporter. Outside of years when there is a South African production shortfall (such as after the 2016 drought), the potential for growth in U.S. exports is therefore marginal.

²⁹⁹ Mulder, "Time for Africa: Modern Poultry Industry," February, 2017; FAO, *The State of Agricultural Commodity Markets*, 2015, 5.

³⁰⁰ FAO, FAOSTAT database (Food Supply—Livestock and Fish Primary Equivalent, accessed November 30, 2017).

³⁰¹ Industry expert, interview by USITC staff, Washington, DC, November 29, 2017.

³⁰² IHS Markit, Global Trade Atlas database (accessed March 28, 2018).

SSA and South American corn exporters because of their shipping advantage.³⁰³ SSA corn production, however, is currently constrained by SSA countries' small farm sizes, limited access to modern seed varieties (including biotech seed in some SSA countries), and corn pests such as corn earworm and armyworm.³⁰⁴ This provides greater opportunities for corn suppliers outside the region, including the United States.

Motor Vehicles and Parts

The product group includes two USITC digests, TE009 and TE010. TE009 covers motor vehicles including passenger vehicles, road tractors, buses, and special-purpose vehicles, as well as certain motor vehicle parts, such as bodies and chassis fitted with engines.³⁰⁵ Over 90 percent of all exports to SSA under the motor vehicle digest are standard-sized passenger vehicles (HS 8703), which includes cars, sport-utility vehicles, and minivans, but not pickup trucks. TE010 includes all motor vehicle parts other than the few included in TE009.³⁰⁶ Motor vehicle parts are intermediate inputs used to produce motor vehicles as the final product. U.S. exports of motor vehicle parts are discussed in box 2.1.³⁰⁷

Overview of U.S. Exports

The African motor vehicle market is relatively small compared to that of other continents, with a motorization rate of only 44 vehicles per 1,000 people versus the global average of 180.³⁰⁸ U.S. motor vehicle exports to SSA countries have suffered in recent years, falling \$900 million between 2010 and 2016.

Table 2.16 shows the top export markets for U.S. motor vehicles. The largest four markets for such exports are Nigeria, Ghana, South Africa, and Benin, which together accounted for 77 percent of 2016 U.S. total motor vehicle exports to SSA (table 2.16).³⁰⁹

Key Factors Affecting U.S. Exports, 2010–16

Reported U.S. exports to all four major SSA markets for U.S. vehicles have declined considerably since peaking in 2013 or 2014. The reasons for this include economic downturns in many SSA countries in 2013 and 2014; policies in SSA countries promoting their domestic motor vehicle industries, which

³⁰³ IHS Markit, Global Trade Atlas database (accessed December 26, 2017); industry expert, interview by USITC staff, Washington, DC, November 29, 2017.

³⁰⁴ Industry expert, interview by USITC staff, Washington, DC, November 29, 2017.

³⁰⁵ HS-4 codes included in this product group are 8701 (road tractors), 8702 (buses), 8703 (passenger vehicles), 8704 (vehicles for the transport of goods), 8705 (special purpose vehicles), 8706 (chassis fitted with engines), and 8707 (vehicle bodies).

³⁰⁶ HS-4 codes included in this product group are primarily 8708 (motor vehicle parts/accessories), but also include various parts of 8413 (pumps), 8544 (wire and cables), 9401 (seats), and 9403 (other furniture).

³⁰⁷ USITC digest TE010 is not included in any data presented in this section other than in box 2.1.

³⁰⁸ Deloitte, "Navigating the African Automotive Sector," April 2016, 4; OICA, "Vehicles in Use" (accessed January 10, 2018).

³⁰⁹ Benin is a known regional gray market hub for motor vehicles being smuggled into neighboring SSA countries such as Nigeria, likely explaining the volume of Benin's vehicle imports given its small population. Some even refer to it as a "warehouse state." For more information, see Sasse and Carsten, "Nigeria Recession Deals Blow to Smuggling Hub Benin," March 20, 2017. For further information on the motor vehicle market in South Africa, see the country profile on South Africa in chapter 5.

compete directly with imports from the United States and other countries; and other policies limiting U.S. exports, described below.³¹⁰

Table 2.16 Motor vehicles: U.S. exports to SSA and selected SSA countries, 2010–16

Product and destination country	2010	2011	2012	2013	2014	2015	2016	Absolute change	Compound annual growth rate (CAGR)
								2010–16	2010–16
Million \$								Percent	
Motor vehicles	1,763.9	2,445.6	2,593.5	2,554.6	2,329.9	1,398.6	834.6	-929.3	-11.7
Nigeria	715.9	973.1	1,122.4	1,164.9	927.1	390.5	238.6	-477.3	-16.7
Ghana	105.8	218.8	212.6	229.6	136.9	135.2	150.3	44.5	6.0
South Africa	322.2	423.8	476.1	437.6	435.2	234.3	148.8	-173.5	-12.1
Benin	346.3	460.5	408.7	421.8	540.1	435.2	112.2	-234.2	-17.1
Angola	51.3	50.3	75.5	50.6	62.1	23.7	6.8	-44.6	-28.6
Kenya	4.7	12.6	6.1	7.5	3.1	3.1	3.9	-0.8	-3.1
Ethiopia	2.1	0.6	1.6	1.8	1.1	3.1	3.0	0.9	6.2
All other SSA	215.6	305.8	290.5	240.9	224.2	173.6	171.2	-44.4	-3.8

Source: Compiled from official trade statistics of the U.S. Department of Commerce, accessible via the USITC DataWeb (accessed December 8, 2017).

Note: U.S.-reported exports and the corresponding imports reported by many SSA countries often do not line up. For example, Benin only reports \$132 million in total motor vehicle imports in 2016, and reports importing \$28.8 million worth from the United States.

A large portion of U.S. exports of motor vehicles to SSA are used vehicles. Exports of U.S. used motor vehicles to SSA countries totaled \$465.8 million in 2016, or 55.8 percent of total U.S. motor vehicle exports to the region.³¹¹ Furthermore, this total may actually underrepresent used vehicle exports to SSA, since some HS codes don't have used-specific subcodes. One paper estimates that total exports of used vehicles from the United States may be as much as 13 percent higher.³¹² This dominance of used vehicles over new is due to limited disposable incomes in SSA and high costs for new vehicles.³¹³ The same top four export markets account for 81 percent of U.S. used vehicle exports to the region.³¹⁴

³¹⁰ Deloitte, "Navigating the African Automotive Sector," April 2016; PwC, "Africa's Next Automotive Hub," 2015; Daftari, "First Ever 'Made in Ghana' Cars," January 28, 2016.

³¹¹ USITC DataWeb/USDOC (accessed December 8, 2017).

³¹² Coffin et al., "Examining Barriers to Trade in Used Vehicles," August 2016.

³¹³ Deloitte, "Navigating the African Automotive Sector," April 2016, 4.

³¹⁴ USITC DataWeb/USDOC (accessed December 8, 2017).

Box 2.1 U.S. Exports of Motor Vehicle Parts

Motor vehicle parts are intermediate inputs used either to produce motor vehicles as the final product or as replacement inputs into pre-existing motor vehicles. As mentioned previously, motor vehicle parts (aside from bodies and chassis fitted with engines) belong to a separate HTS product group than motor vehicles. Motor vehicle parts have been one of the fastest-growing sectors for U.S. exports in recent years (table 2.1). The CAGR for 2010–16 is 5.2 percent, while absolute growth is over \$88 million dollars. However, much like exports of motor vehicles, U.S. exports of motor vehicle parts to SSA peaked in 2015 at over \$420 million (up from \$249.2 million in 2010) before declining to \$338 million in 2016. Notable SSA recipients of U.S. motor vehicle parts exports include South Africa (\$198.8 million), Nigeria (\$49.4 million), Benin (\$31.7 million), and Ghana (\$17.3 million), which are the four largest recipients of U.S. motor vehicle exports as well. The observed increase in recent years of U.S. exports of motor vehicle parts to SSA is likely due to U.S. component suppliers having an increased presence in SSA countries, as well as SSA countries (e.g., Ghana and Nigeria) beginning their own domestic vehicle production industries, thus increasing the demand for vehicle parts in order to produce these vehicles.

Source: BEC Consulting, “How the APDP Benefits the Motor Industry in South Africa,” March 19, 2015; Deloitte, “APDP a Step in the Right Direction” (accessed November 27, 2017); Deloitte, “Navigating the African Automotive Sector,” April 2016; PwC, “Africa’s Next Automotive Hub,” 2015; USDOC, ITA, Export.gov, “South Africa Automotive,” July 21, 2017.

Note: Data on U.S. exports of motor vehicle parts to SSA are compiled from official trade statistics of the U.S. Department of Commerce, accessible via the USITC DataWeb (accessed December 8, 2017).

Potential for U.S. Exports

Though U.S. exports of motor vehicles to SSA have declined from 2010 to 2016, the gravity model analysis indicated that the motor vehicle sector is one of the sectors with the largest potential for U.S. exports to SSA. The model identified Angola, Kenya, and Ethiopia as the three SSA countries which have the biggest gaps between expected and actual U.S. export flows.

However, it may be difficult, if not impossible, to increase motor vehicle exports to certain markets. Many SSA countries that were former British colonies, including both Kenya and another large African market, South Africa, drive on the left side of the road, and this greatly impedes U.S. vehicle exports to those countries.³¹⁵ People in the United States drive on the right side of the road and therefore use vehicles where the driver sits in the left side of the vehicle. It is typically illegal to operate a vehicle meant to be driven on one side of the road in a country whose laws prescribe driving on the opposite side. While Kenya is one of the countries the gravity model predicted as having the biggest gap between potential and actual U.S. export flows, this operational difference limits exports of motor vehicles from United States. Moreover, since U.S. exports to SSA countries are overwhelmingly used vehicles, as

³¹⁵ Vehicle Exports, “Import Used UK Cars into Kenya” (accessed December 18, 2017); World Standards, “List of Left- and Right-Driving Countries” (accessed December 18, 2017). In total, 7 of the 12 largest gaps in trade identified by the gravity modeling in this report are countries that operate their motor vehicles on the left-hand side of the road, greatly impeding used vehicle exports from the United States to those markets.

discussed earlier, the barrier is even larger, since the used vehicles exported from the United States would need to be repurposed at additional cost.³¹⁶

Without policy changes, it will also be difficult for the United States to increase its motor vehicle exports to Angola. Angola has the largest gap in U.S. exports of automobiles identified by the model, and was the fifth-largest destination in SSA for U.S. automotive exports in 2013–15. However, U.S. exports in this category fell from over \$62.1 million in 2014 to \$23.7 million in 2015.³¹⁷ Moreover, the decrease continued in 2016 to \$6.8 million, and Angola now ranks as only the 15th-largest destination in SSA for U.S. exports in 2016.³¹⁸ Angola has had a ban on imports of used vehicles that are more than three years old since 2010, but the main cause undermining Angolan imports of motor vehicles from the United States is likely a March 2014 Angolan presidential decree introducing a list of approved vehicles for import.³¹⁹ The list includes over 750 vehicles, but less than 10 percent of those vehicles are produced in the United States, so this list dramatically restricts the opportunity for U.S. exports of used vehicles to reach the country. U.S. exports of used vehicles subsequently dropped by over 85 percent between 2013 and 2016, from \$12.4 million dollars to less than \$1.8 million in 2016.³²⁰ If this restriction were lifted, U.S. exports of motor vehicles to Angola would likely rebound in the future.

Another country identified as having a large gap in U.S. exports caused by government policies is Ethiopia. The government of Ethiopia, however, classifies automobiles as a luxury good. This policy means that even a used vehicle faces import taxes of up to 200 percent.³²¹ It is estimated that due to these restrictions, only 18,000 vehicles are brought into Ethiopia each year.³²² As a result, Ethiopia has the lowest motorization rate of any country globally, with only two cars per thousand inhabitants as of 2015.³²³ Another limiting factor is a lack of access to foreign exchange, which reduces Ethiopians' ability to easily purchase imports.³²⁴

Nigeria, which is SSA's most populous country and its second-largest economy, accounted for 28.6 percent of all U.S. motor vehicle exports to SSA in 2016. No major gap in U.S. exports was discerned by the gravity model. U.S. exports to Nigeria peaked in 2013 and have been steadily declining since. One probable reason is the Nigerian government's 2013 National Automotive Development Plan, which aimed to discourage vehicle imports and instead encourage local production.³²⁵ This is especially true given that used vehicle flows, which made up the majority of U.S. exports to Nigeria in 2016, are found

³¹⁶ Other empirical work has also found that an exporter and importer driving on opposite sides of the road are associated with less trade, specifically in the used vehicles industry, to a statistically significant degree. For more information, see Coffin et al., "Examining Barriers to Trade in Used Vehicles," August 2016.

³¹⁷ Compiled from official trade statistics of the U.S. Department of Commerce, accessible via the USITC DataWeb (accessed December 8, 2017).

³¹⁸ Ibid.

³¹⁹ Any vehicle not listed on the March 2014 presidential decree can be imported only if the importer can prove there are provisions available for in-country maintenance. For more information, see Educargas Transitário, "Angola—New Rules for Importing Vehicles," June 17, 2014; Eisenstein, "Nowhere to Go but Up," December 15, 2014.

³²⁰ USITC DataWeb/USDOC (accessed December 14, 2017).

³²¹ Igunza, "Why Are Cars So Expensive in Ethiopia?" January 16, 2017.

³²² Deloitte, "Navigating the African Automotive Sector," April 2016, 12.

³²³ Ibid., 11; OICA, "Vehicles in Use" (accessed January 10, 2018).

³²⁴ Deloitte, "Navigating the African Automotive Sector," April 2016, 12; OICA, "Vehicles in Use" (accessed January 10, 2018).

³²⁵ PwC, "Africa's Next Automotive Hub," 2015.

to be depressed by vehicle production in the importing country.³²⁶ The plan raised the import tariff on cars from 22 percent to 70 percent, while raising the tariff on buses and similar commercial vehicles to 35 percent.³²⁷ As a result, U.S. exports declined from \$1.16 billion in 2013 to \$238 million in 2016.

Despite these restrictions, Nigeria remains the top export destination for U.S. motor vehicles in SSA.³²⁸ Nigeria is simply importing far fewer vehicles from all of its foreign sources, likely due to the recession Nigeria has experienced in recent years.³²⁹ In addition, many of the vehicles that had previously been exported to Nigeria were instead transshipped to the port of Cotonou in neighboring Benin, which is known to be a huge transshipment hub for Nigerian importers, likely to avoid high Nigerian tariffs.³³⁰ In fact, reported U.S. exports to Benin rose in 2014; however, they have since begun to decline, mirroring the U.S. motor vehicle export data to Nigeria. It is worth noting, nonetheless, that Benin's reported imports rose (both from the United States and in total) during the same period.³³¹

Due to rising domestic production, U.S. exports to another major market, Ghana, have decreased as well, albeit not as drastically as in Nigeria. Total exports of U.S. motor vehicles to Ghana peaked at \$229.6 million in 2013, dropping to \$150.3 million in 2016.³³² That year domestic production by Ghana's own Kantanka Group entered the market.³³³ However, as of 2016 Kantanka's production capabilities remained quite low: its Accra facility was capable of producing only 100 vehicles a month, at relatively high production costs.³³⁴

Though some SSA governments have policy initiatives supporting domestic production of motor vehicles, many African markets still appear to have substantial room for further U.S. export growth due to their growing middle class. For example, even with its dominance as the top export destination for U.S. automobiles in SSA, 45 percent of Nigerian middle-class households do not own a car.³³⁵ Yet some observers predict that they will be able to afford one (even if second-hand) by 2023.³³⁶ Moreover, some projections estimate that sales of new vehicles in Nigeria could reach 10 million per year by 2030.³³⁷ Given that even the United States, the leading exporter to Nigeria, reported selling only 35,600 vehicles in 2016, this increase (or even a fraction of it) would represent a substantial growth in demand for vehicles throughout the country. It would also constitute a noticeable shift in Nigerian demand for

³²⁶ Coffin et al., "Examining Barriers to Trade in Used Vehicles," August 2016.

³²⁷ PwC, "Africa's Next Automotive Hub," 2015.

³²⁸ IHS Markit, Global Trade Atlas database (accessed December 29, 2017).

³²⁹ Sasse and Carsten, "Nigeria Recession Deals Blow to Smuggling Hub Benin," March 20, 2017.

³³⁰ Ibid.

³³¹ IHS Markit, Global Trade Atlas database (accessed December 29, 2017). As mentioned previously (in table 2.16), Benin reports far fewer imports, in terms of both global trade and U.S. trade, than those reported in the corresponding export data.

³³² Compiled from official trade statistics of the U.S. Department of Commerce, accessible via the USITC DataWeb (accessed December 8, 2017). Note that from 2015 to 2016, exports to Ghana increased. The 2017 YTD numbers are lower than those for the corresponding period in 2016, however, so it is difficult to say whether this is the beginning of a new trend or just an outlier year.

³³³ Daftari, "First Ever 'Made in Ghana' Cars," January 28, 2016; Coffin et al., "Examining Barriers to Trade in Used Vehicles," August 2016.

³³⁴ Daftari, "First Ever 'Made in Ghana' Cars," January 28, 2016.

³³⁵ Iwuoha, "Automobiles—Lucrative Opportunities You Can Exploit," June 29, 2013.

³³⁶ Ibid.

³³⁷ Deloitte, "Navigating the African Automotive Sector," April, 2016, 4; OICA, "Vehicles in Use" (accessed January 10, 2018).

vehicles towards new vehicles, instead of the used vehicles that currently dominate the Nigerian market.³³⁸

U.S. Export Competition with Third-country Suppliers

The major sources of the total SSA import market for motor vehicles in 2016 were the EU (32.6 percent), Japan (16.8 percent), South Africa (10.2 percent), China (8.6 percent), and the United States (6.5 percent). However, when looking at the countries that drive on the right-hand side of the road, the United States remains the leading supplier in several key SSA markets. Even with the absolute numbers declining, the United States remains very competitive. Table 2.17 lists the U.S. share of motor vehicle imports and its rank in the top four African markets (Nigeria, Ghana, South Africa, and Benin), as well as the countries with the largest gaps identified in the gravity modeling for this report.

Table 2.17 Motor vehicles: U.S. market share and import ranking in selected SSA countries, 2016

Country	Side of the road driven on	U.S. market share (%)	U.S. ranking as a source of imports	Other top sources of imports (market share (%))
Nigeria	right	44.1	1	Germany (12.5), China (9.3), Japan (7.7)
Ghana	right	27.5	1	China (7.5), South Korea (7.0), UAE (6.8)
Benin	right	21.8	2	Belgium (28.2), France (13.3), Germany (6.8)
South Africa	left	7.3	4	Germany (28.2), Japan (14.7), India (13.5)
Angola ^a	right	4.2	6	Russia (21.7), UAE (16.0), Lithuania (9.7)
Ethiopia	right	0.9	10	Japan (53.4), China (15.2), Spain (8.0)
Kenya ^b	left	0.9	10	Japan (52.7), Germany (11.1), United Kingdom (10.6)
Tanzania	left	0.6	10	Japan (45.5), China (19.0), South Africa (11.0)
Namibia	left	0.1	7	South Africa (94.8), Japan (2.3), Botswana (0.9)

Source: IHS Markit, Global Trade Atlas database (accessed December 29, 2017).

Note: Statistics are based on each SSA country's reported import data. Reporter data for Angola are unavailable.

^a Angola's reported import data are not available in the Global Trade Atlas database, so data are based instead on every other trade partner's reported exports to Angola.

^b Kenya last reported import data in 2013, so its import data are from that year. All other data are from 2016.

In Nigeria, even though U.S. exports have declined by value, the United States accounts for 44 percent of all Nigerian motor vehicle imports, and this share has actually been growing in recent years.³³⁹ The story in Ghana is similar: the United States is the largest source of motor vehicle imports, accounting for 27 percent of the entire import market, although this number has recently been fluctuating.³⁴⁰ In Benin and South Africa, while the United States is not the leading import source, it still ranks second and fourth, respectively, and has a sizable share of the market. The only real exception to this pattern is Ethiopia, where used vehicles dominate the market. In Ethiopia, 85 percent of all vehicle imports are of

³³⁸ Deloitte, "Navigating the African Automotive Sector," April, 2016, 4; OICA, "Vehicles in Use" (accessed January 10, 2018); IHS Markit, Global Trade Atlas database (accessed December 29, 2017).

³³⁹ IHS Markit, Global Trade Atlas database (accessed December 29, 2017).

³⁴⁰ Ibid.

the used variety, and 90 percent of those are Toyotas imported primarily from the Gulf States through the port of Djibouti.³⁴¹

Conversely, in markets that drive on the left side of the road, the U.S. market share is far smaller. In each of the three countries that have the largest gravity-model gaps in U.S. exports and that drive on the left side of the road, the U.S. market share is less than 1 percent, ranks no higher than seventh, and is outpaced consistently by countries like Japan and the United Kingdom (UK), which drive on the left side of the road, as well as by South Africa, the largest African producer of automobiles.

Ethyl Alcohol

This product group consists of ethyl alcohol (ethanol), other than for beverages, and includes undenatured ethanol that is not for beverage use, along with denatured ethanol. This ethanol is used for industrial purposes (manufacturing of chemicals, cosmetics, pharmaceuticals, etc.), household use (e.g., cookstove fuel), and as an additive to automotive fuel. Ethanol is made by fermenting carbohydrates, such as sugar beets, sugarcane, or corn, or by the hydration of ethylene using steam and an acidic catalyst.

Overview of U.S. Exports

Between 2010 and 2016, U.S. ethanol exports to SSA grew an average of 9.4 percent a year, and, in absolute terms, increased \$14.3 million (table 2.18). In 2016, the leading SSA market for U.S. ethanol exports was Nigeria. U.S. ethanol exports to Nigeria spiked to \$65.3 million in 2011, a record year for U.S. ethanol exports to Nigeria, and since then have fluctuated between \$10.6 million and \$36.6 million (table 2.18). The United States also exports non-beverage ethanol to Ghana and South Africa (table 2.18), as well as small quantities to Angola, Tanzania, Côte d'Ivoire, and Liberia.³⁴² U.S. ethanol exports to SSA are mostly bioethanol produced from corn.³⁴³

Table 2.18 Ethyl alcohol: U.S. exports to SSA and selected SSA countries, 2010–16

Product and destination country	2010	2011	2012	2013	2014	2015	2016	Absolute change	Compound annual growth rate
								2010–16	(CAGR) 2010–16
	Million \$								Percent
Ethyl alcohol	20.1	66.4	40.0	10.7	36.7	11.1	34.4	14.3	9.4
Nigeria	19.0	65.3	36.5	10.6	36.6	10.9	34.3	15.3	10.3
Ghana	0.0	0.0	3.4	^a	^a	0.1	^a	^a	^b
South Africa	1.2	1.0	0.1	^a	0.1	^a	0.0	-1.2	-100.0
All other SSA	0.0	0.1	^a	0.1	^a	^a	^a	^a	^b

Source: Compiled from official statistics of the U.S. Department of Commerce (USDOC) (accessed November 29, 2017).

^a Value is less than \$50,000.

^b CAGR not provided because the 2010 value was zero.

³⁴¹ Deloitte, “Navigating the African Automotive Sector,” April 2016, 12.

³⁴² USITC DataWeb/USDOC (accessed November 29, 2017).

³⁴³ Industry expert, interview by USITC staff, Washington, DC, November 29, 2017.

Key Factors Affecting U.S. Exports, 2010–16

U.S. ethanol exports are price competitive.³⁴⁴ The United States primarily produces ethanol from corn, and U.S. ethanol producers have an abundant and inexpensive supply of their primary input. The United States also has efficient internal logistics and shipping infrastructure for ethanol. On the demand side, there is expanding SSA demand for ethanol because of a growing manufacturing sector and the promotion of ethanol as a cooking fuel in some countries. For automotive fuel use, ethanol is an inexpensive and effective oxygenate, compared to petroleum-based oxygenates. SSA countries have put mandates in place for blending certain percentages of ethanol into fuel, although the mandates' effect on demand growth has been limited because they are not widely enforced.³⁴⁵ There is consistent fuel ethanol use in Ethiopia and Zimbabwe.³⁴⁶ If mandates were enforced, local SSA production capacity would likely be insufficient to meet fuel ethanol demand (see below).³⁴⁷ On the other hand, SSA countries need more handling and blending infrastructure in order for demand for fuel ethanol for blending to grow.

Potential for U.S. Exports

Literature and industry sources identified potential for growth of U.S. exports of ethanol to SSA for both industrial and household use, as well as for automotive fuel use, albeit for different reasons. For industrial and household usage, SSA ethanol demand from the manufacturing sector and from households (cookstove fuel) is expected to continue to expand. For automotive fuel use, 10 SSA countries have renewable fuel mandates or future blending targets in place that specify a percentage of gasoline content that should be composed of renewable fuels (e.g., ethanol, biodiesel), although most countries do not yet meet them and it is not certain that the targets will be met in the future.³⁴⁸ These target ethanol content rates range from 2 to 20 percent, with the most common rates 5 and 10 percent.³⁴⁹ Governments of some SSA countries use biofuel inclusion mandates as part of their efforts to meet Paris Agreement obligations for greenhouse gas reductions.³⁵⁰

Most SSA countries do not have enough production capacity to supply the quantities of ethanol needed to meet their mandates. This is largely because of limited and fluctuating domestic production of the inputs used to make ethanol (e.g., corn, sugarcane, sugar beet, sorghum, cassava, wheat).³⁵¹ The

³⁴⁴ Ibid.; U.S. government official, telephone interview by USITC staff, January 19, 2018.

³⁴⁵ U.S. government official, telephone interview by USITC staff, January 19, 2018; industry expert, telephone interview by USITC staff, February 6, 2018.

³⁴⁶ Industry expert, email message to USITC staff, January 21, 2018.

³⁴⁷ Industry expert, interview by USITC staff, Washington, DC, November 29, 2017.

³⁴⁸ Global Renewable Fuels Alliance, "Global Biofuel Mandates," n.d. (accessed December 12, 2017); industry expert, interview by USITC staff, Washington, DC, November 29, 2017.

³⁴⁹ Current ethanol inclusion mandates are as follows: 5 percent—Ethiopia, Nigeria, and Sudan; 10 percent—Angola, Kenya, Malawi, Mozambique, South Africa, and Zimbabwe. Some countries also have voluntary or future blending targets: 10 percent—Ghana and Nigeria; 20 percent—Ethiopia and Zimbabwe. Global Renewable Fuels Alliance, "Global Biofuel Mandates," n.d. (accessed December 12, 2017); industry expert, interview by USITC staff, Washington, DC, November 29, 2017.

³⁵⁰ The Paris Agreement is an accord reached by parties to the U.N. Framework Convention on Climate Change that entered into force on November 4, 2016, with the objective of limiting global temperature rise to below 2 degrees Celsius. Industry expert, interview by USITC staff, Washington, DC, November 29, 2017; UNFCCC, "The Paris Agreement: Summary of the Paris Agreement" (accessed March 5, 2018).

³⁵¹ Industry expert, interview by USITC staff, Washington, DC, November 29, 2017.

outlook for expanding production of these inputs in SSA countries is limited by low yields, which are constrained by small farm sizes, limited access to modern seed varieties (including genetically engineered seed) in some countries, and corn pests such as corn earworm.³⁵² Also, in SSA it is unpopular politically to use foods as feedstock to produce ethanol.³⁵³

The Commission's gravity model identified Ghana, Angola, and Uganda as the three SSA countries with the greatest gaps between expected and actual U.S. export flows.³⁵⁴ Most non-beverage ethanol exports to Ghana and Uganda originate in India, while Angola sources mostly from South Africa, Brazil, and India.³⁵⁵ Exports to these countries are predominantly undenatured alcohol, which because of data limitations at the HS 6-digit level also could include ethanol for beverage use.³⁵⁶

Growth of U.S. exports of fuel ethanol to SSA requires infrastructure for ethanol and blending with fossil fuels.³⁵⁷ U.S. ethanol exports benefit when blending infrastructure is located near port regions rather than in internal, agricultural regions, as with some facilities in Kenya.³⁵⁸ Currently, many SSA countries import pre-blended petroleum products containing ethanol (often from the UAE, which imports U.S. ethanol for fuel blending) to meet their renewable fuel mandates.³⁵⁹

U.S. Export Competition with Third-country Suppliers

In 2016, the United States accounted for a 3 percent share of global exports to SSA of non-beverage ethyl alcohol. India (34 percent) supplied the largest share of ethyl alcohol to SSA, followed by South Africa (22 percent), Brazil (12 percent), Canada (10 percent), and the EU (7 percent).³⁶⁰

In exporting undenatured ethyl alcohol to SSA, the United States faces competition from India, South Africa, Brazil, Canada, and the EU.³⁶¹ In exporting denatured ethyl alcohol to SSA, the United States faces competition from the EU and Brazil.³⁶² Ethanol from India, South Africa, and the EU is likely non-fuel ethanol. Those countries have an advantage over the United States in shipping costs to eastern and northern SSA countries.

The United States does have certain advantages in competing with Brazilian ethanol exports. U.S. ethanol production is more efficient, with better internal transportation systems in place. Compared to Brazilian ethanol, which is produced from sugarcane, U.S. ethanol also has better combustion properties, which are important for meeting commitments for greenhouse gas emission reductions through ethanol inclusion in fuels.³⁶³ Brazilian ethanol could become even less price competitive in the

³⁵² Ibid.

³⁵³ Ibid.

³⁵⁴ USITC gravity model results.

³⁵⁵ IHS Market, Global Trade Atlas database (accessed February 6, 2018).

³⁵⁶ Ibid.

³⁵⁷ U.S. government official, telephone interview by USITC staff, January 19, 2018.

³⁵⁸ Industry expert, interview by USITC staff, Washington, DC, November 29, 2017.

³⁵⁹ Ibid.

³⁶⁰ This includes undenatured ethanol that is for beverage use, because undenatured ethanol for other uses and for beverage uses cannot be separated at the HS-6 level (HS 220710).

³⁶¹ Some of these exports could be for beverage use, which cannot be separated from non-beverage use at the HS-6 level (220710). IHS Markit, Global Trade Atlas database (accessed January 19, 2018).

³⁶² All denatured ethyl alcohol is non-beverage. IHS Markit, Global Trade Atlas database (accessed January 19, 2018).

³⁶³ Industry expert, interview by USITC staff, Washington, DC, November 29, 2017.

future because of a lack of investment to update Brazilian production facilities and unstable input prices, as sugarcane prices fluctuate with the global sugar market.³⁶⁴ Further, Brazil could have difficulties supplying future export demand because of implementation of its new RenovaBio program. The program supports Brazil's commitments to reduce greenhouse gas emissions by, in part, drastically increasing ethanol consumption.³⁶⁵ If Brazil's production growth is unable to keep pace with consumption targets, then exportable supplies will likely shrink.³⁶⁶

Frozen Chicken Meat (Part of the Poultry Product Group)

This product group consists of all poultry, either live birds (HS 0107) or meat. Poultry meat may be fresh, chilled, or frozen (HS 0207), and some poultry products may be prepared or preserved (certain subheadings classified under HS 1602).

Overview of U.S. Exports

U.S. exports of poultry to SSA countries fluctuated over the period 2010–16. At their peak in 2014, 11 percent of the United States' global poultry exports, by value, were shipped to SSA countries.³⁶⁷ From 2010 to 2014, U.S. exports of poultry products grew by \$269 million at a CAGR of 18.7 percent.³⁶⁸ In 2015, however, U.S. outbreaks of avian influenza triggered import bans by some SSA countries.³⁶⁹ This factor, combined with a general decrease in SSA demand due to the commodity price drop in the oil and gas sector,³⁷⁰ led to a decline in U.S. exports of poultry to SSA (table 2.19). However, U.S. poultry exports rebounded in 2017 to \$430.5 million (see appendix G), surpassing those for 2015 and 2016.³⁷¹

As shown in table 2.19, frozen chicken cuts and offal (HS 020714) accounted for 86–97 percent of U.S. exports of poultry products to SSA during 2010–16. These exports to SSA grew by \$37 million at a CAGR of 1.94 percent. In 2016, the top five SSA export markets for U.S. exports of frozen chicken cuts and offal³⁷² by value were Angola, Ghana, the Republic of the Congo, South Africa, and the Democratic Republic of the Congo. Despite U.S. industry setbacks due to disease, U.S. exports of frozen chicken cuts to Ghana, South Africa, and Benin experienced a double-digit CAGR from 2010 through 2016.

³⁶⁴ U.S. government official, telephone interview with USITC staff, January 19, 2018.

³⁶⁵ Teixeira and Gomes, "New Brazil Ethanol Policy Should Boost Demand, M&A," August 11, 2017; U.S. government official, telephone interview by USITC staff, January 19, 2018.

³⁶⁶ U.S. government official, telephone interview by USITC staff, January 19, 2018.

³⁶⁷ IHS Markit, Global Trade Atlas database (accessed December 1, 2017).

³⁶⁸ USITC DataWeb/USDOC (November 29, 2017).

³⁶⁹ Reuters, "U.S. Bird Flu Outbreak in Poultry," May 29, 2015.

³⁷⁰ AEO, "Trade Policies and Regional Integration in Africa," 2017, 77, 80.

³⁷¹ IHS Markit, Global Trade Atlas database (accessed March 8, 2018).

³⁷² From 2010 to 2016, offal was only a small portion (less than 2 percent) of U.S. exports of "frozen chicken cuts and offal" to SSA countries. More than 87 percent of these exports are chicken leg quarters, with another 11 percent involving other chicken parts. Thus, the rest of this section will focus on frozen chicken cuts.

Table 2.19 Poultry: U.S. exports to SSA and selected SSA countries, 2010–16

Product and destination country	2010	2011	2012	2013	2014	2015	2016	Absolute change	Compound annual growth rate (CAGR)
								2010–16	2010–16
Million \$								Percent	
Poultry	273.9	400.0	487.3	503.8	543.0	303.9	282.2	8.3	0.5
Frozen chicken cuts and offal	244.0	343.5	458.4	463.8	510.0	283.5	273.9	37.0	1.9
Angola	129.5	162.9	214.0	231.3	259.2	109.4	85.3	-44.3	-6.7
Ghana	16.8	28.8	61.9	75.7	67.9	40.6	41.7	24.8	16.3
The Republic of the Congo	36.5	34.9	47.7	32.9	37.6	30.0	38.0	1.5	0.7
South Africa	9.8	19.3	23.5	13.9	13.6	0.1	24.9	15.1	16.9
Democratic Republic of the Congo	21.9	29.8	31.3	27.6	36.6	19.8	17.2	-4.7	-3.9
Benin	0.7	0.8	2.6	5.1	13.6	8.1	4.5	3.8	35.6
All other SSA	45.5	95.8	139.2	152.9	149.4	116.1	103.9	58.4	14.7

Source: USITC DataWeb/USDOC (digest AG005 and HTS subheading 0207.14; accessed November 29, 2017).

Note: Poultry includes chickens, ducks, geese, turkeys, and guineas. SSA countries are sorted by 2016 values for exports of HTS 0207.14.

Key Factors Affecting U.S. Exports, 2010–16

Fueled by increasing incomes, population, and urbanization, the region’s growing demand for chicken drove up U.S. exports to SSA in most years.³⁷³ Higher discretionary income has changed eating habits in SSA; consumers are consuming more protein and fast food, including fried chicken.³⁷⁴ The United States is well positioned to meet growing consumer demand for poultry in SSA with an abundant supply of chicken parts for export.³⁷⁵ Along with incomes, grocery and fast food retail outlets are growing in SSA. For instance, Kentucky Fried Chicken (KFC), a large consumer of poultry, has made inroads into some of the top SSA markets for poultry. South Africa is KFC’s largest market, and there are also restaurants in Angola, Botswana, Ghana, Kenya, Malawi, Mozambique, Namibia, Nigeria, and Zambia.³⁷⁶ Fast food chains in Africa are expected to increase sales by \$3.7 billion dollars during 2013–19.³⁷⁷

SSA countries have shown growing demand for U.S. poultry. For example, in 2010–14, U.S. exports of frozen chicken cuts and offal to Angola grew by \$129 million. Angola’s annual per capita consumption of poultry meat increased 33 percent from 2010 to 2013, rising from 13.17 kg to 17.33 kg. Demand in Ghana, the Republic of the Congo, South Africa, and the Democratic Republic of the Congo is somewhat smaller, but they are still among the top markets for U.S. exports of frozen chicken cuts. These countries also exhibit the characteristics that lead to higher consumption, i.e., rising incomes and urbanizing populations.

³⁷³ USDA, FAS, *A Turning Point for Agricultural Exports to Sub-Saharan Africa*, November 2, 2015.

³⁷⁴ Reuters, “Can Africa Deal with an Expected Boom in Demand?” March 13, 2017; Searcey and Richtel, “Obesity Was Rising as Ghana Embraced Fast Food,” October 2, 2017.

³⁷⁵ USDA, ERS, “The United States Is the World’s Leading Poultry Exporter,” March 7, 2016.

³⁷⁶ CNN, “How Africa Is Giving Fast Food a New Spin,” December 11, 2015. KFC is part of YUM! Restaurants International.

³⁷⁷ Wright, “The Future of Grocery Retailing in Sub-Saharan Africa,” August 3, 2016.

U.S. access to South Africa, one of the largest per capita consumers of poultry in SSA, was constrained by a South African antidumping order throughout most of the period. In 2013, South Africa's annual per capita consumption of poultry meat was 37.57 kg, up from 33.19 kg in 2010.³⁷⁸ But as a result of the 2001 antidumping order on chicken leg quarters from the United States, U.S. exports fell from 22,788 metric tons (mt) (four years before the order) to 12,326 mt during 2001–14.³⁷⁹ In 2015, South Africa blocked almost all U.S. frozen chicken exports. However, in 2016, South Africa expanded market access for U.S. chicken leg quarters, after negotiations in the lead-up to the renewal of the Africa Growth and Opportunity Act (AGOA).³⁸⁰ South Africa established a TRQ of 65,000 metric tons (mt) per year for U.S. chicken leg quarters, with a tariff rate of 37 percent for imports under the ceiling set by the TRQ (the antidumping duty rate of 9.4 rand per kilogram still applies to all over-quota imports).³⁸¹ In 2016, the United States exported 21,266 mt of chicken leg quarters to South Africa, and 2017 estimated exports nearly filled the quota at 62,633 metric tons (mt).³⁸² South African demand for imported frozen chicken cuts is forecast to remain high because South African poultry producers face high feed costs.³⁸³

Potential for U.S. Exports

Representatives from the U.S. poultry industry and the International Trade Centre have identified poultry as a sector in which there is potential for future growth in U.S. exports.³⁸⁴ The gravity model analysis identified South Africa, Benin, Togo, Lesotho, and Namibia as the five SSA countries with the greatest gaps between expected and actual U.S. export flows. In each case, poultry imports were substantially smaller than expected given the size of the United States' global poultry exports, the relative size of each country's imports of these products, and typical trade costs in this sector.

In the top two underperforming markets for the United States, South Africa and Benin, the underperformance may be due to SSA government policies affecting market access. According to the gravity model analysis using the average of 2013–15 data, U.S. exports represent 3 percent of South Africa's poultry imports (on average), while the expected share is closer to 14 percent. In part, this underperformance by U.S. exporters during 2013–15 was due to the South African antidumping duty order on chicken leg quarters discussed in the last section.³⁸⁵ As of 2017, U.S. exporters have increased their share of South African total imports in response to the relatively new TRQ.

³⁷⁸ The latest available consumption data are from 2013. FAO, FAOSTAT database, Food Supply—Livestock and Fish Primary Equivalent (accessed November 30, 2017).

³⁷⁹ U.S. exports of chicken leg quarters are reported under U.S. Schedule B 0207.14.0010. South Africa classifies these exports in a basket category of bone-in chicken portions, South African tariff classification code 0207.14.90. USDA, ERS, "South Africa Resumes Imports of U.S. Chicken," March 6, 2017.

³⁸⁰ USDA, ERS, "South Africa Resumes Imports of U.S. Chicken," March 6, 2017.

³⁸¹ Antidumping duty rates for chicken leg quarters rose substantially in 2013, from 2.24–6.96 rand per kilogram, depending on the U.S. supplier, to 9.4 rand per kilogram on all U.S. suppliers (9.4 rand/kg was equivalent to \$0.61/kg as of 2016; 9.4 rand/kg is also equivalent to a tariff rate of 65 percent). USDA, ERS, "South Africa Resumes Imports of U.S. Chicken," March 6, 2017; ITAC, "Draft Guidelines for the Application of a DAFF Quota," October 2015, 1; Cochrane, Hansen, and Seeley, *Poultry Production and Trade in the Republic of South Africa*, November 2016, 8; Internal Revenue Service, "Yearly Average Exchange Rates for Converting Foreign Currencies into U.S. Dollars," <https://www.irs.gov/individuals/international-taxpayers/yearly-average-currency-exchange-rates> (accessed March 27, 2018).

³⁸² USITC DataWeb/USDOC (accessed December 7, 2017).

³⁸³ USDA, ERS, "South Africa Resumes Imports of U.S. Chicken," March 6, 2017.

³⁸⁴ International Trade Centre, Export Potential Map, 2016.

³⁸⁵ USDA, ERS, "South Africa Resumes Imports of U.S. Chicken," March 6, 2017.

In Benin, U.S. exports represent 5 percent of the country’s poultry imports (on average), while the expected share is closer to 10 percent. Benin informally re-exports a large portion of its poultry imports from the United States to Nigeria because Nigeria has a ban on all imports of poultry products and eggs from all countries (excluding eggs for hatching). Nigeria’s government has reportedly cracked down on chicken smuggling from Benin, and the crackdown may explain some of the underperformance. As noted above, analysts expect consumer demand in SSA to grow, at least in the near future. For example, the McKinsey Global Institute expects the number of households with discretionary spending in Africa to increase by 50 percent over the next 10 years.³⁸⁶ Grocery retail is expected to experience annual growth in sales value of 10 percent from 2016–20. All these trends would be expected to translate into higher poultry exports to SSA.

However, a number of factors potentially undermine U.S. potential to increase such exports. For one thing, U.S. poultry exports to SSA are potentially constrained by the lack of cold chain infrastructure in some SSA countries, since the U.S. exports are mostly frozen products.³⁸⁷ Also, government policies negatively affect U.S. poultry exports to certain SSA countries.³⁸⁸ If an SSA country does not take a “regionalized” approach³⁸⁹ in its policy response to disease outbreaks affecting poultry in the United States and instead bans all poultry from the entire country, then U.S. exports of poultry face a very substantial nontariff barrier to trade. New labeling requirements can also restrict trade until U.S. industry has a chance to respond. For example, the Republic of the Congo has a relatively new requirement for French and English labeling that U.S. exporters must comply with.³⁹⁰

U.S. Export Competition with Third-country Suppliers

The United States competes with Brazil and the EU in the SSA poultry market. As of 2016, the EU was the largest supplier of frozen chicken cuts to SSA at \$396 million (43 percent of total exports to SSA). The United States is the second-largest supplier at \$274 million (30 percent of total exports to SSA), followed by Brazil at \$183 million (20 percent). South Africa is a distant fourth-place supplier, with \$31 million worth of frozen chicken cuts and offal to SSA (3 percent of total exports to SSA).³⁹¹ Brazil has a comparative advantage in part of SSA in “other poultry products,” i.e., whole birds, while the EU has various reciprocal trade agreements that give it preferential access to some countries in the region.

In South Africa, the United States’ top underperforming market in SSA, the EU has a comparative advantage because of its trade, investment, development, and cooperation agreement (TIDCA) with South Africa (signed by both entities in 2012).³⁹² For example, chicken leg quarters from the EU enter South Africa duty-free, while these products from Brazil and the United States (at least up to its quota) face the 37 percent most-favored-nation (MFN) rate.³⁹³ Recent events may reduce the competitive

³⁸⁶ McKinsey Global Institute, *Lions on the Move*, June 2010.

³⁸⁷ U.S. industry representatives, telephone interview by USITC staff, December 20, 2017.

³⁸⁸ USDA, ERS, *Livestock, Dairy, and Poultry Outlook*, May 19, 2015, 12; Braden, “US Poultry Export Rebound Ready to Hatch,” June 29, 2016.

³⁸⁹ Using a regionalized approach, a recipient country places a ban on imports from a particular local area in response to a disease outbreak rather than a nationwide ban. For example, in the case of a disease problem appearing in the United States, some countries regionalize their bans down to the U.S. state or county level or to a specific radius around the location of the disease outbreak.

³⁹⁰ USDA, FSIS, “Export Requirements for Republic of Congo (Brazzaville),” January 9, 2018.

³⁹¹ IHS Markit, Global Trade Atlas database (accessed December 1, 2017).

³⁹² European Commission, “Countries and Regions” (accessed March 26, 2018).

³⁹³ SARS, “Schedule No. 1: Ordinary Customs Duty” (accessed January 1, 2018).

edge for exports of poultry products from some members of the EU and Brazil. South African imports of certain frozen chicken products from Germany, the Netherlands, and the UK face antidumping duty rates ranging from 3.86 to 73.33 percent due to orders in place since February 2015.³⁹⁴ Additionally, in 2017, Brazil faced a meat quality scandal³⁹⁵ that resulted in a suspension of South African imports of meat from Brazil that lasted about a month.³⁹⁶

Refined Petroleum Products

Refined petroleum products are derived from crude petroleum and include products such as gasoline, diesel, kerosene, asphalt, lubricating oils, and residual fuel oils, among others. The top U.S. refined petroleum product exports to SSA are gasoline and kerosene-type jet fuel.³⁹⁷

Overview of U.S. Exports

The top destinations in SSA for U.S. exports are Togo (a major transit hub for imports to West Africa),³⁹⁸ Nigeria, and South Africa. U.S. exports to the region fell by more than half from 2010 to 2016, declining in value by \$713 million and decreasing at a CAGR of 11.2 percent (table 2.20). The decline in export value was driven partly, but not completely, by a significant drop in prices of refined petroleum products. Refined product prices are closely linked to nominal global crude prices, which averaged \$80 per barrel in 2010 and fell from an average of \$99 per barrel in 2014 to just \$44 per barrel in 2016.³⁹⁹

³⁹⁴ SARS, “Schedule No. 2: Anti-dumping, Countervailing and Safeguard Duties on Imported Goods” (accessed January 1, 2018); ITAC, “Anti-dumping Duties Imposed on Frozen Chicken Portions Imports,” March 2, 2015.

³⁹⁵ The so-called “weak flesh” scandal involved bribes to food inspection officers to allow the sale of rancid products. The largest poultry producer in Brazil, BRF SA (Brasil Foods), was implicated in the scandal. Alerigi and Freitas, “‘Operation Weak Flesh’ Takes Bite,” March 24, 2017.

³⁹⁶ BusinessDay, “SA Suspends Brazil Meat Imports after Scandal,” March 22, 2017; Eatherton, “Brazil Resumes Exporting Meat to Major Markets,” April 10, 2017.

³⁹⁷ These correspond to schedule B numbers 2710.12.1519 for gasoline and 2710.19.1600 for kerosene-type jet fuel.

³⁹⁸ Reuters, “Tiny Togo Thinks Big,” June 11, 2015.

³⁹⁹ EIA, “Spot Prices,” Petroleum and Other Liquids database (accessed January 9, 2018).

Table 2.20 Refined petroleum products: U.S. exports to SSA and selected SSA countries, 2010–16

Product and destination country	2010	2011	2012	2013	2014	2015	2016	Absolute change	Compound annual growth rate (CAGR)
								2010–16	2010–16
Million \$								Percent	
Refined Petroleum Products	1,400.3	1,749.4	1,886.2	3,452.4	3,696.1	1,277.2	687.2	-713.0	-11.2
Togo	32.0	108.2	264.3	898.1	921.9	236.7	170.8	138.8	32.2
Nigeria	654.3	652.4	915.4	2,046.1	2,121.3	640.0	153.5	-500.9	-21.5
South Africa	230.3	340.6	189.3	195.0	157.2	158.8	149.7	-80.6	-6.9
Kenya	0.7	3.5	3.4	0.5	1.1	1.0	4.9	4.2	39.0
Tanzania	0.2	0.2	0.1	0.2	0.9	0.1	3.2	3.0	60.0
All other SSA	482.8	644.5	513.6	312.5	493.6	240.5	205.3	-277.5	-13.3

Source: USITC DataWeb/USDOC (accessed February 1, 2018).

Key Factors Affecting U.S. Exports, 2010–16

U.S. exports of refined petroleum products to SSA rose in value from 2010 to 2014 but declined sharply from 2014 to 2016. The decline in global prices does not fully account for this shift. As discussed in further detail below, increased competition from Europe, which supplies inexpensive high-sulfur fuel blends to West African markets, may have displaced U.S. exports of gasoline, jet fuel, and diesel. Nigeria and Togo are still the top U.S. markets for these exports, but were the source of most of the decline in total U.S. refined petroleum product exports to SSA from 2014 to 2016. U.S. exports to South Africa mostly consist of more specialized products like lubricants and petroleum coke. The level of these exports remained relatively flat during this volatile period.

Potential for U.S. Exports

The Commission's gravity model identified South Africa, Tanzania, and Kenya as the SSA markets with the greatest gaps between expected and actual U.S. export flows. These countries each import large quantities of gasoline, diesel, and jet fuel, but principally from non-U.S. sources. Two factors appear to have caused this gap. First, procurement systems in Tanzania and Kenya for sourcing refined petroleum products favored a small group of marketers that work mostly with Indian and SSA suppliers. Second, differences in transportation fuel standards favored refineries in other countries that were producing diesel with higher sulfur content at a lower cost.

Tanzania and Kenya each sourced less than one-tenth of 1 percent of their refined petroleum product imports from the United States.⁴⁰⁰ Both Tanzania and Kenya import refined petroleum products via procurement systems where marketers bid on supplying gasoline, diesel, and jet fuel at the lowest price.⁴⁰¹ Although bidding companies are awarded tenders based on price, few petroleum marketers

⁴⁰⁰ Based on import value; UN Comtrade data, average of 2013 through 2015 (accessed September 4, 2017).

⁴⁰¹ Alushula, "How Indian Tycoon Ambani Controls," April 3, 2016; Mwamunyange, "Tanzania Overhauls Petroleum Import System," August 21, 2016.

participate, allowing a small number of marketers to secure most of the tenders.⁴⁰² In particular, the Gulf Africa Petroleum Corporation (Gapco) won tenders adding up to nearly 40 percent of the Kenyan market in 2015.⁴⁰³ At the time, Gapco was partly owned by Indian refining company Reliance Industries and sourced most of its petroleum products from them, securing a large share of the market for India. In March 2017, Reliance sold its majority stake in Gapco to Total S.A. of France.⁴⁰⁴

There is still a growing opportunity in Tanzania and Kenya for U.S. exports. Demand for transportation fuels in both countries is growing as automobile use continues to rise.⁴⁰⁵ Landlocked East African markets like South Sudan, Uganda, Rwanda, and Burundi also typically source their refined petroleum products via Tanzania and Kenya, further increasing the potential for significant demand growth.⁴⁰⁶ U.S. companies may need to develop relationships with local marketers participating in these procurement systems (or set up local downstream operations and participate directly) in order to establish market share.⁴⁰⁷

Similarly, South Africa imported only about 3 percent of its refined petroleum products from the United States from 2013 to 2015.⁴⁰⁸ However, these U.S. exports mostly represent more specialized refined products (such as lubricants and petroleum coke) rather than gasoline and diesel.⁴⁰⁹ South Africa has four petroleum refineries and two refineries that produce synthetic fuels from coal and gas, but they also supply neighboring markets Botswana, Lesotho, Namibia, and Swaziland.⁴¹⁰ In recent years, as demand has grown in these countries and the refineries have operated below their nameplate capacity, South Africa's reliance on imported gasoline and diesel has increased.⁴¹¹

However, South Africa has been slower than some other countries in Africa to adopt stricter fuel specifications, limiting its demand for U.S. exports that tend to contain lower concentrations of sulfur. While such exports are environmentally desirable, they are also apt to be higher priced. For example, South Africa's specifications currently allow up to 500 parts per million (ppm) sulfur content in diesel, compared to 15 ppm in the United States and 10 ppm in Europe.⁴¹² South Africa was scheduled to introduce cleaner fuels specifications in July 2017, but disagreements between industry and government over how to fund the necessary upgrades to domestic refineries have indefinitely delayed those

⁴⁰² From January 2015 to April 2016, only 25 of the 72 oil marketing companies operating in Kenya participated in the Open Tender System; of the 25 companies, only 10 won tenders. Most of the tenders for Tanzania's bulk procurement system went to the Sahara Group (Nigeria), Augusta Energy (South Africa), Oryx Energies, Gapco, and ENOC (UAE). Alushula, "How Indian Tycoon Ambani Controls," April 3, 2016; Mirondo, "Tanzania Loosens Foreigner's Grip," September 22, 2016.

⁴⁰³ *Reuters*, "Kenya Oil Product Imports Likely to Hit Record," May 12, 2015.

⁴⁰⁴ Pathak, "What Next for Reliance Industries After Gapco Sale?" April 5, 2017.

⁴⁰⁵ Masare, "Tanzanians to Use Sh21bn on Oil Daily," February 19, 2015; *Reuters*, "Kenya Oil Product Imports Likely to Hit Record," May 12, 2015.

⁴⁰⁶ *Reuters*, "Kenya Oil Product Imports Likely to Hit Record," May 12, 2015.

⁴⁰⁷ U.S. exports to Kenya and Tanzania did grow significantly in 2016 (table 2.18), but \$4 million of those 2016 exports were petroleum coke rather than transportation fuels. USITC DataWeb/USDOC (HS 2713.11; accessed December 14, 2017).

⁴⁰⁸ Based on import value; UN Comtrade data, average of 2013 through 2015 (accessed September 4, 2017).

⁴⁰⁹ USITC DataWeb/USDOC (accessed December 18, 2017).

⁴¹⁰ SAPIA, "South African Fuel Industry," <http://www.sapia.org.za/overview/south-african-fuel-industry> (accessed January 24, 2018).

⁴¹¹ Fin24, "SA Dependence on Petrol Imports Growing," September 2, 2014.

⁴¹² Cokayne, "SA Lagging Behind on Clean Fuel Specifications," September 2, 2016.

regulations.⁴¹³ Meanwhile, other countries in SSA have already started adopting stricter standards. Tanzania, Kenya, Uganda, Burundi, and Rwanda coordinated to reduce their maximum sulfur content for diesel from 500 ppm to 50 ppm, effective January 2015.⁴¹⁴

Overall, the U.S. refining industry has grown and improved the effectiveness of its operations in recent years; U.S. petroleum refining capacity and refinery utilization rates have gradually increased since the late 2000s, boosting domestic output of refined petroleum products.⁴¹⁵ By contrast, domestic consumption has remained relatively flat over the same period, converting the United States to a net exporter in 2011 and making it the world's top exporter of refined petroleum products in 2016.⁴¹⁶ As discussed above, one factor explaining why these overall gains have not translated to higher exports to certain SSA markets is the difference in fuel standards. Much of the growth in U.S. refined petroleum product exports came from diesel containing 15 ppm or less of sulfur, known as ultra-low-sulfur diesel (ULSD). ULSD contributed about a third of the total volume of U.S. refined petroleum product exports in 2016, after more than tripling from 2010 levels (increasing from 115 million barrels in 2010 to 365 million barrels in 2016).⁴¹⁷ Since Tanzania and Kenya adopted standards closer to the United States' ULSD specifications and their import demand has continued to grow, there is a potential opportunity for U.S. exports to catch up to predicted levels of trade in those markets.

In addition to the opportunities predicted by the gravity model, U.S. refined petroleum product exports to West Africa could rebound if higher fuel standards are adopted there. As reported by Swiss NGO Public Eye, Swiss trading firms have systematically developed a supply chain for selling inexpensive, low-quality fuels to West Africa. These trading firms started acquiring downstream assets for marketing refined petroleum products in West Africa around 2010. Trading companies use their substantial storage capacity at the ports of Amsterdam, Rotterdam, and Antwerp (ARA) and the high volume of petroleum product trade in the region to blend transportation fuels that meet European specifications with cheaper petroleum products falling significantly outside the fuel quality requirements. These inexpensive blends are often designed to barely meet the much higher sulfur content limits in West Africa in order to maximize profit margins. While trading companies have also blended fuel exports from the United States and other countries with lower-quality products in this way, ARA ports are more strategically positioned for both access to a variety of cheap blendstocks and proximity to West African markets.⁴¹⁸

In response to the pressure from Public Eye and the UN Environment Program, Nigeria, Togo, Côte d'Ivoire, Benin, and Ghana pledged in late 2016 that they would significantly reduce sulfur content caps for gasoline and diesel. If implemented, these higher standards would reduce blending margins, likely making fuels exported from ARA ports less competitive. However, as of September 2017, only Ghana had implemented its new standards, reducing the limit from 1,000 ppm of sulfur for gasoline and 3,000 ppm for diesel to 50 ppm for each. Nigeria—the largest petroleum market in West Africa—has missed

⁴¹³ Njobeni, "Cleaner Fuels Hitting a Refineries Snag," December 13, 2017.

⁴¹⁴ Jaganathan, "East Africa Move to Cleaner Fuels," August 29, 2014.

⁴¹⁵ EIA, "Refinery Utilization and Capacity," Petroleum and Other Liquids database (accessed January 9, 2018).

⁴¹⁶ Note: definitions of refined petroleum product vary by source. EIA, "U.S. Petroleum Product Exports Exceeded Imports," March 7, 2012; Auers, "U.S. Refined Product Exports," June 27, 2017.

⁴¹⁷ EIA, "Exports," Petroleum and Other Liquids database (accessed January 9, 2018).

⁴¹⁸ Public Eye, *Dirty Diesel: How Swiss Traders Flood Africa*, September 2016, 11–13, 82–83, 100–105.

multiple deadlines for implementing new rules and is not expected to act before general elections in 2019.⁴¹⁹

U.S. Export Competition with Third-country Suppliers

The United States contributed 2 percent of total exports of refined petroleum products to SSA in 2016; major exporters in 2016 were the EU (43 percent), India (10 percent), and the United Arab Emirates (8 percent). EU market share is concentrated in Nigeria, while India is especially dominant in markets in eastern and southern Africa. Other top exporters to SSA include other Middle East petroleum producers (such as Kuwait, and Saudi Arabia) as well as countries with substantial energy product storage capacity that serve as fuel blending and transshipment points (such as Singapore).⁴²⁰

India's refineries have been leading the world in utilization rates,⁴²¹ though their capacity currently exceeds domestic demand. However, India's demand for refined products is projected to grow rapidly (doubling by 2040) and to outpace refining capacity additions, likely shifting India back to a net importer in the coming years.⁴²² The future of U.S. export competition with Middle East refineries is also uncertain: there are several major refining capacity additions underway in the Middle East, but many of these projects are billions of dollars over budget, and some are years behind schedule.⁴²³

U.S. Exports of Services to SSA Countries

Overview

The following section identifies a number of large or emerging U.S. services export sectors—specifically, air transport services; education-related travel services; financial services; insurance services; and information and communication technology services—and indicates the key factors behind export growth in these sectors. While the Bureau of Economic Analysis (BEA) of the U.S. Department of Commerce does publish some data on U.S. services exports to Nigeria and South Africa, disaggregated data to other SSA countries and to the SSA region as a whole are not available. However, the BEA publishes data on U.S. trade with Africa as a whole, which include exports to both SSA and the countries

⁴¹⁹ *Reuters*, "Sulphurous Fuels Flow to West Africa," September 13, 2017; *Reuters*, "Nigeria Unlikely to Cut Fuel Sulphur Level," September 22, 2017.

⁴²⁰ SSA market shares vary significantly by country and year. Over 40 percent of SSA's refined petroleum product imports in 2016 were bought by Nigeria; for the rest of the region, the EU's overall market share was 10 percent. Saudi Arabia was the top exporter to SSA for refined petroleum products in 2015, but only contributed about 3 percent of these exports to SSA in 2016. Analysis is based on dollar values for SSA countries that reported their imports. IHS Markit, Global Trade Atlas database (HS 2710, 2713, and 3811; accessed February 2, 2018).

⁴²¹ Auers, "U.S. Refined Product Exports," June 27, 2017.

⁴²² Birol, "We Need More and Better Oil Refineries," January 9, 2018.

⁴²³ Auers, "U.S. Refined Product Exports," June 27, 2017.

of North Africa.⁴²⁴ U.S. exports of private services to all African countries increased at a CAGR of almost 4.1 percent during 2010–15, rising to \$13.7 billion in 2015 before decreasing to \$13.0 billion in 2016.⁴²⁵

In addition, according to BEA data, U.S. affiliate sales of services to Africa (which roughly correspond to trade through the General Agreement on Trade in Services' mode 3)⁴²⁶ totaled \$14.3 billion in 2015, the latest year for which such data are available.⁴²⁷ Among services industries, the finance and insurance sectors accounted for 13 percent of U.S. affiliate sales of services to Africa in 2015. More information on U.S. foreign direct investment in SSA and the operations of U.S.-owned affiliates in that region can be found in chapter 4 of this report.⁴²⁸

Due to the lack of data specific to U.S. trade with SSA, the analyses in this section also present World Trade Organization (WTO) data on world exports to SSA countries.⁴²⁹ These data indicate that world exports of commercial services to SSA countries fluctuated during 2010–15,⁴³⁰ posting an overall CAGR of 0.9 percent and totaling about \$107.3 billion in 2015.⁴³¹ Nigeria received the largest share of such exports (17.4 percent), followed by Angola (15.5 percent) and South Africa (14.1 percent).⁴³²

Air Transport Services

For the purposes of this discussion, air transport services include passenger transport, freight transport, and airport services. U.S. exports of air passenger transport services occur when U.S. carriers transport foreign residents to and from the United States or between two foreign countries. U.S. exports of air

⁴²⁴ BEA does not publish discrete data on U.S. cross-border services trade with SSA. Africa here includes the SSA countries as well as Egypt, Libya, Algeria, Morocco, Tunisia, Western Sahara, and outlying islands. See USDOC, BEA, "Geographic Area Definitions," n.d. https://www.bea.gov/international/bp_web/geographic_area_definitions.pdf (accessed October 10, 2017).

⁴²⁵ For more information on U.S. trade in services with SSA, please see USITC, "The Sub-Saharan African Services Economy," 2017. "Private services" excludes government-provided services.

⁴²⁶ The GATS identifies four "modes of supply" for services trade—i.e., four ways that services can be traded. "Affiliate transactions" roughly correspond to the supply services via mode 3 (commercial presence). For more information on modes of supply, see USITC, *Recent Trends in U.S. Services Trade: 2017 Annual Report*, USITC Publication 4682, Washington, DC: USITC, 2017. <https://www.usitc.gov/publications/332/pub4682.pdf>, box 1.1.

⁴²⁷ According to the BEA, data on affiliate transactions reflect "services supplied by majority-owned affiliates of multinational enterprises (MNEs) through the channel of direct investment." As such, affiliate sales and purchases are related to, but not synonymous with, foreign direct investment stock and flows. USDOC, BEA, "Definition of International Services," https://www.bea.gov/international/international_services_definition.htm (accessed March 6, 2018).

⁴²⁸ USDOC, BEA, Interactive data, International Transactions, Services, & IIP, International Services, table 4.4, (accessed November 13, 2017).

⁴²⁹ The WTO publishes data on commercial services trade for 47 SSA countries. The latest year for which complete data are available is 2015. Because observations for the latest year in this data set (2016) are not available for 13 of these SSA countries, the latest WTO data on services in this report is for 2015. Data are available for all but two of the 47 countries included in the WTO's services trade data set. These two countries are Guinea and Sierra Leone.

⁴³⁰ Although the WTO publishes some data on SSA trade in commercial services for 2016, much of this data is preliminary or incomplete. As a consequence, this discussion focuses on the 2010–15 period.

⁴³¹ This total does not include world exports to Guinea or Sierra Leone, as data on world exports to those countries are unavailable for 2015.

⁴³² WTO, Statistics Database, Time Series on International Trade, "Trade in Commercial Services, 2005–onward (BPM6)" (accessed November 7, 2017).

freight services occur when airlines transport foreign goods between the United States and foreign countries or between two foreign ports. U.S. exports of airport services encompass the value of goods and services procured by foreign airlines at U.S. airports. These services include, for example, aircraft handling and terminal services.⁴³³

Overview of U.S. Exports

In 2016, U.S. exports of air transport services to Africa accounted for 2.0 percent of total U.S. air transport exports, up from a 1.7 percent share in 2010.⁴³⁴ Nigeria and South Africa, the two SSA countries for which BEA provides discrete data on U.S. cross-border trade, accounted for 26 percent and 31 percent, respectively, of U.S. exports of air transport services to Africa in 2016 (table 2.21).

Table 2.21 Air transport services: U.S. exports to SSA and selected SSA countries, 2010–16

	2010	2011	2012	2013	2014	2015	2016	Compound annual growth rate (CAGR) 2010–16
	Million \$							Percent
Africa	891	1,011	1,055	1,129	1,285	1,270	1,207	5.2
Nigeria	^a	^a	^a	383	370	353	311	-6.7 ^b
South Africa	329	370	337	360	407	403	376	2.3

Source: USDOC, BEA, Interactive data, International Transactions, Services, & IIP, International Services, table 2.3 (accessed November 13, 2017).

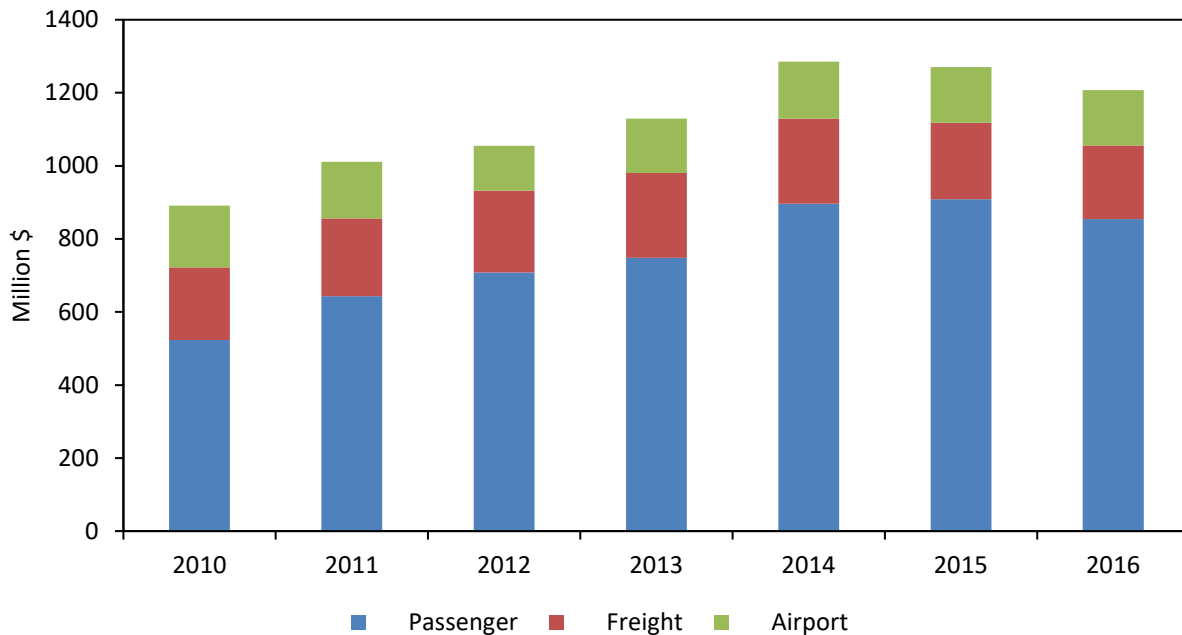
^a Data not available.

^b Values for Nigeria are for 2013–16.

Between 2010 and 2016, U.S. exports of air transport services grew at a CAGR of 5.2 percent. Passenger services accounted for the majority (70.8 percent, or \$854 million) of U.S. exports of air transport services to Africa in 2016, followed by freight services (16.7 percent) and airport services (12.5 percent) (figure 2.1).

⁴³³ For a full list of airport services exported, see BEA 9 survey, 4, <https://www.bea.gov/surveys/pdf/Be9final.pdf>.

⁴³⁴ USDOC, BEA, Interactive data, International Transactions, Services, 2017.

Figure 2.1 Air transport services: U.S. exports to Africa, 2010–16

Source: USDOC, BEA, Interactive data, International Transactions, Services, 2017.

Note: See [appendix table I.1](#) for a tabular presentation of the data in this figure.

Key Factors Affecting U.S. Exports, 2010–16

Air Passenger Transport Services

While the number of passengers traveling to SSA on both U.S. and non-U.S. carriers increased during 2010–16, such travel accounts for a declining share of global passenger air transport. Air travel to or from SSA countries comprised about 1.5 percent of worldwide volumes in 2010, declining to 1.3 percent by 2016. The share of world passengers traveling to SSA from U.S. airports on U.S. carriers also declined, from 0.3 percent in 2010 to 0.2 percent in 2016. Between 2010 and 2016, South Africa was the leading destination in SSA for passengers transported by U.S. airlines, with the number of such passengers falling slightly from 92,646 in 2010 to 91,513 in 2016 (table 2.22).

Delta Air Lines is currently the only U.S. carrier providing direct flights to the SSA market, with flights to Accra (Ghana), Dakar (Senegal), Johannesburg (South Africa), and Lagos (Nigeria). United Airlines previously offered direct flights from the United States to points in SSA, but it decided to end its last flights from Houston to Nigeria due to falling passenger numbers on that route and difficulties in converting ticket revenue from Nigeria’s currency (the naira) to U.S. dollars. The latter difficulty dates back to 2015, when, in response to declining oil prices, the Nigerian government placed restrictions on the amount of currency that foreign airlines could take out of the country. By the end of March 2016, the Nigerian government owed \$575 million to airlines.

Table 2.22 Air transport services: Number of passengers transported by U.S. airlines to top five SSA countries and worldwide, 2010–16

Country	2010	2016	Compound annual growth rate (CAGR)
	Number of passengers		2010–16
			Percent
South Africa	92,646	91,513	-0.2
Senegal	15,344	15,127	-0.2
Nigeria	70,878	68,811	-0.5
Angola	10,729	9,344	-2.3
Ghana	68,693	39,326	-8.9
Worldwide total	89,197,727	104,604,967	2.7

Source: USDOT, Bureau of Transport Statistics, https://www.transtats.bts.gov/Oneway.asp?Display_Flag=0&Percent_Flag=0 (accessed March 8, 2018).

Air freight transport services

While South Africa historically has been the leading destination in SSA for air freight transported by U.S. carriers, the volume of freight transported on U.S. airlines to South Africa declined during 2010–16. Angola was the second-largest market for air freight transported by U.S. carriers in 2016, with a total volume of almost 2,088 tons (table 2.23). The volume of freight transported by U.S. carriers to Nigeria and Ghana—which were SSA’s second- and fourth-largest destination markets for U.S. freight transportation in 2010—decreased substantially during 2010–16.

Table 2.23 Air transport services: Volume of freight transported by U.S. carriers to selected SSA countries and worldwide, 2010–16^a (tons)

Country	2010	2016	Compound annual growth rate (CAGR)
			2010–16
Angola	1,885.6	2,087.9	1.7
Cabo Verde	66.4	100.6	7.2
Congo, Democratic Republic of the	29.0	^b	^b
Djibouti	20.2	41.1	12.6
Equatorial Guinea	17.1	^b	^b
Ghana	749.0	24.7	-43.4
Kenya	^b	109.0	^b
Liberia	2.1	^b	^b
Niger	^b	57.9	^b
Nigeria	1,940.0	335.9	-25.3
Senegal	94.7	145.3	7.4
South Africa	4,147.3	2,693.1	-6.9
Tanzania	132.4	^b	^b
Uganda	35.7	^b	^b
Worldwide total	4,041,093	4,113,177	0.3

Source: USDOT, Bureau of Transport Statistics, https://www.transtats.bts.gov/Oneway.asp?Display_Flag=0&Percent_Flag=0 (accessed March 8, 2018).

^a The table includes no observations for the years 2011–15, as such data are not provided in a consistent way.

^b Indicates missing data or no trade volumes.

The SSA market constitutes a small and declining share of total U.S. air freight volumes. In 2010, U.S. carriers transported 4 million tons of air freight worldwide, with 0.2 percent of that total cargo volume

transported by U.S. airlines to SSA. By 2016, the total worldwide volume of U.S. air freight exports increased slightly to 4.1 million tons, while SSA’s share of this total decreased by half to 0.1 percent.

Potential for U.S. Exports

U.S. air passenger exports to SSA are expected to grow. For example, in August 2017 Delta announced plans to add three more weekly flights to Lagos, Nigeria from its New York hub at John F. Kennedy Airport by March 2018.⁴³⁵ As noted, this route had been an important one for Delta, which was the largest airline to serve it up until 2015. By 2016, passengers had been flying more often than before on foreign carriers through hubs in Europe and the Middle East, driving up competition for U.S. airlines that provide direct links to SSA. During that year, for example, more than 160,000 passengers traveled between New York and Lagos, of which less than one-third flew directly from the United States. By comparison, in 2010, more than half of passengers traveling between New York and Lagos used direct flights.⁴³⁶

Demand for U.S. exports of airport services to SSA—i.e., services provided to SSA airlines at U.S. airports—may also increase in the coming years, as Kenya Airways and Ethiopian Airlines plan new routes that serve U.S. destinations. Kenyan Airways plans to introduce a direct flight to New York beginning in October 2018, serving 60,000 passengers annually.⁴³⁷ Further, airlines in Côte d’Ivoire and in Rwanda have expressed an interest in offering direct flights to the United States,⁴³⁸ and Ethiopia plans to export cut flowers on freighter flights to Los Angeles, Miami, and New York, which would expand current volumes that are now transported as belly cargo on passenger flights to the United States. At present, Ethiopia is the second-largest producer of flowers in SSA, and new air freight investments at its international airport in Addis Ababa should help it expand its exports of cut flowers to North America, which will increase U.S. airport services exports to SSA.⁴³⁹

U.S. Export Competition with Third-country Suppliers

Delta Air Lines faces strong competition from foreign carriers that transport passengers between the United States and SSA. To illustrate, in 2017, Delta experienced declining passenger traffic on flights it operated between New York and Lagos, Nigeria. The drop in traffic was due to competition from European and Middle Eastern airlines, such as state-owned Qatar Airways and Turkish Airlines, as well as from Virgin Atlantic Airlines (UK). As a result, although Delta was the leading carrier serving that route during 2010–15, its rank dropped to third in 2016, and it had fallen out of the top five by 2017.⁴⁴⁰ Several SSA airlines—including Ethiopian Airlines, South African Airways, SonAir (Angola), and TACV Cabo Verde—are also strong competitors in the U.S.-SSA air passenger transport market (figure 2.2).

⁴³⁵ Delta Air Lines, “More Access to Africa on Delta,” August 20, 2017.

⁴³⁶ Blue Swan Daily, “Delta Air Lines Fills Lagos-New York Void,” August 23, 2017.

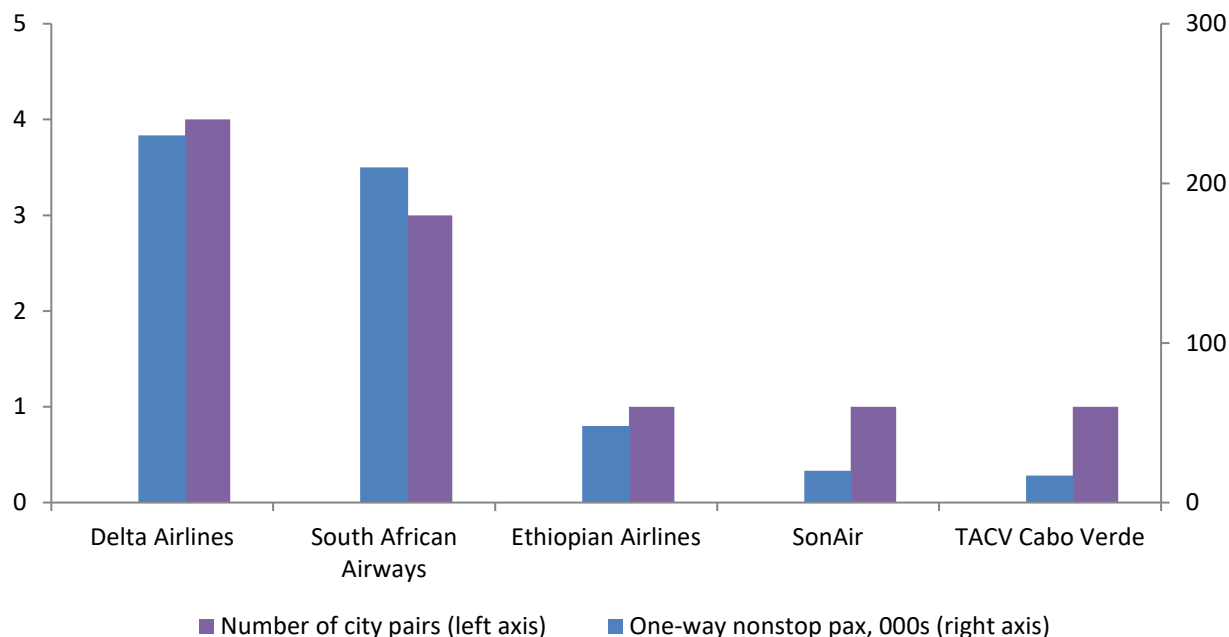
⁴³⁷ Tairo, “Kenya Airways Eyes New York,” September 19, 2017.

⁴³⁸ USITC, hearing transcript, January 23, 2018, 24 (testimony of Daouda Diabate, Ambassador of Côte d’Ivoire); U.S. government official, email message to USITC staff, January 3, 2018.

⁴³⁹ Millan and Manek, “African Roses Are U.S. Bound,” December 18, 2017. For the purposes of this report, U.S. airport services exports are services offered at airports in the United States to carriers from SSA and consist of handling and terminal services as well as repair, maintenance, storage, and cleaning of foreign aircraft.

⁴⁴⁰ Blue Swan Daily, “Delta Air Lines Fills Lagos-New York Void,” August 23, 2017.

Figure 2.2 Air transport services: Passenger traffic between the United States and SSA by airline, 2017



Source: Blue Swan Daily, “Delta Air Lines Fills Lagos-New York Void,” August 23, 2017.

Education-related Travel Services

U.S. exports of education-related travel services—a subset of travel services—comprise the expenses of students from foreign countries who come to pursue higher education or language studies in the United States. Education-related travel services exports include not just tuition and related fees, but also money that these foreign students (typically called international students) spend on lodging, food, and other goods purchased while in the United States.

Overview of U.S. Exports

In 2016, U.S. exports of educational travel services to Africa rose 9.0 percent to nearly \$1.6 billion, faster than the average 6.2 percent growth from 2010 to 2015 (table 2.24).⁴⁴¹ These exports made up a sizable proportion (11.5 percent) of total U.S. cross-border services exports to Africa, a larger share than U.S. exports of telecommunication or transportation services to the continent. Data on U.S. exports of education-related travel services are available for only two SSA countries, Nigeria and South Africa; such exports to Nigeria accounted for 23.9 percent of U.S. exports of education-related travel services to Africa in 2016, while exports to South Africa accounted for 4.6 percent.

In recent years, U.S. exports of education-related travel services have grown rapidly. And such students have become a key source of revenue for many U.S. universities, since international students typically pay the full “sticker price” for their education and do not receive tuition discounts or institutional

⁴⁴¹ Data on U.S. exports of education-related travel services are available by country only for South Africa and Nigeria; data for Nigeria are available only beginning in 2013.

financial aid.⁴⁴² However, competition for international students is rising as other countries improve the perceived quality of their colleges and universities (“tertiary” educational institutions) and offer a more predictable route to securing post-graduation employment visas.

Table 2.24 Education-related travel services: U.S. exports to SSA and selected SSA countries, 2010–16

	2010	2011	2012	2013	2014	2015	2016	Compound annual growth rate (CAGR) 2010–16
	Million \$							Percent
Africa	1,100	1,135	1,145	1,210	1,296	1,451	1,581	6.2
Nigeria	^a	^a	^a	231	262	326	378	17.8 ^b
South Africa	53	54	57	64	65	71	73	5.5

Source: USDOC, BEA, Interactive data, International Transactions, Services, & IIP, International Services, table 2.3 (accessed November 13, 2017).

^a Data not available.

^b Value for Nigeria is for 2013–16.

Data on the number of students from SSA studying in the United States are available for a larger number of countries than official U.S. export data, and they offer a detailed picture of education-related travel.⁴⁴³ As with the data on exports, these data show that Nigeria is the top source of international students from SSA in the United States (31 percent of the total for 2016–17) (figure 2.3). This pattern is driven both by Nigeria’s large population (accounting for 18 percent of the total SSA population) and by unmet demand for higher education in the country, with roughly three-quarters of applicants unable to gain admission to university (primarily due to a lack of capacity).⁴⁴⁴ Kenya (8.5 percent) and Ghana (8.2 percent) ranked second and third, respectively. The total number of students from SSA studying in the United States rose 6.7 percent from 2015–16 to 2016–17, totaling 37,700, faster than the 3.4 percent average annual growth rate in total international students in the United States during the same period.⁴⁴⁵ Overall, students from SSA accounted for 3.5 percent of all international students studying in the United States in 2016–17.

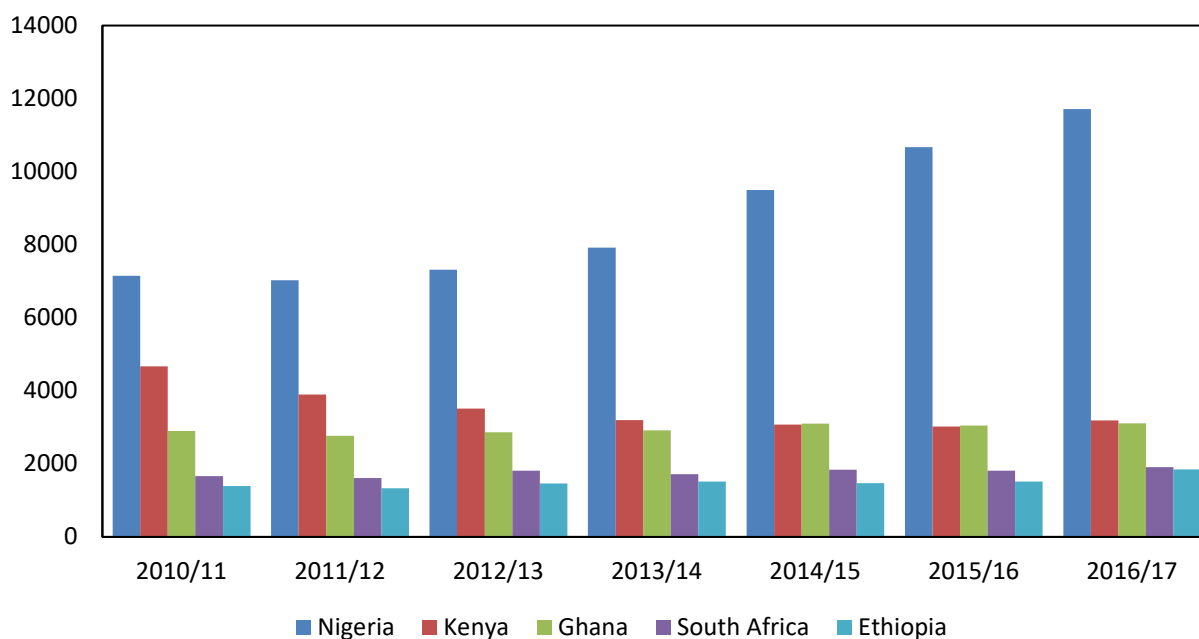
⁴⁴² Saul, “As Flow of Foreign Students Wanes,” January 2, 2018.

⁴⁴³ Data on international students, including from SSA countries, studying in the United States is published by the International Institute of Education. IIE, “International Students by Place of Origin, 2015/16 & 2016/17,” 2017.

⁴⁴⁴ Nigeria’s large diaspora in the United States also contributes to demand for education-related travel, although the UK is still the top destination for Nigerian international students. Kazeem, “Only One in Four Nigerians Applying,” February 22, 2017; Kazeem, “Why Nigerians Are Saving,” November 25, 2015.

⁴⁴⁵ However, SSA international student enrollments in the United States grew slower from 2010/11 to 2016/17 than SSA international student enrollments globally—3.1 percent compared to 6.9 percent. IIE, “International Students by Place of Origin,” 2015–16 and 2016–17.

Figure 2.3 Education-related travel services: Number of international students from SSA enrolled in the United States, by country, 2010/11–2016/17



Source: IIE, “International Students by Place of Origin, 2015/16 & 2016/17,” 2017; IIE, “International Students by Place of Origin, 2014/2015 & 2013/2014,” 2015; IIE, “International Students by Place of Origin, 2012/2013 & 2011/2012,” 2013; IIE, “International Students by Place of Origin, 2010/2011 & 2009/2010,” 2011.

Note: Data are published for academic years, not calendar years. See [appendix table I.2](#) for a tabular presentation of the data in this figure.

Key Factors Affecting U.S. Exports, 2010–16

The United States attracts students due to its renowned education institutions, English-language instruction, and the possibility of staying on to work in the world’s largest economy. Six of the top 10 universities in the world are located in the United States,⁴⁴⁶ and the country boasts a large network of research universities and other educational institutions for both undergraduate and graduate studies. While specific data on SSA students as a whole are unavailable, bachelor’s and master’s degree programs account for the second and third largest segments of the higher education market for international students in the United States.⁴⁴⁷ For Nigerian students attending university in the United States, engineering was the most common field of study (accounting for 22 percent of all students), followed by business and management (15 percent) and healthcare-related professions.⁴⁴⁸ Degrees from U.S. universities are also seen as providing an edge in competitive job markets, particularly in Nigeria, and helping graduates gain entry into the growing middle class.⁴⁴⁹

The main draw for many students is the chance to work in the United States after graduation. International students were granted almost 600,000 F-1 visas to study in the United States in 2014, and

⁴⁴⁶ Times Higher Education, “World University Rankings 2017” (accessed January 21, 2018).

⁴⁴⁷ Language training accounts for the largest segment. Ruiz, “The Geography of Foreign Students,” August 2014, 9.

⁴⁴⁸ Nigeria is the only SSA country with disaggregated data on international students’ field of study. IIE, “International Students by Field of Study,” 2017.

⁴⁴⁹ Kazeem, “Only One in Four Nigerians Applying,” February 22, 2017.

in the same year 137,000 graduates participated in the Optional Training Program (OPT), which allows them to work in the United States after graduation.⁴⁵⁰ International students are also eligible for the H1-B visa, a non-immigrant employment visa with capped enrollment which has 20,000 places set aside for students who have earned a master's degree in the United States.⁴⁵¹

Potential for U.S. Exports

The United States remains a competitive market for students from SSA, but based on current trends, its potential remains uncertain. Positive developments in SSA student recruitment have been tempered by less-optimistic indications based on overall foreign student enrollment. A ranking of the top 10 foreign destinations for African students saw the United States rise from fourth place overall in 2010 to second in 2014 (behind France, the historical leader).⁴⁵² The U.S. government also led the country's first education trade mission to SSA in 2016, which included representatives of 25 U.S. colleges and universities, in an effort to recruit students and forge links with universities in the region.⁴⁵³

Despite growth in enrollments from SSA, overall new international student enrollment in the United States is down. In a recent survey of U.S. universities, almost half reported a drop in new international student enrollments in 2017 from the previous year, with respondents citing student visa denials and delays as a main cause.⁴⁵⁴ The United States saw enrollment from 90 countries decline from 2015–16 to 2016–17.⁴⁵⁵ The credit rating agency Moody's cited this drop in international student enrollment as one factor which led it to revise its 2018 outlook for U.S. higher education from stable to negative.⁴⁵⁶

U.S. Export Competition with Third-country Suppliers

U.S. universities are beginning to face increased competition from tertiary educational institutions abroad. Australia, Canada, and the UK have higher shares of international students (as a percentage of total students) than the United States. Foreign enrollments in those countries, including students from SSA, have grown more quickly in recent years than enrollments in the United States, albeit from a lower base.⁴⁵⁷ This is due to both improving perceptions of the quality of those countries' university systems (aided by more aggressive advertising and recruitment programs) and the increased availability of longer-term employment visas in those countries.⁴⁵⁸ The growing market share of these and other

⁴⁵⁰ The F-1 visa is the most common educational visa, though students may also qualify for the J-1 and H-4 visas. Students are only issued one visa for duration of their program, so the number of visas issued does not necessarily correspond to the number of foreign students enrolled in higher education at any given time. Foreign students on an F-1 visa can apply for the OPT, which allows them to work in the United States after graduation. Science, technology, engineering, and mathematics (STEM) degree holders can stay for up to 29 months, while non-STEM degree holders can stay for 12 months. The latest year for which data are available for both OPT and F-1 visas is 2014. USDOS, "FY 2014 Nonimmigrant Visas Issued," 2014; Jachik, "International Graduates Winning Right to Work in U.S.," May 19, 2017.

⁴⁵¹ USCIS, "H-1B Fiscal Year (FY) 2018 Cap Season," n.d. (accessed March 7, 2018).

⁴⁵² The U.S. trade mission visited South Africa, Ghana, and Côte d'Ivoire. Schulmann, "African Student Mobility: Regional Trends and Recommendations," March 7, 2017. 2014 is the latest year for which such data are available.

⁴⁵³ MacGregor and Kokutse, "U.S. Colleges Look to Recruit More Students," March 16, 2016.

⁴⁵⁴ Jachik, "International Graduates Winning Right to Work in U.S." May 19, 2017.

⁴⁵⁵ IIE, "International Student Totals by Place of Origin, 2015/16 and 2016/17," 2017.

⁴⁵⁶ Moody's Investor Services, "2018 Outlook Changed to Negative," December 5, 2017.

⁴⁵⁷ *Economist*, "Brains without Borders," January 30, 2016.

⁴⁵⁸ *Ibid.*

anglophone countries, as well as tighter financial conditions for foreign governments that provide students scholarships and uncertainty surrounding U.S. immigration policies, have all contributed to a decline of international student enrollment in the United States in the 2016–17 academic year.⁴⁵⁹ Additionally, international student enrollment in China has steadily risen, and the country pledged to provide 30,000 scholarships to African students by 2018. Although France still hosts the largest number of African students, mostly from francophone Africa, China may now host more English-speaking students than the United States or the UK.⁴⁶⁰

Financial Services

Financial services include brokerage, underwriting, credit card, financial management, advisory and custody, and securities lending services. These services, which are largely provided by banks, facilitate transactions and allocate capital from savers to borrowers.

Overview of U.S. Exports

U.S. financial services exports to Africa grew at a rate of 1.7 percent from 2010 to 2016, for a total of \$1.0 billion in 2016. South Africa accounted for 32 percent (or \$332 million) of these exports in 2016, and Nigeria accounted for 14 percent (or \$146 million)(table 2.25).⁴⁶¹ In 2015, SSA imported at least \$1.7 billion in financial services from the world.⁴⁶² Nigeria accounted for the majority of such imports: 68 percent, or \$1.1 billion.

Table 2.25 Financial services: U.S. exports to Africa and selected SSA countries, 2010–16

	2010	2011	2012	2013	2014	2015	2016	Compound annual growth rate (CAGR) 2010–16
	Million \$							Percent
Africa	930	1,077	1,051	850	988	1,045	1,026	1.7
Nigeria	^a	^a	^a	78	90	145	146	23.2 ^b
South Africa	276	363	320	288	329	337	332	3.1

Source: USDOC, BEA, Interactive data, International Transactions, Services, &IIP, International Services, table 2.3 (accessed November 13, 2017).

^a Data not available.

^b Values for Nigeria are for 2013–16.

⁴⁵⁹ Saul, “As Flow of Foreign Students Wanes,” January 2, 2018.

⁴⁶⁰ Breeze and Moore, “China Has Overtaken the US and UK,” June 30, 2017.

⁴⁶¹ USDOC, BEA, Interactive data, International Transactions, Services, &IIP, International Services, table 2.3 (accessed December 7, 2017).

⁴⁶² WTO, Statistics Database, Time Series on International Trade, “Trade in Commercial Services, 2005–onward (BPM6)” (accessed December 7, 2017).

The BEA combines affiliate sales of financial services and insurance services in a single category.⁴⁶³ In 2015, the United States sold \$1.9 billion in financial and insurance services through affiliates in Africa.⁴⁶⁴ South Africa accounted for \$577 million of such affiliate sales. Data on affiliate activity with Nigeria are not available.

Some U.S. banks provide corporate finance, investment banking, and foreign exchange services to large private-sector clients through their SSA subsidiaries. They also help governments issue bonds, often working in partnership with other banks; for example, Citigroup, BNP Paribas, and Deutsche Bank all worked on Côte d'Ivoire's 2014 bond issuance,⁴⁶⁵ and Nigeria asked Goldman Sachs and Stanbic IBTC Bank to help issue a "diaspora bond" targeted at Nigerians living abroad.⁴⁶⁶ Most U.S. financial services affiliate activity seems to be concentrated in large economies. For example, JP Morgan has a full banking license in South Africa and a subsidiary in Nigeria. Citigroup has a wider presence, with operations in Algeria, Cameroon, Côte d'Ivoire, the Democratic Republic of the Congo, Gabon, Ghana, Kenya, Nigeria, Senegal, South Africa, Tanzania, Uganda, and Zambia. Additionally, U.S. credit card companies operate in SSA through partnerships with local bank affiliates, as well as mobile network operators and large retailers. In 2016, American Express and the French bank Société Générale signed a merchant-acquiring partnership in eight SSA countries, allowing retailers to accept payments from American Express cardholders.⁴⁶⁷

Key Factors Affecting U.S. Exports, 2010–16

SSA's financial infrastructure is underdeveloped, though large differences exist between countries. In 2014, 69 percent of South Africans over the age of 15 had an account at a financial institution, but that figure was only 6 percent in Guinea and Madagascar and 3 percent in Niger, as compared to 94 percent in the United States. Similarly, while in 2015 OECD member-countries had an average of 76 ATMs per 100,000 adults, SSA countries had only 6. In 2016, the domestic credit provided by SSA's financial sector was equivalent to 60 percent of the region's GDP, varying from 177 percent in South Africa to 17 percent in Niger, 16 percent in Uganda, and 10 percent in Lesotho; the corresponding figure was 243 percent in the United States. Additionally, the total value of stocks traded in South Africa was 136 percent of its GDP that year, while the total value of stocks traded in Nigeria was only 0.4 percent of its GDP, as compared to 227 percent in the United States.⁴⁶⁸

Foreign banks operating in SSA have faced political and regulatory risks. For example, the UK banks HSBC and Standard Charter were recently linked to a corruption scandal in South Africa involving the then president, Jacob Zuma, and the Gupta business family; UK regulators are currently investigating whether

⁴⁶³ Affiliate transactions and cross-border exports are not directly comparable, as they are calculated differently. However, in general, U.S. affiliate sales of financial and insurance services to SSA are significantly larger than U.S. exports of these services.

⁴⁶⁴ USDOC, BEA, Interactive data, International Transactions, Services, & IIP, International Services, tables 4.4 and 5.4 (accessed December 7, 2017).

⁴⁶⁵ Hale and Moore, "Strong Demand for Ivory Coast Bond," July 16, 2014.

⁴⁶⁶ Ohuocha, "Nigeria Asks Goldman, Stanbic to Help Sell," January 30, 2017. These services are often supplied through affiliates, but can also be supplied cross-border and through movement of persons: investment banks like Goldman Sachs and Morgan Stanley sometimes fly in staff to consult on deals without maintaining a permanent local presence. *Economist*, "Continent of Dreams," March 2, 2013.

⁴⁶⁷ Société Générale, "Société Générale Partners with American Express in Africa," November 21, 2016.

⁴⁶⁸ World Bank, World Development Indicators (accessed December 1, 2017).

the banks laundered money by illicitly transferring funds from South Africa to Hong Kong and Dubai.⁴⁶⁹ In Kenya, Tanzania, and Uganda, international lenders have ended correspondent banking relationships because of concerns about money laundering and other concerns.⁴⁷⁰ Foreign banks operating in SSA are also exposed to fluctuations in commodity prices and currency depreciation, both of which were factors in Barclay's recent decision to sell its stake in its African subsidiary.⁴⁷¹

Potential for U.S. Exports

Demand for financial services is expected to grow quickly from a low base as SSA countries become wealthier. Many SSA countries have been experiencing income growth, urbanization, globalization, and increased investment, all of which drive demand for financial services. Mineral wealth also creates demand for capital investment financing, illustrated by Citigroup's 2013 decision to open a branch in Lubumbashi, the mining capital (copper and cobalt) of the Democratic Republic of the Congo.⁴⁷²

Technology will also affect the prospects for U.S. financial services exports to SSA. Customers in the region are increasingly making digital payments with mobile devices, facilitated by payment services like Kenya's M-Pesa. This expands the pool of potential customers, as even poor and underbanked people in SSA increasingly have mobile phones.⁴⁷³ Financial technology can have a "disintermediating" effect, reducing the need for traditional infrastructure like physical bank branches and lowering the costs of entry for foreign banks. The large size of U.S. banks and the wide scope of services they provide, as well as the rate of innovation in the U.S. financial technology sector, may help U.S. firms compete in SSA.

U.S. Export Competition with Third-country Suppliers

Banks based in countries with historical or colonial ties to SSA have a relatively large presence in the region. Several UK banks have long histories in English-speaking Africa: Barclays started operating in Africa in 1925, and Standard Bank first established a presence in South Africa in 1862. The French financial services company Société Générale, which has conducted business in Africa for over a century, operates in 18 African countries, mostly in French-speaking West Africa. Relatively newer Portuguese banks like Banco BPI and Banco Millennium BCP have substantial operations in Angola and Mozambique.

Chinese banks are expanding their operations in SSA. In 2007, China's state-owned ICBC bought a 20 percent stake in South Africa's Standard Bank, and in 2011 it opened an office in Cape Town.⁴⁷⁴ In 2010, ICBC made a \$200 million loan to the Nigerian arm of MTN (a mobile phone operator), enabling MTN to buy equipment from the Chinese manufacturer Huawei.⁴⁷⁵ When the Portuguese bank BES declared bankruptcy in 2014, its Angolan subsidiary was taken over by the Angolan government and became Banco Económico, in which China's Lektron Capital bought a significant stake.⁴⁷⁶

⁴⁶⁹ BBC NEWS, "UK Banks 'Exposed to Money Laundering in South Africa,'" October 19, 2017. The outcome may affect HSBC's deferred prosecution agreement with U.S. authorities in 2012 relating to money laundering in Mexico. Cotterill et al., "HSBC Accused of 'Possible Criminal Complicity' in Gupta Scandal," November 1, 2017.

⁴⁷⁰ Kamau, "Money Laundering Sees Cut-off SWIFT Payments in the Region," November 7, 2017.

⁴⁷¹ Clozel, "What Barclays' Africa Pullout Means for De-Risking," March 24, 2016.

⁴⁷² England, "Africa's Expanding Financial Sector Draws Increasing Interest," October 5, 2014.

⁴⁷³ Forden, "Mobile Money in Kenya," June 2015.

⁴⁷⁴ England, "International Banks Ramp Up Presence in Africa," January 2, 2012.

⁴⁷⁵ *Economist*, "Scrambled in Africa," September 16, 2010.

⁴⁷⁶ Minder, "Investment in Angolan Banking May Prove a Crippling Deal," July 29, 2014.

Insurance Services

Insurance services include life insurance, property and casualty insurance, freight insurance, auxiliary insurance services, and reinsurance.⁴⁷⁷ These services help individuals and firms manage risks by guaranteeing payments in case of losses.

Overview of U.S. Exports

In 2016, the United States exported \$109 million in insurance services to Africa, with reinsurance accounting for the vast majority (\$97 million) of these exports.⁴⁷⁸ U.S. insurance exports to Africa have grown modestly at a rate of 1.1 percent from 2010 to 2016. South Africa accounted for 39 percent (or \$43 million) of these exports in 2016, and Nigeria accounted for 15 percent (or \$16 million) (table 2.26).

Table 2.26 Insurance services: U.S. exports to Africa and selected SSA countries, 2010–16

	2010	2011	2012	2013	2014	2015	2016	Compound annual growth rate (CAGR) 2010–16
	Million \$							Percent
Africa	102	86	76	94	98	111	109	1.1
Nigeria	^a	^a	^a	16	16	14	16	0.0 ^b
South Africa	47	35	28	37	45	48	43	-1.5

Source: USDOC, BEA, Interactive data, International Transactions, Services, &IIP, International Services, table 2.3 (accessed November 13, 2017).

^a Data not available.

^b Values for Nigeria are for 2013–16.

In 2015, SSA imported about \$2.9 billion in total insurance and pension services from the world.⁴⁷⁹ South Africa and Nigeria accounted for large shares of these imports (19 percent or \$545 million, and 12 percent or \$339 million, respectively). Angola was also a major market, accounting for 16 percent or \$476 million of total SSA imports of insurance and pension services from the world in 2015.

The BEA combines affiliate sales of financial services and insurance services in a single category. In 2015, the United States sold \$1.9 billion in finance and insurance services through affiliates in Africa.⁴⁸⁰ South Africa accounted for \$577 million of such affiliate sales. Data on affiliate activity with Nigeria are not available.

A small number of U.S. insurers are active in SSA. AIG provides insurance to businesses and government organizations through subsidiaries in Kenya, South Africa, and Uganda; it entered South Africa in 1962,

⁴⁷⁷ Reinsurance, also called stop-loss insurance, is the transfer of risk from an insurer to another party (or reinsurer) to lessen the possibility of settling a large insurance claim.

⁴⁷⁸ USDOC, BEA, Interactive data, International Transactions, Services, &IIP, International Services, table 2.3 (accessed December 7, 2017).

⁴⁷⁹ WTO, Statistics Database, Time Series on International Trade, “Trade in Commercial Services, 2005–onward (BPM6)” (accessed December 7, 2017).

⁴⁸⁰ USDOC, BEA, Interactive data, International Transactions, Services, &IIP, International Services, tables 4.4 and 5.4 (accessed December 7, 2017).

when it insured the building of the Gariep Dam, and in 2016 it accounted for about 2 percent of the South African market by premiums written.⁴⁸¹ Some U.S. insurers provide unique insurance products in SSA through partnerships with local firms. For example, Blue Marble (a consortium that includes AIG, XL Group, and Zurich) provides microinsurance to corn farmers in Zimbabwe.⁴⁸² U.S. firms like Prudential Financial and MetLife have provided funds to LeapFrog, which makes private equity investments in insurers located in Ghana, Kenya, Nigeria, and South Africa.⁴⁸³

Key Factors Affecting U.S. Exports, 2010–16

Insurance markets are relatively undeveloped in SSA, with the exception of South Africa. In 2016, South Africa had an insurance penetration rate (the value of insurance premiums as a percentage of GDP) of 13 percent, comparable to the rate in developed countries. However, Kenya's penetration rate was only 3 percent, and Nigeria's was only 0.3 percent.⁴⁸⁴ The outsized role of South Africa is illustrated by the fact that life insurance premiums in South Africa accounted for 88 percent of total sub-Saharan African premiums in 2013.⁴⁸⁵

Insurance for large commercial risks, such as infrastructure construction and mining, currently accounts for the largest share of insurance purchased in SSA, though countries are increasingly enforcing compulsory car insurance requirements as well as requirements that commercial buildings have fire insurance.⁴⁸⁶ U.S. companies like AIG participate in these sectors, and also offer microinsurance (simple insurance products with small premiums). Microinsurance markets are growing quickly in SSA, and community-based microinsurance schemes are especially common. Agricultural microinsurance, which can protect against losses due to droughts or flooding, is particularly important, and is often provided through public-private partnerships. For example, the Kenyan Livestock Insurance Program—financed by the Kenyan government—provides payments to farmers in case of drought.⁴⁸⁷ Additionally, life microinsurance is provided by companies like Bima, which offers potential payouts of \$500 in exchange for premiums as low as \$0.50 a month; 60 percent of its customers make less than \$2.50 a day.⁴⁸⁸ There is also a significant market for funeral microinsurance. However, microinsurance is less lucrative than other insurance products, and U.S. insurers may be reluctant to offer products with high administrative costs and low revenues. While AIG offers microinsurance directly, some U.S. companies have entered the SSA microinsurance market indirectly through companies like LeapFrog.

U.S. insurance companies face challenges in SSA. Insurers often rely on face-to-face sales, so the shortage of skilled agents and brokers in the region is a constraint. The absence of an effective regulatory environment can affect insurance markets; in 2017, several South African insurers had their ratings downgraded, with ratings agencies citing evidence of weakening institutions.⁴⁸⁹ Additionally, regulations in some SSA countries can restrict the provision of insurance services. For example, Uganda prohibits composite insurance companies (which sell both life and non-life insurance). Corruption has also deterred some U.S. insurers from operating in certain SSA countries, and has prompted

⁴⁸¹ KPMG, "Evolve: Intelligent Insurance," 2017, 81.

⁴⁸² Jung, "Opportunities for U.S. Insurance Companies in Africa," February 11, 2017.

⁴⁸³ Blackden, "U.S. Insurer Prudential Financial Makes African Bet," January 21, 2016.

⁴⁸⁴ Aglionby, "Africa's Insurance Market a 'Giant Waking Up,'" June 28, 2016.

⁴⁸⁵ EY, "Waves of Change Revisited," 2016, 4.

⁴⁸⁶ Swiss Re, *Insuring the Frontier Markets*, 2016, 8.

⁴⁸⁷ *Ibid.*, 10.

⁴⁸⁸ Aglionby, "Africa's Insurance Market a 'Giant Waking Up,'" June 28, 2016.

⁴⁸⁹ Moody's, "Moody's Downgrades Ratings of South African Insurance Groups," June 12, 2017.

organizations like the Inter-African Conference on Insurance Markets to improve the operations of insurance markets by eliminating fake insurance policies and ensuring that legitimate claims are paid.⁴⁹⁰

Potential for U.S. Exports

Insurance demand—particularly health insurance demand—is expected to grow in SSA as countries in the region become wealthier, though growth in insurance penetration has lagged behind GDP growth in the region so far.⁴⁹¹ Crop insurance, flood insurance, and other types of insurance can help people in SSA adapt to climate change. Private insurers are expected to become increasingly involved in this sector, in some cases through partnerships with the public sector.⁴⁹² Increasing the availability of political risk insurance and credit risk insurance may facilitate trade and investment in SSA.⁴⁹³ Additionally, technology will increasingly allow consumers to buy insurance, pay premiums, and submit claims with mobile phones.⁴⁹⁴ The adoption of technology will also provide data to insurance companies allowing them to more accurately assess and price risks. European insurance firms have traditionally been more internationally oriented than U.S. insurance firms, but technology may help innovative U.S. insurance firms as well as U.S. financial technology startups take advantage of market growth in SSA.⁴⁹⁵

U.S. Export Competition with Third-country Suppliers

Western European firms are active in SSA’s insurance market, and merger and acquisition activity among these firms is increasing, particularly in Nigeria and Kenya.⁴⁹⁶ In 2014, UK-based Prudential plc acquired Ghana’s Express Life Insurance and Kenya’s Shield Assurance; the French firm AXA bought a stake in Nigeria’s Mansard insurance company; and Swiss Re bought a stake in Kenya’s Apollo Investments.⁴⁹⁷ In 2016 the Swiss insurer Zurich sold its operations in South Africa and Botswana to Canada’s Fairfax Financial Holdings. Germany’s Allianz, which already has 12 divisions in SSA, plans to expand into Nigeria by paying \$35 million for a 98 percent stake in Ensure Insurance.⁴⁹⁸

South African insurance firms are also expanding on the continent. In 2015, South Africa’s MMI Holdings bought two-thirds of Kenya’s Cannon Assurance and merged it with Metropolitan Life Kenya. That same year, South Africa’s Liberty Holdings finalized its purchase of Nigeria’s Total Health Trust.⁴⁹⁹

⁴⁹⁰ Swiss Re, *Insuring the Frontier Markets*, 2016, 8.

⁴⁹¹ Ibid.

⁴⁹² United Nations Secretary General, “Trends in Private Sector Climate Finance,” October 9, 2015.

⁴⁹³ USITC, hearing transcript, January 23, 2018, 171 (testimony of Dennis Matanda, Manchester Trade Limited).

⁴⁹⁴ Swiss Re, *Insuring the Frontier Markets*, 2016, 10.

⁴⁹⁵ McKinsey, “Global Insurance Industry Insights,” 2014.

⁴⁹⁶ Swiss Re, *Insuring the Frontier Markets*, 2016, 9.

⁴⁹⁷ Aglionby, “Africa’s Insurance Market a ‘Giant Waking Up,’” June 28, 2016.

⁴⁹⁸ Reuters, “Allianz Buys Nigerian Insurer for \$35 Million,” August 30, 2017.

⁴⁹⁹ Ibid.

Information and Communication Technology

The information and communication technology (ICT) industry is defined as the standard category “telecommunications, computer, and information services” in the Balance of Payments Manual 6 (BPM6).⁵⁰⁰ Within this category, the telecommunications services subcategory includes services related to the broadcast or transmission of sound, images, data, or other information by electronic means. The computer services subcategory includes hardware- and software-related services and data processing services. The information services subcategory includes news agency services, database services, and web search portals.⁵⁰¹

Overview of U.S. Exports

Overall, data on international trade in ICT services by SSA countries are very limited and, with the exception of a very few countries, are reported only for either the entire continent of Africa or for a small number of SSA countries. The BEA, for example, reports cross-border exports of ICT services to Africa of \$626 million in 2016, with telecommunications, computer, and information services accounting for 23 percent, 49 percent, and 27 percent, respectively.⁵⁰² During 2010–16, exports of telecom services declined at an annual rate of 12.4 percent, whereas exports of computer and information services grew at CAGRs of 2.4 percent and 4.9 percent, respectively. The BEA reports data on cross-border exports of ICT services to only two SSA countries: Nigeria (\$109 million) and South Africa (\$214 million). These two countries together account for 52 percent of U.S. cross-border exports of ICT services to the entire continent of Africa (table 2.27).⁵⁰³

⁵⁰⁰ IMF, Balance of Payments and International Investment Position Manual, 6th ed., Washington, DC: International Monetary Fund, 2009, <https://www.imf.org/external/pubs/ft/bop/2007/pdf/bpm6.pdf>.

⁵⁰¹ USDOC, BEA, *U.S. International Economic Accounts: Concepts and Methods*, June 2014, 10–24.

⁵⁰² The BEA captures ICT services in a dedicated category referred to as telecommunications, computer, and information services.

⁵⁰³ USDOC, BEA, *U.S. International Services Tables (preformatted)*, October 24, 2017, table 2.3.

Table 2.27 Telecommunications, computer, and information services: U.S. exports to Africa and selected SSA countries, 2010–16

	2010	2011	2012	2013	2014	2015	2016	Compound annual growth rate (CAGR) 2010–16 ^a
	Millions \$							Percent
Africa								
Telecommunications, computer, and information services	720	760	788	799	741	671	626	-2.3
Telecommunications services	326	351	306	284	212	161	147	-12.4
Computer services	266	288	333	362	360	341	307	2.4
Information services	128	122	150	154	168	169	171	4.9
Nigeria								
Telecommunications, computer, and information services	b	b	b	122	121	113	109	-3.7
Telecommunications services	b	b	b	29	26	24	23	-7.4
Computer services	b	b	b	85	83	74	72	-5.4
Information services	b	b	b	8	11	15	14	20.5
South Africa								
Telecommunications, computer, and information services	247	245	257	252	247	247	214	-2.4
Telecommunications services	75	54	41	24	23	15	14	-24.4
Computer services	111	132	156	172	167	167	136	3.4
Information services	60	59	60	55	57	64	64	1.1

Source: USDOC, BEA, Interactive data, International Transactions, Services, and IIP, International Services, table 2.3 (accessed November 13, 2017).

Note: Sum of numbers may not equal totals due to rounding.

^a Values for Nigeria are for 2013–16.

^b Data not available.

In 2014, the WTO⁵⁰⁴ reported global exports of ICT services to Cameroon (\$41 million), Côte d'Ivoire (\$101 million), Kenya (\$22 million), Mauritius (\$93 million), Nigeria (\$1.5 billion), and South Africa (\$1 billion).⁵⁰⁵ In most SSA countries, cross-border trade in ICT services is likely dominated by international telephone calls.

Key Factors Affecting U.S. Exports, 2010–16

Over the past several decades, U.S. ICT companies have been relatively absent from SSA due to the region's poor telecom and ICT infrastructure, the difficulty of maintaining operations in underdeveloped economies, and perceptions that the financial benefits of operating in many SSA countries do not outweigh the costs and risks.⁵⁰⁶ As a result, with the exception of South Africa, the ICT markets for most SSA countries have consisted almost entirely of telecommunications services, primarily mobile voice and

⁵⁰⁴ The WTO data on trade in ICT are available for 36 SSA countries for 2014, 33 SSA countries for 2015, and 12 SSA countries for 2016.

⁵⁰⁵ WTO, Statistics Database, Time Series on International Trade, "Trade in Commercial Services, 2005–onward (BPM6)" (accessed November 7, 2017).

⁵⁰⁶ Kalebaila, *The Internet of Things in Africa*, October 4, 2017.

text messaging services aimed at consumers.⁵⁰⁷ In 2016, there were an estimated 753 million mobile cellular subscriptions in SSA, resulting in an SSA mobile penetration rate of roughly 74 percent.⁵⁰⁸ Due to diverse political and economic circumstances, the mobile penetration rate varied significantly among SSA countries, ranging from 7 percent in Eritrea to 161 percent in Seychelles, although 39 SSA countries had achieved a mobile penetration rate above 50 percent and 13 countries had a penetration rate higher than 100 percent in 2016.⁵⁰⁹

Most ICT services require, at a minimum, a certain level of infrastructure development in terms of high-speed networks (both domestic and international) and data centers. As a result, the development of nearly all other areas of SSA's ICT market have been hindered by the effort and expense of deploying fixed-line network infrastructure,⁵¹⁰ which involves digging trenches and laying copper and/or fiber optic cabling between cities along roads, train tracks, and other rights-of-way as well as to individual homes and businesses. In 2016, the number of fixed-line telephone subscriptions totaled only 10 million in SSA, corresponding to roughly 1 percent of the population. Due to this low fixed-line penetration, there were only 3.9 million fixed broadband internet subscriptions, reaching less than 1 percent of the population.⁵¹¹ Historically, the development of SSA's ICT market has also been heavily impacted by the lack of high-bandwidth international connectivity. During this period, SSA's international networks consisted of satellite services—which are expensive, unreliable, and characterized by low bandwidth—and one nearly obsolete submarine cable.⁵¹²

Over the past eight years, however, substantial and ongoing investment in telecom projects has resulted in a dramatic improvement in the network infrastructure in many SSA countries. Since 2009, for example, 15 submarine cables⁵¹³ have been installed around the periphery of SSA, with network configurations running the gamut from a single-leg cable connecting Seychelles with Tanzania to several cables that run the full length of the continent on both the east and west coasts of Africa.⁵¹⁴ The arrival of these new submarine cables has triggered a flurry of terrestrial network construction in SSA, with many countries having completed at least one national fiber optic network connecting major cities and

⁵⁰⁷ In some countries, most notably Kenya, mobile telephone-based financial services, known as mobile money, are also an important telecom service.

⁵⁰⁸ ITU, ITU World Telecommunications/ICT Indicators Database 2017 (accessed March 6, 2018). The mobile penetration rate is defined as the share of the population that owns a mobile phone.

⁵⁰⁹ ITU, ITU World Telecommunications/ICT Indicators Database 2017 (accessed March 6, 2018). In many SSA countries, a mobile penetration rate exceeding 100 percent usually indicates that a large number of customers have purchased two or more SIM cards.

⁵¹⁰ TIA, *TIA's 2015–2018 ICT Market Review and Forecast*, 2015, 6–84.

⁵¹¹ ITU, ITU World Telecommunications/ICT Indicators Database 2017 (accessed March 6, 2018). The internet market in SSA is dominated by mobile phones: there were 231 million active mobile broadband subscriptions in SSA in 2016, representing a penetration rate of 23 percent.

⁵¹² For more information on submarine cable infrastructure serving sub-Saharan Africa, see a recent USITC working paper, "*The Sub-Saharan African Services Economy: Insights and Trends*," July 2017, <https://www.usitc.gov/publications/332/sub-saharan-african-id-17-046-final-071217sae.pdf>.

⁵¹³ Routely, "Mapped: The World's Network of Undersea Cables," August 26, 2017. Submarine cables, which consist of several strands of fiber optic cable surrounded by a protective covering, are a critical part of the global telecommunications infrastructure. Used to connect the land-based networks of countries that are separated by large bodies of water, undersea cables are laid on the seabed, stretching between coastal landing stations in two or more countries. Offering very high levels of data transmission capacity ("bandwidth"), these cables transport more than 99 percent of international telecommunications traffic.

⁵¹⁴ Song, "African Undersea Cables," July 2017.

towns to a submarine cable landing station.⁵¹⁵ In addition, Liquid Networks, a private company headquartered in Mauritius, has built a 50,000-kilometer broadband network connecting 10 countries in East, Central, and Southern Africa. The Liquid Telecom network connects to five submarine cable systems.⁵¹⁶

In SSA, South Africa is the primary market for ICT services, due in large part to its relatively developed ICT infrastructure. For example, South African companies Teraco Data Environments, DigiServ Technologies, Screamer Telecoms, and RSAWEB all currently operate data centers in South Africa.⁵¹⁷ A growing number of new data centers have also been announced, or recently launched, in South Africa, including several by U.S. companies. In 2016, for example, IBM announced that it had launched a cloud data center with local partners Vodacom and Gijima in Johannesburg, South Africa.⁵¹⁸ In 2017, Microsoft announced that it would build two data centers colocated at partner sites in Johannesburg and Cape Town. The data centers, scheduled to be operational in 2018, will be used to offer Microsoft's Azure cloud computing tools for developers, as well as productivity tools like Office 365 and Dynamics 365.⁵¹⁹ Amazon is also reportedly planning to build data centers in South Africa; over the past few years, it has already been offering its Amazon Web Services to a number of companies in South Africa via cloud computing platforms based in Europe and the United States.⁵²⁰ T-Systems, a subsidiary of Germany's Deutsche Telekom, and Chinese telecom equipment manufacturer Huawei launched a cloud platform known as Open Telekom Cloud in South Africa in 2017.⁵²¹

⁵¹⁵ Song, "Africa's Telecoms Infrastructure," February 15, 2016; Song, "Africa's Telecom Infrastructure in 2016," September 2017.

⁵¹⁶ Liquid Telecom website, <https://www.liquidtelecom.com/about-us/network-map.html> (accessed December 28, 2017).

⁵¹⁷ Ekwealor, "List of Data Centers across Africa," October 26, 2017.

⁵¹⁸ IT News Africa, "IBM Opens Cloud Data Centers in Africa," March 8, 2016.

⁵¹⁹ Lardinois, "Microsoft Will Soon Open Its First Two," May 18, 2017.

⁵²⁰ Tullett, "Amazon: AWS Platform Expansions and Their Impact," July 2017, 1–3.

⁵²¹ T-Systems, "T-Systems and Huawei Extend Successful OTC," April 20, 2017.

Although South Africa is currently SSA's most developed data center market, a limited number of data centers are also operating in other parts of SSA. Rack Centre, MainOne, and Globacom each operate a data center in Nigeria.⁵²² Elsewhere in Africa, MTN, Rack Africa, and the Djibouti Data Center each operate a data center in Kenya, Ghana, and Djibouti, respectively, whereas the Zambia National Data Centre, a government-owned company, operates three data centers in Zambia.⁵²³ Most such data centers are built to high standards of reliability (Tier III) and offer a variety of services including colocation,⁵²⁴ hosting,⁵²⁵ cloud/data storage, and disaster recovery, among other services.

South Africa's data centers and ICT network infrastructure has enabled the rollout of a wide variety of advanced ICT services over the past several years, including public and private cloud, hosting, managed, and outsourced (CHMO) services. Overall, CHMO services constitute a relatively mature market in South Africa, with local and regional service providers building capacity in hosting, managed, and outsourcing services in an attempt to compete with large multinational companies fielding more extensive service portfolios and economy-of-scale advantages. Traditional systems integrators and telecom services providers have also entered the market, targeting not only South Africa but, increasingly, the entire African continent.⁵²⁶ In 2016, the CHMO services market in South Africa totaled \$2.4 billion, with managed services accounting for the largest share of the market (\$930.8 billion; 38.4 percent), followed by information system outsourcing services (\$656.6 billion; 27.1 percent), hosting services (\$596.3; 24.6 percent), and public cloud services (\$240.4 billion; 9.9 percent).⁵²⁷ Although industry leaders vary by segment, the key market players are Telkom (South Africa), Dimension Data (South Africa), Microsoft (United States), SAP (Germany), and EOH (South Africa). In addition to Microsoft, other U.S. firms operating in the CHMO market in SSA include Accenture, Amazon Web Services, IBM, Google, Hewlett-Packard, Oracle, and Salesforce.com, among others.⁵²⁸

Potential for U.S. Exports

In the near term, most opportunities for ICT firms will likely be focused in South Africa, the SSA country with arguably the best-developed ICT infrastructure. As data centers come online, cloud computing platforms are activated, and other enabling infrastructure, particularly fiber optic networks, is completed, opportunities for U.S. firms will likely continue to involve CHMO services. During 2016–21, the CHMO services market in South Africa is expected to grow at a CAGR of 7 percent to \$3,406.5 million, although headwinds may include weakening economic conditions, ongoing depreciation of the

⁵²² MainOne website, <https://www.mainone.net/services/datacenters/> (accessed January 25, 2018); McNevin, "Mega Data Centers Open in Nigeria," June 27, 2013; Ekwealor, "List of Data Centers across Africa," October 26, 2017. Nigeria's Guidelines for Nigerian Content Development in Information and Communications Technology, enacted in 2014, stipulated a variety of new restrictions on cross-border data flows and included data localization requirements for all subscriber, government, and consumer data. Cory, "Cross-border Data Flows: Where Are the Barriers?" May 1, 2017.

⁵²³ Moss, "MTN Business Opens \$13 Million Data Center in Nairobi," March 30, 2017; Ekwealor, "List of Data Centres across Africa," October 26, 2017; Zambia National Data Center website, <http://www.ndc.co.zm/> (accessed January 23, 2018).

⁵²⁴ Colocation services entail the leasing of space in a data center for the purpose of installing servers and other computer hardware.

⁵²⁵ Hosting services entail the storage of a website or other data on a server so it can be accessed over the internet or via a private network.

⁵²⁶ Tullet, *South Africa Cloud, Hosted, Managed, and Outsourced Services*, September 2017, 3.

⁵²⁷ *Ibid.*, 1.

⁵²⁸ *Ibid.*, 16–27.

rand vis-à-vis the U.S. dollar, and tightening budgets among enterprise customers.⁵²⁹ The fastest-growing sector, public cloud services, is expected to grow at a CAGR of 15.9 percent during 2016–21, followed by hosting (7.6 percent), managed services (6.2 percent), and information system outsourcing (3.6 percent).⁵³⁰ Due to progress in building broadband networks in most African countries, U.S. firms will also be well placed to offer CHMO services to companies throughout Africa from data and cloud centers based in South Africa, and perhaps to a lesser extent Nigeria, Kenya, Ghana, Djibouti, and Zambia. In the coming years, for example, large enterprises in Côte d’Ivoire and Ghana are expected to increase spending on colocation, hosting, and business continuity-disaster recovery services.⁵³¹

In South Africa, there are also growing opportunities for U.S. firms in the big data⁵³² and analytics markets. Although the SSA big data market is still in its infancy, the largest spenders on such solutions in the next few years are expected to be companies in the financial services, retail, telecom, utilities, and manufacturing industries. Financial services firms, in particular, are expected to use big data technologies to analyze customer behaviors, detect fraud, and manage risk. The public sector is also expected to increase spending on such technologies. Indeed, a large number of government bodies have reportedly deployed, or are planning to deploy, big data technologies to improve public safety, operational efficiency, and the delivery of public services.⁵³³

In the analytics market, a growing number of organizations, particularly in the financial services industry, have started to invest in advanced analytics and/or predictive analytics technologies in an effort to deal with heightened competition in SSA. To address this market, IBM, Microsoft, SAP (Germany), and other leading firms have initiated marketing campaigns and sponsored events to demonstrate their big data and analytics services.⁵³⁴ With growing interest in and implementation of CHMO, big data, and analytics technologies, a growing number of banks, telecom providers, and retailers are also implementing next-generation security to protect user data as well as ICT applications and infrastructure. In October 2016, for example, IBM launched its IBM Watson artificial intelligence platform in Kenya to address cybercrime in the banking and telecommunications services sectors.⁵³⁵

Services related to the Internet of Things (IoT) are also a potential area of opportunity for U.S. companies in SSA in the coming years, particularly in the area of utility metering.⁵³⁶ Early projects that demonstrate the potential for IoT services in SSA include a smart water-metering initiative in Ghana (designed to detect illegal water connections) and a smart electricity-metering program in Uganda (implemented to reduce energy losses among large commercial customers).⁵³⁷ Sophisticated radar

⁵²⁹ Ibid., 28.

⁵³⁰ Ibid., 1.

⁵³¹ Babatope, “Côte d’Ivoire ICT Market Overview, 2017,” August 2017; Babatope, “Ghana ICT Market Overview,” August 2017.

⁵³² “Big data” is the industry term for very large, high-volume datasets composed of structured and unstructured data from a wide variety of sources, often collected at high velocity in real time. Examples include clickstreams from search engines, transaction data from electronic markets, or environmental or location data from machine sensors. USITC, *Digital Trade in the U.S. and Global Economies, Part 2*, August 2014, 151.

⁵³³ Miemoukanda, *The State of Big Data and Analytics in South Africa*, July 2017, 3–4.

⁵³⁴ Ibid., 6.

⁵³⁵ Miemoukanda, *The Rise of Innovation Accelerators in Sub-Saharan Africa*, April 2017, 9.

⁵³⁶ “The IoT is the ever-growing network of connected objects—such as robotic devices, sensors, 3-D printers, cars, appliances (like thermostats, lights, and refrigerators), and more—that are able to collect and exchange data via sensors.” USITC, *Global Digital Trade*, 2017, 192.

⁵³⁷ Kalebaila, *The Internet of Things in Africa*, October 4, 2017; Miemoukanda, *The Rise of Innovation Accelerators in Sub-Saharan Africa*, April 2017, 4.

surveillance and gunfire detection systems, dubbed Postcode Meerkat and ShotSpotter, respectively, have been deployed to combat poaching in South Africa's Kruger National Park.⁵³⁸ And IBM sensors have been installed to manage traffic at busy intersections in Nairobi, Kenya.⁵³⁹

The use of drones to deliver goods to isolated rural areas is also a potential area of growth in SSA. Currently, for example, the government of Tanzania is working with Zipline, a startup in Silicon Valley, California, to deliver medical supplies like blood or vaccines to rural areas. Mirroring a similar program in Rwanda, the government of Tanzania plans to launch four drone distribution centers housing more than 100 drones capable of making 2,000 flights per day.⁵⁴⁰

U.S. Export Competition with Third-country Suppliers

Many segments of the SSA ICT services market are dominated by domestic companies, although foreign companies have entered certain segments over the past decade or two. In the telecom services segment, domestic SSA companies typically predominate, although pan-African carriers—telecom companies that have operations in a large number of African countries—have also played a leading role in the development of many country markets. The leading pan-African carriers have made significant investments in SSA's mobile network infrastructure over the years and offer basic telecommunications services to millions of Africans; they include MTN, airtel, Orange, and Vodacom. South Africa-based MTN, for example, offers mobile services in more than 25 SSA countries, whereas airtel (India) offers such services in 15 SSA countries, and Orange (France) also has operations in 15 SSA countries. Vodacom, a South Africa-based subsidiary of the U.K.'s Vodafone, offers mobile services in five SSA countries.⁵⁴¹

Although South African companies and, in some cases, U.S. companies tend to have the largest market shares in other ICT market segments, third-country suppliers are also active competitors, particularly in the CHMO market. For example, in the managed applications segment, India's HCL Technologies held a 4.2 percent market share behind several U.S. and South African companies in 2016. Similarly, in the managed network infrastructure segment, Germany's Deutsche Telekom (T-Systems), which controls 7.8 percent of the market, is the lone non-South African company among the top five providers,⁵⁴² Deutsche Telekom also controls 2.8 percent of the hosting infrastructure market, behind three South African companies and ahead of U.S.-based RackSpace (1.1 percent).⁵⁴³ Separately, in the IT services market, U.S. firms also compete with a number of foreign firms in South Africa, including T-Systems (Germany; 2.6 percent market share), SAP (Germany; 0.5 percent), HCL Technologies (India; 0.5 percent), Tata Consultancy Services (India; 0.5 percent), Wipro (India; 0.3 percent), Infosys (India; 0.1 percent), and BT (United Kingdom; 0.1 percent), among others.

⁵³⁸ Fletcher, "Can Modern Technology Save Rhinos from Poachers?" June 29, 2017; Govender, "South Africa Tries Gunfire Detection System," September 5, 2014.

⁵³⁹ Miemoukanda, *The Rise of Innovation Accelerators in Sub-Saharan Africa*, April 2017, 4.

⁵⁴⁰ McFarland, "East Africa Is Leading the World in Drone Delivery," August 24, 2017.

⁵⁴¹ MTN, airtel, Orange, and Vodacom websites.

⁵⁴² Tullett, *South Africa Cloud, Hosted, Managed, and Outsourced Services*, September 2017, 16–17.

⁵⁴³ *Ibid.*, 18.

U.S. Small and Medium-sized Enterprises' Exports to SSA

Introduction

This section provides a brief description of the exports of goods and services from U.S. small and medium-sized enterprises (SMEs) to SSA and the challenges that U.S. SMEs face when exporting to SSA. For the purposes of this report, the Commission defined an SME as a company with less than 500 employees, and used a combination of published and customized trade data from the U.S. Census Bureau (Census) to provide insight into such firms' trade activity in SSA.⁵⁴⁴

U.S. goods exports to SSA from SMEs in 2015 amounted to about \$5.8 billion. Over 40 percent of those exports were concentrated in South Africa and Nigeria. Also in that year, more than half of U.S. SME goods exports were concentrated in machinery manufacturing equipment, transportation equipment, and petroleum manufacturing products.⁵⁴⁵ No official data exist on U.S. SME services exports to SSA, though some qualitative information has been provided below.

Between 2010 and 2015, U.S. SME goods exports to SSA rose and then fell sharply. They peaked at \$9.3 billion in 2013, and then gradually declined to \$8.7 billion by 2014 before falling more precipitously to \$5.8 billion by 2015. The decreases in U.S. SME goods exports, especially in 2015, were attributable to both a drop in the number of U.S. SMEs exporting to that region and to falling exports from the SMEs that have remained in that market. Most of the drops in 2015 goods exports appear to have come from firms in a variety of sectors in Nigeria and from firms in the machine manufacturing sector in such countries as Gabon.

U.S. SME Goods Exports to SSA

U.S. SME goods exports to countries in SSA can be broadly characterized as small, concentrated, and variable. According to the latest data, they amounted to approximately \$5.8 billion in 2015, which represented a precipitous drop from prior years (table 2.28). In the 2010–15 period, these SME exports to SSA represented between 2 and 3 percent of all U.S. SME exports to the world. Since overall exports to SSA represented between 5 to 7 percent of global U.S. goods exports over the same period, it is likely that U.S. goods exports from SMEs are underrepresented in SSA relative to exports from larger firms. This observation is consistent with a different Census data source, which confirms that the share of U.S. SME goods exports to other U.S. exports to SSA was lower than in any other region considered, including Europe (where the share of U.S. SME goods exports was highest), North America, Latin America, and Asia.⁵⁴⁶

⁵⁴⁴ While there is no universally accepted definition of an SME, even within the U.S. government, the U.S. Small Business Administration (SBA) and other agencies typically define SMEs as consisting of less than 500 employees.

⁵⁴⁵ U.S. Census Department's customs data provided to the Commission.

⁵⁴⁶ The Commission received detailed goods trade data broken down by SSA country from the Census that has been extensively used for this analysis. The analysis also used more aggregated trade flow totals for SMEs to Africa and other regions, which were also reported by the Census. For the second source of Census data used, see U.S. Census, "Profile of U.S. Importing and Exporting Companies," 2015.

Table 2.28 U.S. SME goods exports to SSA, 2010–15

	2010	2011	2012	2013	2014	2015
U.S. SME exports to SSA (billion \$)	6.8	8.7	8.8	9.3	8.7	5.8
Number of U.S. SMEs exporting to SSA (1,000 firms)	63	68	71	71	68	62
Average value of U.S. SME goods exports per firm to SSA (1,000 \$)	107.7	126.6	124.2	130.3	122.7	94.0

Source: U.S. Census Department's custom data provided to the USITC.

U.S. SME Exports of Goods to SSA by Country

U.S. SME goods exports to SSA are concentrated in its two largest markets: South Africa and Nigeria (table 2.29). Collectively, these two markets accounted for 42.9 percent of U.S. SME goods exports to the region in 2015. However, over time, U.S. SME goods exports to the region have been going to a more diverse set of countries. Six years prior, in 2010, exports to these two markets represented 55.5 percent of U.S. SME exports to SSA. The change suggests that U.S. SME goods exports are becoming less reliant on their two dominant markets in SSA, South Africa and Nigeria.

Table 2.29 U.S. SME goods exports to SSA by country, 2010 and 2015

	2010		2015	
	Million \$	Share of total (percent)	Million \$	Share of total (percent)
Total SSA	6,831	100.0	5,795	100.0
South Africa	1,854	27.1	1,310	22.6
Nigeria	1,942	28.4	1,174	20.3
Benin	336	4.9	401	6.9
Ghana	376	5.5	376	6.5
Kenya	229	3.3	276	4.8
Other	2,094	30.7	2,257	38.9

Source: U.S. Census Department's custom data provided to the USITC.

Note: Sum of numbers may not equal totals due to rounding.

U.S. SME Exports of Goods to SSA by Product

While U.S. SME goods exports appear to have become more diversified by country composition since 2010, these exports had become more concentrated by 2015 when viewed on a product basis (table 2.30). This suggests that U.S. SME exports found more opportunities to sell transportation equipment and chemical manufacturing equipment within the region over time.

Table 2.30 U.S. SME goods exports to SSA by commodity, 2010 and 2015

	2010		2015	
	Million \$	Share of total (percent)	Million \$	Share of total (percent)
Total SSA	6,831	100.0	5,795	100.0
Machinery manufacturing	1,122	16.4	812	14.0
Transportation equipment manufacturing	720	10.5	833	14.4
Chemical manufacturing	461	6.8	477	8.2
Computer and electronic product manufacturing	313	4.6	341	5.9
Food manufacturing	280	4.1	410	7.1
Other	3,936	57.6	2,922	50.4

Source: U.S. Census Department's data provided to the USITC.

Note: Sum of numbers may not equal totals due to rounding.

The changing composition of U.S. SME goods exports to the region between 2010 and 2015 also reflects the sporadic character of these trade flows. For example, the biggest change was in petroleum crude manufacturing equipment, which was scarcely visible as a major U.S. SME goods export in 2010. In that year, U.S. SMEs exported only \$39.9 million worth of petroleum crude manufacturing equipment, and that was to Mozambique. By contrast, in 2015 there were no U.S. SME petroleum crude equipment exports to Mozambique. Instead, they had shifted to Nigeria and Liberia, where such exports that year amounted to \$190.8 million and \$7.5 million, respectively. The irregular nature of these and other U.S. SME exports to the region is attributable, in part, to the irregular nature of infrastructure-related exports and their associations to primary commodities, whose prices and related firm profitability levels can vary considerably.

The 2015 Downturn in U.S. SME Goods Exports

The drop in the value of U.S. SME goods exports to the region in 2015 may be attributed to two broad factors. First, the number of firms exporting to the region dropped from a peak of about 71,056 in 2013 to 61,625 in 2015 (table 2.28).⁵⁴⁷ This can mostly be explained by U.S. SME firms leaving Nigeria. The firms who left the Nigerian market by 2015 are likely to have been in oil-related or agricultural sectors. In 2015, investment in Nigeria's petroleum sector slowed in light of mounting regulatory uncertainties, security risks, and low crude petroleum prices.⁵⁴⁸ In 2015 alone, there were 3,841 fewer U.S. SMEs exporting to Nigeria than there were in the year before. This 3,841 represented more than half (55.9 percent) of the drop in the number of U.S. SMEs between 2014 and 2015 in all of SSA.

The firms which either stayed in or entered the SSA export market by 2015 saw the value of their exports per firm decline on average (table 2.28). The drop in U.S. SME export performance appears most prominently in countries such as Gabon, where the value of U.S. SMEs exports per firm in the machinery manufacturing sector dropped by more than half (from \$838,818 in 2014 to \$435,965 in 2015).

⁵⁴⁷ Note that the number of firms is according to best estimates. Commerce has deliberately excluded some of these to protect firm confidentiality. As confidentiality concerns typically do not vary much in time, however, the apparent drop in the number of firms exporting to the region likely reflects actual trends.

⁵⁴⁸ USDOC, ITA, "Nigeria Country Commercial Guide: Executive Summary," July 13, 2016.

U.S. SME Services Exports to SSA

Very limited information is available about exports of U.S. service sector SMEs to SSA. However, U.S. firms may be well placed to fill infrastructure deficiencies in the African market across a range of sectors that U.S. firms are competitive in, including the ICT sector, energy, and agriculture.⁵⁴⁹ As the ICT sector has historically been populated with a high percentage of U.S. SMEs, and cellphone usage has been growing exponentially in the region, it is not surprising that such firms have found profitable opportunities in the services sector, which includes mobile money and cybersecurity firms.⁵⁵⁰ Such applications have even been extended to agricultural technology sector. For example, U.S. SME Hello Tractor has started connecting tractor owners to smallholder farmers using digital technology. In Nigeria, Mozambique, Ghana, Senegal, Kenya, Tanzania, and South Africa, all countries to which the firm exports, it has been selling tractors with GPS antennas to connect farm owners.⁵⁵¹

Challenges Faced by U.S. SMEs in Exporting to SSA

Official studies and academic literature have not provided authoritative or comprehensive information about the obstacles U.S. SMEs have faced in exporting to SSA. However, some facts about obstacles U.S. SME firms have faced in their exports in general are known, and there is no reason to believe that these reasons would be markedly different for SSA-bound exports. If anything, they may be more pronounced, given the underrepresentation of U.S. SMEs relative to larger U.S. firms that export to SSA, as previously discussed.⁵⁵²

The Commission's November 2010 study on SMEs' characteristics and performance found that U.S. SMEs commonly identified access to capital and excessive U.S. government regulations, such as those associated with visa and export controls, as major obstacles to increased exports.⁵⁵³ Moreover, the Commission's survey on such firms found that U.S. manufacturing SMEs were more affected than larger firms by an inability to find foreign partners, difficulties in receiving and processing foreign payments, and paying high tariffs. U.S. service SMEs were more likely than larger firms to find insufficient intellectual property (IP) protection and foreign taxation among their largest obstacles. Although the Commission's survey did not break out results for Africa, SMEs exporting to the region likely face similar issues.

The U.S. Department of Commerce provides useful supplementary information about obstacles faced by both U.S. SMEs and larger firms exporting to South Africa, which is the largest SSA market for U.S. exports. They specify that concerns over local political and economic instability, as well as competition with well-established European and Asian competitors in the region, rank very high among their concerns.⁵⁵⁴ A trade agreement with the European Union allows many products to enter that market either duty free or at lower rates. Moreover, according to this report, the volatility of the exchange rate

⁵⁴⁹ All Africa, "It's Time for U.S. Companies to See Africa," January 29, 2017.

⁵⁵⁰ McKinsey, "Sub-Saharan Africa: A Major Potential Revenue Opportunity" (accessed February 2, 2018).

See also *Newsweek*, "Business Advice For U.S. Companies in Africa," June 25, 2017, and World Economic Forum, "Why SMEs Are Key to Growth in Africa," August 4, 2015.

⁵⁵¹ USITC, hearing transcript, January 23, 2018, 85–86 (testimony of Martha Haile, Co-Founder and Chief Operating Officer, Hello Tractor); NPR, "Meet a Tractor That Can Plow a Field and Talk to the Cloud," March 29, 2016.

⁵⁵² USDOC, ITA, "U.S.-SSA Trade and Investment," August 2014.

⁵⁵³ USITC, *Small and Medium-Sized Enterprises: Characteristics and Performance*, November 2010.

⁵⁵⁴ USDOC, "South Africa: Market Challenges," July 19, 2017.

for the local currency, the rand, has been especially challenging for smaller firms, as they may have less expertise than larger U.S. firms in mitigating such risks through such avenues as forward markets.

Chapter 3

U.S. Imports of Goods and Services from SSA, 2010–16

Introduction

This chapter gives an overview of U.S. imports of goods and services from SSA countries for the period 2010–16. It identifies the sectors and SSA countries from which U.S. imports have increased the most and examines the key factors behind this growth. The chapter also identifies sectors and SSA countries that present the greatest potential for increased U.S. imports and examines significant factors affecting SSA companies in achieving such growth.

In the first part of the chapter, import data for goods are presented at both the sector and country levels, offering a broad overview of where growth has occurred. Next, sector profiles examine U.S. goods imports from SSA that have increased the most during 2010–16, in absolute value terms, and describe the key factors behind this growth.⁵⁵⁵ Non-crude petroleum sectors and SSA markets that offer additional potential for the United States to increase its merchandise imports from SSA under the African Growth and Opportunity Act (AGOA) are also profiled.⁵⁵⁶ The sector profiles address significant factors affecting future growth of such U.S. imports from SSA.

The second part of the chapter presents profiles of sectors in which U.S. services imports from SSA have increased the most during 2010–16; examines the reasons behind the growth during this period; and discusses the potential for future growth of such imports.⁵⁵⁷ The section focuses on U.S. travel services imports from SSA. This sector was chosen for analysis because it accounts for almost half of U.S. imports of private services from SSA, according to cross-border trade data in travel services for the period 2010–16 published by the U.S. Department of Commerce’s Bureau of Economic Analysis (BEA).⁵⁵⁸

⁵⁵⁵ The request letter also asks for sectors in which U.S. imports from SSA have increased the most in terms of percentage change. For a list of the fastest-growing U.S. imports from SSA in percentage change terms, see appendix G. The fastest-growing U.S. imports from SSA in absolute value terms are discussed in detail in this chapter, as most of the fastest-growing sectors in percentage change terms were those where trade volumes are very small. The 2017 U.S. trade data with SSA did not arrive in time to provide a detailed analysis of the most recent developments in this report. However, these data are shown in appendix G.

⁵⁵⁶ For a detailed discussion of the AGOA program, see appendix E.

⁵⁵⁷ Disaggregated data on U.S. services imports from SSA overall, and on services imports from the vast majority of individual SSA countries, are unavailable. BEA publishes data only for U.S. services trade with Africa as a whole (which include imports from both SSA and the countries of North Africa) and for South Africa and Nigeria. Further, these data are often incomplete, as values for certain years and services industries are unavailable or suppressed in order to avoid the disclosure of information on individual companies.

⁵⁵⁸ USDOC, BEA, Interactive data, International Transactions, Services, &IIP, International Services, table 2.3 (accessed November 13, 2017).

Key Findings

While U.S. imports of non-crude petroleum goods from SSA declined during 2010–16, they also diversified slightly. SSA countries not only increased production and exports of non-petroleum goods that the United States has historically imported heavily from SSA (such as cocoa and apparel), but also opened new production facilities in sectors (such as copper and footwear) that exported very little to the United States at the beginning of the period. In the services sector, U.S. imports of travel services from SSA increased during 2010–16, as U.S. nationals continue to visit popular tourist destinations such as South Africa, as well as other countries such as Ethiopia, Ghana, and Rwanda.⁵⁵⁹

In examining the reasons behind the growth in U.S. goods imports from SSA, several factors were found to be important across multiple sectors. These factors include AGOA eligibility, the presence of foreign direct investment (FDI) in the sector, supplier contracts that U.S. firms conclude with SSA companies, production cost advantages relative to other global suppliers during the period, and expansions in manufacturing capabilities. AGOA eligibility and expanded manufacturing capabilities (particularly in Ethiopia) were particularly important in the apparel and footwear sectors, while FDI was especially important in the mining sectors. Supplier contracts that U.S. firms conclude with SSA companies were major factors behind the growth in U.S. imports of manufactured goods—for instance, for centrifuges and filtering and purifying equipment (specifically, catalytic converters). Relative production cost advantages were particularly significant for agriculture and the apparel sector. However, a combination of factors, as well as some sector-specific conditions, was behind most of the increases in U.S. imports in particular sectors, as described below.

U.S. Imports of Goods from SSA Countries, 2010–16

Fastest-growing U.S. Imports from SSA Countries

During 2010–16, the total value of U.S. imports from SSA fell. The overall decline in U.S. imports from the region, which was steady during the period, was due mostly to a drop in the value of U.S. imports of crude petroleum. The value of U.S. imports of crude petroleum from SSA declined from \$50.4 billion in 2010 to \$7.2 billion in 2016.⁵⁶⁰ The decline was mainly due to an increase in U.S. domestic production of crude petroleum and, as a result, higher consumption of domestically produced crude petroleum.⁵⁶¹ U.S. imports from SSA of goods other than crude petroleum rose between 2010 and 2014, but fell in 2015 and 2016. Total U.S. imports of non-crude petroleum goods declined by \$1.9 billion between 2010 and 2016 from \$14.4 billion to \$12.5 billion. The value of U.S. imports from SSA increased in a relatively small number of product groups (table 3.1), largely agricultural products, apparel, metals, and certain manufacturing equipment.⁵⁶²

⁵⁵⁹ UNWTO, *Yearbook of Tourism Statistics, 2017*; Ghana Tourism Authority, “Tourism Information on Ghana” (accessed February 2, 2018).

⁵⁶⁰ DataWeb/USDOC (accessed December 8, 2017). Data are for HTS digest EP004.

⁵⁶¹ USITC, hearing transcript, January 23, 2018, 90 (testimony of Paul Ryberg, African Coalition for Trade).

⁵⁶² For 2011, 2013, and 2015 data on U.S. imports from SSA countries, please see appendix G.

Table 3.1 Fastest-growing U.S. imports from SSA countries, 2010–16

Product	2010	2012	2014	2016	Absolute change	Compound annual
					2010–16	growth rate (CAGR)
	Million \$					Percent
Cocoa, chocolate, and confectionery	1,038	1,001	1,206	1,298	260	3.8
Apparel	795	871	1,028	1,036	241	4.5
Spices	38	55	87	241	203	36.0
Copper and related articles (primarily refined copper)	10	8	111	114	105	50.7
Centrifuges and filtering and purifying equipment ^a	205	224	273	291	86	6.0
Edible nuts	88	115	153	167	79	11.3
Coffee and tea	206	254	263	264	58	4.2
Works of art and miscellaneous manufactured goods	66	63	96	116	50	9.8
Steel mill products	114	108	169	153	39	5.0
Silverware and related articles of precious metal	0	1	0	39	39	^c
Miscellaneous chemicals and specialties	58	94	86	91	33	7.8
Canned fish	8	30	44	41	33	31.2
Internal combustion piston engines, other than for aircraft	54	95	97	83	29	7.3
Pharmaceuticals	20	30	29	47	27	15.5
Certain base metals and chemical elements ^b	108	104	189	133	25	3.5
All other, excluding crude petroleum	11,617	12,355	11,514	8,380	-3,237	-5.3
Subtotal, non-crude petroleum	14,425	15,408	15,345	12,494	-1,931	-2.4
Crude petroleum	50,398	33,903	11,047	7,248	-43,149	-27.6
Total	64,822	49,310	26,392	19,743	-45,080	-18.0

Source: USITC DataWeb/USDOC (accessed December 8, 2017).

^a Increases in U.S. imports of centrifuges and filtering and purifying equipment are described in the “catalytic converters” sector profile below.

^b Increases in U.S. imports of certain base metals and chemical elements are described in the “unwrought nickel (not alloyed)” sector profile below.

^c CAGR not provided because the 2010 value was zero.

This chapter profiles five leading growth products, excluding spices.⁵⁶³ Because U.S. nickel imports from SSA grew particularly rapidly over the period, a profile on that product is also included, even though its larger product group (certain base metals and chemical elements) did not reach the top of the list shown in table 3.1.

⁵⁶³ The spices product group is not discussed because the increase in the value of imports over the period was due almost entirely to an increase in global vanilla prices triggered by a shortage of supply from Madagascar. The “Top U.S. Import Markets in SSA, by Country” section below provides additional details on this shortage.

Top U.S. Import Markets in SSA, by Country

During 2010–16, Madagascar, Botswana, Kenya, Mauritius, Tanzania, and Ethiopia were the six countries from which U.S. imports of goods increased the most, in absolute value terms (table 3.2).

Table 3.2 U.S. imports from SSA countries, by leading source markets, 2010–16

Country	2010	2012	2014	2016	Absolute change 2010–16	Compound annual growth rate (CAGR)
						2010–16
	Million \$					Percent
Madagascar	107	109	215	443	336	26.7
Botswana	167	220	317	433	266	17.2
Kenya	295	376	527	512	217	9.6
Mauritius	194	258	399	333	139	9.4
Tanzania	42	113	82	145	103	23.1
Ethiopia	111	124	162	209	98	11.1
Senegal	4	14	23	52	48	55.9
Ghana	270	284	263	312	42	2.5
Mozambique	63	36	94	104	41	8.8
Zambia	29	61	55	46	16	7.7
All other SSA	63,540	47,716	24,253	17,152	-46,388	-19.6
Total	64,822	49,310	26,392	19,743	-45,080	-18.0

Source: USITC DataWeb/USDOC (accessed December 8, 2017).

The increase in the value of U.S. imports from Madagascar was driven by vanilla and was the result of high prices caused by a supply shortage there.⁵⁶⁴ The shortage occurred because production capacity in Madagascar, the world’s leading producer, was insufficient to meet rapidly growing demand as food manufacturers transitioned from artificial vanilla flavor to using more natural vanilla.⁵⁶⁵ Since Madagascar had only a limited supply of vanilla available to export to the United States, the prices for it rose—as much as 10-fold during 2010–16—and consequently, the value of exports increased markedly over the period, despite a decrease in volume.⁵⁶⁶

For Botswana and Tanzania, the increase was mostly due to the rising value of U.S. imports of diamonds. Factors behind this increase include a low diamond price in 2010 (import values rose as prices rose in the later years of the period) and a large decline in U.S. imports of diamonds from South Africa, which created an opportunity for other SSA import suppliers. However, increases in U.S. imports of diamonds from Botswana and Tanzania only partially offset a large decline in U.S. imports of diamonds from South Africa, resulting in an overall decline in U.S. imports of diamonds from SSA over the period.

For Kenya, Mauritius, and Ethiopia, apparel was the leading product group contributing to the increases in U.S. imports from all three countries; these trends are described in greater detail in the apparel sector

⁵⁶⁴ A secondary factor for Madagascar was an increase in shipments of nickel, as described in the unwrought nickel section below.

⁵⁶⁵ Charles, “Our Love of ‘All Natural,’” June 16, 2017.

⁵⁶⁶ Terazono, “Vanilla Price Surge,” August 21, 2017; IHS Markit, Global Trade Atlas database (accessed April 19, 2018).

profile. A secondary contributor to the increase in imports from Kenya was edible nuts, and a secondary contributor for Ethiopia was footwear—product groups which are also described below.⁵⁶⁷

U.S. Imports of Goods under AGOA during 2010–16

The AGOA program offers trade preferences to designated SSA countries, improving the competitiveness of designated SSA suppliers relative to third countries.⁵⁶⁸ The request letter from the USTR directs the Commission to identify and examine non-crude petroleum sectors that “present the greatest potential to increase exports of goods under AGOA to the United States.” As a result, data on imports under AGOA inform the selection of product groups profiled in this chapter for potential growth in U.S. imports from SSA countries. U.S. imports under AGOA of goods other than crude petroleum declined slightly between 2010 and 2016, and were highest in 2012 (table 3.3). While AGOA imports in some sectors grew rapidly in percentage terms, only a few sectors grew by substantial values. The product groups for which AGOA imports grew most by value are apparel, edible nuts, aluminum mill products, and footwear.

⁵⁶⁷ For Ethiopia, coffee was also an important factor, but the increase was largely due to rising prices over the period that increased the value of imports, rather than any identified improvements in Ethiopia’s competitiveness in the sector or an increase in volume shipped to the United States. The volume of U.S. coffee imports from Ethiopia over the 2010–16 period was largely stable.

⁵⁶⁸ For a detailed overview of the AGOA program, see appendix E. The United States’ Generalized System of Preferences (GSP) also offers many SSA countries trade preferences on eligible products. As described in the sector profiles below, some SSA exporters may choose to use preferences under GSP rather than AGOA for certain products. Unless otherwise specified, this chapter uses the basic AGOA utilization rate, calculated as U.S. imports under AGOA divided by U.S. imports of AGOA-eligible products.

Table 3.3 U.S. imports for consumption under AGOA, by product group, 2010–16

Product	2010	2012	2014	2016	Absolute change 2010–16	Compound annual growth rate (CAGR)
						2010–16
Million \$						Percent
Apparel	727	815	990	1,008	281	5.6
Edible nuts	44	64	78	92	48	13.0
Aluminum mill products	0	0	0	25	25	^a
Footwear	^b	7	20	24	23	94.0
Certain base metals and chemical elements	4	24	25	12	8	19.7
Sugar and other sweeteners	0	0	0	8	8	^a
Citrus fruit	49	50	56	56	8	2.4
Precious jewelry and related articles	0	0	0	7	7	^a
Miscellaneous chemicals and specialties	40	54	46	47	7	2.5
Pharmaceuticals	0	0	0	5	5	^a
Cut flowers	2	2	5	6	4	20.6
Prepared or preserved fruit	1	0	5	4	3	27.0
Hides, skins, and leather	1	1	2	4	3	26.2
Wine and certain other fermented beverages	30	45	35	32	3	1.4
Essential oils and other flavoring materials	4	0	1	6	2	8.7
All other, excluding crude petroleum	2,418	3,571	2,692	1,905	-513	-3.9
Subtotal, non-crude petroleum	3,320	4,633	3,956	3,241	-78	-0.4
Crude petroleum	35,360	27,905	7,919	6,210	-29,151	-25.2
Total	38,680	32,538	11,874	9,451	-29,229	-20.9

Source: USITC DataWeb/USDOC (accessed December 8, 2017).

^a CAGR not provided because 2010 value was zero.

^b Less than \$50,000.

U.S. imports of aluminum mill products under AGOA are a recent development. These imports come from a single producer in South Africa. Because they are so recent and did not reflect a consistent pattern throughout the 2010–16 periods, no sector profile for aluminum mill products is provided. Instead, factors affecting these imports are discussed in box 3.1.

Box 3.1 AGOA Imports of Aluminum Mill Products from South Africa

The value of U.S. imports of aluminum mill products from South Africa was stable during 2010–16 (\$160.9 million in 2010 and \$161.6 million in 2016). However, importers began to claim AGOA preferences for these products in substantial quantities only in 2016; such imports reached \$25 million that year (table 3.3). These AGOA imports were likely due to a contract between Hulamin and Tesla to supply specialty aluminum alloy plate and sheet used for the battery box base in Tesla’s vehicles.

Hulamin is South Africa’s largest producer of aluminum mill products, with flat-rolled products (aluminum plates, sheets, and strip) accounting for the largest share of the firm’s total production. The firm’s rolling operations are located at its integrated facility in Pietermaritzburg, South Africa, which includes a cast house, hot and cold rolling mills, and finishing lines. The firm has a reputation for providing high-quality products to U.S. automakers (particularly Tesla where Elon Musk, a native of South Africa, is CEO) and aerospace manufacturers. During 2016, Hulamin made important improvements in operating performance, resulting in higher sale volumes and lower unit costs for flat-rolled products. Also, Hulamin and Tesla renewed their contract in 2015. These developments likely resulted in the 2016 imports of AGOA-eligible products. Such imports are likely to continue in the future, given the contract and the ongoing relationship between the two companies. Nevertheless, Hulamin CEO Richard Jacob said in March 2018 that South African exporters to the United States “are likely to be disadvantaged” by recently imposed Section 232 tariffs depending on which countries are exempted.

Source: *Business Day*, “Hulamin Welcomes Strong Performance,” August 1, 2017; Hulamin, “Integrated Report 2016,” February 23, 2017; Hulamin, “Executive Report,” February 19, 2015; *BusinessDay*, “Rob Davies Calls for Exemption on US Tariffs,” March 26, 2018.

In terms of AGOA utilization by country, the increases during the period generally corresponded to increases in U.S. imports of apparel from a given country. As a result, Kenya, Madagascar, Mauritius, and Ethiopia appear at the top of the list of countries experiencing growth in AGOA imports during 2010–16 (table 3.4).⁵⁶⁹

⁵⁶⁹ Madagascar lost its AGOA eligibility in 2009 and did not regain its AGOA eligibility until June 2014. Therefore, U.S. imports from Madagascar under AGOA were zero in 2010 and 2012. USITC, *The Year in Trade 2014*, 2015, 76.

Table 3.4 U.S. imports for consumption under AGOA, by leading source markets, 2010–16

Country	2010	2012	2014	2016	Absolute change 2010–16	Compound annual growth rate (CAGR)
						2010–16
Million \$						Percent
Kenya	221	288	417	391	170	10.0
Madagascar	0	0	^b	94	94	^a
Mauritius	118	160	218	188	70	8.1
Ethiopia	7	18	36	61	55	44.0
Tanzania	2	10	17	37	35	64.7
Ghana	2	17	57	30	28	56.1
Mauritania	26	0	0	48	21	10.4
Lesotho	280	301	289	295	15	0.9
Mozambique	^b	^b	1	1	1	^a
Rwanda	^b	^b	^b	1	1	^a
All other SSA	38,024	31,744	10,839	8,304	-29,719	-22.4
Total	38,680	32,538	11,874	9,451	-29,229	-20.9

Source: USITC DataWeb/USDOC (accessed December 8, 2017).

^a CAGR not provided because the 2010 value was zero or near zero.

^b Less than \$500,000.

U.S. Import Potential for Goods under AGOA

To identify non-crude petroleum sectors and SSA suppliers that present the greatest potential for growth of U.S. imports of goods under AGOA, as it did in chapter 2, the Commission used three approaches. It first examined the recent trade flows between the United States and SSA countries, as described above. The reason for this is that in general, sectors which U.S. imports from SSA countries have increased in the past are considered likely to continue to increase in the future.

Second, import potential is affected not only by the SSA countries' existing ability to supply products to the United States, but by other factors as well. These factors include having other major markets for SSA suppliers, the distances between SSA markets and their trading partners, and historical commercial ties between SSA markets and some trading partners. To account for these types of global factors, the Commission supplemented its examination using a gravity model analysis to identify AGOA-relevant goods sectors in which U.S. imports from SSA countries fall below their potential.⁵⁷⁰

Third, the Commission reviewed the economic literature and industry sources to identify products with import potential under AGOA. The Commission found significant overlap among the products identified as having import potential under the three different approaches. Table 3.5 shows the product groups identified as having the greatest potential for U.S. imports from SSA countries under AGOA, using all three approaches.

⁵⁷⁰ For a detailed explanation of the gravity model framework, see chapter 1 and appendix F.

Table 3.5 Sectors identified as having import potential under AGOA, by analytical approach

Product	Trade growth	Gravity model	Literature and industry sources
Cocoa, chocolate, and confectionery	•	•	•
Apparel	•	•	•
Edible nuts	•	•	•
Copper and related articles	•	•	
Raw cane sugar			•
Footwear			•

Note: Increased AGOA imports of cocoa, chocolate, and confectionery would involve a limited group of products in the sector that are not already duty free under normal trade relations (NTR), as described in the sector profile.

The sector profiles that follow examine these product groups in greater detail.⁵⁷¹

Cocoa Products

The cocoa products category encompasses cocoa, chocolate, and confectionery. This includes cocoa beans; intermediate products such as cocoa paste, cocoa butter, and cocoa powder not containing sugar or other sweetener; and processed products such as chocolate and other food preparations containing cocoa, as well as sugar confectionery not containing cocoa.

Overview of U.S. imports

The value of U.S. cocoa product imports from SSA increased from \$1.0 billion in 2010 to \$1.3 billion in 2016, or by 3.8 percent per year. The vast majority of U.S. imports in this category from SSA countries are of cocoa beans, whole or broken. U.S. imports from SSA also include a much smaller volume of intermediate cocoa products, including cocoa paste. Most cocoa bean imports from SSA are from Côte d'Ivoire and Ghana. During 2010–16, U.S. imports of cocoa beans from both countries increased in value, and increased even more in volume, as average unit values (AUVs) declined.⁵⁷²

⁵⁷¹ Sector profiles are provided below for each of the sectors listed in table 3.5, as well as for two other sectors: catalytic converters and unwrought nickel. For these latter sectors, the profile describes the key factors behind the large increases in U.S. imports of these goods during the period. However, they are not identified as product groups with potential for increased U.S. imports under AGOA because all products in these groups are already duty free under normal trade relations.

⁵⁷² USITC DataWeb/USDOC (accessed December 8, 2017). Average unit value (AUV) is calculated by dividing the value of imports by the quantity. In 2016, the AUV of U.S. cocoa bean imports from SSA countries was 9 percent lower than in 2010.

Table 3.6 Cocoa products: U.S. imports from SSA and selected SSA countries, 2010–16

Product and source country	2010	2011	2012	2013	2014	2015	2016	Absolute change	Compound annual growth rate (CAGR)
								2010–16	2010–16
Million \$									Percent
Cocoa products	1,037.6	1,272.2	1,000.7	1,045.8	1,205.7	1,162.7	1,297.6	259.9	3.8
Cocoa beans	728.2	1,052.4	756.1	839.3	959.8	984.0	1,031.2	303.0	6.0
Côte d'Ivoire	594.0	741.2	577.1	660.6	752.3	772.7	833.9	240.0	5.8
Ghana	95.6	220.9	124.5	148.7	157.5	198.6	181.3	85.7	11.2
All other SSA	38.6	90.3	54.4	30.0	50.0	12.6	16.0	-22.6	-13.7

Source: USITC DataWeb/USDOC (accessed December 8, 2017).

AGOA preferences were not important in U.S. imports of most cocoa products because cocoa beans and cocoa paste other than defatted (HS 1803.10.00) enter the United States duty free under normal trade relations (NTR). Cocoa products that face duties include defatted cocoa paste and cocoa powder; most of these imports, however (98 percent and 90 percent, respectively), entered under the Generalized System of Preferences (GSP).

Key Factors Affecting U.S. Imports, 2010–16

The increase in U.S. cocoa imports from SSA countries has been driven by both demand and supply factors. U.S. demand for chocolate products has increased, driven by an increase in disposable income.⁵⁷³ Additionally, a decline in cocoa prices, most noticeably from SSA countries, has spurred U.S. imports and consumption. This has led to a slight overall increase in U.S. imports of cocoa beans from all sources and a slight shift towards SSA suppliers and away from suppliers in Asia and Central and South America.

Global cocoa production volume increased during 2010–16, and this increase was concentrated in SSA. According to data from the International Cocoa Organization, global cocoa bean production in marketing year (MY) 2016/17 was forecast to reach 4.7 million mt, an 18 percent increase over production in MY 2015/16 and a 14 percent increase over the five-year average.⁵⁷⁴ This global increase was largely SSA-driven: Côte d'Ivoire had a record harvest of cocoa beans in MY 2016/17,⁵⁷⁵ and Ghana's production of cocoa beans that year was the largest in the past six years, due to good growing conditions.⁵⁷⁶ Côte d'Ivoire and Ghana together usually account for about 60 percent of global cocoa production, but in MY 2016/17 they accounted for 70 percent. In total, SSA countries accounted for an estimated 76 percent of global production in MY 2016/17.

Increased production of cocoa beans in Côte d'Ivoire and Ghana during 2010–16 benefited from programs that are aimed at improving the sustainability of cocoa farming and improving returns for individual cocoa farmers. These included both private sector initiatives, such as Mondelez International's Cocoa Life program and Nestlé's Cocoa Plan, and efforts by public sector bodies, including Côte d'Ivoire's

⁵⁷³ IBISWorld, "Chocolate Production in the U.S." (accessed December 29, 2017).

⁵⁷⁴ The ICCO defines the cocoa marketing year as October 1 to September 30. International Cocoa Organization, "Cocoa Year 2016/17," *Quarterly Bulletin of Cocoa Statistics* 43, no. 3, August 31, 2017.

⁵⁷⁵ Channels Television, "Côte d'Ivoire Achieves Record Cocoa Production," September 29, 2017.

⁵⁷⁶ Dontoh, "Ghana Produces Biggest Cocoa Crop in Six Years," August 4, 2017.

Coffee and Cocoa Council and Ghana’s Cocobod. The programs have included technical assistance to improve farming practices and provide farmers with improved varieties of cocoa trees. These efforts have boosted overall production.⁵⁷⁷

The increased production drove down SSA cocoa bean prices during the study period more rapidly than those from other suppliers. The AUV of U.S. imports of cocoa beans from all sources fell 1 percent during 2010–16, while the AUV of U.S. cocoa bean imports from Côte d’Ivoire and Ghana fell 10 percent and 4 percent, respectively. This relative decline in price partly explains the increase in U.S. imports from SSA. The lower AUV was, however, of concern to Côte d’Ivoire and Ghana, and they have agreed to build storage facilities and store buffer stocks of cocoa beans in order to bolster cocoa prices and control their volatility.⁵⁷⁸

A small share of the increase in U.S. imports of cocoa products from SSA may also have been due to developments in the market for cocoa that meets private sector sustainability standards, such as the Fairtrade and Rainforest Alliance certifications.⁵⁷⁹ Chocolate and confectionery producers are increasingly requiring that their cocoa beans come from certified producers; sales of standards-compliant cocoa are growing at a rate of 69 percent annually.⁵⁸⁰ Chocolate and confectionery producers outside the United States have moved more rapidly to demand this certification than have U.S. producers. The clearest example of this trend is in the Netherlands, which has announced a goal of importing only certified cocoa by 2020.⁵⁸¹ The Netherlands, with its large chocolate confectionery industry, is the world’s largest cocoa importer and the largest market for cocoa beans from Côte d’Ivoire and Ghana.

In response to growing demand for certified cocoa, many major producing countries—including Côte d’Ivoire and Ghana—have rapidly increased certified supply. Between 2009 and 2012, cocoa from the

⁵⁷⁷ Grizio, “Mondelēz International’s Cocoa Life Program” (accessed December 29, 2017); Hershey, “Cocoa Sustainability Strategy” (accessed January 23, 2018); Nestlé, “Cocoa Plan” (accessed January 23, 2018); Acheampong, “Ghana, Côte d’Ivoire Collaborate to Control Prices of Cocoa,” June 6, 2017; United Nations, “Cocoa: Côte d’Ivoire Sustainable Cocoa Initiative (CISCI)” (accessed January 23, 2018).

⁵⁷⁸ Reuters, “Ivory Coast and Ghana to Create Joint Cocoa Body,” June 3, 2017.

⁵⁷⁹ Voluntary certification programs enable buyers to differentiate between conventional products and those which conform to a defined set of standards. Standards include organic certification, which focuses on production practices, and fair trade certification, which focuses on labor and social aspects of production. For cocoa production, in particular, there are several other certification programs. Forced labor and child labor were identified as pervasive problems in cocoa production in the late 1990s and early 2000s. As a result, major cocoa manufacturers committed to sourcing cocoa certified by third-party authorities, or started their own internal certification programs. Today, the major third-party certifiers of cocoa are Fairtrade, Organic, Rainforest Alliance, and Utz. In addition, firms such as Lindt & Sprungli, Mondelez International, and Nestlé have internal programs. Cocoa can be certified by more than one certifying authority, and even cocoa certified by one or more authorities may not necessarily be sold as certified. International Institute for Sustainable Development, “The State of Sustainability Initiatives Review 2014,” 2014, 199 (accessed December 8, 2017); the Trade Facilitation and Trade Enforcement Act of 2015 strengthened the ability of U.S. Customs and Border Protection to prevent imports of goods produced by forced or indentured child labor. While to date no actions have been taken affecting imports of cocoa from West Africa, it is possible that cocoa imports from some sources in West Africa may be banned in the future. Trade Facilitation and Trade Enforcement Act of 2015, Pub. L. No. 114-125, 30 Stat. 122 (2015).

⁵⁸⁰ International Institute for Sustainable Development, “The State of Sustainability Initiatives Review 2014,” 135 (accessed December 8, 2017).

⁵⁸¹ *Business in Cameroon*, “Théobroma to Finance the Production of 4,000 Tonnes of Cocoa” (accessed December 8, 2017).

West African region grew from just 3 percent of global certified supply to 72 percent. By 2012, 50 percent of Côte d'Ivoire's production and 17 percent of Ghana's met one or more of these standards.⁵⁸² However, there is still a large supply of non-certified cocoa from these countries on the global market. In addition, other suppliers, particularly Cameroon (which was the Netherlands' third-largest supplier in 2010 and its fourth largest in 2016), have not increased their certified supply as quickly. During 2010–16, the Netherlands reduced its imports from countries like Cameroon that mostly supply non-certified cocoa, further increasing the supply available to the rest of the global market, including the United States. Recently, however, major U.S. confectionery producers have also committed to increase their sourcing of certified cocoa.⁵⁸³ Mars (U.S.) and Hershey (U.S.) have committed to source 100 percent of cocoa supplies from certified sources by 2020, so any increase in U.S. imports of non-certified cocoa is likely to be short-lived.⁵⁸⁴

Potential for U.S. Imports

U.S. chocolate production is forecast to increase slightly over the next five years, as described below. If this happens, then imports of cocoa beans from SSA countries are likely to increase with it, since SSA countries accounted for 80 percent of U.S. cocoa bean imports in 2016. Other U.S. suppliers include Ecuador, the Dominican Republic, and Papua New Guinea. U.S. cocoa bean imports increased only 3 percent in value from 2010 to 2016 (5 percent in quantity), less than the increase in population. However, a recent IBISWorld report forecasts the U.S. chocolate and confectionery industry to increase revenues modestly over the next five years, as chocolate producers respond to consumers' demand for healthier products with greater sales of reduced-fat, dark, or organic chocolate.⁵⁸⁵

The Commission's gravity model analysis identified Ghana, Nigeria, and Cameroon as countries with substantial potential for future growth in exports to the United States. All three of these countries are major exporters of cocoa beans, with the Netherlands as their largest export market. The country with the greatest potential for increased trade with the United States is Ghana. Only 8 percent of Ghana's exports of cocoa beans in 2016 were to the United States, but its exports to the United States have increased faster than its exports to the rest of the world. This suggests that there is potential for the United States to account for a greater share of Ghana's cocoa exports in the future. Although the Netherlands is also the largest export market for cocoa beans from Côte d'Ivoire, at 26 percent of exports, the United States was Côte d'Ivoire's second-largest export market at 22 percent, and the gravity analysis finds that exports from Côte d'Ivoire have exceeded the model's expectations in recent years.

⁵⁸² International Institute for Sustainable Development, "The State of Sustainability Initiatives Review 2014," 134–35 (accessed December 8, 2017).

⁵⁸³ The largest U.S. chocolate producers are Hershey, Mars, Nestlé, and Lindt & Sprungli. IBISWorld Industry Report 31135, "Chocolate Production in the U.S.," November 2017, 24. Mondelez International was reportedly the world's largest confectionery company in 2014 and is headquartered in the United States. International Institute for Sustainable Development, "The State of Sustainability Initiatives Review 2014," 2014, 137 (accessed December 8, 2017).

⁵⁸⁴ Nestlé (Switzerland) plans to nearly double the volume of cocoa purchased through its own "Cocoa Plan." Lindt (Switzerland) operates its own Lindt & Sprungli Farming Program and reportedly purchases cocoa beans at a premium from participating farmers, including in Ghana. Mondelez International (U.S.) also plans to source all of its cocoa from sustainable sources through its "Cocoa Life" program. Lindt & Sprungli, "Sustainability" (accessed December 29, 2017); Foodtank, "Mondelez International's Cocoa Life Program" (accessed December 29, 2017); Cargill, "Cargill and Mondelez International Sign Agreement," February 19, 2015.

⁵⁸⁵ IBISWorld, "Chocolate Production in the U.S." (accessed December 29, 2017), 5.

There is some potential for SSA countries to take advantage of AGOA preferences to export more intermediate cocoa products, including defatted cocoa paste and cocoa powder, to the United States duty-free, but duties under NTR on these products are already low (0.2¢ per kg and 0.52¢ per kg, respectively).⁵⁸⁶ Both Ghana and Cameroon have announced plans to increase local production of intermediate cocoa products. Ghana plans to increase the share of cocoa that is processed locally to 50 percent from the current 20 percent, by offering local processors lower prices on cocoa beans.⁵⁸⁷ This would be in line with recent trends—purchases of cocoa beans by local processors generally trended upward between MY 2009/10 and MY 2012/13.⁵⁸⁸ Cameroon also has plans to double domestic cocoa processing capacity, with the goal of processing 30 percent of its cocoa beans in-country.⁵⁸⁹

However, many SSA countries, including both Ghana and Cameroon, have duty-free access to the EU market for cocoa paste through preferential tariff rate quotas (TRQs), and they are geographically closer to that market. As a result, AGOA is not those producers' only opportunity to obtain duty-free access to developed markets.

Apparel

The apparel product group includes a wide range of knit, woven, and other apparel of natural and manmade fibers. It covers all types of apparel including shirts (tops), pants (bottoms), suits, underwear, dresses, outerwear, and swimwear.

Overview of U.S. Imports

U.S. apparel imports from SSA grew at a compound annual growth rate (CAGR) of 4.5 percent during 2010–16, from \$795.2 million in 2010 to over \$1.0 billion in 2016, when such imports accounted for about 1.2 percent of all U.S. apparel imports from the world.⁵⁹⁰ Kenya, Lesotho, Mauritius, and Madagascar accounted for over 90 percent of all apparel imports from SSA in 2016 (table 3.7). Among the five largest exporters of apparel to the United States, Ethiopia and Tanzania experienced the fastest growth rates during the period—63.8 percent and 33.3 percent, respectively.

⁵⁸⁶ Imports of preparations containing 65 percent or more sugar do not benefit from AGOA provisions.

⁵⁸⁷ Dontoh, "Ghana Considers Lowering Cocoa Prices," May 4, 2017.

⁵⁸⁸ Goodman AMC, *Investing in Ghana's Cocoa Processing Industry*, 2017, 11–15.

⁵⁸⁹ Reuters, "Agriculture: Cameroon to Increase Cocoa Processing Output" (accessed November 28, 2017).

⁵⁹⁰ IHS Markit, Global Trade Atlas database (accessed December 12, 2017).

Table 3.7 Apparel: U.S. imports from SSA and selected SSA countries, 2010–16

Product and source country	2010	2011	2012	2013	2014	2015	2016	Absolute change	Compound annual growth rate (CAGR)
								2010–16	2010–16
Million \$									Percent
Apparel	795.2	908.6	870.5	943.7	1,028.5	1,022.1	1,036.2	241.1	4.5
Kenya	201.8	261.0	254.5	308.8	379.2	368.6	340.7	138.9	9.1
Lesotho	280.8	315.3	300.9	321.3	290.3	299.7	295.7	14.9	0.9
Mauritius	123.0	159.3	164.9	193.0	224.1	216.8	197.4	74.4	8.2
Madagascar	55.4	40.3	43.3	21.8	20.5	51.5	104.6	49.2	11.2
Tanzania	6.6	10.0	11.3	12.5	15.9	20.7	37.0	30.4	33.3
Ethiopia	1.9	5.3	7.5	10.4	17.5	27.3	37.0	35.1	63.8
All other SSA	125.7	117.3	88.1	75.9	81.0	37.5	23.9	-101.8	-24.2

Source: USITC DataWeb/USDOC (accessed December 8, 2017).

Note: Due to rounding, figures may not add up to totals shown.

The largest categories of U.S. apparel imports from SSA in 2016 were jeans and other cotton trousers for men or boys (valued at \$249.9 million⁵⁹¹) and men’s cotton shirts (valued at \$106.3 million).⁵⁹² Most U.S. apparel imports from SSA countries qualified for duty-free entry under AGOA.⁵⁹³ In 2016, about 97 percent of all apparel that the United States imported from SSA countries claimed trade preferences under the AGOA program.

Key Factors Affecting U.S. Imports, 2010–16

SSA countries’ key competitive advantages as suppliers of apparel to the United States are the duty-free preferences awarded under AGOA, the liberal rules of origin available for apparel under the “third-country fabric provision,” and the long-term renewal of AGOA in 2015, which instilled more confidence in firms to invest in and source from the region.⁵⁹⁴ In 2017, 27 of the 38 countries that were eligible for AGOA benefits⁵⁹⁵ were also eligible for apparel benefits providing significant duty relief for U.S. apparel imports from SSA countries.⁵⁹⁶ Normal trade relations (NTR) duty rates (applicable to apparel not eligible for preferences) with SSA countries range as high as 32 percent. Men’s blue denim jeans, one of the

⁵⁹¹ Bottoms for men made up 24.1 percent of all U.S. apparel imports from SSA countries in 2016. Blue denim trousers (i.e., jeans) accounted for a large share, 44.7 percent, of U.S. imports of “bottoms” from SSA. USDOC, ITA, OTEXA, “Major Shippers Report: U.S. General Imports by Part Category” (accessed January 3, 2018).

⁵⁹² In 2016, the United States imported \$106.3 million of cotton shirts for men (HTS 6205.20.2051), which accounted for 10.3 percent of all U.S. apparel imports from SSA countries. USDOC, OTEXA, “Major Shippers Report: U.S. General Imports by Part Category” (accessed January 3, 2018).

⁵⁹³ Trade Preferences Extension Act of 2015, H.R. 1295, 114th Cong. (2015–2016).

⁵⁹⁴ One U.S. apparel company stated that the 10-year extension of the African Growth and Opportunity Act (AGOA) by Congress in 2015 was key to their commitment to the African region and allowed them to encourage their supply chain partners to build capacity in Africa. McGowan, written testimony to the USITC, January 11, 2018, 3.

⁵⁹⁵ Seychelles graduated to a “high income” country in January 2017 and its benefits were terminated at that time. In December 2017, The Gambia and Swaziland regained their AGOA benefits; however, neither country has been approved for the apparel provision benefits as of March 30, 2018.

⁵⁹⁶ In order for AGOA-eligible countries to qualify for apparel preferences, they must meet additional criteria, including a visa system to prevent illegal transshipment. USDOC, ITA, OTEXA, “Trade Preference Programs: Apparel Provisions” (accessed January 19, 2018).

largest imported apparel subgroups from SSA countries, are subject to an NTR rate of 16.6 percent without AGOA preferences.⁵⁹⁷

The “third-country fabric provision” is a critical element of AGOA allowing SSA countries to be competitive suppliers of apparel to the United States. This provision permits lesser-developed beneficiary countries to source the fabric globally, rather than from AGOA-eligible countries or the United States.⁵⁹⁸ Nearly all (97.3 percent) U.S. imports of apparel from SSA countries entered under AGOA, and of these imports, virtually all (96 percent) used the third-country fabric provision.⁵⁹⁹ Due to limited yarn and fabric production in SSA, the third-country fabric provision remained critical for SSA exports of apparel to receive duty-free entrance to the United States.⁶⁰⁰ Of the 29 countries eligible for apparel benefits in 2016, all but South Africa benefited from the third-country fabric provision in 2016.⁶⁰¹

The significance of the apparel provision of AGOA and the third-country fabric provision were evidenced by the sharp decline in U.S. apparel imports from Madagascar after the country lost its AGOA eligibility in 2009.⁶⁰² Without duty-free access to the United States, the average duty rate for U.S. imports of apparel from Madagascar rose to 19.6 percent,⁶⁰³ and apparel exports to the United States from Madagascar fell from over \$211 million in 2009 to only \$40 million in 2011.⁶⁰⁴ Many manufacturers and buyers left the country,⁶⁰⁵ meanwhile, exports from Madagascar to the EU, which provided duty-free benefits during the same period, increased by 14 percent, from \$285 million in 2009 to \$326 million in 2011.⁶⁰⁶ Madagascar’s AGOA benefits were reinstated in 2014, and in 2016, U.S. apparel imports from Madagascar bounced back to one-half of the 2009 level.⁶⁰⁷

As noted earlier, the long-term renewal of AGOA and the third-country fabric provision under the Trade Preferences Extension Act of 2015 was critical to instilling confidence in U.S. firms deciding to invest in or source from SSA countries. Members of the American Apparel & Footwear Association (AAFA) stated that they had been holding back orders from SSA countries due to the unpredictability of AGOA renewals.⁶⁰⁸ The AAFA credited the extension of AGOA for attracting U.S. industry to SSA and for

⁵⁹⁷ In August 2016, men’s blue cotton denim pants were moved from HTS 6203.42.40 to HTS 6203.42.07 (specifically 6203.42.0711). The duty rate remained the same.

⁵⁹⁸ USDOC, ITA, OTEXA, “Summary of AGOA Apparel, Footwear, and Non-Textile Travel Goods” (accessed January 8, 2018).

⁵⁹⁹ USITC DataWeb/USDOC (accessed December 1, 2017).

⁶⁰⁰ Donaldson, “What a 10-year AGOA Renewal,” May 22, 2015.

⁶⁰¹ USDOC, ITA, OTEXA, “Summary of AGOA Apparel, Footwear, and Non-Textile Travel Goods” (accessed January 8, 2018).

⁶⁰² SSA countries that are eligible to receive benefits under AGOA are reviewed annually to ensure that they have established, or are making continual progress toward establishing, market-based economics, the rule of law and political pluralism, the elimination of barriers to U.S. trade and investment, the protection of intellectual property, and efforts to combat corruption, among others. USDOC, ITA, “General Country Eligibility Provisions” (accessed March 5, 2018). The U.S. reviews the eligibility of SSA countries to receive benefits under AGOA annually. De Coster, “Madagascar Back on the Apparel Sourcing Radar,” November 22, 2016.

⁶⁰³ USITC DataWeb/USDOC (accessed December 1, 2017).

⁶⁰⁴ *Ibid.*

⁶⁰⁵ De Coster, “Madagascar Back on the Apparel Sourcing Radar,” November 22, 2016.

⁶⁰⁶ IHS Markit, Global Trade Atlas database (accessed December 12, 2017).

⁶⁰⁷ AGOA.info, “President Obama Removes Swaziland,” June 27, 2014.

⁶⁰⁸ Russell, “Tariff Preferences ‘Not Enough’ for AGOA Success,” August 1, 2014.

enabling members to generate demand for local production of upstream inputs.⁶⁰⁹ Because apparel production lead times are generally 6 to 9 months,⁶¹⁰ U.S. apparel companies that source from the region import basic cut-and-sew garments that can be ordered months in advance and have steady U.S. demand, such as five-pocket denim jeans, uniform tops and bottoms, and T-shirts.⁶¹¹ This long lead time on orders makes long-term AGOA renewal particularly important to the apparel industry.

During 2010–16, another factor supporting rising imports from SSA countries to the United States was China’s declining competitiveness as an apparel producer. While China is the largest exporter of apparel to the United States, its labor costs increased significantly between 2010 and 2016.⁶¹² Rising production costs in China allowed other manufacturing countries to increase their share of total U.S. apparel imports. This primarily benefited the second- and third-largest suppliers to the United States, Vietnam and Bangladesh, but also helped smaller suppliers in SSA.⁶¹³

Potential for U.S. Imports

As noted above, apparel is one of the top growth products among U.S. imports from SSA, and U.S. imports enter predominantly under AGOA. The gravity model results also indicate that apparel is one of the product groups that had the largest gap between expected and actual U.S. imports in 2016. Kenya, Lesotho, and Mauritius are the largest SSA apparel exporters to the United States; however, Kenya, Madagascar, and Ethiopia may have the most potential for apparel export growth in the future according to industry sources. Countries identified by the model as having the biggest gap between potential and actual trade flows in terms of U.S. imports from SSA are South Africa, Madagascar, Mauritius, Swaziland, and Ethiopia. While Madagascar, Mauritius, Swaziland, and Ethiopia are likely to grow as suppliers of apparel to the United States, South Africa most likely will not grow because the country does not qualify for third-country fabric provisions under AGOA.⁶¹⁴

In addition to the competitive factors listed above, regional integration efforts among SSA countries could contribute significantly to their potential for increasing the supply of apparel to the United States. Investments in infrastructure and reductions in barriers to the trade of goods across borders within SSA are critical elements of regional integration, according to many industry and government representatives.⁶¹⁵ The transport of goods between SSA countries is hindered by corruption and

⁶⁰⁹ Herman, written testimony to the USITC, January 29, 2018, 1.

⁶¹⁰ USITC, hearing transcript, January 14, 2014, 226 (testimony of Paul Ryberg, African Coalition for Trade).

⁶¹¹ Industry representative, telephone interview by USITC staff, January 4, 2018.

⁶¹² According to the market research firm Euromonitor, the average hourly wage in China in 2016 was \$3.60, up 64 percent from 2011. Wages for manufacturing in China are now even with those of South Africa and are five times wage rates in India, the United States’ fifth-largest apparel supplier in 2016. Yan, “Made in China Isn’t So Cheap,” February 27, 2017.

⁶¹³ Between 2010 and 2016, U.S. imports of apparel from Vietnam rose from \$5.8 billion to \$10.7 billion, and Vietnam’s share of total U.S. imports of apparel rose from 8.0 percent to 13.2 percent. Apparel imports from Bangladesh to the United States rose from \$3.8 billion in 2010 to \$5.1 billion in 2016, constituting 6.3 percent of total U.S. apparel imports in 2016. In 2010, apparel imports from China accounted for 39.7 percent of all U.S. apparel imports; in 2016, that share dropped to 34.7 percent. GTIS, World Trade Atlas Database (accessed January 24, 2018).

⁶¹⁴ Barrie, “South Africa Clothing Production Continues to Fall,” September 29, 2016.

⁶¹⁵ McGowan, written testimony to the USITC, January 11, 2018, 5; USITC, hearing transcript, January 23, 2018, 70–74 (testimony of Dede Ahoefa Ekoue, minister, advisor to the Togolese head of state, Embassy of Togo), 168 (testimony of Stephen Lande, Manchester Trade Limited, Inc.), and 121–23 (testimony of Florizelle Liser, Corporate Council on Africa).

inefficiency at SSA customs checkpoints.⁶¹⁶ Poor conditions of roads and railways also increase both the time and cost for intra-industry trade and for U.S. apparel imports from SSA.⁶¹⁷ Regional integration would promote growth of the SSA textile industry, in particular, by encouraging demand for locally produced upstream inputs, such as yarns and fabrics, from SSA apparel manufacturers.⁶¹⁸ To the extent yarn and fabric are available in SSA, regional apparel production would benefit from significant decreases in lead times and lower shipping costs.⁶¹⁹

Kenya, the largest SSA exporter of apparel to the United States in 2016, received significant foreign direct investment in the apparel sector from Asia and the Middle East between 2013 and 2015.⁶²⁰ These investments were supported by the Export Processing Zones developed by the Kenyan government and resulted in Kenyan factories increasing their overall efficiency.⁶²¹ U.S. imports of apparel from Kenya have been considerable in recent years and may continue to increase to meet the U.S. demand for larger order sizes of lower-value apparel.⁶²²

U.S. apparel imports from Madagascar also have significant potential for growth in the future, due to the country's experience producing longer-run, basic products demanded by the U.S. market. After Madagascar lost its AGOA preferences, most Asian-owned apparel firms that specialized in production for the U.S. market left the country.⁶²³ Some firms were able to shift production to Mauritius, which still had duty-free access to the U.S. market. With the reinstatement of Madagascar's AGOA benefits and of the country's capacity to supply apparel to the United States, there may be future growth potential for U.S. apparel imports from Madagascar, if it is able to maintain its AGOA benefits.⁶²⁴ Mauritius, on the other hand, still has strong business ties with the EU market and has higher labor costs than other SSA countries;⁶²⁵ therefore, the United States is less likely to see increased apparel imports from Mauritius.⁶²⁶

Lesotho⁶²⁷ and Swaziland have strong business relationships with buyers in South Africa. Moreover, they are able to take advantage of South African infrastructure, which significantly reduces lead times for manufacturers doing business in those countries.⁶²⁸ And when production costs began to increase in South Africa, some South African apparel manufacturers moved to Lesotho and Swaziland to take advantage of lower labor costs and to avoid labor disputes.⁶²⁹ Further, there are many Chinese and

⁶¹⁶ Ben Barka, "Border Posts, Checkpoints, and Intra-African Trade," January 2012.

⁶¹⁷ Ibid.

⁶¹⁸ USITC, hearing transcript, January 23, 2018, 97–102 (testimony of Lawrence Lieberman, Boston Agrex); USITC, *Sub-Saharan African Textile and Apparel Inputs: Potential for Competitive Production*, 2009, 3-1.

⁶¹⁹ Ibid.

⁶²⁰ In fact, the gravity analysis found that imports of apparel from Kenya have exceeded expectations in recent years; Berg, Herich, and Russo, "East Africa," August 2015.

⁶²¹ Berg, Herich, and Russo, "East Africa," August 2015.

⁶²² Ibid.

⁶²³ Morris, "Industrialization Trajectories," 2014, 252.

⁶²⁴ Ibid., 251.

⁶²⁵ U.S. industry representative, interview by USITC staff, January 9, 2018.

⁶²⁶ The gravity model analysis indicates that apparel exports from Mauritius to the EU have exceeded the model's expectations in recent years. The gravity model also identified Mauritius as a source from which the United States is importing significantly less than the model would predict.

⁶²⁷ The gravity analysis identified Lesotho as a supplier of apparel to the United States that exceeded expectations in recent years.

⁶²⁸ Paul Ryberg (President, African Coalition for Trade), telephone interview by USITC staff, January 9, 2018.

⁶²⁹ Morris, "Industrialization Trajectories," 2014, 246.

Taiwanese garment producers in Lesotho that have experience producing for the United States.⁶³⁰ Though Swaziland lost its AGOA eligibility in 2015, it regained its eligibility in 2017,⁶³¹ and now both Lesotho and Swaziland are eligible for AGOA benefits.⁶³² As seen in Madagascar, changes in a country's AGOA eligibility can lessen its competitiveness by creating uncertainty for investors. Provided that the countries maintain AGOA eligibility, however, the other factors outlined above suggest that there is potential for growth in U.S. apparel imports from both Lesotho and Swaziland.

The Ethiopian government is constructing industrial parks to improve its manufacturing infrastructure and attract foreign investment.⁶³³ PVH, a U.S. apparel company, expanded production into Ethiopia's newly completed Hawassa Industrial Park (HIP) in July 2016.⁶³⁴ HIP reached full capacity upon opening and houses 18 global textile and apparel companies.⁶³⁵ HIP is expected to generate export earnings of more than \$1 billion and will likely continue to contribute to rising U.S. apparel imports from Ethiopia.⁶³⁶

U.S. imports of apparel from Tanzania, while small, may continue to increase as well. The Tanzanian government is constructing a megaport and industrial zone that is expected to have a capacity of 20 million containers a year, the largest on the east coast of Africa.⁶³⁷ Industry representatives stated, however, that Tanzania, in general, produces lower-quality garments and will need to increase efficiency to compete at the level of its apparel-producing SSA neighbors.⁶³⁸ Should Tanzania lose its AGOA benefits, due largely to its recent import ban on used clothing, the United States will likely see significant decreases in apparel imports from the country.⁶³⁹

Copper and Related Articles

The products in this group include a variety of intermediate and finished copper articles.⁶⁴⁰ However, almost all of the copper and related articles imported into the United States from SSA were refined

⁶³⁰ Ibid., 246.

⁶³¹ Ryberg, written testimony to the USITC, January 23, 2018, 3.

⁶³² The gravity model analysis uses bilateral trade data and average trade values from 2013 to 2015. Swaziland's loss of AGOA eligibility in 2015 resulted in a decline in its apparel exports to the United States and therefore contributed to the gap between actual export flows to the United States and those estimated by the model. In 2017, Swaziland was reinstated as AGOA-eligible; however, for the country to significantly increase its supply of apparel to the United States, it must be approved for benefits under the apparel provisions as well.

⁶³³ Scarano, "Trybus Group to Open Garment Production Facility," August 15, 2017.

⁶³⁴ Before investing in African apparel manufacturing, PVH surveyed different SSA countries and met with leadership from each one. PVH found Ethiopia an attractive option for investment due to its willingness to work with investors on governance and best practices in manufacturing. PVH had already set up apparel production in Kenya in 2010, contributing to growth of over \$60 million in U.S. apparel imports from SSA between 2010 and 2011. McGowan, written testimony to the USITC, January 11, 2018, 3; Scarano, "Trybus Group to Open Garment Production Facility," August 15, 2017.

⁶³⁵ Scarano, "Trybus Group to Open Garment Production Facility," August 15, 2017.

⁶³⁶ Ibid.

⁶³⁷ Trade Mark East Africa, "Bagamoyo Megaport," November 1, 2017.

⁶³⁸ Paul Ryberg (President, African Coalition for Trade), telephone interview by USITC staff, January 8, 2018; U.S. industry representatives, telephone interview by USITC staff, January 4, 2018.

⁶³⁹ Due to Tanzania's ban on cross-border trade in used clothing, USTR recently announced that it will conduct an out-of-cycle review of Tanzania's AGOA eligibility; 80 Fed. Reg. 28217 (June 20, 2017).

⁶⁴⁰ Intermediate and finished copper articles include refined copper; copper alloys; copper waste and scrap; copper bars, rods, and profiles; copper wire; copper plates, sheets, and strip; and copper tubes and pipes, among others. Copper ores and concentrates are not included in this group.

copper.⁶⁴¹ Refined copper is produced from the smelting and refining of copper ores and concentrates, or from the processing of scrap copper, and is used to make products such as copper wire and copper pipes and tubes.

Overview of U.S. Imports

From 2010 to 2016, total U.S. imports of copper and related articles from SSA rose by \$104.6 million (1,073 percent), of which \$100.5 million was due to an increase in imports of refined copper from the Democratic Republic of the Congo (DRC) into the United States by international commodity trading companies.⁶⁴² Despite the increase, these imports never accounted for more than 3 percent of total U.S. refined copper imports during 2010–16.⁶⁴³ The Republic of the Congo (ROC) accounted for 42 percent of U.S. refined copper imports from SSA in 2013, but because the ROC has no domestic copper production, those imports likely originated in another SSA country.⁶⁴⁴

Table 3.8 Copper and related articles: U.S. imports from SSA and selected SSA countries, 2010–16

Product and source country	2010	2011	2012	2013	2014	2015	2016	Absolute	Compound
								change	annual
	Million \$							2010–16	growth rate
									(CAGR)
									2010–16
									Percent
Copper and related articles	9.7	9.2	7.9	108.7	111.2	179.1	114.3	104.6	50.9
Refined copper	0.0	1.9	0.0	97.7	99.8	126.9	105.1	105.1	^a
Democratic Republic of the Congo	0.0	1.9	0.0	49.8	96.5	126.5	100.5	100.5	^a
Republic of the Congo	0.0	0.0	0.0	40.9	0.0	0.0	2.1	2.1	^a
Zambia	0.0	0.0	0.0	3.9	3.2	0.3	1.7	1.7	^a
All other SSA	0.0	0.0	0.0	3.1	0.1	0.2	0.8	0.8	^a

Source: USITC DataWeb/USDOC (accessed December 8, 2017).

Note: Refined copper refers to HTS subheadings 7403.11, 7403.12, 7403.13, 7403.19.

^a CAGR not provided because the 2010 value was zero.

Although five countries in SSA produced refined copper between 2010 and 2016, the DRC and Zambia together accounted for over 90 percent of production, and the DRC accounted for almost all of the increase in refined copper production in SSA during the period (figure 3.1).⁶⁴⁵ Almost all refined copper production in SSA is produced for export due to minimal demand for refined copper in the region.⁶⁴⁶

⁶⁴¹ Refined copper is defined as metal containing at least 99.85 percent copper by weight, but in some circumstances it may contain at least 97.5 percent copper by weight. International Copper Study Group, <http://www.icsg.org/index.php/the-world-of-copper/71-uncategorised/23-definitions> (accessed November 30, 2017).

⁶⁴² Industry representative, telephone interview by USITC staff, December 19, 2017.

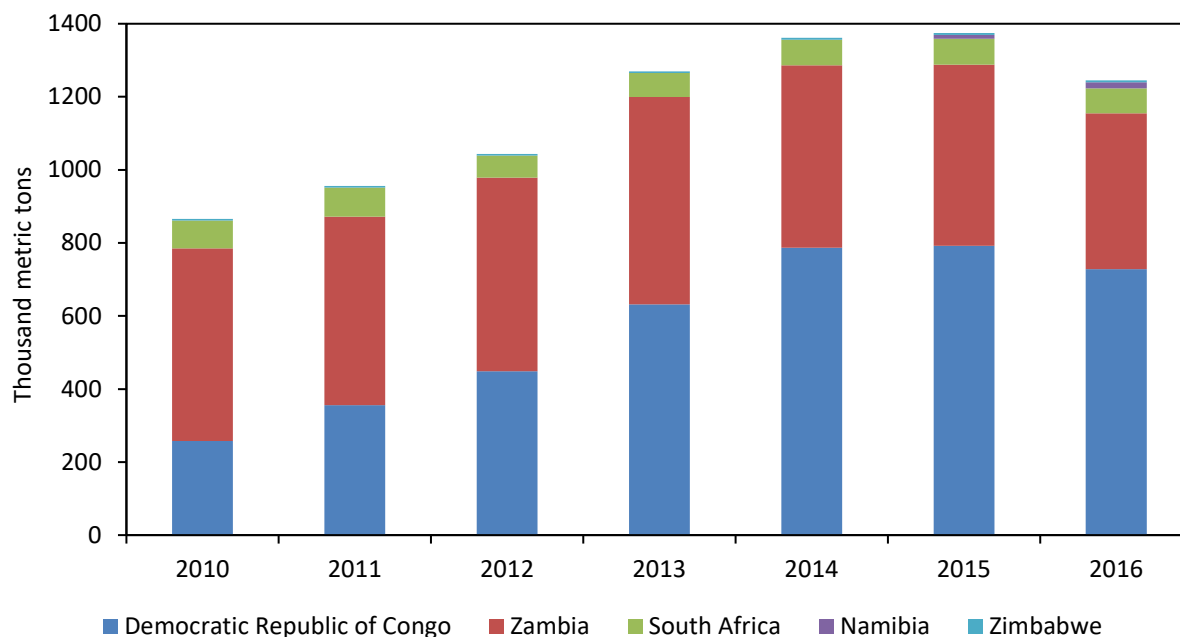
⁶⁴³ Total U.S. refined copper imports were \$4.4 billion in 2010, \$6.0 billion in 2011, \$5.0 billion in 2012, \$5.5 billion in 2013, \$4.3 billion in 2014, \$3.9 billion in 2015, and \$3.4 billion in 2016. USITC DataWeb/USDOC (accessed December 1, 2017).

⁶⁴⁴ International Copper Study Group, Statistical Database (accessed December 6, 2017).

⁶⁴⁵ Ibid.

⁶⁴⁶ Industry representative, telephone interview by USITC staff, December 19, 2017.

Figure 3.1 Refined copper production in SSA



Source: International Copper Study Group, Statistical Database (accessed December 6, 2017).

Note: See [appendix table I.3](#) for a tabular presentation of the data in this figure.

Key Factors Affecting U.S. Imports, 2010–16

The increase in U.S. imports of refined copper from SSA were associated with a significant increase in refined copper production in the DRC, largely due to foreign direct investment in mining.⁶⁴⁷ Production at new foreign-owned mines helped the DRC to increase refined copper production to 728,000 metric tons (mt) in 2016 from 258,000 mt in 2010 and to become the leading refined copper producer in SSA.⁶⁴⁸ In 2001, the DRC produced no refined copper, and in 2008 its output was only 58,000 mt.⁶⁴⁹ Two foreign-owned mines—Tenke Fungurume (Tenke)⁶⁵⁰ and Mutanda—started production in 2009 and

⁶⁴⁷ Firms that supplied foreign direct investment included China Minmetals Corp. (China), Freeport McMoRan Inc. (United States), Glencore PLC (Switzerland), Jinchuan Group (China), Lundin Mining Corp. (Canada), Shalina Resources Ltd. (United Arab Emirates), Tiger Resources Ltd. (Australia), and others. International Copper Study Group, “Directory of Copper Mines and Plants up to 2020,” July 2017.

⁶⁴⁸ International Copper Study Group, Statistical Database (accessed December 6, 2017); International Copper Study Group, “Directory of Copper Mines and Plants up to 2020,” July 2017.

⁶⁴⁹ International Copper Study Group, Statistical Database (accessed December 6, 2017).

⁶⁵⁰ The 56 percent interest Freeport-McMoRan Inc. (Freeport) previously held in Tenke was the only investment by a U.S.-headquartered company into a copper producer in SSA. In November 2016, Freeport announced that it had completed the sale of its share in Tenke to China Molybdenum Co., Ltd. Freeport-McMoRan Inc., “Freeport-McMoRan Completes Sale of Interest in TF Holdings,” November 16, 2016. After Freeport sold its share in Tenke, the United States continued to import refined copper from the DRC, indicating that Freeport’s ownership in Tenke did not drive U.S. imports from SSA (USITC DataWeb/USDOC, accessed December 1, 2017). Freeport may have been reluctant to import any of its copper production from the DRC into the United States because it could have competed with the company’s domestic U.S. copper production. Industry representative, telephone interview by USITC staff, December 19, 2017.

2010,⁶⁵¹ respectively, and were the main drivers of the production growth in the DRC. In 2016, Tenke produced 216,000 mt of refined copper⁶⁵² and Mutanda produced 213,000 mt.⁶⁵³ A number of smaller mines which were majority foreign-owned and -operated also contributed to refined copper output in 2010–16.

Another foreign-owned copper producer, Katanga Mining Ltd. (Katanga), halted production in September 2015 and did not produce any refined copper in 2016, but produced 107,000 mt in 2015 and 157,000 mt in 2014. Katanga had curtailed operations owing to low copper and byproduct prices, but it restarted production in December 2017, once an ongoing capital investment project was nearly complete.⁶⁵⁴

Duty rates are an additional factor affecting the U.S. import market for copper. Imports of refined copper from the DRC are eligible for duty-free treatment under GSP.⁶⁵⁵ No imports of copper and related articles entered the United States under AGOA. In 2016, the DRC was the fifth-largest source of U.S. imports of refined copper, and the four leading sources—Chile, Canada, Mexico, and Peru—were eligible for duty-free treatment under the U.S.-Chile Free Trade Agreement, the North American Free Trade Agreement, or the U.S.-Peru Trade Promotion Agreement. Refined copper imports from Namibia, the ROC, South Africa, and Zambia were eligible for duty-free treatment under AGOA and GSP, but these countries together made up only about 4 percent of U.S. imports of refined copper from SSA in 2016. The NTR tariff rate for refined copper imported into the United States is only 1 percent, but because refined copper is a commodity with no product differentiation, even a small import tariff could affect the competitiveness of import suppliers.

U.S. import values during 2010–16 were affected by fluctuations in global copper prices over the period, and this, in turn, affected the value of U.S. imports of copper from SSA. The average annual global price of copper rose to a historic high of \$4.00 per pound in 2011, but then declined from 2012 to 2016, dropping to \$2.50 per pound by 2016.⁶⁵⁶ On the other hand, the value of U.S. imports of refined copper from SSA rose to \$105.1 million in 2016 from \$1.9 million in 2011 as the volume of refined copper imports from SSA increased to 22,000 mt in 2016 from 200 mt in 2011.⁶⁵⁷ As discussed above, over this same period copper production in the DRC increased significantly.

⁶⁵¹ International Copper Study Group, “Directory of Copper Mines and Plants up to 2020,” July 2017.

⁶⁵² Lundin Mining Corp., “Management’s Discussion and Analysis for the Year Ended December 31, 2016” (accessed December 1, 2017).

⁶⁵³ Fleurette Group, “Mutanda Mining SARL Fourth Quarter 2016 Production Report,” February 2, 2017.

⁶⁵⁴ Katanga Mining Ltd., “Annual Information Form for the Year Ended December 31, 2015” (accessed December 14, 2017); Katanga Mining Ltd., “Management’s Discussion and Analysis for the Three Months Ended December 31, 2014 and 2013” (accessed December 14, 2017); Katanga Mining Ltd., “Management’s Discussion and Analysis for the Three Months Ended December 31, 2016 and 2015 Restated” (accessed December 15, 2017); Katanga Mining Ltd., “Katanga Mining Announces 2017 Fourth Quarter and Year End Production Results,” January 31, 2018.

⁶⁵⁵ Imports from the DRC were not eligible for duty-free treatment under AGOA because the DRC’s AGOA beneficiary status has been suspended since 2010.

⁶⁵⁶ USGS, “Mineral Industry Surveys: Copper,” December 2012; USGS, “Mineral Industry Surveys: Copper,” December 2016.

⁶⁵⁷ USGS, “Mineral Industry Surveys: Copper” December 2016; USITC DataWeb/USDOC (accessed December 1, 2017). Compared to 2015, however, the 2016 import value reflected a 17 percent decrease, due to a 12 percent drop in the average annual copper price. USGS, “Mineral Industry Surveys: Copper,” December 2016.

Potential for U.S. Imports

SSA refined copper production and U.S. refined copper imports from SSA have the potential to continue to grow due to new mine development projects and increased production, particularly in the DRC. The gravity model analysis identified and ranked the DRC and Zambia as the two countries that exhibited the largest differences between actual U.S. imports from SSA and the model's expected values in recent years. However, expected U.S. imports of copper from the DRC and Zambia may be overestimated in the gravity model because actual shipping distances are generally greater than those accounted for in the model. This is because refined copper from the DRC and Zambia is generally shipped from the east coast of Africa, which could add significant shipping distances compared with estimated shipping distances used in the model, which are based on mileage and are not route-dependent.⁶⁵⁸ The extent of the potential for growth in U.S. imports from SSA depends on demand factors, supply factors, and prices.⁶⁵⁹

In terms of demand, refined copper has no product differentiation that would make refined copper produced in SSA more attractive to U.S. consumers than refined copper produced in other countries. Moreover, while production in DRC grew quickly from 2010 to 2016, U.S. consumption has been rising much more slowly, growing by only 2 percent (40,800 mt) over that same period.⁶⁶⁰ There are no known plans to open new refined copper-consuming facilities or to expand existing facilities in the United States that would result in a significant increase in refined copper consumption.⁶⁶¹ But new technologies, such as electric vehicles, that require copper for electrical uses, could raise U.S. demand for copper. A study commissioned by the International Copper Association predicted that global demand for copper in electric vehicle production could increase from 185,000 mt in 2017 to 1.74 million mt by 2027,⁶⁶² which is 7 percent of total 2016 global refined copper production of 23.3 million mt.⁶⁶³

Even if SSA production increases, shipping distances are a leading consideration in copper trading and make the United States a less desirable export destination for refined copper from SSA than countries in China, Europe, and the Middle East that are closer to the east coast of Africa.⁶⁶⁴ In addition, there were no reported plans to significantly increase SSA production of other copper products to diversify exports.⁶⁶⁵ Finally, as Chinese demand for copper has quickly increased in recent years, Chinese companies have made significant investments in the copper industries of the DRC and Zambia.⁶⁶⁶ This could result in additional future production of refined copper in SSA being exported to China, reducing the supply available for export to the United States.

The value of future U.S. refined copper imports from SSA will also depend on fluctuations in copper prices because, as noted, copper is subject to considerable price volatility. Also, if imports of refined copper from the DRC lose duty-free treatment, which they currently have only under GSP, the cost of refined copper imports from DRC would likely rise, and imports could decrease.

⁶⁵⁸ Industry representative, telephone interview by USITC staff, March 12, 2018.

⁶⁵⁹ Barnes, "Copper Belts," 2017, 30–34.

⁶⁶⁰ USGS, "Mineral Industry Surveys: Copper," December 2010; USGS, "Mineral Industry Surveys: Copper," December 2016.

⁶⁶¹ International Copper Study Group, "Directory of Copper and Copper Alloy Fabricators," 2016.

⁶⁶² International Copper Association. "Copper Demand from Electric Vehicles," June 12, 2017.

⁶⁶³ International Copper Study Group, Statistical Database (accessed December 6, 2017).

⁶⁶⁴ Industry representative, telephone interview by USITC staff, December 19, 2017.

⁶⁶⁵ International Copper Study Group, "Directory of Copper and Copper Alloy Fabricators," 2016.

⁶⁶⁶ International Copper Study Group, "Directory of Copper Mines and Plants up to 2020," July 2017.

Catalytic Converters

The “centrifuges and filtering and purifying equipment” group of goods includes equipment used to filter and purify liquids and gases, such as air and water treatment equipment, and oil filtration equipment. The main products imported from SSA in this group are catalytic converters and parts. Catalytic converters are used to remove pollutants from engine exhaust, including in motor vehicles.⁶⁶⁷ They use platinum group metals (PGMs)—such as platinum, palladium, and rhodium—to facilitate chemical reactions that convert exhaust gases into less harmful forms.⁶⁶⁸

Overview of U.S. Imports

Between 2010 and 2016, U.S. imports of centrifuges and filtering and purifying equipment from SSA grew from \$205 million to \$291 million, a CAGR of 6 percent (table 3.9). Of this \$86 million increase, \$67 million was due to an increase in imports of catalytic converters, nearly all of which were imported from South Africa.⁶⁶⁹ The volume of U.S. imports of catalytic converters from South Africa substantially increased during 2010–16, rising from 1.3 to 1.8 million units (34 percent).⁶⁷⁰ U.S. imports of catalytic converters are duty-free under NTR.⁶⁷¹

Table 3.9 Centrifuges and filtering and purifying equipment: U.S. imports from SSA and selected SSA countries, 2010–16

Product and source country	2010	2011	2012	2013	2014	2015	2016	Absolute change 2010–16	Compound annual growth rate (CAGR) 2010–16
									Percent
	Million \$								
Centrifuges and filtering and purifying equipment	205.2	218.7	223.6	231.8	272.9	332.5	291.4	86.2	6.0
Catalytic converters	196.5	209.9	215.4	220.3	266.5	321.6	263.6	67.1	5.0
South Africa	196.5	209.9	215.4	220.3	266.5	321.4	263.3	66.8	5.0
All other SSA	0	^a	0	0	^a	0.2	0.2	0.2	^b

Source: USITC DataWeb/USDOC (accessed December 8, 2017).

Note: Catalytic converters refers to HTS subheading 8421.39.4000.

^a Less than \$50,000.

^b CAGR not provided because the 2010 value was zero.

⁶⁶⁷ USITC DataWeb/USDOC (accessed December 8, 2017).

⁶⁶⁸ IPA, “Autocatalysts and Platinum Group Metals (PGMs),” 2015, 3.

⁶⁶⁹ Catalytic converters (HTS 8421.39.40) accounted for 95 percent of U.S. imports from sub-Saharan Africa in the “centrifuges and filtering and purifying equipment” product group during 2010–16. Most of the remaining imports under this product group are parts of filtration/purifying equipment from South Africa, at least some of which are parts of catalytic converters. The data included in this section will be solely for catalytic converters and not include parts (unless otherwise noted), since there is no specific statistical reporting number in the HTS for catalytic converter parts. USITC DataWeb/USDOC (accessed December 1–6, 2017); Trade Data Services, Inc., Import Genius database (accessed December 5, 2017).

⁶⁷⁰ These data do not include parts. USITC DataWeb/USDOC (HTS number 8421.39.4000; accessed December 5, 2017).

⁶⁷¹ USITC, *Harmonized Tariff Schedule of the United States (HTS)*, 2018.

Key Factors Affecting U.S. Imports, 2010–16

South Africa is a major global producer of catalytic converters, with production of more than 10 million units in 2014, though this was substantially lower than the more than 16 million units produced annually during 2004–07.⁶⁷² Exports, which account for a majority of production, increased from 7.6 million units in 2012 to 9.1 million units in 2016.⁶⁷³ South Africa is a leading global producer of PGMs used in catalytic converters: it is the largest producer of platinum and rhodium, and the second-largest producer of palladium.⁶⁷⁴ The industry incorporates these locally sourced PGMs in its production, and more than 85 percent of the value of catalytic converter production in South Africa is sourced from within the country.⁶⁷⁵

This increase in U.S. imports (by number of units) during 2010–16 (figure 3.2) was likely due in part to the award of a contract by General Motors to both General Motors South Africa (GMSA) and Tenneco South Africa. This contract was to supply catalytic converters for use in V-6 engine vehicles manufactured in North America. While GMSA and Tenneco already had production operations in South Africa to supply GM, the contract mentioned above expanded the two companies' South African manufacturing activity.⁶⁷⁶ GMSA appears to be the largest exporter from South Africa, but there are other suppliers of catalytic converters to the United States. For example, Ford and Eberspächer exported catalytic converters from their plants in South Africa to the United States in 2016.⁶⁷⁷

⁶⁷² Production fell substantially in 2008 and 2009 due to the recession. CCIIG, “Proposed Support for the Beneficiation,” August 2014, 5.

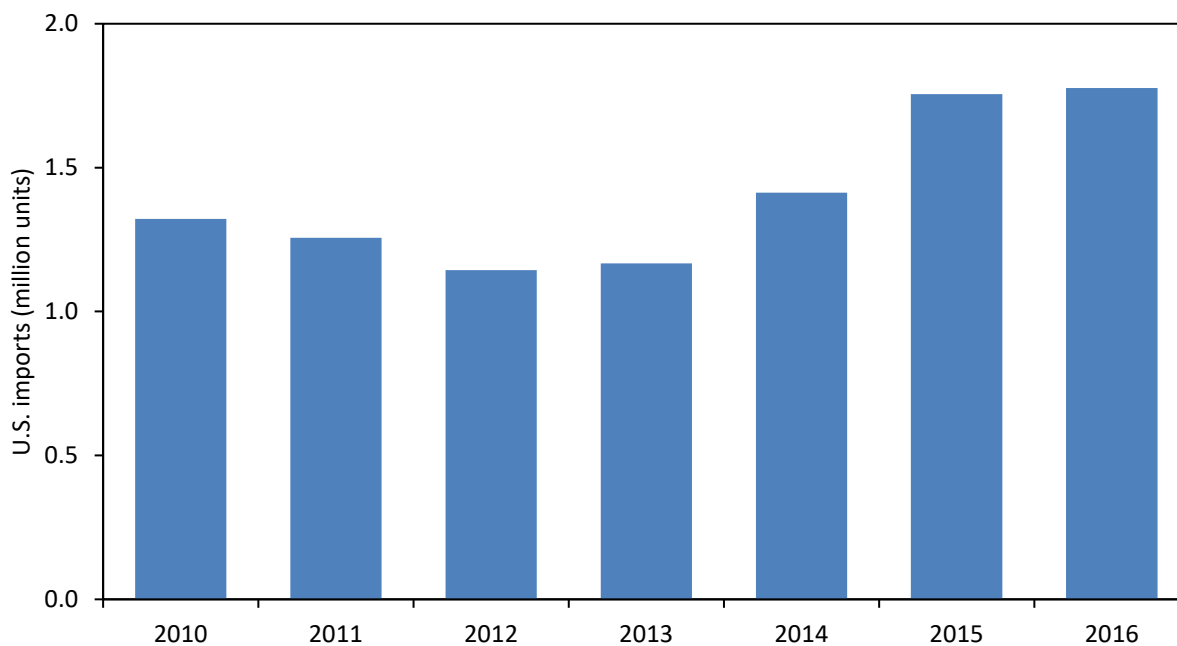
⁶⁷³ The EU was South Africa's largest export destination in 2016, followed by the United States (based on data for South African exports of 8421.39.30—catalytic converters of a kind used for motor vehicles). Data specific to catalytic converters before 2012 are not readily available. IHS Markit, Global Trade Atlas database (accessed January 31, 2016).

⁶⁷⁴ In 2016, South Africa accounted for 72 percent of global platinum production, 38 percent of palladium production, and 79 percent of rhodium production. Johnson Matthey, *PGM Market Report May 2017*, May 2017, 37, 41, 45.

⁶⁷⁵ NAACAM, “Supply China Partners Collaborate,” March 28, 2017.

⁶⁷⁶ Tenneco Inc. is a U.S.-based auto parts producer with plants in multiple locations, including South Africa. GM, “GM Awards R6 Billion,” June 27, 2013; *Herald*, “Motor, Catalytic Converter,” June 13, 2014; Cokayne, “GMSA, Tenneco Win R6bn Order,” July 3, 2013; Trade Data Information Services, Inc., Import Genius database (accessed December 5, 2017); Tenneco Inc. website, http://www.tenneco.com/global_presence/facilities_directory/ (accessed January 31, 2018).

⁶⁷⁷ Trade Data Services, Import Genius database (accessed December 5, 2017); Brand South Africa, “Ford Secures Africa Export Contract,” May 8, 2008; Eberspächer website, <https://www.eberspaecher.com/en/worldwide-old/standorte/south-africa/port-elizabeth.html> (accessed January 9, 2018).

Figure 3.2 U.S. imports of catalytic converters from South Africa, million units, 2010–16

Source: USITC DataWeb/USDOC (HTS number 8421.39.4000; accessed December 5, 2017).

Note: See [appendix table I.4](#) for a tabular presentation of the data in this figure.

Despite the increase in the number of catalytic converters imported from South Africa, declining prices for PGMs, which are used as an input to produce catalytic converters, between 2014 and 2016 contributed to lower unit values for catalytic converters.⁶⁷⁸ This resulted in a decrease in the value of U.S. imports in 2016. U.S. imports of catalytic converters from South Africa increased from \$197 million in 2010 to \$321 million in 2015 before falling to \$263 million in 2016.⁶⁷⁹

Potential for U.S. Imports⁶⁸⁰

GM's contract with GMSA and Tenneco extends to 2022,⁶⁸¹ and thus South Africa is expected to continue to ship catalytic converters to the United States.⁶⁸² However, total U.S. production of cars, sport-utility vehicles, and trucks in 2018 and 2019 is expected to remain below 2016 levels,⁶⁸³ so it is unclear whether import volumes will continue to grow. The dollar value of imports will depend not only on the volume of demand, but also on prices of key materials such as PGMs. Commission gravity model results indicate that other SSA countries could increase exports of goods in this product group to the

⁶⁷⁸ Platinum prices declined 28 percent during 2014–16, and palladium prices declined 24 percent. USGS, “Mineral Commodity Summaries: Platinum-Group Metals,” 2017.

⁶⁷⁹ These data do not include catalytic converter parts. Catalytic converter unit values continued to substantially decline in 2017. USITC DataWeb/USDOC (accessed December 1, 2017).

⁶⁸⁰ Though U.S. imports of centrifuges and filtering and purifying equipment from SSA are duty free under NTR and therefore do not claim AGOA preferences, for consistency with the other sector profiles in chapters 2 and 3, this section examines the potential for increased U.S. imports of these products from SSA countries.

⁶⁸¹ GM, “GM Awards R6 Billion,” June 27, 2013.

⁶⁸² The gravity analysis finds that imports of catalytic converters from South Africa have slightly exceeded expectations in recent years.

⁶⁸³ Jackson, “Proactive Positioning,” February 22, 2017, 26.

United States, but the level of the potential export increases from other SSA countries is very small in comparison to the value of South Africa's exports to the United States.

Edible Nuts

The products in this group include edible tree nuts (such as cashews, macadamia nuts, almonds, and walnuts) and groundnuts (peanuts). Nuts in the product group may be sold in-shell or removed from their shells (also called "shelled").

Overview of U.S. Imports

U.S. nut imports from SSA countries increased from \$87.7 million in 2010 to \$166.9 million in 2016, a CAGR of 11.3 percent (table 3.10). Imports consist primarily of shelled cashews (predominantly from Côte d'Ivoire, Ghana, and Mozambique) and shelled macadamia nuts (predominantly from Kenya and South Africa). In 2016, these two products accounted for 90 percent of U.S. edible nut imports from SSA countries. Over 2010–16, U.S. imports of shelled cashew nuts from SSA countries increased 156 percent in value and 76 percent in quantity. Imports of shelled macadamia nuts increased 97 percent in value and 28 percent in quantity.

Higher U.S. imports from SSA countries have largely displaced imports from other sources. Over 2010–16, U.S. shelled cashew nut imports from SSA countries increased from 3.5 percent (\$23.9 million) to 5.0 percent (\$61.3 million) of all U.S. imports of shelled cashew nuts. Imports of shelled macadamia nuts from SSA countries increased from 62.6 percent (\$45.2 million) to 79.3 percent (\$88.9 million) of all U.S. imports of shelled macadamia nuts. Imports of shelled cashew nuts from all three of the largest SSA exporters of cashew nuts to the United States—namely, Côte d'Ivoire, Ghana, and Mozambique—more than doubled in value during 2010–16. The value of imports of macadamia nuts from Kenya also more than doubled during the period, and shelled macadamia nut imports from South Africa increased 91 percent in value.

Table 3.10 Edible nuts: U.S. imports from SSA and selected SSA countries, 2010–16

Product and source country	2010	2011	2012	2013	2014	2015	2016	Absolute change	Compound annual growth rate (CAGR)
								2010–16	2010–16
Million \$									Percent
Edible nuts	87.7	93.7	114.8	127.7	153.0	186.3	166.9	79.2	11.3
Shelled cashew nuts	23.9	26.0	34.7	52.1	50.9	58.7	61.3	37.4	17.0
Côte d'Ivoire	3.4	5.0	11.9	17.1	18.8	24.3	16.7	13.3	30.6
Ghana	0.5	1.7	2.7	5.8	6.6	4.7	7.5	7.0	56.5
Mozambique	9.1	8.5	11.2	14.0	11.5	16.9	18.9	9.8	13.0
All other SSA	10.9	10.9	8.8	15.2	14.0	12.8	18.2	7.2	8.8
Shelled macadamia nuts	45.2	57.6	65.9	63.1	87.1	110.1	88.9	43.7	11.9
Kenya	16.5	25.6	30.0	25.8	37.5	42.9	38.6	22.1	15.2
South Africa	22.6	26.6	31.5	33.6	42.8	56.1	43.2	20.6	11.4
All other SSA	6.1	5.3	4.4	3.6	6.9	11.1	7.1	1.0	2.6

Source: USITC DataWeb/USDOC (accessed December 8, 2017).

Note: Shelled cashew nuts refers to HTS subheading 0801.3200; shelled macadamia nuts refers to HTS subheading 0802.6080 during 2010–11; HTS 0802.6200 since 2012.

AGOA preferences are not important in U.S. imports of cashew nuts, as imports from all sources enter the United States duty free. However, AGOA preferences are important in imports of macadamia nuts. The U.S. general rate of duty on shelled macadamia nuts is 5¢ per kg, but imports under AGOA enter duty free. In 2016, 96 percent of shelled macadamia nut imports from SSA countries entered duty free under AGOA, including 96 percent of such imports from Kenya and 98 percent of such imports from South Africa.

Key Factors Affecting U.S. Imports, 2010–16

The increase in U.S. edible nut imports from SSA countries has been driven by both demand and supply factors. U.S. demand for nuts has risen as nut consumption is increasingly perceived to foster health and wellness.⁶⁸⁴ U.S. consumption of tree nuts increased 9 percent between 2010 and 2015 (the latest data available).⁶⁸⁵ SSA producers of both cashews and macadamia nuts have responded to stronger global demand and higher prices with increased plantings. Organizations including the African Cashew Alliance and ComCashew (formerly the African Cashew Initiative) have fostered initiatives to increase production and processing capacity. As a result, African production of raw in-shell cashew nuts more than doubled between 2006 and 2015.⁶⁸⁶ Cashew processing capacity also increased, from 50,000 mt in 2008 to 280,000 mt in 2015.⁶⁸⁷ Through these initiatives, cashew farmers have been trained in agricultural practices, processors have received technical assistance and financing, and supply chain linkages have been formed between farmers, processors, and buyers.⁶⁸⁸

Increased edible nut imports from SSA countries have largely been driven by these countries' increases in production. Côte d'Ivoire, Ghana, and Mozambique are major producers of cashews. Côte d'Ivoire is the world's second-largest producer, behind India, and in the 2017/18 growing season is expected to account for 22 percent of global cashew production. Cashew nut production in Côte d'Ivoire, Ghana, and Mozambique increased 123 percent, 120 percent, and 57 percent, respectively, between marketing year (MY) 2010/11 and MY 2016/17, while production in India and Vietnam increased more modestly (table 3.11).

Similarly, efforts by governments, research institutions, and private groups such as the South African Macadamia Growers' Association have increased production of macadamia nuts. Planting of macadamia trees in Southern Africa has increased in each year since at least 2013, with 1,250 hectares planted in 2013 and over 3,500 hectares planted in 2016.⁶⁸⁹ Improved varieties have been introduced, and information on good agricultural practices disseminated to growers.

South Africa and Kenya are the second- and third-largest producers of macadamia nuts, behind Australia. Macadamia nut production in South Africa in 2016 was 48 percent higher than in MY 2010/11. This was similar to the production increase in Australia, the leading producer of macadamia nuts. Kenyan production in 2016 was 181 percent higher than in MY 2010/11 (table 3.12).

⁶⁸⁴ GlobeNewswire Transparency Market Research, "Nuts and Seeds Market," September 28, 2016.

⁶⁸⁵ USDA, Tree Nuts: Supply and Use Tables (accessed December 28, 2017).

⁶⁸⁶ In 2006, cashew production was about 605,000 mt on an in-shell basis. By 2015, production was about 1.5 million mt. Centre for Public Impact, "Developing the African Cashew Market," n.d. (accessed November 27, 2017); Rongead, "The African Cashew Sector in 2015," October 2015.

⁶⁸⁷ ComCashew, "Processing" (accessed January 17, 2018). Processing of cashew nuts includes steaming to the desired level of hardness to assist in cracking, removing the outer shell, shelling, sorting, and grading. These processes have increasingly been automated to reduce reliance on manual labor, raise productivity, and improve quality. International Nut and Dried Fruit Council, "Technological Improvements in the Cashew Industry," May 2017, 12–13.

⁶⁸⁸ ComCashew, "About Us" (accessed January 17, 2018).

⁶⁸⁹ Southern African Macadamia Growers' Association, "Industry Statistics," June 2, 2017.

Table 3.11 Estimated world cashew production, kernel basis (metric tons)

Country	2010/11	2015/16	2016/17	2017/18
India	150,000	172,700	159,600	185,600
Côte d'Ivoire	75,000	162,222	167,500	162,800
Vietnam	71,429	113,000	93,000	71,430
Mozambique	15,500	19,433	24,400	26,800
Ghana	7,500	14,444	16,500	18,800
Other	149,650	242,757	290,000	323,400
World total	469,079	724,556	751,000	788,830

Source: International Nut and Dried Fruit Council, *The Cracker*, November 2011, and *NutFruit*, November 2017.

Table 3.12 Estimated world macadamia production, kernel basis (metric tons)

Country	2010/11	2015	2016	2017
Australia	10,455	13,500	15,600	14,080
South Africa	7,172	12,900	10,640	11,760
Kenya	2,619	8,846	7,372	7,040
USA	4,000	3,600	4,300	4,700
Other	4,497	7,836	11,901	13,253
World total	28,743	46,682	49,813	50,833

Source: International Nut and Dried Fruit Council, *The Cracker*, November 2011, and *NutFruit*, November 2017.

Note: International Nut and Dried Fruit Council changed their practice of reporting macadamia nut production from marketing year to calendar year in 2015.

Producers of cashews in SSA have encountered reduced competition from cashew producers in other countries. For example, cashew production in India and Vietnam in MY 2016/17 was projected to be lower than the MY 2014/15 crop, by 11 percent and 22 percent, respectively, due to weather and supply problems. Unseasonable rains delayed the harvest in Vietnam and disrupted supplies for processing, but the full extent of the effect on annual production is not yet known.⁶⁹⁰ Although global cashew production increased over the past two years, supply disruptions in these two main producing countries reportedly fueled the rise in cashew nut prices.⁶⁹¹

However, India and Vietnam are not only major growers of cashews, they are also the world's largest processors. Even when supply of cashews grown in those two countries falls, they remain a leading source of shelled cashews, since cashews from other sources are shelled there. India and Vietnam are the two largest export markets for unshelled cashews from Côte d'Ivoire and Ghana, and India is the largest export market for unshelled cashews from Mozambique. Some of these cashews are then exported to the United States after being shelled. As a result, the primary import sources of U.S. shelled cashews are India and Vietnam.

At the same time, macadamia nut production in Kenya and South Africa increased overall during 2010–16, but these countries have experienced production declines since 2015 because of adverse weather conditions. Macadamia production in Kenya and South Africa declined by 9 percent and 10 percent, respectively, during 2015–17. Macadamia nut production in Australia increased by nearly 50 percent between 2010/11 and 2016, but a cyclone in March 2017 and heavy rains in June led to poor harvests in

⁶⁹⁰ Informa, Foodnews, "Dried Fruit and Nuts: 2017" (accessed December 28, 2017), 19–20.

⁶⁹¹ Krishnakumar, "Tight Global Supplies Hit Cashew Nut Industry," May 4, 2017; International Nut and Dried Fruit Council Foundation, *Nutfruit*, March 2016, March 2017, and July 2017. In July 2017, global cashew nut prices were 30 percent higher than in 2016. Spend Matters, "Cashew Nut Prices Soar on Tight Supply," July 10, 2017.

2017.⁶⁹² This decline, along with the production declines in Kenya and South Africa and continuing global demand, contributed to higher global prices.

Potential for U.S. Imports

Imports of shelled cashew nuts and macadamia nuts from SSA countries have grown much more rapidly than overall U.S. nut consumption. Production of cashews and macadamia nuts in the major SSA nut-growing countries is expected to continue to rise in the next several years, potentially further increasing their share of the U.S. nut market. Reportedly, South Africa has the potential to become the world's largest producer and exporter of macadamia nuts: trees currently in production in South Africa could produce 65,000 mt of nuts in-shell, compared to about 50,000 mt in Australia. However, drought for the past two years has cut annual production in South Africa to about 38,000 mt.⁶⁹³ On the other hand, producers in South Africa are increasing the area planted in macadamia nuts more rapidly than are producers in Australia.⁶⁹⁴ If the drought ends in the growing regions, South Africa would be expected to expand its share of the global macadamia market, leading to lower prices.⁶⁹⁵ These developments would be expected to boost U.S. imports of edible nuts from SSA countries.

A major constraint for expanded U.S. imports from SSA is the limited processing capability in cashew-producing countries. U.S. imports of cashews are almost all of shelled nuts, whereas SSA countries primarily export nuts in-shell. The largest SSA producer and exporter of cashews, Côte d'Ivoire, reportedly produced 550,000 mt of raw cashew nuts in-shell in 2014, but processed only 40,000 mt, with most of this processing limited to separating broken nuts from whole nuts and packaging them for export.⁶⁹⁶ African cashew producers have established the African Cashew Alliance (ACA) to increase production and processing in the member countries. So far, this has reportedly boosted yields and production of cashew nuts. The ACA also has a goal of increasing local processing.⁶⁹⁷ Additionally, the Cashew Industry Association of Ghana has plans to vastly increase processing capacity.⁶⁹⁸

The gravity model analysis identified Guinea-Bissau, Côte d'Ivoire, and Ghana as countries for which there is substantial potential for future growth in exports to the United States. All three of these countries are major producers of raw in-shell cashew nuts. However, all three face the constraint of limited processing capability mentioned above. In 2016, the total value of Côte d'Ivoire's exports of in-shell cashews was 7.7 times the value of exports of shelled cashews. For Ghana and Guinea-Bissau, the ratios were 5.1 and 75.4, respectively. The model also indicated that imports of edible nuts from Kenya and South Africa (the macadamia-producing countries) have exceeded the model's expectations in recent years.

⁶⁹² International Nut and Dried Fruit Council Foundation, *Nutfruit*, March 2016 and July 2017; Australian Macadamias, "2017 Australian Macadamia Crop Reaches 46,000 Tonnes In-shell," December 7, 2017.

⁶⁹³ Data on edible nut production may be presented on an in-shell basis or on a kernel (shelled) basis. The ratio of in-shell weight to kernel weight may vary in different producing regions or in different years, depending on variety and climate conditions.

⁶⁹⁴ Southern African Macadamia Growers Association, "Industry Statistics," June 2, 2017.

⁶⁹⁵ ABC News, "World's Largest Macadamia Grower Warns," March 13, 2017. In South Africa, macadamia nuts are typically harvested from March through July. Government of South Africa, Department of Agriculture, Forestry and Fisheries, "Cultivation of Macadamias" (accessed November 28, 2017).

⁶⁹⁶ Africa Renewal Online, "Cashing in on the Cashew Nuts Boom," August 2015.

⁶⁹⁷ Centre for Public Impact, "Developing the African Cashew Market," September 21, 2017.

⁶⁹⁸ Modern Ghana, "Cashew Industry Association of Ghana," January 11, 2016.

Unwrought Nickel (Not Alloyed)⁶⁹⁹

Unwrought nickel is produced from the smelting and refining of nickel ores and concentrates (primary production) or from the processing of scrap nickel (secondary production) typically recovered from alloy steels.⁷⁰⁰ The nickel market is divided into two product classes. Class I nickel (99 percent or greater Ni) is used in batteries and nonferrous alloys, and class II nickel (less than 99 percent Ni) is primarily used to make stainless steel. Stainless steel producers also use class I nickel, but don't require its purity and prefer class II because of its higher iron content. In the United States, about 80 percent of primary nickel (not recycled) is used to make stainless and alloy steel products, nonferrous alloys, and superalloys. The rest is used for electroplating and other purposes.⁷⁰¹

Overview of U.S. Imports

There was a 3.5 percent average increase (\$25 million in absolute value) in U.S. imports of certain base metals and chemical elements (includes cobalt, manganese, nickel, and other metals) from SSA from 2010 to 2016 (table 3.13). Imports of nickel increased the most within this group, in terms of absolute value. The majority of nickel imports, by value, were in the form of unwrought nickel that contained at least 99 percent nickel and cobalt.⁷⁰²

From 2010 to 2016, U.S imports of unwrought nickel from SSA increased by an annual average of 11.3 percent and by \$23.0 million in absolute value. The increase was due to \$29.6 million and \$9.4 million increases in imports from Madagascar and South Africa, respectively, only partially offset by a \$16.1 million decline in imports from Zimbabwe. There was no refined nickel production in Madagascar until 2012 so, before that year, all unwrought nickel imports from SSA were from South Africa and Zimbabwe. The most significant increases in unwrought nickel imports from SSA occurred between 2013 and 2015.

⁶⁹⁹ All U.S. imports of unwrought nickel discussed here are not alloyed unless otherwise noted.

⁷⁰⁰ An alloy is a material made of two or more metals, or of a metal and another material. Nickel alloys are predominantly nickel, by weight, but also contain other elements such as cobalt (more than 1.5 percent), copper, and iron.

⁷⁰¹ USGS, "2017 Mineral Commodity Summaries: Nickel" (accessed January 30, 2018).

⁷⁰² Cobalt content cannot exceed 1.5 percent in nickel (not alloyed).

Table 3.13 Certain base metals and chemical elements: U.S. imports from SSA and selected SSA countries, 2010–16

Product and source country	2010	2011	2012	2013	2014	2015	2016	Absolute change	Compound annual growth rate (CAGR)
								2010–16	2010–16
Million \$								Percent	
Certain base metals and chemical elements	107.5	120.6	103.7	145.9	188.7	183.5	132.6	25.0	3.5
Nickel, not alloyed, unwrought	25.6	23.1	12.1	53.4	93.0	101.0	48.5	23.0	11.3
Madagascar	0.0	0.0	0.0	49.4	72.0	91.5	29.6	29.6	^a
South Africa	9.5	15.3	4.6	4.0	21.0	9.5	18.9	9.4	12.2
Zimbabwe	16.1	7.8	7.5	0.0	0.0	0.0	0.0	-16.1	-100.0
All other SSA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Source: USITC DataWeb/USDOC (accessed December 8, 2017).

Note: Nickel, not alloyed, unwrought comes under HTS subheading 7502.10.00.

^a CAGR not provided because the 2010 value was zero.

Import values from 2010 to 2016 were significantly affected by fluctuations in global nickel prices. The average annual global price of nickel was \$9.89 per pound in 2010, increased to \$10.38 per pound in 2011, and then started declining in 2014 to reach a six-year low of \$4.22 per pound in 2016.⁷⁰³ Although the price of nickel declined during most of the period, the value of imports of unwrought nickel from SSA to the United States rose from 2010 to 2016 as the volume of imports increased. In 2016, imports of unwrought nickel from SSA were 5,143 mt, a 323 percent increase from 2010.⁷⁰⁴

Key Factors Affecting U.S. Imports, 2010–16

There is no primary refined nickel production in the United States, so the domestic nickel industry relies on secondary (recycled) nickel production and imports for its nickel supply.⁷⁰⁵ From 2010 to 2016, the total value of imports of unwrought nickel fluctuated but generally trended downward, declining by 57 percent from \$2.3 billion in 2010 to \$980 million in 2016, primarily reflecting falling nickel prices.⁷⁰⁶ The quantity of imported unwrought nickel declined by 10 percent, from 109,849 mt in 2010 to 99,176 mt in 2016. Despite the decline in imports, apparent consumption of nickel in the United States remained relatively stable, partially owing to secondary nickel production, which typically comprises about 40 percent of total apparent consumption.⁷⁰⁷

⁷⁰³ USGS, “2015 Mineral Commodity Summaries: Nickel” (accessed January 30, 2018); USGS, “2017 Mineral Commodity Summaries: Nickel” (accessed January 30, 2018).

⁷⁰⁴ USITC DataWeb/USDOC (accessed January 30, 2018).

⁷⁰⁵ USGS, “2017 Mineral Commodity Summaries: Nickel” (accessed January 30, 2018).

⁷⁰⁶ USITC DataWeb/USDOC (accessed January 30, 2018).

⁷⁰⁷ USGS, “2017 Mineral Commodity Summaries: Nickel” (accessed January 30, 2018).

⁷⁰⁷ USITC DataWeb/USDOC (accessed January 30, 2018).

During that time period, unwrought nickel imports from SSA became more significant, while imports from some other sources, such as Russia and Norway, declined. The increase in imports from SSA can be attributed to a combination of greater unwrought nickel production in SSA, reduced production in other regions, and changing trade patterns for unwrought nickel.

First, increased production of unwrought nickel in SSA primarily stemmed from the opening of a new nickel mine and refinery in Madagascar in 2012. Second, refined nickel production in Russia—traditionally a leading source of imported unwrought nickel that accounted for 29 percent of U.S. imports in 2010—declined; Russia accounted for only 9 percent of U.S. unwrought nickel imports in 2016.⁷⁰⁸ The decrease in Russian production, possibly owing to declining nickel prices, coincided with the decline in Russia’s exports to the United States.⁷⁰⁹ Third, from 2010 to 2016, Russia significantly increased the quantity of unwrought nickel that it shipped to China, exporting 227,924 mt to China in 2016 compared to 75,685 mt in 2010.⁷¹⁰ Australia also increased exports of unwrought nickel to China and reduced exports to the United States from 2010 to 2016. As a result of these changes in production and trade patterns, imports of unwrought nickel from SSA rose to 5 percent of total U.S. unwrought nickel imports in 2016, compared to less than 1 percent in 2010 (table 3.14).

Table 3.14 Sources of U.S. imports of unwrought nickel (not alloyed), by share of total U.S. import value (percent)

	2010	2016	Change in share of U.S. imports, 2010–16
Australia	14	2	-12
Canada	16	57	41
Norway	22	12	-10
Russia	29	9	-20
SSA	1	5	4
Rest of the World	17	15	-2

Source: Compiled from official statistics of the U.S. Department of Commerce (USDOC) (accessed January 25, 2018).

Note: Import data are for HTS 7502.10.00. Data are rounded to nearest percent.

The increase in refined nickel production in Madagascar resulted from the startup of the Ambatovy JV (Ambatovy) nickel and cobalt complex (figure 3.3). Financed by Canada, Japan, and South Korea, Ambatovy is a vertically integrated mining, processing, and refining complex that was commissioned in late 2012 and has been ramping up production since it opened.⁷¹¹ The Ambatovy complex cost \$8 billion to build, reportedly making it the largest foreign investment ever in Madagascar and potentially one of the biggest investments in SSA. The complex is one of the largest lateritic⁷¹² mining operations in the world and could make nickel Madagascar’s top export. At full capacity, Ambatovy will produce 60,000 mt per year (mt/yr) of refined nickel and 5,600 mt/yr of refined cobalt, for at least 18 years.⁷¹³ In 2016, Ambatovy produced 33,306 mt of refined nickel, and the company expects to increase production in the

⁷⁰⁸ World Bureau of Metal Statistics, “Nickel,” May 2017.

⁷⁰⁹ Ibid.

⁷¹⁰ IHS Markit, Global Trade Atlas database (accessed January 31, 2018).

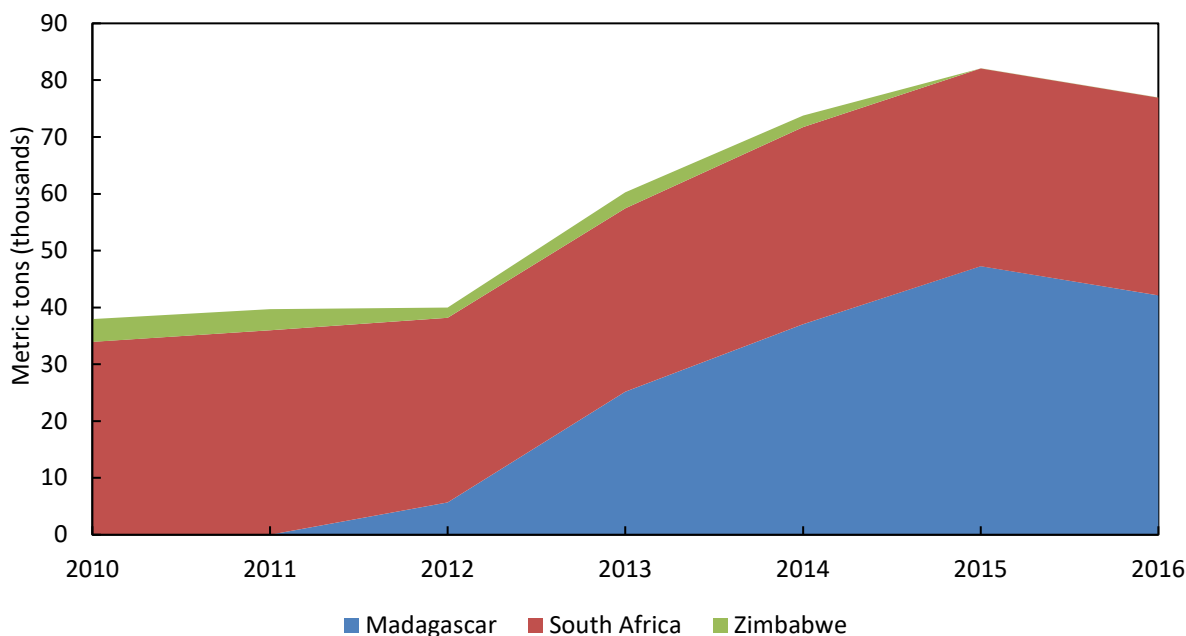
⁷¹¹ Ambatovy is a joint venture of Sherritt International Corp. (Canada), Sumitomo Corp. (Japan), and Korea Resources Corp. (South Korea).

⁷¹² The two major types of ore deposits that supply most of the nickel used today are magmatic sulfide deposits (such as those found at Norilsk, Russia; Sudbury, Canada; and Kambalda, Australia) and laterite deposits (including those found in Cuba, New Caledonia, and Indonesia). USGS, *Nickel—Makes Stainless Steel Strong* (accessed February 2, 2018).

⁷¹³ Sherritt International Corp., *Annual Report—2016* (accessed January 30, 2018).

near future.⁷¹⁴ The refinery produces class I nickel that can be used in lithium-ion batteries and alloy steels.⁷¹⁵

Figure 3.3 Refined nickel production in SSA countries, 2010–16



Source: World Bureau of Metal Statistics.

Note: Includes production of electrolytic nickel, nickel pellets, briquettes, steel making powder, the nickel content of nickel salts, chemical-grade nickel oxide, ferronickel, nickel oxide sinter, and utility nickel. See [appendix table I.5](#) for a tabular presentation of the data in this figure.

Potential for U.S. Imports⁷¹⁶

Future potential for U.S. imports of unwrought nickel from SSA will likely depend on increasing production of end-use products such as steel and lithium-ion batteries. The production of stainless and alloy steels are expected to be the primary end uses for nickel during the next several years. According to the International Stainless Steel Forum, U.S. melt shop production of stainless steel, the first stage in the production process, was 2.5 million mt in 2016, a 13 percent increase from that in 2010 (output include some grades of stainless steel that do not contain nickel).⁷¹⁷ If domestic stainless steel and alloy steel production continues to increase, there will be a need for more imported nickel, potentially providing opportunities for exports from SSA.

⁷¹⁴ Ibid.

⁷¹⁵ Sherritt International Corp., “Sheritt: The Name in Nickel,” December 1, 2017.

⁷¹⁶ Though U.S. imports of nickel from SSA are duty free under NTR and therefore do not claim AGOA preferences, for consistency with the other sector profiles in chapters 2 and 3, this section examines the potential for increased U.S. imports of nickel from SSA countries.

⁷¹⁷ International Stainless Steel Forum, *Stainless Steel in Figures 2017* (accessed January 31, 2018).

In addition, as noted earlier, Ambatovy produces class I finished nickel,⁷¹⁸ which is the type of nickel that is used to manufacture lithium-ion batteries for electric vehicles. Market analysts expect that global nickel consumption will increase by 38 percent during the next seven years, primarily owing to growth in the electric vehicle market, and more class I nickel will be needed.⁷¹⁹ Nickel production in Madagascar could be an important growth area in the future as more electric vehicles are produced and more class I nickel is required.⁷²⁰ The majority of lithium-ion battery producers are in Asia; however, Tesla is constructing a massive lithium-ion battery plant in Nevada capable of producing up to 500,000 lithium-ion vehicle batteries per year, potentially increasing domestic consumption of imported nickel. The plant is expected to be vertically integrated, capable of producing finished battery packs directly from raw materials; production is slowly ramping up at the facility.⁷²¹

Raw Cane Sugar

Raw cane sugar is extracted from sugarcane; when shipped in bulk, it must be further refined before it is fit for human consumption. Typically, imported and domestically produced raw cane sugar is refined in the United States to yield almost chemically pure sucrose, more commonly known as white sugar.

Overview of U.S. Imports

Raw cane sugar is one of the major U.S. imports from SSA (table 3.15). These imports are subject to the World Trade Organization (WTO) TRQ for raw cane sugar.⁷²² In-quota quantities of raw cane sugar from SSA historically were not eligible for duty-free treatment under AGOA, though these quantities were eligible for duty-free treatment under GSP.⁷²³ Thus, nearly all raw cane sugar imported from SSA entered the United States duty-free. This analysis focuses on in-quota imports from six SSA countries

⁷¹⁸ The type of deposit that is mined determines which class of product is produced, and it is estimated that about 48 percent of operating nickel mines worldwide can produce class I nickel. Nikolic, “Electric Vehicle Revolution and Implications,” October 24, 2017.

⁷¹⁹ Hume, “Nickel Rebound Gathers Pace,” October 24, 2017.

⁷²⁰ Wood Mackenzie expects sales of passenger electric vehicles to rise from 2.4 million in 2016 to 14.2 million in 2025. Based on that forecast, it sees nickel demand in batteries rising from 40,000 tons to 220,000 tons in 2025. Hume, “Nickel Rebound Gathers Pace,” October 24, 2017.

⁷²¹ USGS, “2017 Mineral Commodity Summaries: Lithium” (accessed January 30, 2018).

⁷²² The WTO TRQ for raw cane sugar is outlined in chapter 17, additional note 5 of USITC, *Harmonized Tariff Schedule of the United States, 2018*. The raw cane sugar TRQ allows imports at a lower in-quota duty rate for quantities equal to or less than each country’s specific allocation, while quantities in excess of the TRQ allocations are subject to the higher over-quota duty rate. The WTO minimum access commitment of 1,117,195 metric tons is initially allocated by the U.S. Trade Representative (USTR) based on historic trade. USTR, “Ambassador Froman Announces FY2017 WTO Tariff-Rate Quota Allocations,” May 2016. The 10 SSA countries that received initial allocations are the Republic of the Congo, Côte d’Ivoire, Gabon, Madagascar, Malawi, Mauritius, Mozambique, South Africa, Swaziland, and Zimbabwe. Of these, U.S. Customs and Border Protection (USCPB) records show that raw cane sugar from the Republic of the Congo, Côte d’Ivoire, Gabon, and Madagascar did not enter the United States under these TRQ allocations during the period under review. USCPB, *Year-End Commodity Status Report*, years 2010–2016.

⁷²³ The Trade Preferences Extension Act of 2015 authorized the President to make imports that are subject to GSP terms (special column tariff rates of “A” or “A*”) also subject to AGOA terms (special column tariff rate of “D”). Presidential Proclamation 9466 extended AGOA treatment to WTO in-quota quantities of raw cane sugar on July 1, 2016.

that exported raw cane sugar to the United States classified under WTO TRQs: Malawi, Mauritius, Mozambique, South Africa, Swaziland, and Zimbabwe.

Table 3.15 Raw cane sugar subject to world trade organization tariff-rate quotas: U.S. imports from SSA and selected SSA countries, 2010–16

Product and source country	2010	2011	2012	2013	2014	2015	2016	Absolute change 2010–16	Compound annual growth rate (CAGR) 2010–16
									Percent
	Million \$								Percent
Raw cane sugar	92.8	24.8	54.5	9.2	69.2	45.1	55.4	-37.3	-8.2
Malawi	3.9	3.6	4.8	3.1	2.4	8.6	10.7	6.8	18.3
Mauritius	6.6	9.1	10.2	6.1	1.9	4.6	7.1	0.5	1.2
Mozambique	24.5	0.0	0.0	0.0	7.9	8.0	5.3	-19.2	-22.4
South Africa	25.2	12.0	39.5	0.0	25.3	2.8	12.8	-12.3	-10.6
Swaziland	18.0	0.0	0.0	0.0	18.1	13.8	10.3	-7.7	-8.9
Zimbabwe	14.6	0.0	0.0	0.0	13.7	7.3	9.1	-5.5	-7.6
All other SSA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	^a

Source: USITC DataWeb/USDOC (HTS subheading 1701.11 during 2010 and 2011 and HTS subheading 1701.13.10 and 1701.14.10 during 2011 to 2016; accessed December 1, 2017).

^a CAGR not provided because all values were zero.

Key Factors Affecting U.S. Imports, 2010–16

The value of U.S. imports of raw cane sugar from SSA countries varied greatly during 2010 to 2016. The substantial decrease in the value of U.S. raw cane sugar imports from SSA during 2013 can be attributed to low-priced imports from Mexico.⁷²⁴ Though import value decreased by 8.2 percent from 2010 to 2016, this decrease is mainly the result of changes in U.S. domestic sugar prices, which averaged 23 percent less in 2016 than in 2010.⁷²⁵

The U.S. market is likely to be the most attractive destination for SSA raw sugar exports after changes to EU policies affecting sugar came into full effect on October 1, 2016. EU sugar beet production had been subject to price supports and production quotas under the Common Agricultural Policy (CAP) since 1968.⁷²⁶ CAP reforms in 1992 and 2003 reduced sugar price support levels and decoupled payments from the quantity of sugar produced, encouraging industry restructuring. In 2013, the EU agreed to end the sugar production quota system at the end of MY 2016/17.⁷²⁷ These policy changes are expected to

⁷²⁴ Under NAFTA, raw cane sugar imports from Mexico had unrestricted access to the U.S. market from 2008 to 2014. Antidumping and countervailing duty investigations were filed against sugar from Mexico in 2014. These investigations resulted in suspension agreements between the United States and Mexico. As a result, since December 2014, sugar from Mexico has been subject to various restrictions, including quantitative restrictions and minimum prices. USITC, *Sugar from Mexico*, November 2015.

⁷²⁵ USDA, ERS, *Sugar and Sweeteners Yearbook Tables* (accessed January 30, 2018).

⁷²⁶ EC, "Factsheet on the End of EU Sugar Production Quotas" (accessed December 18, 2017).

⁷²⁷ EU sugar programs and United States WTO TRQs for raw cane sugar are administered on a marketing year basis that begins on October 1 of one year and runs through September 30 of the next. Marketing years are written using a slash ("/"), e.g., 2015/16.

increase EU sugar production by 12 percent by 2020 relative to the five-year marketing year average and substantially lower the gap between EU and world sugar prices, thus cutting EU sugar imports by half.⁷²⁸

Of the 10 countries that receive initial allocations of the U.S. WTO raw cane sugar TRQ, 7—Côte d’Ivoire, Madagascar, Malawi, Mauritius, Mozambique, Swaziland, and Zimbabwe—also receive preferential access to EU sugar markets via Economic Partnership Agreements (EPAs) or the Everything-But-Arms (EBA) initiative, which is a trade preference program open to countries listed as least-developed countries by the UN Committee for Development Policy.⁷²⁹

Sub-Saharan sugar exports to the EU have declined substantially, suggesting increased availability of sugar for export to the United States. During MYs 2009/10 to 2016/17, the selected SSA countries exported, on average, 671,122 mt of raw cane sugar to the EU (table 3.16). Exports peaked at 917,211 mt in 2014/15, but have since decreased by 457,007 mt to a recent low of 460,204 mt in MY 2016/17. Moreover, from October 1 through December 29, 2017, the selected SSA countries have been issued EPA/EBA import licenses for just 59,846 mt of raw sugar, compared with 296,931 mt (an 80 percent decrease) for the same period the previous season.⁷³⁰

Given these changes in EU policy and market conditions, SSA countries are more likely to fill their current U.S. TRQ allocations and may be better able to compete for additional reallocated TRQ quantities. SSA countries are initially allocated 119,593 mt (10.7 percent) of the United States’ 1,117,195 mt WTO minimum access requirement for raw cane sugar (table 3.16). After reallocation of unused TRQs, the share for SSA has ranged from a low of 7.5 percent in 2013/14 up to 11.9 percent in MY 2011/12.⁷³¹ On average during MY 2009/10 to 2016/17, SSA countries failed to fill 42,506 mt of their final quota allocations; this amounts to nearly 36 percent of their total final allocations.

⁷²⁸ EC, *EU Agricultural Outlook for the EU Agricultural Markets, December 2017*.

⁷²⁹ Economic Partnership Agreements (EPAs) are trade and development agreements negotiated between the EU and African, Caribbean, and Pacific partners engaged in regional economic integration. The Everything But Arms (EBA) initiative grants duty-free and quota-free access to countries listed as least-developed countries (LDCs) by the United Nations Committee for Development Policy (CDP). (EC, *Trade HelpDesk*.) LDCs are defined as low-income countries confronting severe structural impediments to sustainable development, highly vulnerable to economic and environmental shocks, and having low levels of human assets. There are currently 47 countries on the list of LDCs, which is reviewed every three years by the CDP. LDCs have exclusive access to certain international support measures, particularly in the areas of development assistance and trade. For more information, see UN, DESA, Development Policy and Analysis Division, “Least Developed Countries (LDCs).” Raw cane sugar shipments from South Africa to the EU do not receive preferential treatment under an EPA or the EBA program.

⁷³⁰ F.O. Licht, “European Union—Preferential EPA/EBA sugar imports—December 29, 2017,” January 4, 2018.

⁷³¹ Based on consultations with quota-holding countries, USTR reallocates WTO TRQ quantities of raw cane sugar from countries unable to fill initially allocated quantities. USTR, *USTR Announces Reallocation*, July 2017.

Table 3.16 Raw cane sugar: U.S. imports from SSA subject to WTO TRQs and overlapping SSA exports to the EU under EPA/EBA Preferences, MY 2009/10–2016/17 (metric tons)

	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
US raw TRQ entries from								
SSA	115,042	49,388	51,449	37,908	75,355	92,889	98,004	90,493
Original allocation	119,593	119,593	119,593	119,593	119,593	119,593	119,593	119,593
Final allocation	148,522	122,876	132,458	114,081	83,444	107,324	110,647	131,223
Change from original								
allocation	28,929	3,283	12,865	(5,512)	(36,149)	(12,269)	(8,946)	11,630
Unfilled from original	4,551	70,205	68,144	81,685	44,238	26,704	21,589	29,100
Unfilled from final allocation	33,480	73,488	81,009	76,173	8,089	14,435	12,643	40,730
EPA and EBA shipments to								
EU	612,942	607,302	560,380	782,278	889,057	917,211	539,602	460,204

Source: USITC, USDA, USCBP, and F.O. Licht.

Potential for U.S. Imports

SSA countries have the resources necessary to competitively produce sugarcane and raw cane sugar for export.⁷³² In addition, agricultural development policies have increased interest and investment in sugarcane in SSA, and expansion of that crop is expected to play an important role in sustainable development in the region.⁷³³ These and other factors suggest that U.S. raw cane sugar imports from the selected SSA countries could increase—subject to WTO TRQ allocations—as a result of changes in EU sugar policies.

Several SSA countries—Malawi, Mauritius, Mozambique, South Africa, Swaziland, and Zimbabwe—have established supply chains and currently export raw cane sugar to the United States. While additional interregional trade may absorb some of the excess supply, historically most SSA sugar exports have been shipped to either the EU or the United States. Recent shipments suggest that the selected SSA countries have enough excess raw cane sugar supplies (79,000 to 457,000 mt) to more than fill U.S. TRQ allocations that have been unfilled (approximately 43,000 mt) during 2010–16. Demand exists because U.S. raw cane sugar refineries depend upon imports to operate efficiently and have recently struggled to source enough raw cane sugar to achieve optimal production levels.⁷³⁴ In addition, U.S. import unit values are high enough to attract increased exports from these SSA countries.⁷³⁵

Gravity model results are consistent with the qualitative analysis above. Actual sugar exports from the selected SSA countries to both the United States and the EU were higher than gravity model expectations, consistent with the additional factors outlined. In both the EU and the United States, internal policies and border measures create substantial price gaps between domestic and international sugar prices. As a result, preferential access creates a financial incentive for sugar producers in selected SSA countries to increase exports to the EU and the United States. Changes in EU policy are expected to narrow the gap between international and domestic prices in the EU, while having little or no effect on

⁷³² Tyler, “The African Sugar Industry—A Frustrated Success Story,” 2008.

⁷³³ Hess et al., *A Sweet Deal? Sugarcane, Water and Agricultural Transformation*, 2016, 181.

⁷³⁴ The supply chain for Mexican sugar classified under 1701.14 has been transformed, and much of this product is shipped directly to manufacturers without being further refined. USITC, *Sugar from Mexico*, November 2015.

⁷³⁵ Import unit values (IUVs) from the selected SSA countries have averaged 30.4 cents/pound to the United States, higher than the 29.5 cents/pound for raw cane sugar to the EU and well above the world price of 20.1 cents/pound. USDA, ERS, “Sugar and Sweeteners Yearbook Tables” (accessed November 8, 2017); IHS Markit, Global Trade Atlas database (accessed November 8, 2017).

the gap between international and domestic prices in the United States. Thus, SSA raw sugar exports to the EU would be expected to fall, while SSA raw sugar exports to the United States would be expected to grow.

Footwear

The footwear in this product group includes athletic shoes, casual and dress shoes, boots, sandals, and slippers; all of these footwear types may or may not cover the ankle. The leading materials used to manufacture footwear are leather, synthetic leather, textiles, plastic, rubber, and wood.

Overview of U.S. Imports

Ethiopia, South Africa, and Kenya are the top three AGOA-eligible suppliers of U.S. imports of footwear from SSA (table 3.17). NTR rates of duty for total U.S. imports of footwear averaged 11 percent in 2016, whereas U.S. footwear imported under AGOA entered free of duty. Most footwear imported from AGOA-eligible countries in 2016 entered under the Harmonized Tariff Schedule of the United States (HTS) code 6403.99.90—footwear with outer soles of rubber, plastics, and uppers of leather, not covering the ankle, such as sports and athletic shoes, house slippers, and work footwear. Approximately 97 percent of footwear imported from SSA under this HTS subheading entered the United States with AGOA preferences claimed.

Table 3.17 Footwear: U.S. imports from SSA and selected SSA countries, 2010–16

Product and source country	2010	2011	2012	2013	2014	2015	2016	Absolute change	Compound annual growth rate (CAGR)
								2010–16	2010–16
	Million \$								Percent
Footwear	1.5	2.5	9.3	21.3	21.6	22.0	25.1	23.6	59.9
Ethiopia	0.5	0.7	7.1	19.4	19.2	19.2	23.3	22.8	89.0
South Africa	0.6	1.0	1.3	1.2	1.1	0.9	0.8	0.2	5.8
Kenya	0.1	0.2	0.2	0.1	0.2	0.3	0.1	a	6.1
All other SSA	0.3	0.6	0.7	0.6	1.1	1.6	0.9	0.5	18.2
Footwear under HTS									
6403.99.90	0.6	1.2	3.6	8.0	14.2	14.0	18.9	18.2	75.7
Ethiopia	0.3	0.5	2.4	7.2	13.4	13.1	18.4	18.1	98.6
South Africa	0.3	0.4	1.0	0.7	0.7	0.3	0.4	0.1	2.9
Uganda	0.0	0.0	0.0	0.0	a	0.1	0.1	0.1	^b
Rest of SSA	a	0.3	0.2	0.1	0.1	0.6	0.1	a	5.3

Source: USITC DataWeb/USDOC (accessed January 23, 2018).

^a Less than \$50,000.

^b CAGR not provided because the 2010 value was zero.

Total U.S. imports of footwear from AGOA-eligible countries increased by \$23.6 million by value (and at a compound annual growth rate, or CAGR, of 60 percent), rising from \$1.5 million in 2010 to \$25.1 million in 2016. During 2010–16, Ethiopia replaced South Africa as the leading SSA exporter of footwear to the United States; it accounted for 93 percent (\$23.3 million) of U.S. imports from AGOA-eligible countries in 2016, compared with a 34 percent share (\$510,387) in 2010. Ethiopia also registered the largest absolute increase (\$22.8 million) in footwear exports during 2010–16 by any SSA country,

growing rapidly from a small base at a CAGR of 83 percent. The largest increase in U.S. imports of footwear from Ethiopia during 2010–16 occurred between 2011 and 2013, when U.S. imports of footwear from Ethiopia surged from \$668,586 to \$19.4 million, largely the result of major Chinese investments in Ethiopian footwear production.

Key Factors Affecting U.S. Imports, 2010–16

Industry sources note that Ethiopia’s key competitive advantages include an abundant, low-cost labor force;⁷³⁶ a large supply of livestock that has supported the development of a strong leather and tanning industry and leather shoe production;⁷³⁷ an ample supply of low-cost electricity from a large hydroelectric power dam;⁷³⁸ and duty-free access to the U.S. market under AGOA. In an effort to diversify their global sourcing, U.S., Chinese, and European footwear firms have increased their imports from Ethiopia.⁷³⁹ Although other SSA countries have low-cost labor, some access to leather, and duty-free access to the U.S. market under AGOA, their current footwear manufacturing and export capacity is “tiny.”⁷⁴⁰ Exports of footwear from other SSA countries fluctuated during 2010–16 and were dwarfed by Ethiopia’s exports to the United States. Most of the SSA footwear industry’s export growth potential in the near future will likely come from Ethiopia.

The substantial increase in U.S. imports of footwear from SSA (especially Ethiopia) to the United States in 2010–16 can be attributed partly to the 2015 renewal and extension of AGOA trade preferences through 2025.⁷⁴¹ As noted earlier, most footwear imported into the U.S. market from SSA countries entered under HTS subheading 6403.99.90, which is subject to an NTR rate of duty of 10 percent ad valorem. In 2016, 98.8 percent of such imports entered the United States free of duty under AGOA.

FDI was also instrumental in expanding Ethiopia’s footwear manufacturing capacity and exports to the U.S. market. In 2011, outreach by Ethiopia’s then prime minister, Meles Zenawi, to Chinese investors motivated Chinese footwear producers to shift some production from China to Ethiopia.⁷⁴² Two major factors—rising wages in China, which can be up to 10 times higher than those in Ethiopia, and duty-free treatment under AGOA—encouraged major Chinese footwear manufacturer Huajian to establish and expand footwear manufacturing facilities in Ethiopia in 2012 and 2013.⁷⁴³ Huajian has long-term plans to make Ethiopia a global manufacturing hub for footwear sold in the African, European, and U.S. markets.⁷⁴⁴

U.S. footwear firms have also recognized the value of contracting with footwear producers in Ethiopia to diversify their sourcing. For example, in 2012 U.S. firm Caleres began importing footwear from Ethiopia,

⁷³⁶ Hankey, “Leather Manufacturing in Ethiopia: Pittards,” 2015.

⁷³⁷ Ibid.; *World Footwear*, “Local Leather Gives Ethiopia an Advantage,” November/December 2017, 4; Wallis, “China Plans Multimillion Ethiopia Investment,” June 3, 2013.

⁷³⁸ Young, “Made in Ethiopia: Fashion’s Next Sourcing Hub?” October 17, 2016.

⁷³⁹ Dutter, “Ethiopian Footwear on the Rise,” November 29, 2017; Hankey, “Leather Manufacturing in Ethiopia: Pittards,” 2015.

⁷⁴⁰ U.S. industry representative, interview by USITC staff, Washington DC, February 6, 2018.

⁷⁴¹ Nedelcovych, “How the US and China Are Empowering,” February 11, 2016.

⁷⁴² Zizhu, “Inside the Chinese Factory in Ethiopia,” January 30, 2017.

⁷⁴³ In Ethiopia, a typical footwear worker’s starting salary is \$40–\$50 per month, much less than the \$430 per month earned by a worker in Huajian’s factory in China. Zizhu, “Inside the Chinese Factory in Ethiopia,” January 30, 2017.

⁷⁴⁴ Jobson, “Shoemaker Huajian Says New \$2bn Manufacturing Zone,” April 30, 2013.

partly because of Ethiopia’s low labor costs and partly because of business partners who had begun manufacturing footwear there.⁷⁴⁵ Caleres has continued to increase its imports from Ethiopia and has expanded the types of casual leather footwear it is sourcing from Ethiopia.⁷⁴⁶

In recent years, Ethiopia’s footwear manufacturing sector has started to focus on improving its quality and productivity.⁷⁴⁷ It has benefited from investments by firms in Italy and Japan in its manufacturing operations, as well as foreign technical expertise and training.⁷⁴⁸

Potential for U.S. Imports

Footwear manufacturers in SSA continue to have the potential to export to the United States, although not without significant challenges. For example, apart from leather, these manufacturers must import a significant share—as much as 60 percent—of their inputs (e.g., plastic, rubber, fabrics, glues, nylon, chemicals for tanneries, and polyurethane).⁷⁴⁹ In addition, the manufacturing productivity of SSA footwear producers lags behind that of Asian suppliers,⁷⁵⁰ and freight costs to and from the region are high, as transportation infrastructure in SSA remains limited and outdated.⁷⁵¹ Despite these constraints, SSA footwear production and exports to the United States and other markets are likely to continue growing through 2025. AGOA remains a principal incentive for sourcing from Ethiopia,⁷⁵² and the 2015 renewal of AGOA offers footwear firms in eligible SSA countries several more years of “duty-free certainty” that is encouraging continued sourcing from the region.⁷⁵³

At the same time, any growth in imports from SSA countries depends on U.S. demand. The United States is the world’s largest importer of footwear, and the U.S. consumer buys an average of 7.5 new pairs of shoes annually.⁷⁵⁴ In recent years, industry representatives have pointed to shifts in discretionary spending by U.S. consumers who are spending more on experiences, such as travel and recreation, and less on goods such as apparel and footwear.⁷⁵⁵ Nevertheless, U.S. demand for footwear remains strong and stable, and U.S. firms are therefore likely to continue importing footwear from SSA.

Ethiopia, South Africa, and Kenya are the largest SSA footwear exporters to the United States; however, Ethiopia appears to have the most potential for footwear export growth in the near future. The actual growth in Ethiopia’s footwear exports to the United States far exceeds the gravity model’s expectations. By contrast, the model results indicate that Tanzania and South Africa have the biggest gaps between

⁷⁴⁵ Jenkins, “Executive Forecast,” July 19, 2016.

⁷⁴⁶ U.S. industry representative, email messages to USITC staff, February 2 and 6, 2018; Jenkins, “Executive Forecast,” July 19, 2016; Young, “Made in Ethiopia: Fashion’s Next Sourcing Hub?” October 17, 2016; *World Footwear*, “Local Leather Gives Ethiopia an Advantage,” November/December 2017, 4.

⁷⁴⁷ Young, “Made in Ethiopia: Fashion’s Next Sourcing Hub?” October 17, 2017.

⁷⁴⁸ *Ibid.*; *African Leadership Magazine*, “Italy to Increase Investments in Ethiopia’s Industry,” December 17, 2015; Government of Ethiopia, “Key Reasons for Investing” (accessed December 18, 2017).

⁷⁴⁹ U.S. industry representative, email message to USITC staff, February 2, 2018; Zizhu, “Inside the Chinese Factory in Ethiopia,” January 30, 2017.

⁷⁵⁰ Zizhu, “Inside the Chinese Factory in Ethiopia,” January 30, 2017.

⁷⁵¹ U.S. industry representative, email message to USITC staff, February 2, 2018; Zizhu, “Inside the Chinese Factory in Ethiopia,” January 30, 2017.

⁷⁵² U.S. industry representative, email message to USITC staff, February 2, 2018.

⁷⁵³ Young, “Made in Ethiopia: Fashion’s Next Sourcing Hub?” October 17, 2016.

⁷⁵⁴ Priest, “United States of Footwear Conference: Welcome,” May 11, 2017.

⁷⁵⁵ Quinlan, “State of American Retail—Mastercard Insights,” May 11, 2017; Quittner, “Why Americans Are Spending More on Experiences,” September 1, 2016.

potential and actual trade flows in U.S. imports of footwear from SSA. However, it may not be realistic for these countries to substantially increase their exports of footwear to the United States, especially given the recent increased competition from Ethiopia. Although South Africa had been SSA's leading footwear exporter, by a small margin, to the U.S. market in 2010, South Africa's labor costs have been rising steadily in recent years.⁷⁵⁶ Given that footwear production is highly labor intensive,⁷⁵⁷ any growth in footwear exports from South Africa to the U.S. market is likely to be limited.

High labor costs also affect Kenya. Kenya is the third-largest SSA exporter of footwear to the U.S. market, and its government has recently begun to focus efforts on supporting the footwear industry.⁷⁵⁸ However, the growth of Kenya's footwear industry is likely to be constrained in the near future because of ongoing challenges, especially the high costs of Kenya's labor, as well as the high costs of electricity and domestically sold leather.⁷⁵⁹

In contrast, as noted above, Ethiopia has highly competitive labor rates, leather prices, and power costs. The Ethiopian government, Ethiopian footwear producers, and foreign investors are implementing long-term plans to continue expanding Ethiopia's footwear production for export. In a recently released five-year (2015 to 2020) development plan, Ethiopia's government designated leather products as a top priority among manufacturing industries.⁷⁶⁰ To that end, the Ethiopian government has invested in improving the country's transportation system and power generation, both vital to an expanded footwear sector. For example, the completion of the Grand Ethiopian Renaissance Dam on the Nile by 2017–18 is expected to quadruple Ethiopia's power generation capacity.⁷⁶¹ Chinese investors' projects have included the building of a highway extending from Addis Ababa to the transportation hub of Adama; an expansion project of Addis Ababa's airport terminal; and the first urban light rail.⁷⁶²

Recent new investments in footwear manufacturing facilities and technology in Ethiopia further underscore the likelihood of future growth for this sector. The Ethiopian government is implementing plans to build additional industrial parks.⁷⁶³ In 2016, Ethiopian footwear firm Anbessa Shoes started production at a new facility in the Akaki Kaliti district designed to boost its daily production of shoes from 3,500 pairs to 10,000 pairs for J.Crew and other U.S. brands.⁷⁶⁴ British tanning group Pittards recently opened a shoemaking facility with 70 workers in Addis Ababa to produce shoes for the footwear brand Soul of Africa.⁷⁶⁵ As a result of all of these factors, many industry sources point to Ethiopia's strong potential for footwear exports to the U.S. market and expect continued growth in the future.⁷⁶⁶

⁷⁵⁶ FRED Economic Data, "Total Unit Labor Cost: Manufacturing in South Africa: 1/1/1963 to 1/1/2017" (accessed January 24, 2018).

⁷⁵⁷ IBIS World, "Shoe and Footwear Manufacturing in the US," July 2016, 8.

⁷⁵⁸ Footwearbiz.com, "Kenya Takes Footwear Seriously in Five-Year Plan," February 2, 2018; Footwearbiz.com, "Kenyan Shoe Manufacturers Could Benefit from Tax Break," October 16, 2017.

⁷⁵⁹ Okello, "Revival of Production in the Footwear Industry in Kenya," n.d. (accessed January 30, 2018).

⁷⁶⁰ Hauge and Irfan, "Ethiopia Is on Track to Become Africa's Industrial Powerhouse," June 26, 2016.

⁷⁶¹ Ibid.

⁷⁶² Zizhu, "Inside the Chinese Factory in Ethiopia," January 30, 2017.

⁷⁶³ Xinhua, "Ethiopia Plans to Have 5 New Industrial Parks by June 2018," July 13, 2017.

⁷⁶⁴ USAID, East Africa Trade and Investment Hub, "Anbessa Shoe S.C.," 2016.

⁷⁶⁵ Footwearbiz.com, "Pittards Adds Shoe Factory to Its Ethiopia Operations," November 22, 2017.

⁷⁶⁶ USITC, hearing transcript, January 23, 2018, 195–96 (testimony of Florizelle Liser, Corporate Council on Africa).

U.S. Imports of Services from SSA Countries

The following section discusses U.S. imports of travel services from SSA. Disaggregated data on U.S. imports from SSA are not available. However, the Bureau of Economic Analysis (BEA) publishes data on U.S. trade with Africa as a whole, which include imports from both SSA and the countries of North Africa.⁷⁶⁷ These data indicate that travel services accounted for the largest share (49.4 percent) of U.S. imports of private services from Africa in 2016.⁷⁶⁸ Other business services—a category that includes a wide range of services industries—accounted for the second-largest share (26.4 percent) of U.S. private services imports from the continent in 2016, followed by transport services (17.5 percent).⁷⁶⁹ U.S. imports of private services from all African countries fluctuated between 2010 and 2016, posting an overall CAGR of 1.7 percent during the period and totaling \$8.0 billion in 2016.⁷⁷⁰

According to BEA data, U.S. affiliate purchases of services from Africa are very small, totaling only \$729 million in 2015 (the latest year for which such data are available).⁷⁷¹ The wholesale trade sector accounted for 59.9 percent of U.S. affiliate purchases of services from Africa in 2015. More information on foreign direct investment can be found in chapter 4 of this report.⁷⁷²

Due to the lack of data specific to U.S. trade with SSA, the analysis in this section also presents World Trade Organization (WTO) data on total SSA exports of services to the world.⁷⁷³ These data indicate that SSA exports of commercial services increased in every year during 2010–15,⁷⁷⁴ posting an overall CAGR of 5.3 percent and totaling about \$55.7 billion in 2015.⁷⁷⁵ South Africa accounted for the largest share of

⁷⁶⁷ BEA does not publish discrete data on U.S. cross-border services trade with SSA. Africa, as referenced here, includes SSA countries as well as Egypt, Libya, Algeria, Morocco, Tunisia, Western Sahara, and other outlying islands. BEA, “Geographic Area Definitions,” n.d.

https://www.bea.gov/international/bp_web/geographic_area_definitions.pdf (accessed October 10, 2017).

⁷⁶⁸ USDOC, BEA, Interactive data, International Transactions, Services, & IIP, International Services, table 2.3 (accessed November 13, 2017). “Private services” excludes government-provided services.

⁷⁶⁹ “Other business services” is a broad category that includes a number of distinct services segments, including research and development services; legal services; accounting, auditing, and bookkeeping services; business and management consulting and public relations services; advertising; architectural and engineering services; construction; industrial engineering; operating leasing services; mining; trade-related services; sports and performing arts; training services; and other business services not included elsewhere. This wide range of activities makes it difficult to present a coherent overview and analysis of the nature of, and trends in, U.S.-SSA services trade in this category. As a result, “other business services” is not the subject of a separate discussion in this report, despite accounting for a substantial share of overall U.S. imports of private services from Africa.

⁷⁷⁰ For more information on U.S. trade in services with SSA, please see USITC, “The Sub-Saharan African Services Economy: Insights and Trends,” 2017.

⁷⁷¹ According to the BEA, data on affiliate transactions reflect “services supplied by majority-owned affiliates of multinational enterprises (MNEs) through the channel of direct investment.” As such, affiliate sales and purchases are related to, but not synonymous with, foreign direct investment stock and flows. USDOC, BEA, “Definition of International Services,” https://www.bea.gov/international/international_services_definition.htm (accessed March 6, 2018).

⁷⁷² USDOC, BEA, Interactive data, International Transactions, Services, & IIP, International Services, table 4.4, (accessed November 13, 2017).

⁷⁷³ The WTO publishes data on commercial services trade for 47 SSA countries.

⁷⁷⁴ Although the WTO publishes some data on SSA trade in commercial services for 2016, much of these data are preliminary or incomplete. As a result, this discussion focuses on the 2010–15 period.

⁷⁷⁵ This total does not include world imports from Guinea or Sierra Leone, as data on world exports to those countries are unavailable for 2015.

such exports with 26.3 percent, followed by Ghana (10.8 percent), Tanzania (6.7 percent), and Kenya (6.4 percent).⁷⁷⁶

Travel Services

Data on trade in travel services reflect foreign residents' purchases of goods and services, such as food and lodging, while traveling abroad for personal, business, and health and education purposes. For example, a U.S. resident's expenditures while visiting a foreign country would be considered U.S. imports of travel services, and a foreign resident's expenditures while visiting the United States would be considered U.S. exports of such services. Travel services make up a large share of total U.S. services trade with SSA, and U.S. travel services imports from SSA have been growing steadily in recent years. South Africa and Nigeria continue to be the two largest sources of U.S. travel imports from SSA, in terms of both dollar value and number of arrivals.⁷⁷⁷

U.S. Cross-border Imports of Travel Services from SSA

U.S. cross-border imports of travel services from Africa as a whole encompass almost half (46 percent) of U.S. services imports from the continent, and rose from \$3.3 billion in 2010 to \$3.9 billion in 2016 (a CAGR of 2.8 percent).⁷⁷⁸ This represents a resumption of a previous growth pattern that began in the early 2000s and that continued until the global financial crisis of 2007–09, when travel imports dropped slightly. Total U.S. arrivals in SSA countries rose to 951,000 in 2015, up from 855,000 in 2010.⁷⁷⁹ The United States has historically been the largest source of extra-regional tourists in Ethiopia, Ghana, and Rwanda,⁷⁸⁰ while European countries remain the largest source of foreign tourists traveling to many other SSA countries due to their colonial ties. Developing countries also represent a growing source of tourists to Africa: 9.4 percent of Chinese residents traveling abroad visited Africa in 2014, up from 2.8 percent in 2008. At the same time, tourist flows from Brazil and Russia have also increased in recent years as the middle classes in these countries have become more affluent and business ties between Africa and Brazil, Russia, India, and China have increased.⁷⁸¹

⁷⁷⁶ WTO, Statistics Database, Time Series on International Trade, "Trade in Commercial Services, 2005–onward (BPM6)" (accessed November 7, 2017).

⁷⁷⁷ Arrivals are defined as the number of international visits to a country, regardless of the purpose of visit or duration; when a single person visits a country several times in the same year, each visit is counted as one arrival. UNWTO, "Yearbook of Tourism Statistics," 2017.

⁷⁷⁸ South Africa and Nigeria are the only countries in SSA for which data are available. USDOC, BEA, Interactive data, "International Transactions, Services, & IIP, International Services, table 2.3," October 24, 2017.

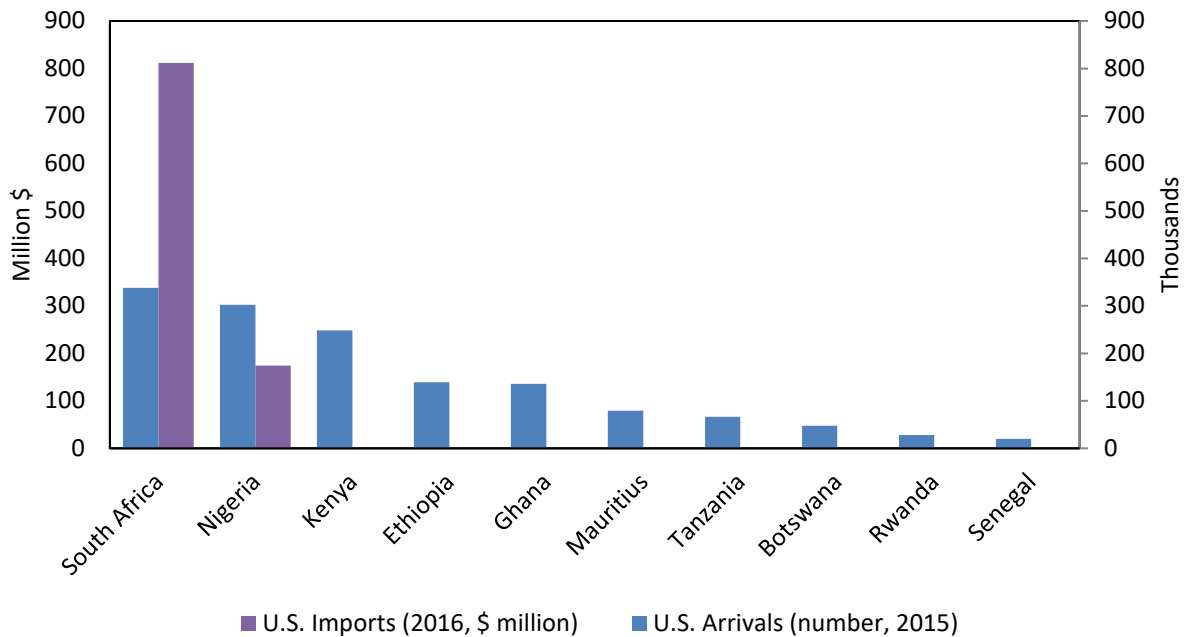
⁷⁷⁹ Author's calculations based on USDOC, OTTI, "Profile of U.S. Resident Travelers Visiting Overseas Destinations: 2010 Outbound," n.d.; USDOC, OTTI, "Profile of U.S. Resident Travelers Visiting Overseas Destinations: 2015 Outbound," n.d. (both accessed January 24, 2018).

⁷⁸⁰ UNWTO, "Yearbook of Tourism Statistics," 2017; Ghana Tourism Authority, "Tourism Information on Ghana," n.d. (accessed February 2, 2018).

⁷⁸¹ *Xinhua*, "Africa Becoming Popular Destination among Chinese Tourists," April 7, 2016; AfDB, *Africa Tourism Monitor*, September 2013. Figures for Brazil and Russia are derived from a survey of online travel reservations. Other sources estimate the annual growth in the number of Chinese tourists visiting Africa at anywhere from 80 percent to 150 percent. For context, Chinese tourists made 1.8 million trips to Africa in 2013. Hou and Wang, "Chinese Tourists to Africa on Rise," November 28, 2014.

South Africa is the largest African destination for U.S. tourists, with more than 337,000 arrivals in 2015;⁷⁸² travel to South Africa represented 20.6 percent (\$812 million) of the total dollar value of U.S. travel imports from Africa in 2016 (figure 3.4).⁷⁸³ Nigeria ranked as the second-largest destination with 302,000 arrivals, accounting for 4.4 percent (\$174 million) in U.S. imports (figure 3.4). Despite receiving similar numbers of U.S. tourists, the dollar value of U.S. imports from South Africa is much higher than those from Nigeria. This is primarily due to South Africa’s more developed tourism infrastructure, which offers travelers a wider menu of accommodations and activities that include expensive options such as luxury safaris. It is also due to the nature of the travel, given that a higher percentage of travelers to Nigeria are visiting friends and relatives.

Figure 3.4 U.S. travel imports from and tourist arrivals to SSA, by country



Source: USDOC, BEA, “Interactive data, International Transactions, Services, &IIP, International Services, table 2.3,” October 24, 2017; UNWTO, *Yearbook of Tourism Statistics*, 2017; Ghana Tourism Authority, “Tourism Information on Ghana,” n.d. (accessed November 7, 2017).

Note: Data on U.S. imports of travel services are available only for Nigeria and South Africa. The most recent data on tourist arrivals are for 2015. See [appendix table I.6](#) for a tabular presentation of the data in this figure.

World imports⁷⁸⁴ of travel services from SSA totaled \$23.6 billion in 2015, dropping from a peak of \$25.3 billion in 2014 after having experienced steady growth since 2010. South Africa was the source of 35 percent, or \$8.26 billion, of such imports, followed at a distance by Tanzania (9.5 percent or \$2.23 billion) and Mauritius (6.1 percent or \$1.43 billion).

⁷⁸² The latest year for which data on tourist arrivals by country are available is 2015. UNWTO, *Yearbook of Tourism Statistics*, 2017.

⁷⁸³ USDOC, BEA, “Interactive data, International Transactions, Services, &IIP, International Services, table 2.3,” October 24, 2017.

⁷⁸⁴ This section characterizes SSA countries’ exports of travel services to the world as imports by the world of SSA travel services for consistency purposes. However, data from the WTO on total world exports do not match those on total world imports due to the systematic underreporting of imports, currency fluctuations, and other balance-of-payments accounting issues.

Key Factors Affecting U.S. Imports

SSA countries have developed increasingly sophisticated tourism marketing campaigns to promote the region's natural and cultural attractions to potential foreign visitors. South Africa has a history of successful tourism advertising, particularly surrounding its hosting of the 2010 World Cup, while Mauritius ranks 8th out of 139 countries in terms of the effectiveness of its tourism marketing and branding, ahead of traditional tourism powerhouses like Costa Rica.⁷⁸⁵ Social media is also becoming increasingly important as a communication tool, with Instagram accounts like *Everyday Africa* and *Visiter L'Afrique* being used to promote tourism in Africa to a more technologically engaged audience.⁷⁸⁶

Despite these efforts, U.S. imports of travel services from Africa are small compared to U.S. imports from other regions,⁷⁸⁷ in large part due to underdeveloped infrastructure which leads to higher travel and accommodation costs. South Africa and Mauritius rank 53 and 55, respectively, on the global Travel and Tourism Competitiveness Index, which rates markets based on tourism-related regulation, business conditions, and human capital.⁷⁸⁸ Flights from the United States to SSA cost 50 percent more than flights to comparable overseas destinations such as Asia,⁷⁸⁹ while safari tours in SSA are 38 percent more expensive than similar tours in Asia and Latin America, chiefly due to costlier accommodations.⁷⁹⁰ Hotel development costs in SSA are estimated to be 25–100 percent above the world median due to relatively high capital costs as well as complex and lengthy procedures for securing property titles and permits,⁷⁹¹ which translate into higher room prices.

Other factors that hinder SSA trade in travel services include perceptions of political instability and other risks, as well as high visa fees and complicated bureaucracy. The United States maintains travel warnings for at least 15 SSA countries due to threats of violence or instability, including for large tourist markets such as Kenya.⁷⁹² The Ebola outbreak of 2014 caused an overall drop in tourism arrivals, not just in West Africa, where the epidemic was concentrated, but also in countries as far away as South Africa and Tanzania.⁷⁹³ Many SSA countries still struggle to meet demand for electricity and other essential services. Visa fees and travel-related bureaucracy also impose a cost; while 16 countries in SSA grant

⁷⁸⁵ World Bank, *Tourism in Africa*, 2015, 82.

⁷⁸⁶ Mtshali, "African Instagrammers Documenting," August 19, 2017.

⁷⁸⁷ By comparison, Asian exports of travel services to the United States are roughly seven times as large as exports from Africa, despite having a similar flying distance to the United States.

⁷⁸⁸ No other SSA country ranks higher than 80 on the index. WEF, *Travel and Tourism Competitiveness Report 2017*, April 5, 2017, 9.

⁷⁸⁹ Airfares within SSA are also substantially more expensive than in other regions, while poor road quality and the lack of rail transportation on much of the continent also limit intra-SSA travel. World Bank, *Tourism in Africa*, 2015, 47–49. Teravanithorn and Raballand, "Transport Prices and Costs in Africa," July 2008.

⁷⁹⁰ World Bank, *Tourism in Africa*, 2015, 48.

⁷⁹¹ *Ibid.*, 45–46.

⁷⁹² USDOS, Bureau of Consular Affairs, "Alerts and Warnings" (accessed December 11, 2017).

⁷⁹³ While many popular tourist destinations were far from the main locations affected by the Ebola epidemic, a misunderstanding of the distances involved likely led some tourists to overestimate the exposure threat. UNCTAD, *Economic Development in Africa Report*, 2017, 33.

U.S. passport holders a visa on arrival,⁷⁹⁴ the official cost of a tourist visa can be as high as \$100 in Tanzania and \$180 in Nigeria.⁷⁹⁵

Potential for U.S. Imports

U.S. imports of travel services from SSA and U.S. visitor arrivals in SSA countries are expected to rise steadily in the near term. The United Nations World Tourism Organization (UNWTO) expects overall visitor arrivals in SSA to continue to grow, and the U.S. share of those arrivals has been relatively stable in recent years.⁷⁹⁶ This suggests likely growth in U.S. visitor arrivals to—and therefore travel services imports from—SSA. Tourism providers in SSA are also working to better integrate themselves in the online travel market, where around 50 percent of travel is now booked,⁷⁹⁷ and to take advantage of the increase in business travelers related to expanding FDI in SSA.⁷⁹⁸ World imports from SSA of niche travel services, such as cultural tourism or ecotourism, are also expected to increase as the region looks to move up the tourism value chain.⁷⁹⁹ However, as discussed above, relatively costly transportation and lodging, as well as perceived political instability, pose challenges for future growth in U.S. imports of SSA travel services.

⁷⁹⁴ USDOS, Bureau of Consular Affairs, “Alerts and Warnings” (accessed December 11, 2017); Edwards, “Visa-free Travel in Africa for Americans” (accessed December 11, 2017).

⁷⁹⁵ Several SSA countries also require additional passport photos, a letter of invitation, and proof of yellow fever vaccination. Embassy of Nigeria website, <http://www.nigeriaembassyusa.org/index.php?page=visas> (accessed December 11, 2017); Embassy of Tanzania website, <https://www.immigration.go.tz/index.php/en/services/visa-information> (accessed December 11, 2017).

⁷⁹⁶ UNWTO, *World Tourism Barometer* 15, May 2017, 7.

⁷⁹⁷ AfDB, *Africa Tourism Monitor: Unlocking Africa’s Tourism Potential*, October 2015, 14.

⁷⁹⁸ Wroblewska, “Tourism in Nigeria: Slow Burn,” September 26, 2016.

⁷⁹⁹ Hepola, “How Rwanda Became the Unlikeliest Tourism Destination,” September 28, 2017; World Bank, *Tourism in Africa*, 58, 107 (accessed December 11, 2017).

Chapter 4

U.S.-SSA Bilateral Investment Trends

Introduction

This chapter gives an overview of foreign direct investment (FDI) between the United States and SSA for 2010–16, focusing on the key markets and sectors for U.S. investment. The discussion points to the key factors impacting the growth of U.S. FDI in SSA markets and identifies the principal third-party investors in SSA.

The first part of this chapter presents an overview of U.S. FDI in SSA, from 2010 to 2016, with an examination of the leading market destinations and sectors for U.S. investment. Specifically, it examines the largest sectors for U.S. outward FDI, in terms of total position and number of projects, and discusses, when possible, factors influencing potential future growth in these sectors. This section also includes an overview of FDI from Africa in the United States, specifically focusing on investment from South Africa, which is the main source of SSA investment into the United States.

Official data on inward and outward U.S. foreign investment, which come from the Bureau of Economic Analysis (BEA) at the U.S. Department of Commerce, are limited. The data on U.S. outward FDI in SSA countries by sector are especially limited, and data on U.S. inward FDI from SSA are limited by country and sector. To give a more complete view of investment trends between the United States and SSA, this report complements the official data using commercial data that provide FDI project and deal totals, broken down by country and sector. Nonetheless, the overall data limitations for this topic preclude using the empirical approach employed in chapters 2 and 3 to assess the potential for future U.S. FDI growth in SSA countries.

The second part of the chapter will examine the key factors impacting growth of U.S. investment in SSA markets. This includes macroeconomic factors, institutional factors, and infrastructure development in SSA countries. This section identifies the SSA markets that have improved with respect to each factor.

The third part of this chapter highlights the principal third-country investors in SSA. Specifically, this section examines the primary destination markets and sectors for each investor country. The main sources of investment in SSA, beyond the United States, are the European Union (EU), China, and South Africa.

Key Findings

Overall, U.S. FDI positions in SSA declined from 2010 to 2016, although they fluctuated significantly during this period.⁸⁰⁰ The mining sector was the largest destination sector, in terms of value, for U.S. investment in Africa.⁸⁰¹ However, the two largest sectors in terms of the number of actual projects and

⁸⁰⁰ FDI position (or stock) is a measure of cumulative investment over time. This is in comparison to FDI inflows, which are a measure of new investment in a single year.

⁸⁰¹ This includes U.S. FDI positions in mining in SSA, as well as in North African countries including Egypt, Libya, Tunisia, and Morocco, as the BEA data do not break out U.S. FDI positions in mining in SSA separately.

deals were in the services sector, specifically software/information technology (IT) and business services. The qualitative analysis in this chapter shows that five sectors are likely to present the greatest potential for U.S. outward FDI to SSA: professional and business services, financial services, textiles and apparel, renewable energy, and mining. The leading destination markets for current U.S. outward FDI were Mauritius, South Africa, and Nigeria.

In contrast to U.S. outbound investment, FDI positions from Africa to the United States increased significantly during 2010–2016. The majority of this investment was from South Africa and was directed toward the manufacturing sector.

A strong business environment, quality institutions, and developed infrastructure are key factors for increasing investment in non-petroleum sectors. The business and investment climate in SSA has shown improvement since 2000. Improvements can be seen in key macroeconomic indicators, as well as in indicators that rank governance and the ease of doing business. However, insufficient infrastructure development, political instability, and corruption remain ongoing challenges to investment in SSA.

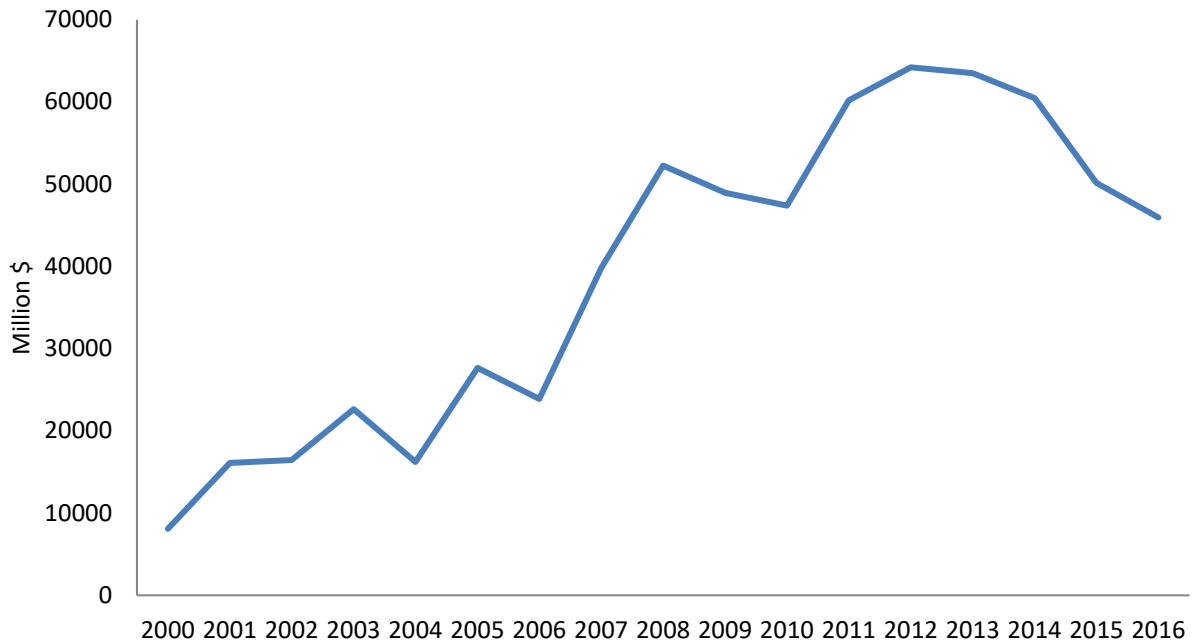
Overview of Investment in SSA

Since 2000, global inflows of FDI to SSA have increased substantially. During 2000–2012 they grew at an average annual rate of 16 percent, from \$8.1 billion to a high of \$64.2 billion.⁸⁰² For most of the previous three decades, by contrast, global FDI inflows to SSA were less than \$5 billion per year. The overall investment climate has improved in many SSA countries since 2000, and investors have been eager to access SSA markets to satisfy domestic demand and increase integration of SSA countries into global supply chains. However, inflows have fallen since 2012. In 2016, FDI inflows to SSA totaled \$46 billion, a 28.5 percent decrease from the 2012 peak. Low commodity prices (particularly for crude oil, gold, copper, and iron ore, in addition to others)⁸⁰³ and sluggish growth in some SSA countries have contributed to declining investor interest in SSA. Other factors have included drought, pests, and concerns about political and regulatory stability and security.⁸⁰⁴

⁸⁰² UNCTAD, UNCTADStat database (accessed January 3, 2018). FDI inflows are measured in U.S. dollars at current prices.

⁸⁰³ The highest point of the Commodities Global Price Index during the 2010 to 2016 period hit 202.1 in the second quarter of 2011. By Q4 2016, the Index dropped to 109.7, a 45.7 percent decrease. Federal Reserve Bank of St. Louis, Global Price Index of All Commodities, (accessed March 23, 2018). <https://fred.stlouisfed.org/series/PALLFNFINDEXQ>. Historical prices for all commodities can be found on the Federal Reserve Bank of St. Louis's Commodity Price pages: <https://fred.stlouisfed.org/categories/32217> (accessed March 23, 2018).

⁸⁰⁴ UNCTAD, *World Investment Report 2017*; IMF, *Regional Economic Outlook: Sub-Saharan Africa*, April 2017.

Figure 4.1 FDI inflows to SSA, 2000–16

Source: UNCTAD, UNCTADStat database (accessed January 8, 2018).

Note: See [appendix table I.7](#) for a tabular presentation of the data in this figure.

In 2016, South Africa, Nigeria, and Angola were the largest destinations for global FDI positions in SSA, which totaled \$136.8 billion, \$94.2 billion, and \$49.5 billion, respectively (table 4.1).⁸⁰⁵ While the region experienced decreasing inflows in general, this trend was not consistent across all countries, nor was it due to the same causes. For example, inflows to the Democratic Republic of the Congo (DRC) declined 28 percent, to \$1.2 billion, from 2015, primarily because depressed commodity prices diminished investor interest. On the other hand, inflows to Ethiopia rose 46 percent in 2016, to \$3.2 billion, much of the increased FDI consisted in investments in infrastructure and manufacturing.⁸⁰⁶ The SSA countries that experienced the fastest FDI growth from 2010 to 2016 were Burundi (1,545.9 percent), Mozambique (591.2 percent), Burkina Faso (460.6 percent), Rwanda (430.1 percent), Guinea (368.1 percent), Somalia (246.4 percent), and Ethiopia (225.7 percent).

⁸⁰⁵ For more information on major FDI recipient countries in SSA, see chapter 5, “Country Profiles.”

⁸⁰⁶ UNCTAD, *World Investment Report 2017, 2017*; UNCTAD, UNCTADStat dataset (accessed January 11, 2018).

Table 4.1 Global FDI positions in SSA countries, 2010–16

	2010	2012	2014	2016	Absolute change 2010–16	% change 2010–16
	Billion \$					
South Africa	179.6	163.5	138.9	136.8	-42.8	-23.8
Nigeria	60.3	76.4	86.7	94.2	33.9	56.1
Angola	41.	31.1	25.9	49.5	8.5	20.8
Mozambique	4.6	13.8	24.9	31.8	27.2	591.2
Ghana	10.1	16.6	23.2	29.9	19.8	196.5
Congo-Rep.	9.3	13.6	22.	25.9	16.6	179.4
Sudan	^a	19.7	22.7	25.5	^b	^b
Dem. Rep. of the Congo	9.4	14.4	18.3	21.2	11.8	126.2
Tanzania	9.7	12.7	16.9	19.8	10.1	104.1
Zambia	7.4	11.	14.9	14.9	7.5	101.0
All other	94.4	113.	133.3	153.1	58.7	62.1

Source: USDOC, BEA, Balance of Payments and Direct Investment Position Data (accessed December 4, 2017); USITC Calculations.

^a Data not available.

^b Absolute change and % change 2010–16 not provided because the 2010 value was not available.

Official government data on both FDI positions and inflows in SSA by source, destination, and industry are scarce.⁸⁰⁷ In the absence of official data, this chapter relies on commercial databases that provide data on individual greenfield FDI projects⁸⁰⁸ and on cross-border mergers and acquisitions (M&As).⁸⁰⁹ According to these sources, greenfield FDI projects accounted for over two-thirds of new investment in SSA during 2010–16, with the remainder originating from M&A deals.⁸¹⁰ Data on the value of individual deals and projects are scarce; thus only the number of deals, broken down by source, destination, and industry, are reported in the rest of this chapter. While this information is incomplete, it does illustrate the overall trends of FDI in particular markets and industries in SSA.

Overall, the largest source of investment in both greenfield FDI projects and M&A deals in SSA was the EU, accounting for over one-third of all projects during 2010–16. The EU was followed by SSA countries (22 percent)⁸¹¹ and the United States (13 percent) (figure 4.2).

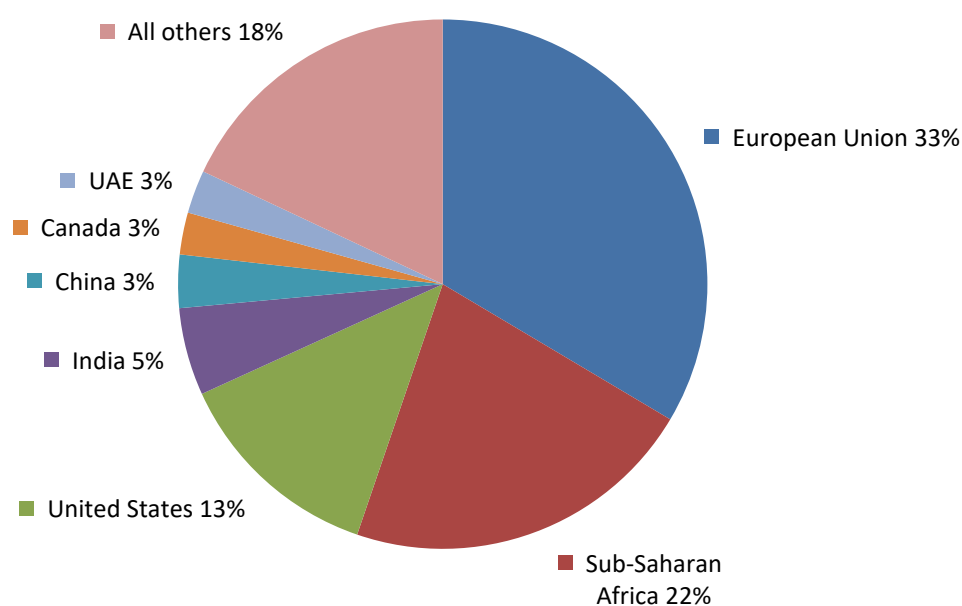
⁸⁰⁷ According to UNCTAD, the top investor economies, by FDI stock, for the continent as a whole (including North African countries) in 2015 were the United States (\$64 billion), the United Kingdom (UK) (\$58 billion), France (\$54 billion), China (\$35 billion), and South Africa (\$22 billion).

⁸⁰⁸ Bureau van Dijk's Zephyr database (accessed January 12, 2018). Greenfield FDI projects are defined as new investments by foreign investors, as opposed to acquisitions of existing companies or equity investments in the latter.

⁸⁰⁹ *Financial Times*, fDi Markets database (accessed December 15, 2017). For the purpose of this analysis, M&A deals include acquisitions, capital increases, joint ventures, mergers, and minority stakes.

⁸¹⁰ The percentage of greenfield projects may be higher. Data on M&A deals includes deals for which the minority stake is unknown. If the minority stake is below 10 percent, the deal is typically considered FDI rather than portfolio investment.

⁸¹¹ South Africa was the leading source of regional investment in this group.

Figure 4.2 Greenfield FDI projects and M&A deals in SSA, by source, 2010–16

Source: *Financial Times*, fDiMarkets database; Bureau van Dijk, Zephyr database.

Note: UAE = United Arab Emirates. See [appendix table I.8](#) for a tabular presentation of the data in this figure.

For these top investors, the primary industry for investment, in terms of the number of greenfield projects and M&A deals, was financial services. Indeed, the number of greenfield projects in financial services far exceeded the numbers in other industries. In the aggregate, services were the main destination for global greenfield investment, followed by food and beverage (table 4.2). The sections that follow analyze these trends in detail.

Table 4.2 Global greenfield FDI projects in SSA, by industry, 2010–16

	Number of projects	% share of total
Financial services	776	18
Business services	458	11
Communications	452	11
Software and information technology (IT) services	279	6
Food and beverage	255	6
Transportation	175	4
Industrial machinery, equipment and tools	166	4
Metals	158	4
Coal, oil, and natural gas	158	4
Alternative/renewable energy	143	3
Textiles	130	3
Chemicals	127	3
Others	1,026	24

Source: *Financial Times*, fDiMarkets database (accessed December 15, 2017).

U.S. and SSA Bilateral Investment Trends

U.S. Outbound Investment in SSA

The United States is one of the largest single-country investors in SSA, in terms of both investment positions and the number of greenfield projects and M&A deals.⁸¹² In 2016, the United States' cumulative FDI position in SSA was \$29.0 billion (table 4.3). U.S. FDI positions in SSA fluctuated during 2010–16; in 2016, they were down 12.8 percent from \$33.2 billion in 2010.

Table 4.3 U.S. FDI positions in SSA, total and selected countries, 2010–16

	2010	2012	2014	2016	Absolute change 2010–16	% change 2010–16
	Million \$					
Total SSA ^a	33,238	^b	^b	28,974	-4,264	-12.8
Mauritius	7,885	6,369	6,734	6,962	-923	-11.7
South Africa	6,017	5,471	5,921	5,061	-956	-15.9
Nigeria	5,058	5,369	4,405	3,819	-1,239	-24.5
Ghana	2,874	3,567	^d	2,944	70	2.4
Liberia	851	1,019	911	1,041	190	22.3
Equatorial Guinea	1,978	3,107	4,343	704	-1,274	-64.4
Kenya	308	285	387	369	61	19.8
Mozambique	121	619	^d	354	233	192.6
Congo-Rep.	214	^d	-54	202	-12	-5.6
Côte d'Ivoire	-1	-40	134	185	186	^c

Source: USDOC, BEA, Balance of Payments and Direct Investment Position Database (accessed December 4, 2017); USITC calculations.

Note: FDI position (or stock) is a measure of cumulative investment over time.

^a Total U.S. FDI positions in SSA as a whole are not provided by the BEA. Total SSA positions were calculated by subtracting positions in North African countries from total U.S. positions in Africa.

^b The 2012 and 2014 total SSA data cannot be accurately estimated because BEA suppressed data for North African countries in 2014 to protect data of individual companies.

^c The percentage change for 2010–16 is not provided because the 2010 value was negative.

^d Data were suppressed to avoid disclosure of individual company information.

Destination Countries in SSA

In 2016, the three largest destinations for U.S. outward investment were Mauritius, South Africa, and Nigeria. All three experienced a decrease in investment from 2010 levels (table 4.3).

The U.S. FDI position in Mauritius, the largest destination for U.S. FDI, was \$7.0 billion in 2016, an 11.7 percent decrease from 2010. This decline was driven primarily by a reduction in investment in services, the country's leading destination sector for U.S. FDI. For Mauritius, 84 percent of U.S. FDI position was directed toward holding companies (\$3.0 billion) and finance and insurance (\$2.8 billion).⁸¹³ As discussed later in this chapter, the country's stable macroeconomic environment, overall good institutional quality, and ease of doing business most likely explain the attraction of U.S. investors to Mauritius's financial services sector. Additionally, Mauritius has a sizable offshore financial sector,

⁸¹² UNCTAD, *World Investment Report 2017*, and data analysis of U.S., EU, and Chinese FDI stock data (accessed February 15, 2018).

⁸¹³ USDOC, BEA, Balance of Payments and Direct Investment Position Data (accessed December 4, 2017).

which serves as a major route for foreign investors to access India and other South Asia markets. This is primarily because India and Mauritius have a double taxation treaty:⁸¹⁴ capital gains are taxed only in the country of residence, and since Mauritius does not tax gains on investment income, it is an attractive location for firms channeling capital to India. Thus a significant share of U.S. FDI outflows to Mauritius has ended up in FDI projects in India.⁸¹⁵ However, this pattern may be changing, since India’s General Anti-Avoidance Rule (GAAR), implemented in 2017, directly targets transactions created to avoid taxes. As such, it would allow government officials to deny double taxation benefits if deals were made in tax havens to avoid paying taxes.⁸¹⁶

The U.S. FDI position in South Africa totaled \$5.1 billion in 2016, a decrease of 5.2 percent from 2015 and a 16.0 percent decrease since 2010 (table 4.3). The largest share of U.S. FDI in the country goes to manufacturing (51.5 percent), while three services industries—professional, scientific, and technical services; wholesale trade, finance and insurance; and information services—make up 28.1 percent of U.S. FDI positions.⁸¹⁷ The decline in U.S. investment into South Africa primarily reflects substantial divestment in mining and decreased investment in services. However, investment in manufacturing has grown, with a substantial increase in the chemicals sector.⁸¹⁸ Favorable sentiment about investing in South Africa has been tempered by recognition of problems in the institutional and political environment (discussed in more detail in the section “Factors Impacting U.S. FDI in SSA”), as well as by the global drop in commodity prices.

The U.S. position in Nigeria, the third-largest destination for U.S. FDI, was \$3.8 billion in 2016, down 16.2 percent from 2015 and down 24.5 percent from 2010. In Nigeria, the largest shares of U.S. FDI have gone to mining (52.3 percent) and services (44.6 percent),⁸¹⁹ with only 3.1 percent going to manufacturing. The overall decline in investment was primarily driven by divestment from services, in which investment had increased between 2012 and 2015. Investment in mining also declined in 2016 and had been declining since 2012.

Mauritius led SSA in capital investment in terms of value during 2012–16. However, South Africa, Kenya, and Nigeria were the three primary destinations in terms of the number of actual projects and deals; Mauritius was in fifth position according to this metric (figure 4.3).

⁸¹⁴ The purpose of double taxation treaties is to mitigate taxation by two jurisdictions on one financial transaction or asset.

⁸¹⁵ Seetanah, “Inward FDI in Mauritius,” April 30, 2013.

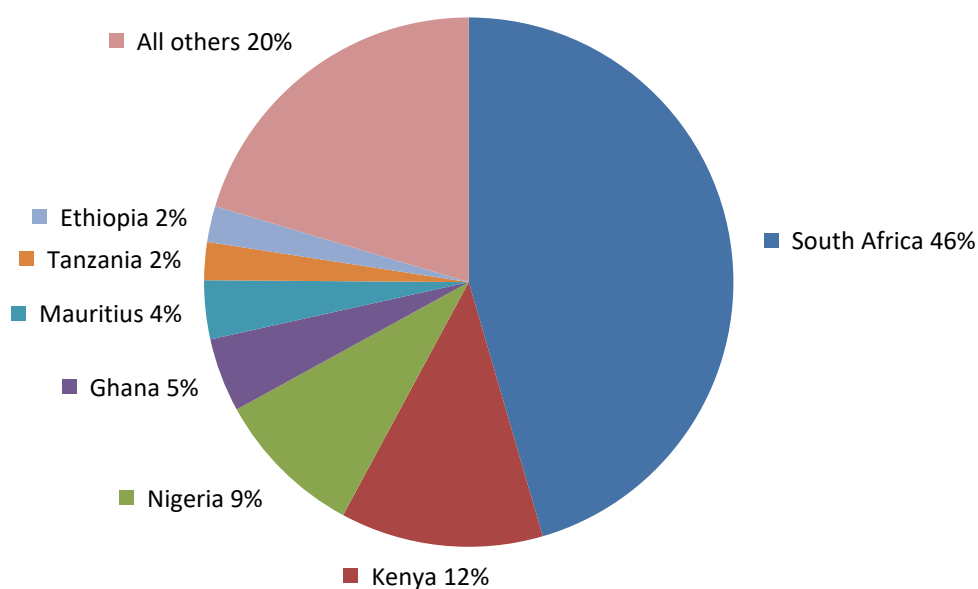
⁸¹⁶ Lokeshwarri, “Why Money Flow via Mauritius Is Drying Up,” March 25, 2016.

⁸¹⁷ USDOC, BEA, Balance of Payments and Direct Investment Position Data (accessed December 4, 2017).

⁸¹⁸ In 2015, South Africa Dow announced investment in the first Polyurethanes Systems House in SSA. A polyurethanes systems house develops, blends, and sells liquid polyurethane systems. The investment is located in Durban, with the intention that the house will serve as a hub for the rest of the region. Dow Chemicals, “Dow Inaugurates First Polyurethanes Systems House,” September 28, 2015.

⁸¹⁹ USDOC, BEA, Balance of Payments and Direct Investment Position Data (accessed December 4, 2017). Most services sector data for Nigeria are suppressed to protect company confidentiality; this percentage was obtained by calculating the services sector total by subtracting mining and manufacturing from the “all industries” total.

Figure 4.3 U.S. greenfield FDI projects and M&A deals by destination, 2010–16



Source: *Financial Times*, fDiMarkets database; Bureau van Dijk, Zephyr database.
Note: See [appendix table I.9](#) for a tabular presentation of the data in this figure.

Sectors

Official data on U.S. FDI positions in SSA by industry are limited.⁸²⁰ However, the BEA publishes data on U.S. FDI positions in the whole of Africa, by industry.⁸²¹ In 2016, 60.4 percent of the U.S. FDI position in all of Africa was directed to the mining sector; 7.1 percent was directed to the manufacturing sector; and the remaining 32.5 percent was divided among services, holding companies, and other industries, such as agriculture and construction (table 4.4).

⁸²⁰ This is due to the suppression of country-level industry data to protect company confidentiality. Table 4.4 therefore references U.S. FDI stock in Africa as a whole.

⁸²¹ This includes U.S. FDI positions in SSA, as well as in North African countries including Egypt, Libya, Tunisia, and Morocco.

Table 4.4 U.S. FDI position in Africa, by industry, 2010–16

	2010	2012	2014	2016	Absolute change 2010–16	% change 2010–16
Million \$						
All industries	54,816	55,849	66,403	57,465	2,649	4.8
Mining	30,243	33,538	42,873	34,717	4,474	14.8
Manufacturing	4,112	3,925	4,509	4,054	-58	-1.4
Wholesale trade	1,273	1,754	2,139	1,895	622	48.9
Information ^a	183	171	227	926	743	406.0
Depository institutions	2,345	2,479	^c	^c	^b	^b
Finance and insurance	8,124	5,141	3,318	3,243	-4,881	-60.1
Professional, scientific, and technical services	649	760	1,234	1,451	802	123.6
Holding companies	6,270	6,701	7,533	6,958	688	11.0
Other industries	1,618	1,380	^c	^c	^b	^b

Source: USDOC, BEA, Balance of Payments and Direct Investment Position Data (accessed December 4, 2017); USITC calculations.

^a The information industry includes the subsectors of broadcasting and telecommunications; publishing industries, except internet (includes software); motion picture and sound recording industries; and data processing, internet publishing, and other information services.

^b Absolute change and percentage change for 2010–16 are not provided because the values for 2014 and 2016 were not available.

^c Data suppressed to protect company confidentiality.

Although the mining sector was the largest recipient of U.S. FDI, primarily due to high-value projects, in terms of the number of greenfield projects in SSA, services industries were the clear leaders. Table 4.5 shows the number of U.S. greenfield FDI projects in SSA. As can be seen from the table, U.S. investors focused on software and IT services; business services; communications; consumer products; and financial services. Compared to global investors, investors from the United States focused more on software and IT services, as well as consumer products. Coal, oil, and natural gas made up just 3 percent of all greenfield projects during 2010–16.

Table 4.5 U.S. greenfield FDI projects in SSA, 2010–16

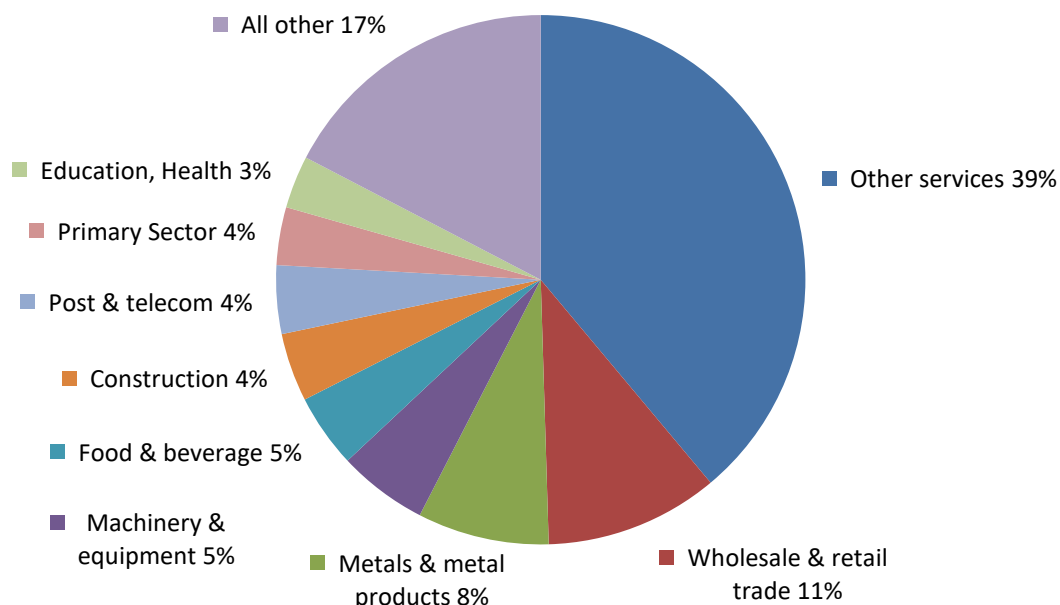
	Number of Projects	% share of total
Software and information technology (IT) services	97	18
Business services	92	17
Communications	41	8
Consumer products	37	7
Financial services	37	7
Food and tobacco	28	5
Alternative/renewable energy	26	5
Industrial machinery, equipment and tools	23	4
Transportation	21	4
Coal, oil, natural gas	19	3
All others	124	23

Source: *Financial Times*, fDiMarkets database.

Similarly, the services sector was the largest destination for M&A deals in SSA during 2010–16. Figure 4.4 shows that, in terms of the number of deals, U.S. investors focused on services (39 percent),

including IT, business, and financial services; wholesale and retail trade (11 percent); metals (8 percent); machinery and equipment (5 percent); and food and beverage (5 percent).

Figure 4.4 U.S. M&A deals in SSA, by select top sectors, 2010–16



Source: Bureau van Dijk, Zephyr database; USITC calculations.

Note: Primary sector products include agriculture, fishing, animal husbandry, and mining, among other raw materials. See [appendix table I.10](#) for a tabular presentation of the data in this figure.

Mining

By 2016, the mining sector was the largest destination for U.S. investment in Africa, securing 60.4 percent of all U.S. FDI positions on the continent.⁸²² U.S. FDI in the sector totaled \$57.5 billion in 2016, down 2.6 percent from 2015 but up 14.8 percent from 2010. The three largest destinations for investment within the sector were Nigeria, Angola, and Equatorial Guinea (table 4.6).

U.S. mining sector investment in the six largest SSA destinations was volatile during 2010–16. Four of these destinations experienced significant declines during the period, the exceptions being Côte d'Ivoire and Mauritius. U.S. FDI stock in Nigeria declined 7.0 percent from 2015 to 2016 and declined 44.4 percent from 2010 to 2016. Although U.S. FDI stock in Angola in mining experienced an almost fivefold increase from 2015 to 2016, it was still 65.5 percent lower in 2016 than in 2010 (table 4.6).

As stated earlier, the recent period of low commodity prices has tempered investor sentiment in the SSA mining sector. However, the International Monetary Fund's regional outlook document (published 2017) suggests that commodity prices should rise after 2017; this may spur additional interest in the sector, making mining one of the sectors that presents potential for U.S. outward FDI to SSA.⁸²³

⁸²² U.S. FDI positions by major sector are not available for SSA as a region.

⁸²³ IMF, *Regional Economic Outlook: Sub-Saharan Africa*, April 2017.

Table 4.6 United States: FDI positions in SSA, mining sector, selected countries, 2010–16

	2010	2012	2014	2016	Absolute change 2010–16	% change 2010–16
	Million \$					
Nigeria	3,590	3,949	2,517	1,996	-1,594	-44.4
Angola	2,166	502	1,187	747	-1,419	-65.5
Equatorial Guinea	1,938	3,085	4,309	670	-1,268	-65.4
Côte d'Ivoire	-52	-94	80	179	231	^a
Mauritius	15	122	21	29	14	93.3
South Africa	220	79	72	-321	-541	-245.9

Source: USDOC, BEA, Balance of Payments and Direct Investment Position Database (accessed December 4, 2017).

Note: FDI position (or stock) is a measure of cumulative investment over time.

^a The percentage change for 2010–16 is not provided because the value for 2010 was negative.

Greenfield Projects and M&A Deals

While mining encompassed a significant percentage of U.S. investment on the continent, it accounted for only 3 percent of the number of U.S. greenfield projects in SSA and less than 4 percent of the number of U.S. acquisitions⁸²⁴ in SSA from 2010 to 2016. However, the value of these transactions was significant. For instance, in 2011, the U.S. firm Noble Energy invested \$1.1 billion in Equatorial Guinea; in 2017, ExxonMobil announced that it would acquire a \$2.8 billion stake in a Mozambique energy company, Eni East Africa SpA, from Italy's Eni SpA.⁸²⁵

Services

Data on U.S. FDI positions in SSA services sectors are minimal. Also, it is difficult to discern trends or calculate SSA, country-specific, or industry-specific totals, as many observations within the dataset are suppressed in order to avoid disclosing information on individual firms.⁸²⁶ However, a few useful observations still emerge from a review of this data.

Available data suggest that while U.S. FDI stock in certain African services sectors grew at a rapid rate during 2010–16, investment on the continent accounted for a very small share of total U.S. FDI in services. U.S. FDI in the African information industry increased at a compound annual growth rate (CAGR) of 31.0 percent to \$926 million during 2010–16, while U.S. FDI in the professional, scientific, and technical services industry grew at a CAGR of 14.4 percent to \$1.5 billion. By contrast, U.S. investment in the finance and insurance industries (excluding depository institutions) decreased at an average annual rate of 14.2 percent to \$3.2 billion during the period.⁸²⁷ In 2012, the latest year for which data are

⁸²⁴ Percentage is for the primary sector, which includes agriculture.

⁸²⁵ Bureau van Dijk, Zephyr M&A database (accessed January 12, 2018); ExxonMobil, “ExxonMobil to Acquire 25 percent interest in Mozambique Area 4 from Eni,” press release, March 9, 2017.

<http://news.exxonmobil.com/press-release/exxonmobil-acquire-25-percent-interest-mozambique-area-4-eni>

⁸²⁶ For example, services data for some of the largest destinations of U.S. FDI in SSA, such as South Africa, are suppressed for several years and for certain industries to protect company confidentiality.

⁸²⁷ USDOC, BEA, Balance of Payments and Direct Investment Position Data (accessed December 4, 2017).

available for overall U.S. FDI in the African services sector, U.S. investment on the continent accounted for less than 0.8 percent of total U.S. FDI in the global services sector.⁸²⁸

Due to the large quantity of suppressed data, it is not clear which countries account for the largest shares of U.S. FDI in services in SSA or Africa as a whole. However, available data suggest that Mauritius held the vast majority of U.S. investment in the African finance and insurance industry (excluding depository institutions) in 2016. Mauritius accounted for \$2.8 billion or 86.7 percent of the total, while investment in South Africa followed far behind with 9.6 percent. With these exceptions, U.S. FDI positions in these countries exceeded \$100 million in only three sectors in South Africa and one sector in Mauritius in 2016. The three sectors in South Africa were professional, scientific, and technical services (\$525 million); wholesale trade (\$451 million); and information industries (\$135 million). In Mauritius, the sector was the information services industry (\$152 million).⁸²⁹

Greenfield Projects and M&A Deals

As shown in table 4.5 and figure 4.4, the majority of all U.S. greenfield projects and M&A deals in SSA from 2010–16 were in the services sector. Several high-value U.S. acquisitions of SSA services firms occurred in South Africa. For example, in 2010, Walmart acquired a \$2.2 billion ownership stake in Massmart Holdings of South Africa, the leading retailer of general merchandise and the second-largest distributor of consumer goods on the continent.⁸³⁰ In 2016, the Coca-Cola Company increased its stake in Coca-Cola South Africa (a bottling services company), from 11.3 percent to 65.8 percent, for \$3.5 billion.⁸³¹ Other high-value deals included the American Tower Corporation’s acquisition of India’s Bharti Airtel’s telecom tower business in Nigeria for \$1.1 billion in 2014.⁸³² Overall, there were many U.S. services firms with foreign affiliates in SSA, including Citibank (financial services) and AECOM (architectural and engineering services).

As mentioned in hearing testimony, services—particularly professional and business services—have been identified as the sectors where the United States may have the greatest competitive edge in Africa, and that are therefore likely to present potential for future U.S. FDI to SSA.⁸³³ Indeed, U.S. direct investment stock in the professional, scientific, and technical services industry increased by over 120 percent from 2010 to 2016 (table 4.4). Furthermore, as capital access and financial intermediation become more important, investment in financial services will likely increase.⁸³⁴

⁸²⁸ Ibid. Total U.S. FDI in services was calculated by adding U.S. investment positions in all services industries. Complete data are only available until 2012. This total does not include U.S. investment in holding companies (nonbank).

⁸²⁹ For information on foreign affiliate sales in financial and insurance services, see the section on U.S. exports of services to SSA in chapter 2.

⁸³⁰ Bureau van Dijk, Zephyr database; Massmart, South Africa. <http://www.massmart.co.za/about-massmart/overview/> (accessed February 5, 2018).

⁸³¹ Bureau van Dijk, Zephyr database (accessed January 12, 2018).

⁸³² Ibid.

⁸³³ USITC, hearing transcript, January 24, 2018 (testimony of James Wholly, Atlantic Council); Hruby, “Escaping China’s Shadow,” September 2017.

⁸³⁴ Hruby, “Escaping China’s Shadow,” September 2017.

Manufacturing

In 2016, the manufacturing sector was a minor destination for U.S. investment in Africa, securing 7.1 percent of all U.S. FDI positions on the continent.⁸³⁵ U.S. FDI in the sector totaled \$4.1 billion in 2016, a 6.7 percent decrease from 2015 and a 1.4 percent decrease from 2010.

Table 4.7 United States: FDI positions in SSA, manufacturing sector, selected countries, 2010–16

	2010	2012	2014	2016	Absolute change 2010–16	% change 2010–16
	Million \$					
South Africa	2,465	2,348	2,733	2,605	140	5.7
Nigeria	^b	173	161	120	^a	^a
Kenya	80	50	52	52	-28	-35.0
Zambia	^d	^b	27	35	^a	^a
Mauritius	91	17	16	14	-77	-84.6
Senegal	^b	11	12	12	^a	^a

Source: USDOC, BEA, Balance of Payments and Direct Investment Position Data (accessed December 4, 2017).

Note: FDI position (or stock) is a measure of cumulative investment over time.

^a Absolute change and percentage change for 2010–16 are not provided because the 2010 values were not available.

^b Data suppressed to avoid disclosure of individual company information.

In SSA, the largest destination for U.S. investment in the manufacturing sector was South Africa, which received 66.8 percent of U.S. manufacturing FDI to the region.⁸³⁶ In 2016, U.S. FDI stock in South Africa increased 3.2 percent from 2015 and 5.7 percent from 2010 levels. In 2016, the largest reported U.S. outward FDI positions to South Africa were in chemicals (\$1.1 billion) and transportation equipment (\$829 million). Two significant U.S. greenfield projects in SSA were the 2015 investment by Dow Chemicals in the first polyurethane systems house in SSA,⁸³⁷ and the 2016 expansion by Ford, totaling \$170 million, for local production of its Everest SUV, creating an estimated 1,200 jobs.⁸³⁸

Greenfield Projects and M&A Deals

Although U.S. FDI positions in manufacturing make up a small percentage of all U.S. FDI to Africa, manufacturing-related greenfield investment from the United States has registered some of the most consistent growth in SSA. Sectors receiving such investment included textiles, chemicals, consumer products, and alternative/renewable energy. Of the 11 greenfield textile and apparel projects launched between 2010 and 2016, 5 were started in 2016.⁸³⁹ In 2016, PVH (formerly Phillips-Van Heusen), in a roughly \$1.0 billion public-private partnership with the Ethiopian government, invested in the Hawassa Industrial Park “to build a best-in-class apparel manufacturing industry in Ethiopia.”⁸⁴⁰ Regional experts state that given the increasing costs of apparel production in other countries, especially China, the textile and apparel sector in SSA holds future potential for U.S. investors.⁸⁴¹ Further, SSA’s renewable

⁸³⁵ U.S. FDI positions by major sector are not available for SSA as a region.

⁸³⁶ USITC calculations from USDOC, BEA, Balance of Payments and Direct Investment Position Data.

⁸³⁷ A polyurethane systems house develops, blends, and sells liquid polyurethane systems.

⁸³⁸ Ford Motor Company, “Ford Invests \$170 Million in South Africa,” April 5, 2016.

⁸³⁹ *Financial Times*, fDi Markets database (accessed December 15, 2017).

⁸⁴⁰ PVH, “Moving the Needle in Ethiopia” (accessed February 5, 2018).

⁸⁴¹ USITC, hearing transcript, January 23, 2018 (testimony of Fred O. Oladeinde, Chairman, AGOA Civil Society Network).

energy sector, where the number of FDI projects has seen steady growth,⁸⁴² may present an advantage for U.S. firms, considering the strength of U.S. engineering in this field.⁸⁴³

U.S. Inbound Investment from SSA

Disaggregated data on inbound investment from SSA to the United States are not available. However, the BEA does publish U.S. inward FDI positions for Africa as a whole, which includes SSA and North Africa, and for South Africa. FDI positions from Africa to the United States totaled \$4.4 billion in 2016, a 94.0 percent increase from 2010 (table 4.8).⁸⁴⁴ The majority of this investment was from South Africa, with FDI positions in 2016 totaling \$3.1 billion, an almost fivefold increase from 2010 (table 4.8). Most of the industry-specific data is suppressed; however, table 4.9 shows total FDI positions from all of Africa for real estate and manufacturing. In 2016, the majority of inbound FDI positions from Africa to the United States were in the manufacturing sector, having increased over 1,000 percent since 2010.

Table 4.8 FDI positions in the United States from Africa, 2010–16

	2010	2012	2014	2016	Absolute change 2010–16	% change 2010–16
	Million \$					
Africa	2,265	3,761	1,691	4,394	2,129	94.0
South Africa	699	755	329	3,114	2,415	345.5
Other	1,566	3,005	1,362	1,280	-286	-18.3

Source: USDOC, BEA, Balance of Payments and Direct Investment Position Data (accessed December 4, 2017).

Table 4.9 FDI positions in the United States from Africa, by sector, 2010–16

	2010	2016	Absolute change 2010–16	% change 2010–16
	Million \$			
Real estate	149	520	371	249.0
Total manufacturing	196	2,320	2,124	1,083.7
Other industries	1,433	1,137	-296	-20.7

Source: USDOC, BEA, Balance of Payments and Direct Investment Position Data (accessed December 4, 2017).

From 2010 to 2016, there were 60 acquisitions of U.S. firms by SSA firms.⁸⁴⁵ The majority of the deals are in the services sector; however, many high-value investments were in machinery and mining. For example, in 2017, Sibanye Gold, a gold mining services company from South Africa, acquired Stillwater Mining Company, a palladium and platinum mining services company in the United States, for \$2.2 billion.

Greenfield investment in the United States from SSA has increased since 2010. From 2010–16, there were 42 projects, with the majority going to software and IT services (45 percent), business services (10 percent), and chemicals (7 percent). The majority of all FDI positions, projects, and acquisitions in the United States from Africa were from South Africa during this period.

⁸⁴² *Financial Times*, fDi Markets database (accessed December 15, 2017).

⁸⁴³ Hruby, “Escaping China’s Shadow,” September 2017.

⁸⁴⁴ For comparison, global FDI positions in the United States exceeded \$3.7 trillion in 2016. USDOC, BEA, Balance of Payments and Direct Investment Position Data (accessed December 4, 2017).

⁸⁴⁵ Bureau van Dijk, Zephyr database (accessed January 12, 2018).

Factors Impacting U.S. FDI in SSA

Macroeconomic and institutional factors have impacted U.S. FDI in SSA, as well as SSA FDI in the United States.⁸⁴⁶ According to academic literature and other FDI-related reports, FDI potential is strongest in countries with large markets and market growth, as well as stable economic, political, and institutional environments. These are areas where many SSA countries have struggled, and, as discussed below, these issues may deter U.S. companies from investing in the region.

Macroeconomic Factors

The size of the domestic market and its growth are significant determinants of FDI. The larger the domestic market, in terms of gross domestic product (GDP), the more desirable the location may be for market-seeking investors, and countries with higher growth will offer more opportunities for investment.⁸⁴⁷ The macroeconomic environment in SSA, as a whole, has continued to improve. However, in recent years, SSA’s economic growth has been sluggish, lagging behind previous double-digit growth averages. From 2000 to 2012, SSA as a region saw an average annual rate of GDP growth of 11.8 percent. The average annual GDP growth rate in 2016, however, was 1.2 percent, roughly half the world average of 2.4 percent (table 4.10).

From 2010 to 2016, nine SSA countries grew at an average annual rate of more than 6 percent. Ethiopia (10.2 percent), Zimbabwe (7.9), Rwanda (7.3), and Ghana (7.2) were among the fastest-growing economies in SSA, while South Sudan (-5.9), Equatorial Guinea (-2.5), and the Central African Republic (-2.3) experienced contractions during this period. Nigeria and South Africa, the largest economies in the region, grew at average annual rates of 4.3 percent and 2.0 percent, respectively. South African GDP growth had been sluggish for several years: after 2012, annual growth was below 2.5 percent, and in 2016 South African GDP growth was a mere 0.3 percent.⁸⁴⁸ External factors for the South African economic slowdown include low commodity prices and slower Chinese economic growth (China has been one of the leading investors in South Africa, as well as one of the major importers of South African products). While those external factors are forecasted to recover, recovery may be hampered by internal factors. These factors include major electrical shortages, a sectoral reallocation in capital from manufacturing to mining, and overall declines in the business climate due to increasing political and institutional risk (discussed in the next section).⁸⁴⁹

⁸⁴⁶ For literature on the determinants of FDI, see Blonigen and Piger, “Determinants of Foreign Investment,” 2014; Nonnemberg and Cardoso de Mendonca, “Determinants of Foreign Direct Investment in Developing Countries,” 2004; Walsh and Yu, “Determinants of Foreign Direct Investment: A Sectoral and Institutional Approach,” 2010.

⁸⁴⁷ Blonigen and Piger, “Determinants of Foreign Direct Investment, 2014.

⁸⁴⁸ World Bank, *World Development Indicators* (accessed December 15, 2017).

⁸⁴⁹ Faure, “South Africa: What Is Behind the Growth Slowdown?” April 2017.

Table 4.10 Economic indicators for SSA, 2010–16

	2010	2011	2012	2013	2014	2015	2016
GDP (constant 2010 \$, billions)	1,365.8	1,425.4	1,479.2	1,550.9	1,622.8	1,672.2	1,693.0
GDP, average annual growth rate (%)	5.4	4.4	3.8	4.8	4.6	3.0	1.2
GDP per capita (constant 2010 \$)	1,557.3	1,581.2	1,596.5	1,628.6	1,658.3	1,663.0	1,638.7

Source: World Bank, *World Development Indicators*; USITC calculation.

The economic indicators for SSA (table 4.10) suggest a tepid improvement in the overall macroeconomic environment in SSA as a whole from 2010 to 2016. However, while its average annual GDP growth rate from 2010–16 of 3.9 percent exceeded that of developing Latin America and the global average (2.3 percent and 2.9 percent, respectively), SSA trailed other developing regions in terms of GDP per capita and trade. Further, macroeconomic conditions varied widely by country and even by year. One clear standout was Ghana, which had an average annual GDP growth over 7 percent, is a top exporter in the region, and is one of the fastest-growing exporters.⁸⁵⁰

Institutional Factors

The quality of domestic institutions has been acknowledged as a significant determinant of foreign investment in SSA.⁸⁵¹ Countries with good institutions may be more attractive to foreign investors because they provide a predictable, stable, and transparent political environment. On the other hand, countries with weak institutions can increase costs of foreign investment, in the case of corruption and certain investment restrictions. Poor governance introduces uncertainty about possibilities that include policy changes, expropriation, weak enforcement of property rights, and an inefficient legal regime. All of these factors are likely to deter investment.⁸⁵²

To assess the quality of domestic institutions in SSA countries, this section relies on both the World Bank’s World Governance Indicators (WGI) and its ease of doing business (DB) index, which capture various aspects of institutional quality.⁸⁵³ The WGI consists of six composite indicators of governance: Control of Corruption, Government Effectiveness, Regulatory Quality, Rule of Law, Political Stability, and

⁸⁵⁰ Based on data from the World Bank, World Development Indicators database (accessed December 15, 2017).

⁸⁵¹ For example, Luiz and Charalambous, “Factors Influencing Foreign Direct Investment,” 2009; Bartels, Napolitano, and Tissi, “FDI in Sub-Saharan Africa,” 2014.

⁸⁵² For example, Drabek and Payne, “The Impact of Transparency on Foreign Direct Investment,” 2001; Azzimonti and Sarte, “Barriers to Foreign Direct Investment under Political Instability,” 2007; Aizenman and Spiegel, “Institutional Efficiency, Monitoring Costs and the Investment Share of FDI,” 2006; Daude and Stein, “Quality of Institutions and Foreign Direct Investment,” 2007; Luiz and Charalambous, “Factors Influencing Foreign Direct Investment,” 2009; Bartels, Napolitano, and Tissi, “FDI in Sub-Saharan Africa,” 2014.

⁸⁵³ The regulatory environment is a significant part of institutional quality, and a restrictive regulatory environment can impact foreign investment. Here, this factor is implicitly captured in the WGI through the Regulatory Quality Indicator. However, the restrictiveness of foreign investment regulations is explicitly measured in the OECD’s FDI Regulatory Restrictiveness Index (RRI). The RRI was not included in this section because it covers only one SSA country, South Africa. Higher scores indicate a more closed environment for foreign investment, while lower scores suggest a more open environment with fewer restrictions. According to the RRI, the total FDI index score for South Africa in 2016 was 0.055, indicating a relatively open investment environment.

Voice and Accountability,⁸⁵⁴ and covers all 49 SSA countries. According to the indicators, most countries in the region made progress in improving their governance during 2010–16 (table 4.11). Over this period, 46 out of 49 SSA countries improved at least one of the six indicators, and Côte d’Ivoire, Guinea, Rwanda, Senegal, Somalia, and Zimbabwe made improvements across all six. On the other hand, Djibouti, The Gambia, and Mozambique experienced deteriorations in all six governance areas. The two largest economies in SSA, South Africa and Nigeria, had contrasting experiences. Nigeria increased its performance in almost all governance indicators, except Regulatory Quality. By contrast, South Africa declined in nearly all categories—except Voice and Accountability—with the largest declines in Political Stability and Control of Corruption (table 4.11). The declines in South Africa reflected political volatility and uncertainty, as well as a weakened legal environment that has eroded confidence in the ruling administration’s ability to solve the country’s structural problems.⁸⁵⁵

Table 4.11 Change in world governance indicators of SSA countries from 2010–16, number of countries (out of 49)

	Increased performance	Decreased performance
Voice and accountability	31	18
Rule of law	28	21
Government effectiveness	28	21
Corruption	23	26
Regulatory quality	23	26
Political stability	22	27

Source: World Bank, *World Development Indicators* (accessed January 5, 2018).

The three areas in which SSA countries showed the most improvement are Voice and Accountability, Rule of Law, and Government Effectiveness. However, more SSA countries experienced declines in Control of Corruption, Regulatory Quality, and Political Stability than experienced improvements. Those results suggest that governance and strong legal institutions are still of concern in the region and can pose challenges for businesses and investors.

While the WGI measures governance and institutional quality, the World Bank’s ease of doing business (DB) Index measures the implicit and explicit costs of doing business for local firms within a country. The less burdensome the regulatory environment, the less costly and inefficient it is to operate a business, which can make a country more attractive for foreign investment. Out of the 190 countries covered in the index, two SSA countries, Mauritius and Rwanda (ranked 25 and 41, respectively) were in the top 50 with respect to the overall DB index.⁸⁵⁶ Five additional SSA countries (Kenya, 80; Botswana, 81; South Africa, 82; Zambia, 85; and Seychelles, 95) were in the top 50 percent. The remaining SSA countries were in the bottom half, indicating challenges with respect to the cost of doing business in the SSA.

Political risk insurance and guarantees can help mitigate some risk involved with investment in areas with weak governance.⁸⁵⁷ Risk insurance—taken out by investors to protect assets in the event political

⁸⁵⁴ Voice and Accountability captures perceptions of the extent to which a country’s citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and a free media. For more information on the definitions of the other indicators, see www.govindicators.org.

⁸⁵⁵ IMF, *Regional Economic Outlook: Sub-Saharan Africa*, April 2017; OECD, *Economic Surveys: South Africa*, 2017.

⁸⁵⁶ The World Bank’s ease of doing business (DB) Index ranks business costs from least burdensome (lower score) to most burdensome (higher score).

⁸⁵⁷ USITC, hearing testimony, January 23, 2018 (testimony of Fred O. Oladeinde, Chairman, AGOA Civil Society Network).

conditions result in a loss—is offered by public entities, such as the World Bank’s Multilateral Investment Guarantee Agency (MIGA) and the United States’ Overseas Private Investment Corporation (OPIC), as well as by private insurance providers. In 2014, MIGA and OPIC jointly funded a \$350 million insurance facility to support investment in the SSA agribusiness sector.⁸⁵⁸

Additionally, bilateral investment treaties (BITs) and investment provisions in certain free trade agreements offer protections related to political risk, such as expropriation and unfair treatment, by providing external dispute resolution mechanisms.⁸⁵⁹ Research suggests that BITs may increase foreign investment to the host country, in part because of these protections.⁸⁶⁰ The United States has six BITs with SSA countries, including with Cameroon (entered into force in 1989), the Republic of the Congo (1994), the Democratic Republic of the Congo (1989), Mozambique (2005), Rwanda (2012), and Senegal (1990).

Infrastructure

In general, a country with developed and sufficient infrastructure, such as highways, railways, ports, telecommunications, and power generation, is likely to attract more FDI.⁸⁶¹ Conversely, poor-quality and/or insufficient infrastructure can increase the fixed and variable costs of investors. The World Bank’s Logistics Performance Index is based on a survey of global freight and express carriers that provides feedback on the logistical capacity of 160 countries, including a measurement of infrastructure development. On this measure for 2016, South Africa has the highest ranking in SSA (21) and has the region’s most developed infrastructure, followed by Kenya (42) and Botswana (54).⁸⁶² Out of 40 SSA countries covered in the index, only 8 are in the top 50 percent; besides the top 3 listed above, these include Namibia (64), Uganda (67), Burkina Faso (71), Rwanda (76), and the Republic of the Congo (78). The remaining 32 are in the bottom 50 percent, and over half of the bottom 30 countries include SSA countries.

The index suggests that almost the entire region requires substantial investment in infrastructure to increase economic growth and investment. Indeed, some SSA countries are focusing on infrastructure development to improve investment prospects and overall business environment. For example, Ethiopia, in the bottom 30 of the Logistics Performance Index, is a landlocked country that relies on an outdated and congested road to and through neighboring Djibouti to access the port Ethiopia uses on the Red Sea. Road infrastructure issues, combined with onerous procedures at the border, slow the flow of goods: it may take several days from the time an item leaves a factory in Addis Ababa until it arrives at a port on the Red Sea. However, in 2017, Ethiopia opened a \$4 billion electric railway between Addis Ababa and the port in Djibouti, which was expected to reduce this transit time to 8 hours.⁸⁶³

⁸⁵⁸ OPIC, “MIGA and OPIC Team Up,” June 9, 2014.

⁸⁵⁹ USDOS, “Bilateral Investment Treaties and Related Agreements.” (accessed February 22, 2018).

⁸⁶⁰ Egger and Pfaffermayr, “The Impact of Bilateral Investment Treaties,” 2004.

⁸⁶¹ Khadaroo and Seetanah, “Transport Infrastructure and Foreign Direct Investment,” 2010; Wekesa, Wawire, and Kosimbei, “Effects of Infrastructure Development,” 2016.

⁸⁶² The World Bank’s Logistics Performance Index ranks countries from most developed (lower score) to least developed (higher score).

⁸⁶³ Maasho, “Ethiopia Bets on Clothes,” November 21, 2017.

Factors Impacting SSA FDI in the United States

As discussed above, from 2010 to 2016 the majority of all FDI positions, projects, and acquisitions in the United States from Africa were from South Africa. Though South Africa experienced political instability and volatility, it was still the largest economy on the continent for much of this period, and it had the macroeconomic and institutional climate to foster the creation and growth of midsized-to-large firms that were able to invest in the U.S. market. As market and institutional fundamentals improve in other SSA countries, there is potential for increased investment beyond South Africa.

Third-country Suppliers of FDI in SSA

The United Nations Conference on Trade and Development (UNCTAD) reports major economies' outward FDI position in Africa, without breaking out SSA as a region. According to data from UNCTAD, the largest single-economy investors in Africa in 2015,⁸⁶⁴ beyond the United States, were the United Kingdom (UK) (\$58 billion), France (\$54 billion), China (\$35 billion), South Africa (\$22 billion), and Italy (\$22 billion).⁸⁶⁵ When taken in aggregate, EU member countries were the largest source of FDI positions in Africa. Figure 4.5 compares FDI positions in Africa in 2015 from the EU, United States, China, and South Africa, highlighting the extent of EU investment on the continent. This section analyzes FDI trends from three large investors—the EU, China, and South Africa—into SSA.

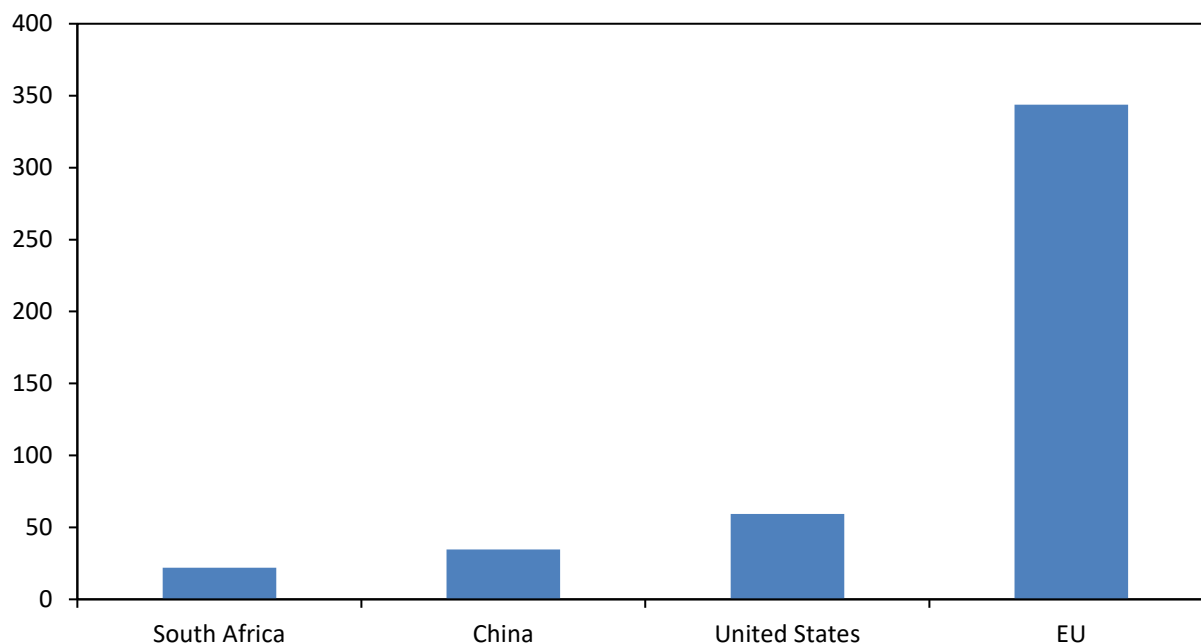
It should be noted that the EU and U.S. FDI positions presented here are estimated differently. FDI positions for the United States, as reported by the BEA, are estimated on a historical-cost basis, which “are not adjusted to reflect changes in the current costs of tangible assets or in the stock market valuations of firms.” This is in comparison to the current-cost or market value estimates employed by Eurostat (a Directorate-General of the EU that provides statistical information). Over time, market valuations and current costs increase so that historical-cost estimates can be lower than market-value estimates for comparable positions.⁸⁶⁶

⁸⁶⁴ Ranking is based on FDI stock.

⁸⁶⁵ Due to FDI measurement differences between different statistical organizations, the FDI positions noted here may not match FDI positions documented in the remainder of this section.

⁸⁶⁶ BEA, “Direct Investment Positions for 2016,” July 2017.

Figure 4.5 FDI positions in Africa, by source, 2015



Source: USDOC, BEA, Balance of Payments and Direct Investment Position Data (accessed December 4, 2017); UNCTAD, *World Investment Report 2017, 2017*; Eurostat database; China National Statistical Bureau.

Note: See [appendix table I.11](#) for a tabular presentation of the data in this figure.

European Union

The EU, as a whole, was the largest source of FDI in Africa during the period, far exceeding the next-largest investors. FDI positions from the EU into Africa increased modestly from 2010 to 2016, with a slight fluctuation in total positions during this time. Some of the EU investment in Africa is rooted in individual countries' relationships with their former colonies. For example, the largest sources of investment in South Africa and Angola were the UK and Portugal, respectively. Countries with colonial ties have certain institutional, cultural, and linguistic similarities that may help facilitate cross-border investment.

EU FDI in SSA

Official EU statistics report data only on EU outward FDI positions in Africa as a whole and on two individual SSA countries: Nigeria and South Africa.⁸⁶⁷ In 2016, the EU's outward FDI position in Africa totaled \$322.0 billion. The FDI position in South Africa in 2016 was \$78.8 billion (24 percent of overall EU outward FDI positions in Africa) and in Nigeria, \$43.8 billion (14 percent of overall EU outward FDI positions in Africa). Besides Nigeria and South Africa, the other two major SSA recipients of EU FDI were Angola and Mauritius. The EU's FDI position in Angola totaled \$38.4 billion in 2016 (12 percent of overall EU outward FDI positions in Africa) and in Mauritius was \$20.6 billion (6 percent of the overall EU positions in Africa) (table 4.12).

⁸⁶⁷ Official statistics from the European Union (EU) do not report EU outward FDI position to Angola and Mauritius directly. The data for Angola and Mauritius in table 4.12 were acquired by adding up the reported individual EU member countries' outward FDI position to Angola and Mauritius.

Table 4.12 EU outward FDI positions in SSA, top destinations, 2010–16

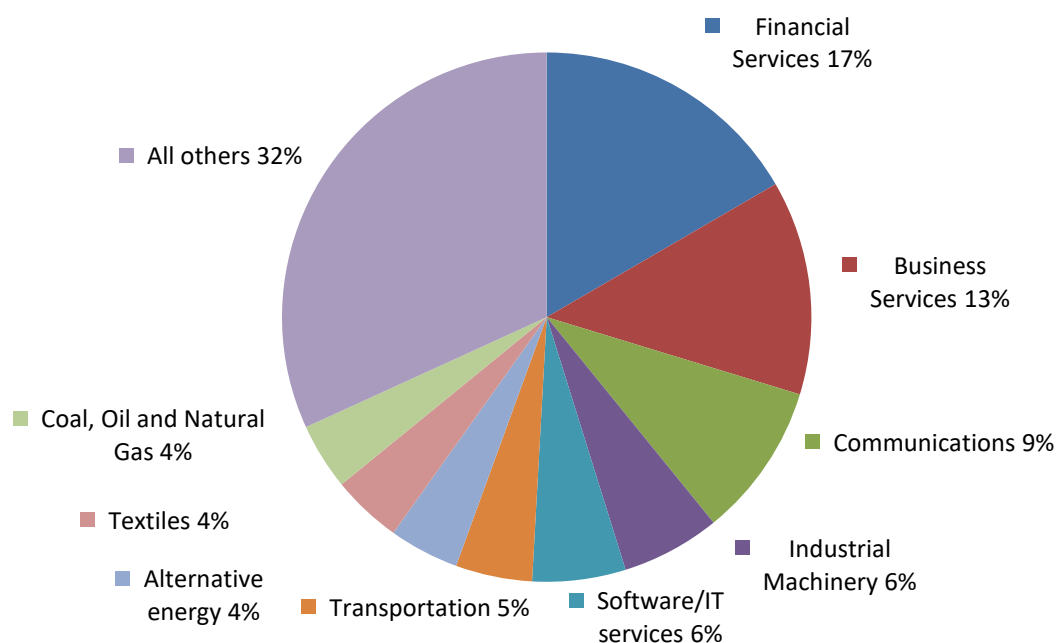
Country	2010	2012	2014	2016	Absolute change 2010–16	% change 2010–16
	Million \$					
Africa	294,407	284,484	375,588	321,997	27,590	9.4
South Africa	100,025	71,895	79,835	78,795	-21,230	-21.2
Nigeria	37,635	34,389	44,551	43,797	6,162	16.4
Angola	11,011	14,217	53,867	38,420	27,409	248.9
Mauritius	3,820	10,993	27,219	20,644	16,824	440.4

Source: European Commission, Eurostat database (accessed January 4, 2018).

Official data on EU FDI positions in SSA by industry are limited. However, the primary sectors for greenfield projects by EU investors in SSA were services (including financial, business, and software and IT), industrial machinery, and transportation (figure 4.6). South Africa is the primary destination for investment in most sectors.⁸⁶⁸ The remainder of this section will focus on EU investment by destination country.

⁸⁶⁸ One key exception is in financial services. Here, Angola is the largest destination for greenfield projects, with 42 projects, compared to South Africa's 34. However, most of the Angolan projects were completed in 2010–12, with little to no activity in recent years.

Figure 4.6 EU greenfield investment in SSA, 2010–16



Source: Financial Times, fDi Markets database.

Note: See [appendix table I.12](#) for a tabular presentation of the data in this figure.

South Africa

South Africa is the largest recipient of the EU’s FDI in SSA. However, the share of the EU’s FDI position in South Africa declined from 34 percent in 2010 to 24 percent in 2016 (table 4.12). South Africa likely attracted the largest share of EU FDI due to the country’s relatively developed infrastructure, as well as the fact that it has the highest per capita GDP among SSA countries. However, as was discussed in the previous section, declines in the business climate due to increasing political and institutional risk in South Africa likely contributed to the decline in the share of the EU FDI position in the country.

Mergers and Acquisitions

From 2010 to 2016, EU member countries as a whole conducted 372 M&A deals in South Africa; the majority of the deals were in other services (140 deals), wholesale and retail trade sector (54 deals), metal products (29 deals), and machinery and equipment (20 deals) sectors.⁸⁶⁹ The UK accounted for the majority of M&A deals from the EU into South Africa (223 deals), followed by the Netherlands (35 deals) and Germany (27 deals). The prominence of the UK in South Africa probably reflects the fact that South Africa is a former British colony, supporting a strong market orientation between the two.⁸⁷⁰ Prominent deals included the acquisition of Tisand (Pty) Ltd by Rio Tinto, a British-Australian multinational mining group, in 2012, as well as Associated British Foods’ acquisition of Illovo Sugar in 2016.⁸⁷¹

⁸⁶⁹ Bureau van Dijk, Zephyr M&A database (accessed January 12, 2018).

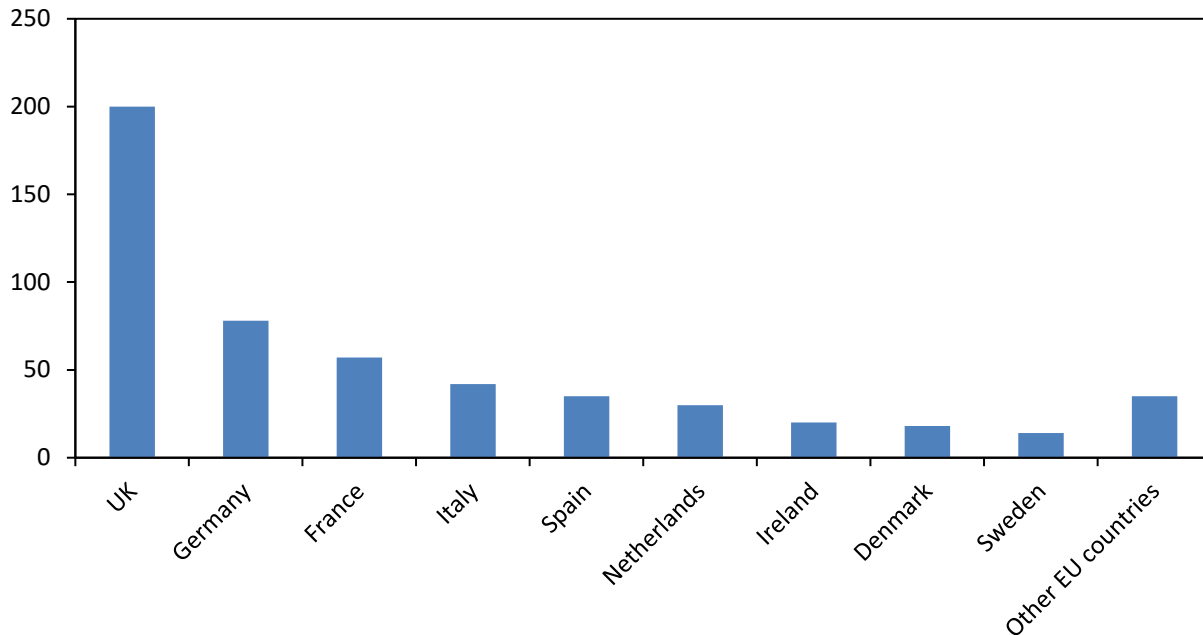
⁸⁷⁰ Ibid.

⁸⁷¹ Ibid.

Greenfield Projects

The UK also accounted for the majority of greenfield projects from EU into South Africa from 2011 to 2016 (200 projects). The UK was followed by Germany (78 projects) and France (57 projects) (figure 4.7).⁸⁷²

Figure 4.7 EU greenfield projects in South Africa, by source, 2010–16



Source: Financial Times, fDi Markets database (accessed December 15, 2017).

Note: See [appendix table I.13](#) for a tabular presentation of the data in this figure.

The majority of the UK-based greenfield projects were in South Africa’s services sectors, including financial services, business services, and software and IT services. Greenfield projects from Germany to South Africa concentrated more in South Africa’s manufacturing sectors, including chemicals, automobiles, and industrial machinery and equipment.⁸⁷³

Nigeria

Nigeria was the second-largest recipient of EU FDI positions in SSA during the period. EU member countries as a whole conducted 51 M&A deals in Nigeria; the majority of the deals were in services (24 deals), the primary sector (4 deals), and chemicals, rubbers, and plastics (3 deals).⁸⁷⁴ As is did for South Africa, the UK accounted for the majority of M&A deals from the EU into Nigeria (21 deals), followed by the Netherlands (13 deals) and France (5 deals). Again, this was probably largely due to the fact that

⁸⁷² *Financial Times*, fDi Markets database (accessed December 15, 2017).

⁸⁷³ *Ibid.*

⁸⁷⁴ Bureau van Dijk, Zephyr M&A database (accessed January 12, 2018). The primary sector includes all activities whose end purpose consists of exploiting natural resources—for example, agriculture, fishing, forestry, and mining. Insee, “Primary Sector,” October 13, 2016.

Nigeria was a former British colony.⁸⁷⁵ Prominent deals included the acquisition of a 92.8 percent stake in Union Assurance Company Plc. of Nigeria by Greenoaks Global Holdings, a British insurance company, in 2014.⁸⁷⁶

From 2011 to 2016, the UK also accounted for the majority of EU-based greenfield projects in Nigeria (38 projects), followed by Germany (19 projects) and France (19 projects). The majority of the UK-based projects were in Nigeria's services sectors, including financial services, business services, and telecommunications, while the greenfield projects from Germany focused more on Nigeria's manufacturing sectors, including industrial machinery and equipment, chemicals, and pharmaceuticals.

Mauritius

From 2010 to 2016, EU member countries as a whole conducted 38 M&A deals in Mauritius, with the majority of the deals concentrated in other services (14 deals), wholesale and retail trade (4 deals), and construction (6 deals). The UK also accounted for the majority of M&A deals from the EU into Mauritius (17 deals), followed by France (7 deals) and the Netherlands (4 deals). As noted earlier, Mauritius has a sizable offshore financial sector and therefore serves as a route for foreign investors to access other markets. For instance, in 2014, AXA SA, a French multinational insurance firm, completed its acquisition of 100 percent of Assur Africa Holdings. While it is headquartered in Mauritius, Assur held a 77 percent stake in composite insurance company Mansard Insurance in Nigeria.⁸⁷⁷

Compared to M&A activities, greenfield investment activities from the EU to Mauritius were limited from 2011 to 2016, with the UK accounting for the majority of greenfield investment projects (8 projects), followed by France (3 projects).

Angola

EU's outward FDI in Angola from 2010 to 2016 mainly consisted of greenfield projects, with Portugal generating the majority of EU's greenfield investment projects in Angola (49 projects), followed by the UK (16) and Spain (10).⁸⁷⁸ The large FDI outflows from Portugal to Angola likely owed much to the fact that Angola is Portugal's former colony.⁸⁷⁹ Out of a total of 49 Portuguese greenfield investment projects in Angola, 39 were financial services projects, primarily new bank branches opened by several large Portugal-based banks.⁸⁸⁰ Greenfield projects from the UK into Angola were more diversified, focusing mainly on the oil and gas and the business services sectors.

⁸⁷⁵ Ibid.

⁸⁷⁶ Abiodun, "Nigeria: Greenoaks Completes Acquisition," December 11, 2014.

⁸⁷⁷ Assur Africa Holding Ltd. is a company headquartered in Mauritius. The firm operates as a special-purpose vehicle. AXA SA acquired Assur Africa Holding Ltd. in December 2014 for \$247.1 million. AXA, "AXA Has Completed Acquisition of a Majority Stake in Mansard," December 8, 2014; RelationshipScience, "Overview of Assur Africa Holding Ltd." (accessed February 8, 2018).

⁸⁷⁸ *Financial Times*, fDi Markets database (accessed December 15, 2017).

⁸⁷⁹ USITC, "AGO: Trade and Investment Performance Overview," 2014, 170.

⁸⁸⁰ *Financial Times*, fDi Markets database (accessed December 15, 2017).

China

China's FDI position in SSA is one of the largest in the region, trailing only a few other top sources of investment (i.e., the United States, the UK, and France).⁸⁸¹ In the last decade, China's FDI to SSA expanded 15-fold, dramatically outpacing growth from any other country. South Africa, the Democratic Republic of the Congo (DRC), and Nigeria were the largest beneficiaries of Chinese FDI into the region, while the extractive industries were the primary sectoral targets. Strong government support, investment-trade linkages, interests in securing natural resources and global supply chain components, and support from a large number of migrating Chinese workers help explain the size and growth of Chinese FDI in this region of the world.

Chinese FDI in SSA

According to the latest official data, China's FDI positions in SSA amounted to \$31.2 billion in 2015 (table 4.13).⁸⁸² By way of comparison, in 2003, when such data first became available, China's FDI positions in SSA amounted to only \$464.5 million, or 1.5 percent of its cumulative 2015 value. While part of this growth in SSA investment is attributable to a low starting level, the sheer scale of this growth, particularly compared with that from the United States and the EU, remains noteworthy.

Table 4.13 Chinese outward FDI position in SSA, top destinations, 2010–15

	2010	2011	2012	2013	2014	2015	Absolute change 2010–15	% change 2010–15
Million \$								
Total SSA ^a	11,678	14,618	19,799	23,952	29,003	31,217	19,539	167.3
South Africa	4,153	4,060	4,775	4,400	5,954	4,723	570	13.7
DRC	631	709	970	1,092	2,169	3,239	2,608	413.4
Nigeria	1,211	1,416	1,950	2,146	2,323	2,377	1,166	96.3
Zambia	944	1,200	1,998	2,164	2,272	2,338	1,394	147.7
Sudan	613	1,526	1,237	1,507	1,747	1,809	1,196	195.0
Zimbabwe	135	576	875	1,521	1,696	1,799	1,664	1,237.1
Ghana	202	270	505	835	1,057	1,274	1,072	530.9
Angola	352	401	1,245	1,635	1,214	1,268	916	260.5
Tanzania	308	407	541	716	885	1,139	831	270.4
Kenya	222	309	403	636	854	1,099	877	396.0

Source: China National Statistical Bureau, *2015 Statistical Bulletin of China's Outward Foreign Direct Investment*, 2016.

^a Total Chinese FDI positions in SSA as a whole are not provided by China National Statistical Bureau. Total SSA positions were calculated by adding individual SSA countries together.

Destination Countries in SSA

Chinese investment to SSA has largely been concentrated within the top five recipient markets since 2000. In 2015, for example, almost half of China's SSA FDI positions were in South Africa, the DRC, Nigeria, Zambia, and Sudan (table 4.13).

⁸⁸¹ UNCTAD, "World Investment Report: Investment in the Digital Economy," 2017.

⁸⁸² China's National Statistical Bureau, *2015 Statistical Bulletin of China's Outward Foreign Direct Investment*, 2016.

South Africa has received the largest share of China's FDI in SSA. China's FDI positions in South Africa amounted to \$4.7 billion by 2015, which was roughly 15.1 percent of China's FDI positions in SSA by that year. It attracted the majority of Chinese FDI for many of the same reasons that South Africa has attracted the most FDI of any SSA country from other countries in the world: its relatively developed infrastructure, highest per capita GDP, and access to the rest of the continent.⁸⁸³

Other significant destinations for China's investment positions included Sudan and the DRC, which were important growth markets for China's FDI between 2003 and 2015. By 2003, when data were first available, these economies had attracted less than a combined \$1 million in Chinese FDI, which was less than 0.1 percent of its overall FDI to the SSA. In contrast, by 2015, the DRC and Sudan had attracted respectively \$3.2 billion and \$1.8 billion from China, which collectively represented 16.2 percent of the overall Chinese FDI to this region by that year. The significant increases in Chinese FDI in these countries were likely attributable to Chinese investment in the Sudanese petroleum industry (from China National Petroleum) and in the mining and excavation sector in the DRC.⁸⁸⁴ In both of these countries, China is now the dominant investor.⁸⁸⁵

Nigeria and Zambia were each recipients of about 7.5 percent of all of Chinese FDI in SSA by 2015. Their growth trajectories, however, have been different. Chinese FDI positions in Zambia constituted about one-third of its positions in SSA by 2003. Over the next decade, Zambia's diminished share of Chinese FDI in SSA largely reflected growing Chinese FDI to other countries in the region. Chinese FDI positions in Nigeria, which had mostly been concentrated in petroleum, kept pace with the rest of Chinese FDI in the region. For example, China's \$31.2 million of FDI in Nigeria by 2003 represented 6.9 percent of Chinese FDI in SSA by that year, which was roughly the same share of regional FDI as China's \$2.4 billion investment in Nigeria by 2015.

Greenfield Projects and M&A Deals

Official Chinese data on the type of FDI it has conducted by country or region is not published. However, firm-level M&As and greenfield data from the 2010–16 period can offer insight into the characteristics of Chinese FDI into SSA.

Chinese M&A deals in SSA have targeted the extractive metals, transportation, and chemicals/rubber/plastics sectors. Prominent metals firms that were active in M&A activity included China's state-owned Shandong Iron & Steel and Hebei Iron & Steel, which acquired local firms (African Minerals) and other foreign companies (Switzerland's Duferco) in SSA, whose competitiveness had been eroded by falling iron ore prices.⁸⁸⁶ Within the transportation sector, Chinese airline companies such as Hainan Airlines also acquired equity stakes in SSA airline companies, including South Africa's Comair and Ghana's Africa World Airlines, among others.⁸⁸⁷

These firm-level data also confirm that most Chinese investment into SSA targeted South Africa (figure 4.8). Specifically, of the 31 known M&A transactions involving Chinese and SSA entities over the 2010–

⁸⁸³ Dollar, *China's Engagement with Africa*, 2016.

⁸⁸⁴ Hammond, "Sudan: China's Original Foothold in Africa," June 14, 2017; KPMG, Global Mining Institute, *Democratic Republic of Congo: Country Mining Guide*, 2014; UNCTAD, *Investment Policy Review: The Sudan*, 2015.

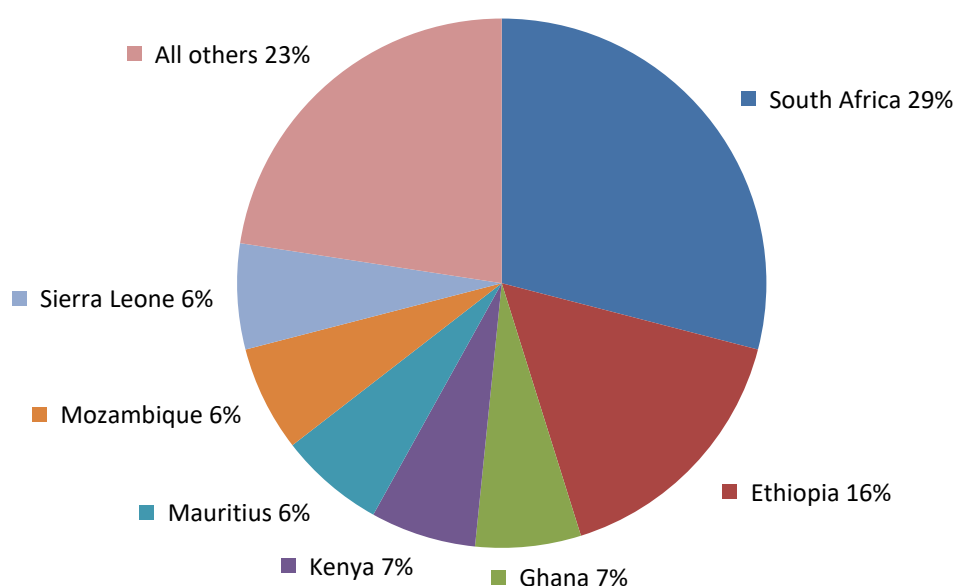
⁸⁸⁵ Ibid.

⁸⁸⁶ *Economist*, "Chinese Business in Africa: It's a Steel," July 13, 2015.

⁸⁸⁷ Center for Aviation, "Hainan Airlines Buys 6.2% of South Africa's Comair," June 1, 2015; Xin An Annual Report, 2016.

2016 period, 9 (29.0 percent) involved transactions with firms in South Africa. Of those transactions, the majority were in services (including engineering services), metals (iron, steel, and platinum),⁸⁸⁸ and the machinery and equipment sector (refrigerators, washing machines, TV sets, LED lighting for street and tunnel lamps, and optical fibers and cables for the communication and power industry).⁸⁸⁹ Firms in Ethiopia and Ghana were also recipients of Chinese M&A activity. In Ethiopia, the majority of deals were in the chemicals, rubber, and plastics sectors. This included an announced \$85 million joint venture between two companies, Chongqing Sansheng Building Materials Co. and Zhangjiagang Zhongyue Metallurgical Equipment Technology, to establish an undisclosed joint venture company manufacturing pharmaceutical preparations. In Ghana, the Zhejiang Xinan Chemical Industrial Group and Bosai Minerals Group invested in agrichemical firms.

Figure 4.8 China M&A in SSA, by destination, 2010–16



Source: Bureau van Dijk, Zephyr database (accessed January 12, 2018).

Note: See [appendix table I.14](#) for a tabular presentation of the data in this figure.

China's Greenfield Investment in SSA

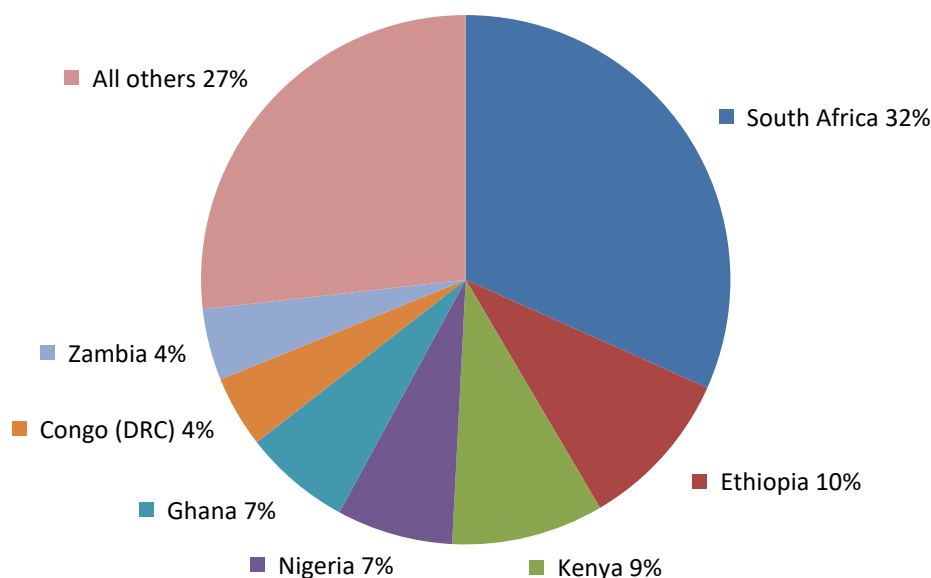
Between 2010 and 2016, Chinese firms represented the fifth-largest source of greenfield investment projects in the SSA, behind the EU, SSA, the United States, and India. In that period, Chinese firms invested in about 183 known greenfield investments, or 4.3 percent of all known greenfield investments

⁸⁸⁸ These included the Hebei Iron and Steel Group, the Shandong Qixing Iron Tower Company, and the Hebei Zhongbo Platinum Corporation.

⁸⁸⁹ These include the Shanghai Yidian Electronics Corporation, the Shenzhen Zhengtong Jiaming Optoelectronics Company, and the Hengtong Optic-Electric Corporation. See JETRO, Institute of Developing Economies, "Outward FDI from Developing Countries," February 2013. Also, see Bloomberg, "Hengtong Optic-Electric Corporation" (accessed January 15, 2018), and Shenzhen Zhengtong Jiaming Optoelectronics Company, "About," <http://www.szztled.com/en/About.asp> (accessed January 15, 2018).

in the SSA during that period. During the same period, Chinese greenfield investment in SSA was primarily concentrated in South Africa (figure 4.9).

Figure 4.9 China greenfield Investment in SSA, by destination, 2010–16



Source: *Financial Times*, fDi Markets database (accessed December 15, 2017).

Note: See [appendix table I.15](#) for a tabular presentation of the data in this figure.

Chinese greenfield investments to the SSA were primarily concentrated in the communications, metals, automotive, and electronic components sectors. Collectively, these sectors represented more than half of all Chinese greenfield investment into the SSA between 2010 and 2016.

Most of these greenfield investments were made in the communications sectors of South Africa, Zimbabwe, Cameroon, and Kenya.⁸⁹⁰ Ranging in scope across various levels of the supply chain, they encompassed design, development, and testing (e.g., Huawei’s 2016 investment in South Africa), manufacturing (e.g., Cellon’s 2013 investment in Ghana), logistics (e.g., ZTE’s 2010 investment in Zimbabwe), and retail sales (e.g., Wiko Mobile’s 2014 investment in Kenya). China also conducted multiple investments in the radio/TV broadcasting communications sectors in Kenya, Angola, and Sudan.

In the extractive metals sector, Chinese greenfield investment in SSA mostly targeted steel, nonferrous metal and iron, and steel mill manufacturing. Steel manufacturing investments were mostly in South Africa and Kenya, while nonferrous metal production investments were in the DRC.

Within automobile and parts, the majority of Chinese greenfield investment projects were in South Africa, Ethiopia, and Nigeria. Within South Africa, these entailed manufacturing motor vehicles, trucks, and vehicle parts. In Nigeria and Ethiopia, however, Chinese investments in related manufacturing plants were more targeted, specializing in autos and heavy-duty trucks in Ethiopia and autos in Nigeria.

⁸⁹⁰ Côte d’Ivoire, Ghana, Nigeria, and Senegal were also recipients of Chinese greenfield investment in their communications sectors.

Finally, within the electronics components sector, the vast majority of Chinese greenfield investment was in South Africa’s manufacturing, logistics, and sales sectors. Other prominent investments, however, were made in Nigeria, Ghana, and the DRC.

China’s FDI in SSA Differs from That of the United States

While the lack of comprehensive data makes a comparison of U.S. and Chinese FDI positions in SSA difficult, a few broad trends can be found. First, China’s FDI to SSA has risen much faster than that of the United States. In 2010, for example, Chinese FDI in SSA was about one-third of the U.S. position. In 2015, however, Chinese FDI in the region amounted to \$31.2 billion, compared to \$29.4 billion from the United States. From 2010–2015, China’s FDI position in SSA grew at a CAGR of 17.8 percent, compared to -2.0 percent for the United States.

Second, the composition of China’s FDI stock investment in SSA was different from that of the United States. In 2015, for example, Mauritius, South Africa, Nigeria, and Liberia accounted for more than half of all U.S. FDI in the region. In the same year, South Africa, the Democratic Republic of Congo, Nigeria, Zambia, and Sudan collectively accounted for nearly half of China’s FDI in the region. This was partly due to the fact that the United States and some EU member countries have largely refrained from investing in the DRC and Sudan (as well as Angola, Burundi, the Central African Republic, Eritrea, Guinea, and Zimbabwe) for political reasons, while China has not.⁸⁹¹ Moreover, the United States’ economic growth depends less on the importation of SSA natural resources. In contrast, access to African oil, copper, cobalt, and iron ore has been essential to China’s industrialization process.⁸⁹² For example, China has invested heavily in mining and other extractive industries in the DRC, largely in an effort to extract cobalt, which is crucial for electric car battery production.⁸⁹³

Third, unlike FDI from the United States and the EU, Chinese FDI has often been associated with labor migration. China’s National Statistical Bureau suggests that approximately 198,000 Chinese workers were contracted to work on SSA-related investment projects by 2015.⁸⁹⁴ However, academic research has indicated that in recent years the actual number of workers may be closer to a million. Chinese firms, particularly at the beginning of their operations in SSA, brought in Chinese workers for a variety of reasons. Specifically, they wanted workers who (1) were familiar with their firms’ processes, (2) could quickly make firms operational in new environments, and (3) had expertise in installing and testing Chinese-made machinery.⁸⁹⁵ However, there is increasing evidence that after the initial stages of investment were made, more SSA workers were hired due to lower local wages. Besides wages, Chinese firms have other costs to bear in bringing workers to SSA, including food, accommodation, one or two trips to China per year, and work permit applications and extensions. Such costs can total three to four times the local SSA salaries, and as such may not be sustainable over time.⁸⁹⁶

Finally, U.S. FDI in SSA has been driven by the private sector, while Chinese investment there has involved both private and state-owned enterprises (SOEs). Since 2000, China’s leaders have encouraged SOEs and other domestic Chinese firms to invest in Africa and other areas via its “One Belt, One Road” initiative (2013) and other policies. This was driven by a desire to seek high-yielding investments abroad

⁸⁹¹ Chen, Dollar, and Tang, “China’s Direct Investment in Africa,” September 3, 2015.

⁸⁹² *Financial Times*, “Chinese Investment in Africa,” June 13, 2017.

⁸⁹³ *Ibid.*

⁸⁹⁴ China’s National Bureau of Statistics, *China Statistical Yearbook*, 2016, table 11-22.

⁸⁹⁵ Xiaoyang, “Does Chinese Employment Benefit Africans?” December 2016.

⁸⁹⁶ *Ibid.*

for China’s accumulating foreign-exchange reserves⁸⁹⁷ and to acquire natural resources (e.g., oil, iron, and copper) that were deemed essential to sustaining China’s economic development.⁸⁹⁸

The share of Chinese FDI into the SSA that is state-owned is not known. However, academic sources have indicated a large SOE investment presence in Africa: SOEs are prominent in China’s natural resource and energy industries, and have predominated in this form of Chinese investment within SSA.⁸⁹⁹ Moreover, China’s massive “One Belt, One Road” infrastructure initiative has included Africa in its purview, and many of the firms involved in its associated infrastructure development (specifically, firms in the transportation and infrastructure sectors) are state-owned. Low-cost Chinese official financing and loan guarantees from state-owned financial entities have also been a source of government support for FDI.⁹⁰⁰

South Africa

South Africa’s Outward FDI Position in SSA

Since 2000, South Africa’s outward FDI in both the world and rest of SSA has increased, highlighting increasing economic integration among SSA countries. From 2010 to 2016, South Africa saw positive growth in its outward FDI position to the world. For example, South Africa’s outward FDI position grew 11.7 percent from \$154.7 billion in 2015, to \$172.8 billion in 2016. Similarly, though data availability is a limitation,⁹⁰¹ South Africa’s investment in SSA increased 27.5 percent between 2010 and 2012 (table 4.14). In 2012, Mauritius, at \$10.6 billion, was the largest recipient of South Africa’s outward FDI stock in SSA, followed by Mozambique and Nigeria (each at \$2.2 billion) and Ghana (\$2 billion).⁹⁰²

Table 4.14 South Africa outward FDI position in SSA and the world, 2010–16

	2010	2012	2014	2016	Absolute change 2010–16	% change 2010–16
	Million \$					
Outward FDI position to SSA	17,949	22,894	a	a	b	b
Outward FDI position to the world	83,249	111,780	146,024	172,827	89,578	107.6

Source: UNCTAD, UNCTADStat database (accessed January 30, 2018).

Note: UNCTAD data on South Africa’s outward FDI stock to SSA only include 2001–12.

^a Data not available.

^b Absolute change and percentage change for 2010–16 are not provided because the 2016 value was not available.

⁸⁹⁷ Higher-yielding investments than, for example, U.S. treasury securities, in which China has traditionally invested.

⁸⁹⁸ CRS, “China’s Economic Rise,” September 15, 2017. Dollar, *China’s Engagement with Africa*, 2016.

⁸⁹⁹ Chitu and Williamson, “Chinese State-Owned Enterprises in Africa,” March–April 2013.

⁹⁰⁰ Pilling, “Chinese Investment in Africa,” June 13, 2017.

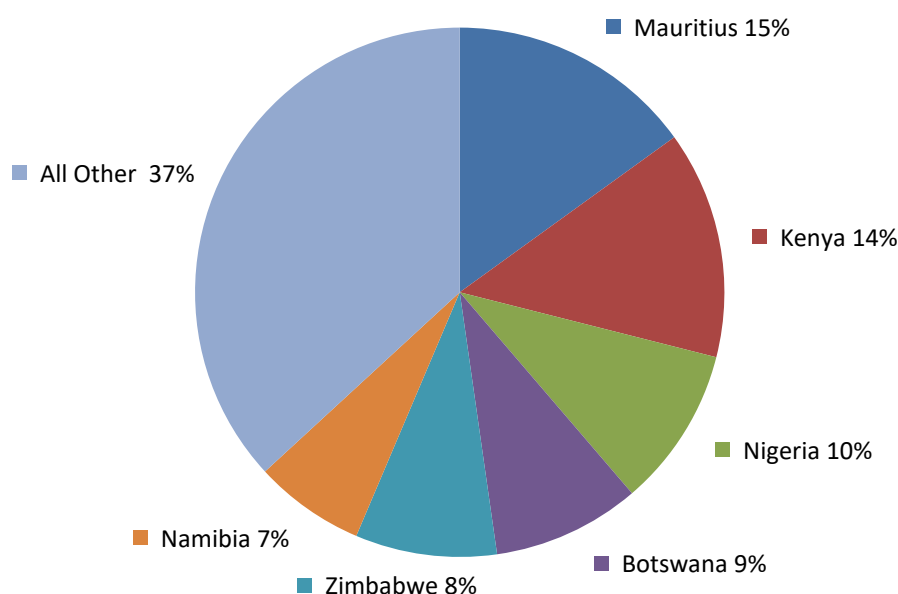
⁹⁰¹ UNCTAD data report only South Africa’s outward FDI stock to all African countries for the years 2001–12.

⁹⁰² Data from UNCTAD, UNCTADStat database (accessed January 29, 2018).

South Africa M&A and Greenfield Investment Position in SSA

As official outward FDI position data is limited, the Commission’s analysis focused on M&A deals and greenfield projects to better illustrate South Africa’s investment in SSA. The number of South Africa’s M&A deals in other SSA countries increased 75 percent between 2010 and 2016.⁹⁰³ However, after 2014, the number of M&A deals showed a decreasing trend, with a 5.4 percent reduction between 2015 and 2016. Most deals were in the following industries: (1) other services, (2) wholesale and retail trade, (3) insurance companies, (4) post and telecommunications, and (5) food, beverages, and tobacco. For example, it was reported that JD Group, a household furniture and appliances retailer based in South Africa, sold its consumer finance divisions in South Africa, Namibia, Swaziland, and Botswana to RCS Cards (owned by a South Africa-based company).⁹⁰⁴ By 2016, top destinations for South Africa’s M&A deals with SSA were Mauritius, Kenya, Nigeria, Botswana, and Zimbabwe (figure 4.10).

Figure 4.10 South Africa M&A deals in SSA, 2010–16



Source: Bureau van Dijk, Zephyr M&A database (accessed January 30, 2018).

Note: See [appendix table I.16](#) for a tabular presentation of the data in this figure.

The number of greenfield projects from South Africa into other SSA countries decreased by 20 percent between 2010 and 2016, with the largest number of projects in 2012. South Africa’s top destination for greenfield investment was Nigeria, with 48 out of 374 projects (12.8 percent) undertaken between 2010 and 2016 (table 4.15). Among these investments, food and tobacco, financial services, and software and IT services were the top sectors. Top industries for South Africa’s greenfield projects into all other SSA countries were financial services, communications, business services, food and tobacco, and software and IT services (figure 4.11).

⁹⁰³ Merger and acquisition (M&A) deals are sorted based on unique deals within *each* year.

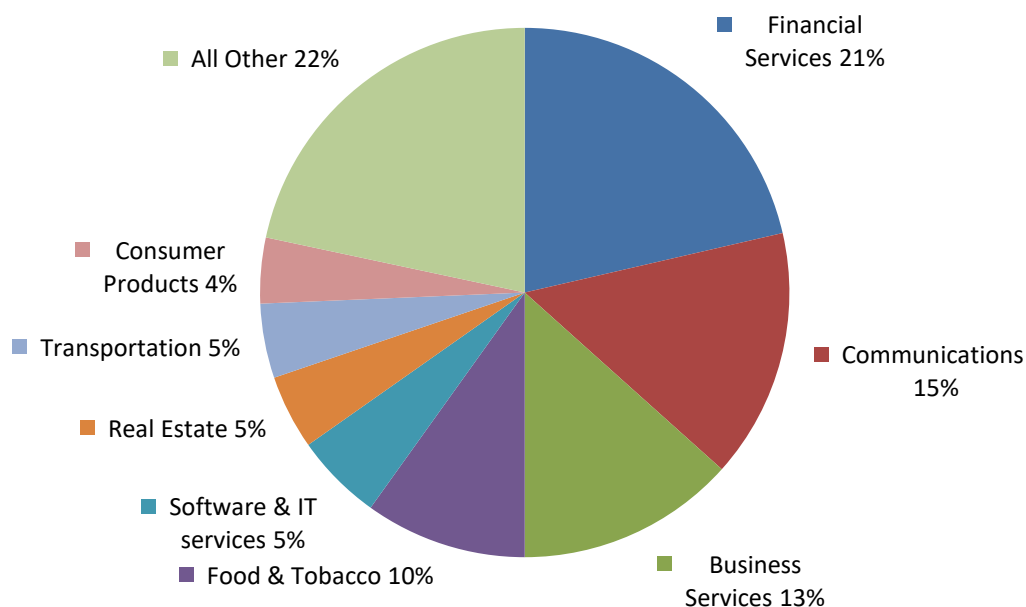
⁹⁰⁴ Bureau van Dijk, Zephyr M&A database (accessed January 30, 2018).

Table 4.15 South Africa number of greenfield projects in SSA, 2010–16

Country	2010	2012	2014	2016	Total
Nigeria	7	11	4	3	48
Ghana	2	8	6	4	40
Zambia	2	6	5	2	38
Kenya	3	5	5	3	29
Namibia	2	5	4	2	29
Mozambique	1	3	3	2	24
Angola	2	7	2	0	21
Tanzania	3	7	1	1	18
Botswana	1	4	1	2	14
All other	12	23	26	9	113
Total	35	79	57	28	374

Source: *Financial Times*, fDi Markets database (accessed January 30, 2018).

Figure 4.11 South Africa percentage share of greenfield FDI projects in SSA, by industry, 2010–16



Source: *Financial Times*, fDi Markets database (accessed January 30, 2018).

Note: See [appendix table I.17](#) for a tabular presentation of the data in this figure.

Chapter 5

Country Profiles

This chapter, per USTR’s request letter, provides profiles of seven selected countries in sub-Saharan Africa (SSA): Cameroon, Côte d’Ivoire, Ethiopia, Kenya, Mauritius, Nigeria, and South Africa. Covering the period 2010–16, each profile gives an overview of the subject country’s economy, including macroeconomic indicators, its cross-border trade in goods and services, and its inward and outward foreign direct investment (FDI) with the United States and the world.

Key Findings

In 2016, six of the seven countries profiled in this chapter—Cameroon, Côte d’Ivoire, Ethiopia, Kenya, Nigeria, and South Africa—were ranked among the top 10 largest economies in the SSA region by gross domestic product (GDP), with Nigeria being the largest and South Africa the second largest. Mauritius had the highest GDP per capita among the profiled countries.⁹⁰⁵ Côte d’Ivoire and Ethiopia experienced the fastest economic growth, while Nigeria had its first recession since 2010 (table 5.1) due to declining oil production and falling oil prices.⁹⁰⁶

Among the countries profiled in this chapter, South Africa accounted for the largest volume of goods trade with the world as well as with the United States in 2016, followed by Nigeria. Among the top U.S. goods exports to these seven countries were aircraft, cereals, machinery and equipment, and motor vehicles and parts. Among the top U.S. goods imports from these seven countries were crude petroleum, petroleum-related products, gemstones, apparel and textiles, and agricultural products, such as cocoa beans, coffee and tea, sugar, lumber, and oilseeds.⁹⁰⁷

There are limited services trade statistics available for these seven profiled countries. Based on data for 2015, South Africa and Nigeria accounted for the largest shares of commercial services trade in the SSA region.⁹⁰⁸ Transport, travel, and other business services were among the top service sectors these seven countries traded with the world.⁹⁰⁹

⁹⁰⁵ World Bank, World Development Indicators database (accessed January 3, 2018).

⁹⁰⁶ Ibid. Most data in table 5.1 are 2016-based unless noted otherwise.

⁹⁰⁷ IHS Markit, Global Trade Atlas database (accessed January 10, 2018); USITC DataWeb/USDOC (accessed November 7, 2017). For more information on U.S. goods exports and imports at the sectoral level, see chapter 2 and 3.

⁹⁰⁸ The WTO publishes data on trade in “commercial services” on a BPM6 basis. According to the WTO, commercial services comprise all services categories except government-provided services. WTO, *World Trade Statistical Review 2017*, 2017, 88. Meanwhile, data on U.S. trade in private services with SSA were calculated by USITC staff by subtracting the BEA data on exports and imports of government-provided services from the BEA data on total exports and imports of services. As the services classification system used by the BEA is largely consistent with the BPM6, the terms “commercial services” and “private services” used in this report are roughly equivalent.

⁹⁰⁹ USDOC, BEA, Interactive data, International Transactions, Services, & IIP, International Services, table 2.3, (accessed November 13, 2017); WTO, Statistics Database, Time Series on International Trade, “Trade in Commercial Services, 2005–Onward (BPM6)” (accessed November 7, 2017). For more information on U.S. services exports and imports at the sectoral level, see chapter 2 and 3.

Table 5.1 Overview of Cameroon, Côte d'Ivoire, Ethiopia, Kenya, Mauritius, Nigeria, and South Africa, 2016

	Cameroon	Côte d'Ivoire	Ethiopia	Kenya	Mauritius	Nigeria	South Africa
Macroeconomic indicators							
Income category ^a	LM	LM	L	LM	UM	LM	UM
GDP ^b (billion \$)	32.2	36.4	72.4	70.5	12.2	404.7	295.5
GDP per capita ^b (\$)	1,374.5	1,535.0	706.8	1,455.4	9,630.9	2,175.7	5,274.5
GDP growth (%)	4.5	8.3	7.6	5.8	3.8	-1.6	0.3
Trade (billion \$)							
With the world							
Goods	7.0	21.4 ^c	20.8	19.5	6.6	68.1	151.8
Commercial services ^d	3.6	3.5	6.0	5.8	5.0	21.4	29.8
With the United States							
Goods	0.3	1.5	1.1	0.9	0.4	6.1	11.4
Private services ^e	i	i	i	i	i	2.8	4.7
FDI (billion \$)							
With the world							
Inward FDI stock	6.9	7.6	13.7	11.2	4.6	94.2	136.8
Outward FDI stock	-0.4 ^f	0.1	i	0.7	0.9	13.0	172.8
With the United States							
Inward FDI stock	-0.1 ^f	0.2	i	0.4	7.0	3.8	5.1
Outward FDI stock	0.0	(*)	(*)	i	0.3	0.1	3.1
AGOA							
Basic AGOA utilization rate ^g (%)	18.4	0.1	86.2	96.8	74.2	88.8	62.4
Total AGOA utilization rate ^h (%)	40.1	81.9	96.0	98.0	79.2	88.9	95.3
National AGOA strategy	No	No	Yes	Yes	Yes	No	No

Source: World Bank, "World Bank Analytical Classifications" and World Development Indicators database (accessed January 3, 2018); IHS Markit, Global Trade Atlas database (accessed January 10, 2018); USITC DataWeb/USDOC (accessed November 7, 2017); USDOC, BEA, Interactive data, International Transactions, Services, & IIP, International Services, table 2.3 (accessed November 13, 2017); WTO, Statistics Database, Time Series on International Trade, "Trade in Commercial Services, 2005–Onward (BPM6)" (accessed November 7, 2017); UNCTAD, FDI/TNC database, "Foreign Direct Investment: Inward and Outward Flows and Stock, Annual, 1970–2016" (accessed February 1, 2017); USDOC, BEA, International Transactions Account database, "Foreign Direct Investment Position in the United States on a Historical-cost Basis" and "U.S. Direct Investment Position Abroad on a Historical-cost Basis" (accessed November 20, 2017).

Note: (*) indicates a non-zero value between -\$1,000,000 and +\$1,000,000.

^a L = low income; LM = lower middle income; UM = upper middle income. Source: World Bank, "World Bank Analytical Classifications."

^b In current nominal terms. Current nominal GDP and GDP per capita are used in table 5.1 to show current comparison across the seven SSA countries. In the rest of the chapter, GDP in constant 2010 dollars are used to show comparison over time for individual countries.

^c Based on data from 2015, the most recent year for which data are available on Côte d'Ivoire's goods trade.

^d Based on data from 2015, the most recent year for which data are available on services trade with the world for these countries. The WTO term "commercial services" is roughly equivalent to the term "private services" below, which excludes government-provided services.

^e Based on reported services trade statistics from the Bureau of Economic Analysis (BEA) under the U.S. Department of Commerce (USDOC).

^f FDI stocks or positions include equity and intercompany loans. Negative FDI stocks or positions often are caused when loans from the affiliate to its parent exceed the loans and equity capital given by the parent to the affiliate. Source: OECD, "Foreign Direct Investment Statistics: Explanatory Notes," 2015.

^g The basic AGOA utilization rate is defined as U.S. imports under AGOA from a beneficiary country (numerator) over total U.S. imports of AGOA-eligible products from that country (denominator).

^h The total AGOA utilization rate includes AGOA-eligible products that are imported under both AGOA and GSP. Nearly 1,600 products at the 6-digit HTS level are eligible for preferential treatment under both AGOA and GSP. It is up to the exporting country to choose under which program it will claim preferential treatment.

ⁱ Data not available.

FDI statistics for these seven countries are limited as well. Based on available data for 2016, among the seven profiled countries, South Africa was the largest recipient of inward FDI stock from the world, and also the largest source of outward FDI stock to the world.⁹¹⁰ While the United States received the largest amount of inward FDI from South Africa among these seven profiled countries, it sent the largest amount of outward FDI to Mauritius.⁹¹¹ Three of the seven countries—Mauritius, Nigeria, and South Africa—have signed trade and investment framework agreements (TIFAs) with the United States. A TIFA is a trade pact that establishes a strategic framework and a set of principles for bilateral dialogue on trade and investment issues.⁹¹²

All of the seven countries profiled in this chapter are eligible for trade preferential treatment under the African Growth and Opportunity Act (AGOA).⁹¹³ However, the degree to which the countries have taken advantage of these trade preferential benefits—as shown by their AGOA utilization rates—varies.⁹¹⁴ For example, in 2016, Kenya had the highest basic AGOA utilization rate among the seven countries (96.8 percent), followed by Nigeria (88.8 percent) and Ethiopia (86.2 percent). Although Côte d'Ivoire had the lowest basic AGOA utilization rate of 0.1 percent, when AGOA-eligible products that were imported under the Generalized System of Preferences (GSP) were included in the calculation, its total AGOA utilization rate jumped to roughly 81.9 percent.⁹¹⁵

Cameroon was the only country with low AGOA utilization rates. Its basic AGOA utilization rate was 18.4 percent, and even including AGOA-eligible products that were imported under GSP, its total AGOA utilization rate was 40.1 percent, well below that of other profiled countries. Cameroon's low utilization of preferential treatment under AGOA/GSP for distillate and residual fuel oil, its top export to the United States under AGOA, may have contributed to this overall low AGOA utilization.

Of the seven profiled countries, only Ethiopia, Kenya, and Mauritius have developed national AGOA strategies to help local companies better utilize AGOA preferential trade provisions. The strategies identify key sectors to focus on and strategic policy areas to improve upon.⁹¹⁶

⁹¹⁰ UNCTAD, FDI/TNC database, "Web Table 3. FDI Inward Stock, by Region and Economy, 1990–2016" and "Web Table 4. FDI Outward Stock, by Region and Economy, 1990–2016" (accessed November 20, 2017).

⁹¹¹ USDOC, BEA, International Transactions Account database, "Foreign Direct Investment Position in the United States on a Historical-cost Basis" and "U.S. Direct Investment Position Abroad on a Historical-cost Basis" (accessed November 20, 2017).

⁹¹² USTR, "Trade and Investment Framework Agreements" (accessed January 30, 2018).

⁹¹³ For a detailed discussion of the AGOA program, see appendix E.

⁹¹⁴ The basic AGOA utilization rate is defined as U.S. imports under AGOA from a beneficiary country (numerator) over total U.S. imports of AGOA-eligible products from that country (denominator).

⁹¹⁵ Nearly 1,600 products at the 6-digit HTS level are eligible for preferential treatment under both AGOA and GSP. It is up to the exporting country to choose the program under which it will claim preferential treatment.

⁹¹⁶ AGOA.info, "National AGOA strategies" (accessed January 31, 2018). For more information on national AGOA strategies, see chapter 6.

Cameroon

Economic Overview

In 2016, Cameroon was the world's 93rd-largest economy—and SSA's 10th-largest—with a GDP of \$35.1 billion.⁹¹⁷ It had steady economic growth in recent years, with an average annual GDP growth rate of 4.8 percent during 2010–16.⁹¹⁸ Its market-based economy is relatively diversified, featuring sectors such as oil and gas, timber, aluminum, agriculture, mining, and services.⁹¹⁹ Cameroon was the 45th-largest crude oil producer in the world, producing 93,200 barrels per day.⁹²⁰ Despite falling global oil prices, crude petroleum still accounted for over 40 percent of Cameroon's exports in 2015.⁹²¹ Cameroon is categorized by the World Bank as a lower-middle-income country,⁹²² with a per capita GDP of \$1,495.4 (table 5.2).⁹²³

Table 5.2 Major economic indicators, Cameroon, 2010–16

Economic indicators	2010	2012	2014	2016
GDP (2010 constant billion \$)	26.1	28.5	31.8	35.1
GDP growth (annual %)	3.4	4.5	5.9	4.5
GDP per capita (2010 constant \$)	1,309.1	1,350.0	1,428.2	1,495.4
Current account balance (% of GDP)	-3.3	-3.3	-4.0	^a
Inflation, consumer prices (annual %)	1.3	2.9	1.9	^a
Population (millions)	20.0	21.1	22.2	23.4
Internet users (per 100 people)	4.3	7.5	16.2	25.0

Source: World Bank, World Development Indicators database (accessed January 3, 2018); UNCTAD, "Foreign Direct Investment: Inward and Outward Flows and Stock, Annual, 1970–2016" (accessed February 1, 2018).

^a Data not available.

In 2016, services accounted for 56.7 percent of Cameroon's GDP, followed by agriculture (16.7 percent), manufacturing (15.9 percent), construction (5.3 percent), and mining and utilities (5.3 percent) (figure

⁹¹⁷ World Bank, "Gross Domestic Product 2016," <http://data.worldbank.org/data-catalog/GDP-ranking-table> (accessed December 18, 2017); United Nations Statistics Division (UNSD), National Accounts Main Aggregates Database, <https://unstats.un.org/unsd/snaama/resCountry.asp> (accessed December 18, 2017).

⁹¹⁸ World Bank, World Development Indicators database (accessed December 14, 2017).

⁹¹⁹ CIA, "Cameroon," *World Factbook*, <https://www.cia.gov/library/publications/the-world-factbook/geos/cm.html> (accessed December 14, 2017).

⁹²⁰ CIA, "Crude Oil—Production," *World Factbook*, <https://www.cia.gov/library/publications/the-world-factbook/rankorder/2241rank.html> (accessed January 8, 2018).

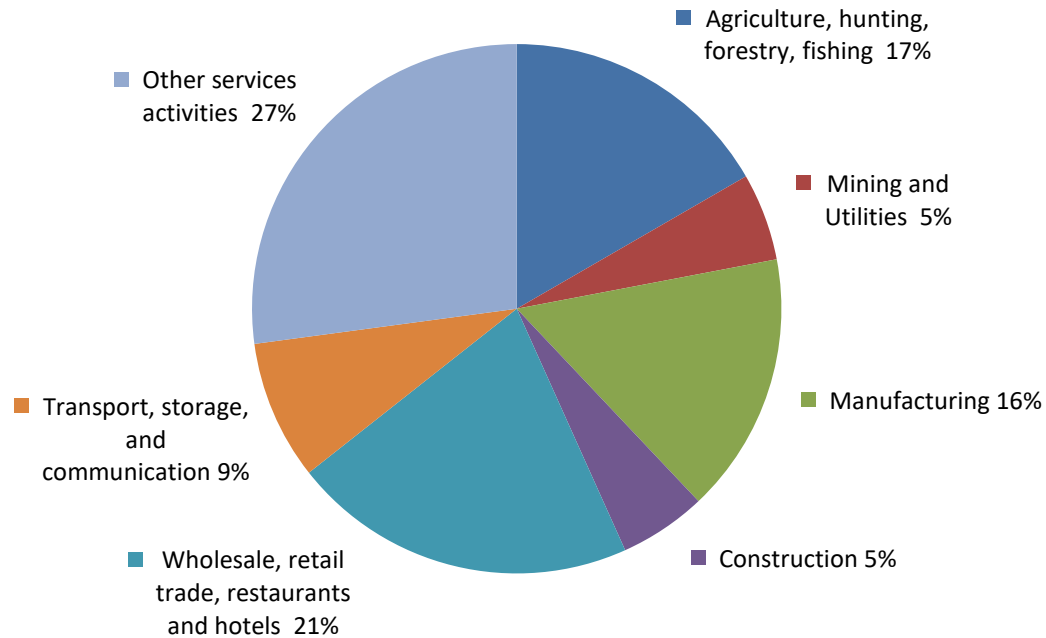
⁹²¹ IHS Markit, Global Trade Atlas database (accessed December 7, 2017).

⁹²² The World Bank classifies countries into four categories by gross national income (GNI) per capita. In 2016, countries with GNI of less than or equal to \$1,005 were classified as low-income countries; countries with GNI between \$1,006 and \$3,955 were classified as lower-middle-income countries; countries with GNI between \$3,956 and \$12,235 were classified as upper-middle-income countries; and countries with GNI greater than \$12,235 were classified as high-income countries. World Bank, "World Bank Analytical Classifications," <https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups> (accessed December 18, 2017).

⁹²³ World Bank, World Development Indicators database (accessed December 18, 2017).

5.1).⁹²⁴ Within manufacturing, food and beverages was by far the largest sector in Cameroon in terms of value added, followed by petroleum-related products and chemical products.⁹²⁵

Figure 5.1 GDP composition, Cameroon, 2016



Source: UNSD, National Accounts Main Aggregates Database (accessed January 19, 2018).

Note: See [appendix table I.18](#) for a tabular presentation of the data in this figure.

Trade in Goods

Cameroon's goods trade with the world totaled \$7.0 billion in 2016. The European Union (EU)⁹²⁶ was Cameroon's largest trading partner with a share of 38.9 percent, followed by China (17.0 percent), the United States (3.9 percent), Nigeria (3.8 percent), and Thailand (3.2 percent). Intra-SSA regional trade accounted for 14.7 percent of Cameroon's total goods trade.⁹²⁷

Cameroon is a member of the Economic and Monetary Community of Central Africa (CEMAC), a customs union and monetary union consisting of six member states (Cameroon, Chad, the Central African Republic, Equatorial Guinea, the Republic of the Congo, and Gabon). In 2009, Cameroon signed a free trade agreement with the EU, which entered into force in 2014.⁹²⁸

⁹²⁴ UNSD, National Accounts Main Aggregates Database (accessed January 19, 2018).

⁹²⁵ UNIDO, Industrial Statistics Database (INDSTAT), https://www.unido.org/Data1/IndStatBrief/Basic_Information.cfm?print=no&ttype=C1&Country=CMR&Group= (accessed December 19, 2017).

⁹²⁶ Including 28 EU member countries.

⁹²⁷ IHS Markit, Global Trade Atlas database (accessed December 7, 2017).

⁹²⁸ WTO, Regional Trade Agreements Information System (RTA-IS), "Cameroon," <http://rtais.wto.org/UI/PublicShowMemberRTAIDCard.aspx?rtaid=680> (accessed January 19, 2018).

Trade with the United States

In 2016, two-way goods trade between the United States and Cameroon totaled \$340.6 million, accounting for 0.009 percent of total U.S. goods trade. The United States had a goods trade surplus of \$33.5 million with Cameroon.⁹²⁹ Cameroon has been an AGOA beneficiary country since 2000. It is also eligible for additional trade benefits under the AGOA textile and apparel provisions.⁹³⁰

U.S. goods exports to Cameroon totaled \$176.3 million in 2016, a 36.0 percent decrease from \$129.7 million in 2010. During 2010–16, U.S. exports of construction and mining equipment had the largest decrease of any sector at \$29.7 million, while U.S. exports of electric motors, generators, and related equipment showed the largest increase at \$33.1 million. The leading U.S. goods exports to Cameroon were electric motors, generators, and related equipment, accounting for 19.1 percent of total U.S. goods exports to the country, followed by air-conditioning equipment and parts (7.4 percent) and motor vehicles (6.7 percent) (table 5.3).⁹³¹

Table 5.3 Leading U.S. goods exports to Cameroon, by USITC digest sector, 2010–16

Leading U.S. exports to Cameroon	2010	2016	Absolute	% change
			change	2010–16
	Million \$			
Electric motors, generators, and related equipment	0.6	33.7	33.1	5,126.1
Air-conditioning equipment and parts	0.8	13.0	12.2	1,478.5
Motor vehicles	8.0	11.9	3.9	48.3
Cereals	10.8	10.2	-0.6	-5.9
Construction and mining equipment	36.7	7.0	-29.7	-80.9
All other	72.6	100.5	27.9	38.4
Total	129.7	176.4	46.7	36.0

Source: USITC DataWeb/USDOC (accessed November 7, 2017).

Note: Because of rounding, figures may not add up to totals shown.

U.S. goods imports from Cameroon totaled \$142.9 million in 2016, a 51.7 percent decrease from \$295.9 million in 2010. During 2010–16, the value of U.S. imports of petroleum products experienced the largest decrease at \$59.0 million, followed by natural rubber (-\$12.3 million), and cocoa, chocolate, and confectionery (-\$10.6 million).⁹³² Although some categories of U.S. imports from Cameroon grew, such as U.S. imports of lumber (which showed the largest increase at \$10.8 million), the increases were not enough to offset the declines in other imports (table 5.4).⁹³³ In 2016, the leading U.S. goods imports from Cameroon included petroleum products (47.1 percent); lumber (16.5 percent); and cocoa, chocolate, and confectionery (14.3 percent) (table 5.4).

In 2016, U.S. imports under AGOA accounted for 11.7 percent of total U.S. goods imports from Cameroon. Cameroon's basic AGOA utilization rate was about 18.5 percent in 2016. Another 21.7 percent of AGOA-eligible products imported into the United States were entered under GSP. If the

⁹²⁹ USITC DataWeb/USDOC (accessed November 7, 2017).

⁹³⁰ USDOC, ITA, "General Country Eligibility Provisions," <https://www.trade.gov/agoa/eligibility/> (accessed November 23, 2017).

⁹³¹ USITC DataWeb/USDOC (accessed November 7, 2017).

⁹³² For more information on U.S. imports of cocoa products, see chapter 3.

⁹³³ USITC DataWeb/USDOC (accessed November 7, 2017).

latter products are included in the calculation, the total AGOA utilization rate would increase to roughly 40.1 percent. Note that distillate and residual fuel oil (HTS code 2710.19.06; \$16.7 million), which accounted for over 99 percent of U.S. imports under AGOA from Cameroon, had a preference utilization rate only at 24.7 percent. This pattern drove down Cameroon's overall low AGOA utilization rate.⁹³⁴

Table 5.4 Leading U.S. goods imports from Cameroon, by USITC digest sector, 2010–16

Leading U.S. imports from Cameroon	2010	2016	Absolute	% change
			change	2010–16
Million \$				
Petroleum products	126.2	67.2	-59.0	-46.7
Lumber	12.8	23.6	10.8	84.2
Cocoa, chocolate, and confectionery	30.9	20.4	-10.5	-34.1
Natural rubber	20.4	8.1	-12.3	-60.2
Works of art and miscellaneous manufactured goods	1.1	5.6	4.5	411.6
All other	104.4	17.9	-86.5	-82.9
Total	295.9	142.9	-153.0	-51.7

Source: USITC DataWeb/USDOC (accessed November 7, 2017).

Note: Because of rounding, figures may not add up to totals shown.

Trade in Services

Cameroon's exports of commercial services⁹³⁵ to the world fluctuated throughout 2010–15, totaling \$1.4 billion in 2015.⁹³⁶ Transport services and travel services accounted for the largest shares of the country's commercial services exports in that year at 32.3 percent and 31.2 percent, respectively, followed by other business services at 18.3 percent (figure 5.2). While Cameroon's exports in these three sectors fluctuated throughout 2010–15, the country's exports of both transport and other business services posted overall declines. On the other hand, Cameroon's exports of travel services increased rapidly at a compound annual growth rate (CAGR) of 23.1 percent over the same period.⁹³⁷

Cameroon's imports of commercial services increased throughout 2010–14, reaching \$2.6 billion in 2014, and then decreased to \$2.1 billion in 2015. Transport services accounted for the largest share (42.3 percent) of these imports in 2015, followed by travel services (26.5 percent) and other business services (17.1 percent) (figure 5.3). As with exports, Cameroon's imports in these top three sectors fluctuated during 2010–15: imports of transport and travel services increased in most years during 2010–15 and posted overall CAGRs of 8.0 percent and 25.0 percent, respectively, while imports of other business services decreased at an overall rate of 13.4 percent.⁹³⁸

⁹³⁴ Ibid.

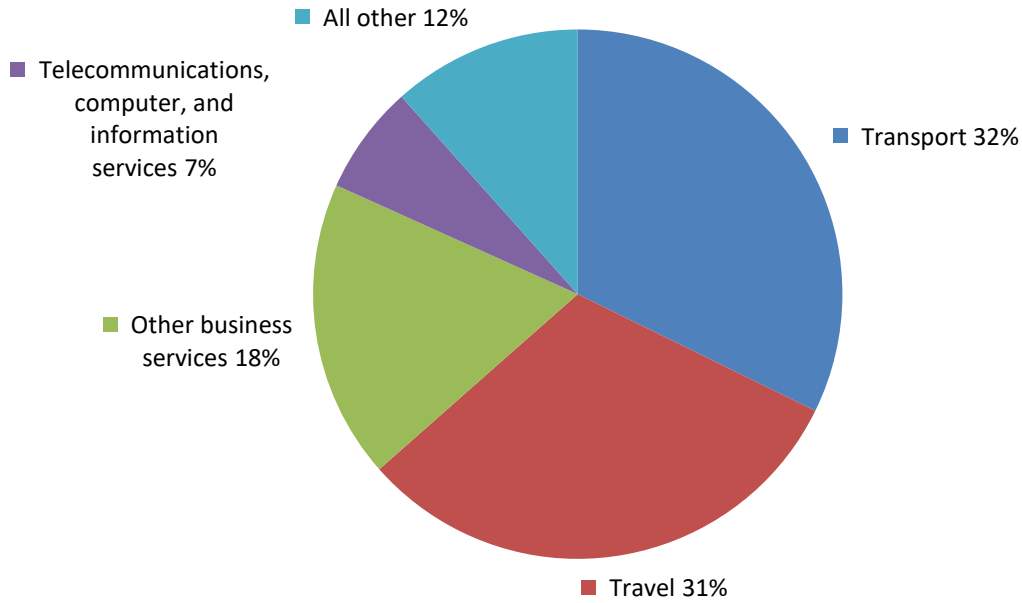
⁹³⁵ The WTO term "commercial services" is roughly equivalent to the term "private services," which excludes government-provided services.

⁹³⁶ The most recent year for which data are available on services trade with the world for these profiled countries is 2015.

⁹³⁷ WTO, Statistics Database, Time Series on International Trade, "Trade in Commercial Services, 2005–Onward (BPM6)" (accessed November 7, 2017).

⁹³⁸ Ibid.

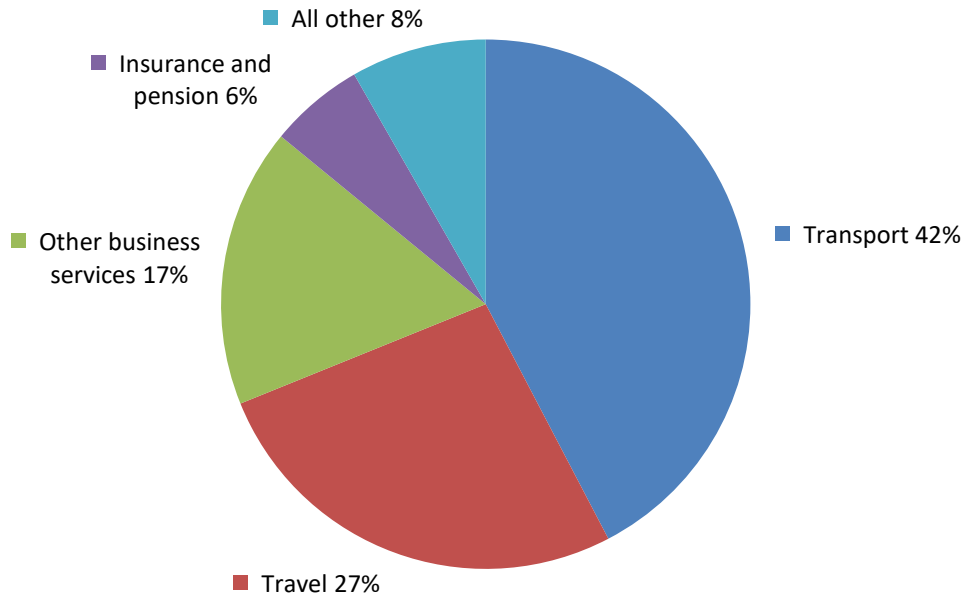
Figure 5.2 Cameroon’s exports of commercial services to the world, by industry, 2015



Source: WTO, Statistics Database, Time Series on International Trade, “Trade in Commercial Services, 2005–Onward (BPM6)” (accessed November 7, 2017).

Note: See [appendix table I.19](#) for a tabular presentation of the data in this figure.

Figure 5.3 Cameroon’s imports of commercial services from the world, by industry, 2015



Source: WTO, Statistics Database, Time Series on International Trade, “Trade in Commercial Services, 2005–Onward (BPM6)” (accessed November 7, 2017).

Note: See [appendix table I.20](#) for a tabular presentation of the data in this figure.

Data on U.S. cross-border services trade or affiliate transactions with Cameroon are unavailable, but anecdotal evidence suggests that U.S.-Cameroon services transactions are likely very small. Orbis identifies only three services firms in Cameroon with a U.S. ultimate beneficial owner:⁹³⁹ Cegelec (auto repair and maintenance), Citibank (financial services), and GNLD International (retail services).⁹⁴⁰ Furthermore, Cameroon accounted for only 12,418—or just over 0.1 percent—of the nonimmigrant visas issued by the United States in 2016,⁹⁴¹ suggesting that relatively few Cameroonian nationals travel to the United States to provide services.⁹⁴²

Foreign Direct Investment (FDI)

In 2016, Cameroon’s total inward FDI stock⁹⁴³ from the world was \$6.9 billion, nearly doubled from \$3.8 billion in 2010, and its total outward FDI stock to the world in 2016 was -\$356 million.⁹⁴⁴ Based on the most recently available bilateral FDI statistics for 2012, France was by far the largest source of Cameroon’s inward FDI stock, followed by the United States, Belgium, and China.⁹⁴⁵

⁹³⁹ An ultimate beneficial owner is the entity, proceeding up the ownership chain, that is no more than 50 percent owned by another person.

⁹⁴⁰ Bureau van Dijk, Orbis database of companies (accessed November 29, 2017).

⁹⁴¹ This figure reflects all nonimmigrant visas, which are issued to individuals traveling to the United States on a temporary basis (e.g. tourists, students, or business visitors). As such, it may include some individuals who consume services via mode 2 (consumption abroad) or who supply services via mode 4 (temporary presence of natural persons). A high percentage of nonimmigrant visas are issued to students and tourists. Business visitors enter the United States under a number of different non-immigrant visa categories, including B-1 (temporary visitor for business), H-1B (temporary worker of distinguished merit and ability performing services other than as a registered nurse), and L-1 (intracompany transferee: executive, managerial, and specialized personnel continuing employment with international firm or corporation). While these are not the only visa categories under which foreign services providers enter the United States, they are three of the largest categories and give some indication of the approximate share of foreign nationals that travel to the United States for business purpose. In 2016, Cameroon accounted for 0.03 percent of all B-1, H-1B, and L-1 visas issued. Source: USDOS, Bureau of Consular Affairs, “FY 2016 Nonimmigrant Visas Issued,” March 13, 2017.

⁹⁴² The General Agreement on Trade in Services identifies four “modes of supply” for services trade—i.e., four ways that services can be traded. As previously mentioned, one of the ways services may be supplied is via mode 4, or the “temporary presence of natural persons.” Mode 4 services trade occurs when a resident of one country travels to another country to provide services such as, for example, management consulting services. For more information on modes of supply, see USITC, *Recent Trends in U.S. Services Trade: 2017* 2017, box 1.1.

⁹⁴³ FDI stocks or positions include equity and intercompany loans. Inward FDI stock is the value of foreign investors’ equity and net loans to enterprises resident in the reporting economy. Outward FDI stock is the value of the resident investors’ equity and net loans to enterprises in foreign economies. Source: OECD, “Foreign Direct Investment Statistics: Explanatory Notes,” <https://www.oecd.org/daf/inv/FDI-statistics-explanatory-notes.pdf>; OECD, “Definition of FDI Stocks,” <https://data.oecd.org/fdi/fdi-stocks.htm> (accessed December 18, 2017).

⁹⁴⁴ UNCTAD, FDI/TNC database, “Foreign Direct Investment: Inward and Outward Flows and Stock, Annual, 1970–2016” (accessed February 1, 2017). The figures in this table correspond to the Statistical Annexes of the UNCTAD *World Investment Report 2017*. Negative FDI stocks or positions often result when the loans from the affiliate to its parent exceed the loans and equity capital given by the parent to the affiliate. Source: OECD, “Foreign Direct Investment Statistics: Explanatory Notes,” (accessed December 18, 2017).

⁹⁴⁵ UNCTAD, Bilateral FDI Statistics, “Cameroon, Table 3. FDI Stock in the Host Economy, by Geographical Origin,” <http://unctad.org/en/Pages/DIAE/FDI%20Statistics/FDI-Statistics-Bilateral.aspx> (accessed February 14, 2018).

The United States held an outward FDI position of -\$68 million in Cameroon in 2016, compared to \$194 million in 2010. Also in 2016, the United States held an inward FDI position of -\$8 million from Cameroon, compared to -\$7 million in 2012.⁹⁴⁶

Côte d'Ivoire

Economic Overview

In 2016, Côte d'Ivoire was the world's 90th-largest economy—and SSA's 9th-largest—with a GDP of \$36.8 billion.⁹⁴⁷ After a brief recession in 2011, during which GDP declined by 4.4 percent, the country turned around economically in 2012. In the following years, GDP grew at an average of 9.3 percent annually, making Côte d'Ivoire one of the fastest-growing economies in the SSA region.⁹⁴⁸ Côte d'Ivoire is classified by the World Bank as a lower-middle-income country,⁹⁴⁹ with a per capita GDP estimated at \$1,552.8 in 2016 (table 5.5).⁹⁵⁰

Table 5.5 Major economic indicators, Côte d'Ivoire, 2010–16

Economic indicators	2010	2012	2014	2016
GDP (2010 constant billion \$)	24.9	26.3	31.2	36.8
GDP growth (annual %)	2.0	10.7	8.8	8.3
GDP per capita (2010 constant \$)	1,219.7	1,229.8	1,384.9	1,552.8
Current account balance (% of GDP)	1.9	-1.2	1.4	^a
Inflation, consumer prices (annual %)	1.2	1.3	0.5	0.7
Population (millions)	20.4	21.4	22.5	23.7
Internet users (per 100 people)	2.7	5.0	19.3	26.5

Source: World Bank, World Development Indicators database (accessed January 3, 2018).

^a Data not available.

In 2016, services accounted for 46.3 percent of Côte d'Ivoire's GDP, followed by agriculture (20.8 percent), manufacturing (17.4 percent), mining and utilities (8.9 percent), and construction (6.6 percent) (figure 5.4).⁹⁵¹ As Côte d'Ivoire is the world's leading producer and exporter of cocoa beans, and as it is a significant producer and exporter of coffee and palm oil, agriculture remains an important sector in Côte d'Ivoire's economy.⁹⁵²

⁹⁴⁶ Data on U.S. inward FDI position from Cameroon for years 2010 and 2011 are unavailable due to data suppression to avoid disclosing information about individual companies. Source: USDOC, BEA, International Transactions Account database, "U.S. Direct Investment Position Abroad on a Historical-Cost Basis" and "Foreign Direct Investment Position in the United States on a Historical-cost Basis" (accessed November 20, 2017). For more information on negative FDI positions, see footnote 944.

⁹⁴⁷ World Bank, "Gross Domestic Product 2016" (accessed December 18, 2017); UNSD, National Accounts Main Aggregates Database (accessed December 18, 2017); CIA, *World Factbook*, "Côte d'Ivoire," <https://www.cia.gov/library/publications/the-world-factbook/geos/iv.html> (accessed December 14, 2017).

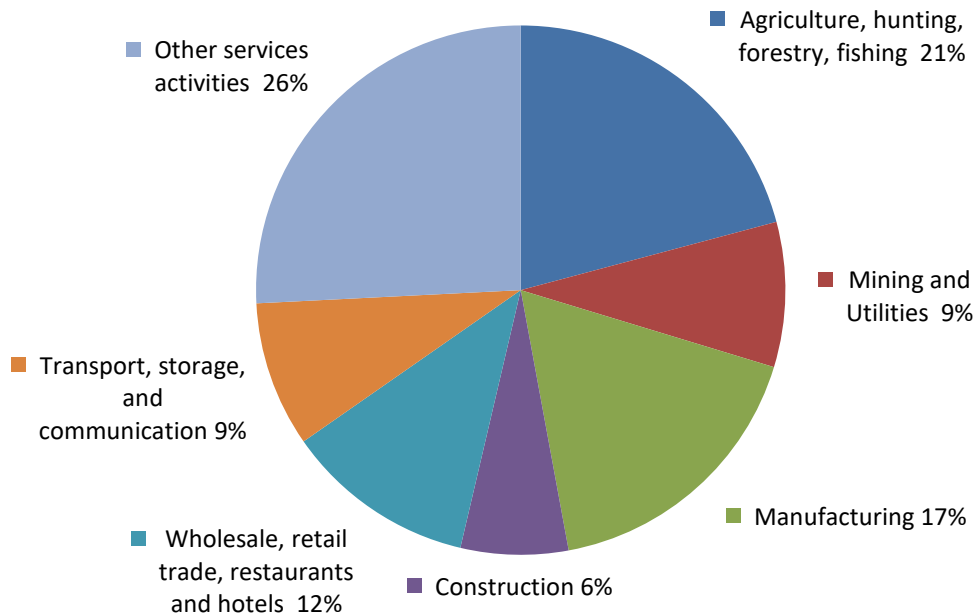
⁹⁴⁸ World Bank, World Development Indicators database (accessed December 14, 2017).

⁹⁴⁹ World Bank, "World Bank Analytical Classifications" and World Development Indicators database (accessed December 18, 2017).

⁹⁵⁰ World Bank, World Development Indicators database (accessed December 14, 2017).

⁹⁵¹ UNSD, National Accounts Main Aggregates Database (accessed January 19, 2018).

⁹⁵² CIA, *World Factbook*, "Côte d'Ivoire" (accessed December 14, 2017).

Figure 5.4 GDP composition, Côte d'Ivoire, 2016

Source: UNSD, National Accounts Main Aggregates Database (accessed January 19, 2018).

Note: See [appendix table I.21](#) for a tabular presentation of the data in this figure.

Trade in Goods

Côte d'Ivoire's two-way goods trade with the world totaled \$21.4 billion in 2015.⁹⁵³ The EU was Côte d'Ivoire's largest trading partner with a share of 38.2 percent, followed by Nigeria (9.0 percent), the United States (6.5 percent), China (5.7 percent), and India (4.0 percent). Intra-SSA regional trade accounted for 23.6 percent of Côte d'Ivoire's total goods trade with the world.⁹⁵⁴

Côte d'Ivoire belongs to the Economic Community of West African States (ECOWAS), a 15-member economic community promoting regional economic integration.⁹⁵⁵ It is also a member of the West African Economic and Monetary Union (WAEMU, or in French UEMOA), a customs and currency union composed of eight member states.⁹⁵⁶ Côte d'Ivoire and the EU signed a free trade agreement in 2008, which entered into force in 2016.⁹⁵⁷

⁹⁵³ The latest year of trade data available for Côte d'Ivoire at Global Trade Atlas database is 2015.

⁹⁵⁴ IHS Markit, Global Trade Atlas database (accessed December 7, 2017).

⁹⁵⁵ The 15 members of ECOWAS are Benin, Burkina Faso, Cabo Verde, Côte d'Ivoire, The Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Niger, Nigeria, Sierra Leone, Senegal, and Togo. Source: ECOWAS, "Basic Information," <http://www.ecowas.int/about-ecowas/basic-information/> (accessed January 3, 2018); U.N. Economic Commission for Africa, "ECOWAS: Trade Market Integration," <https://www.uneca.org/oria/pages/ecowas-trade-and-market-integration> (accessed December 19, 2017).

⁹⁵⁶ The eight members of WAEMU are Benin, Burkina Faso, Côte d'Ivoire, Guinea-Bissau, Mali, Niger, Senegal, and Togo. Source: USTR, "West African Economic and Monetary Union (UEMOA)" (accessed January 3, 2018). For more information on WAEMU, see chapter 6.

⁹⁵⁷ WTO, RTA-IS, "Côte d'Ivoire" (accessed January 19, 2018).

Trade with the United States

In 2016, two-way goods trade between the United States and Côte d'Ivoire totaled \$1.5 billion, accounting for 0.04 percent of total U.S. goods trade. The United States had a goods trade deficit of \$875.4 million with Côte d'Ivoire.⁹⁵⁸

In 2002, Côte d'Ivoire was designated as the 36th SSA country eligible for trade preferential treatment under AGOA.⁹⁵⁹ Three years later, following a period of political unrest and armed conflict, Côte d'Ivoire was removed from the list of AGOA-eligible countries.⁹⁶⁰ In 2011, Côte d'Ivoire's AGOA eligibility status was restored,⁹⁶¹ and two years later, the country was declared eligible for additional trade benefits under the AGOA textile and apparel provisions.⁹⁶²

U.S. goods exports to Côte d'Ivoire totaled \$286.2 million in 2016, a 78.7 percent increase from \$160.1 million in 2010. The leading U.S. goods exports to Côte d'Ivoire were aircraft (19.3 percent); petroleum-related products (13.4 percent); polyvinyl chloride resins in primary forms (8.1 percent); polyethylene resins in primary forms (6.0 percent); and cereals (4.6 percent). Each of these exports grew over the period 2010–16, reflecting the increasing demand for U.S. products in Côte d'Ivoire due to its improved economy (table 5.6).⁹⁶³

Table 5.6 Leading U.S. goods exports to Côte d'Ivoire, by USITC digest sector, 2010–16

Leading U.S. exports to Côte d'Ivoire	2010	2016	Absolute	% change
			change	2010–16
Million \$				
Aircraft	1.6	55.2	53.6	3,422.5
Petroleum products	1.6	38.4	36.8	2,375.0
Polyvinyl chloride resins in primary forms	15.7	23.1	7.4	46.8
Polyethylene resins in primary forms	11.1	17.3	6.2	54.9
Cereals	0.3	13.3	13	4,409.9
All other	129.8	139.0	9.2	7.1
Total	160.1	286.2	126.1	78.7

Source: USITC DataWeb/USDOC (accessed November 7, 2017).

Note: Because of rounding, figures may not add up to totals shown.

U.S. goods imports from Côte d'Ivoire totaled \$1,161.6 million in 2016, a 1.1 percent decrease from \$1,174.9 million in 2010. During this period, U.S. imports of cocoa products experienced the largest increase at \$265.0 million, while U.S. imports of crude petroleum had the largest decrease at \$230.0 million. With a share of 89.1 percent, cocoa, chocolate, and confectionery dominated U.S. imports from Côte d'Ivoire in 2016 (table 5.7).⁹⁶⁴

⁹⁵⁸ USITC DataWeb/USDOC (accessed November 7, 2017).

⁹⁵⁹ USDOC, ITA, "Summary of AGOA I," <https://www.trade.gov/agoa/legislation/> (accessed December 11, 2017).

⁹⁶⁰ Schneidman and Lewis, *The African Growth and Opportunity Act*, June 2012, 4; USTR, "Statement by U.S. Trade Representative Ron Kirk," October 2011.

⁹⁶¹ USDOC, ITA, "General Country Provisions," <https://www.trade.gov/agoa/eligibility/> (accessed December 12, 2017); AGOA Festival, "Côte d'Ivoire," <http://www.agoafestival.com/cote-divoire/> (accessed December 12, 2017).

⁹⁶² AGOA Festival, "Côte d'Ivoire," <http://www.agoafestival.com/cote-divoire/> (accessed December 12, 2017).

⁹⁶³ USITC DataWeb/USDOC (accessed November 7, 2017).

⁹⁶⁴ Ibid. For more information on U.S. imports of cocoa products, see chapter 3.

In 2016, U.S. imports under AGOA accounted for about 0.01 percent of total U.S. goods imports from Côte d'Ivoire. Côte d'Ivoire's basic AGOA utilization rate was 0.1 percent. However, about 81.8 percent of AGOA-eligible products imported into the United States from Côte d'Ivoire were entered under GSP. If the latter are included in the calculation, the total AGOA utilization rate would increase to roughly 81.9 percent. Among the leading U.S. imports under AGOA from Côte d'Ivoire were tuna (HTS 1604.14.10; \$72,000); wooden statuettes and other wood ornaments (HTS 4420.10.00; \$24,000); and fresh, chilled, or dried cassava (HTS 0714.10.20; \$8,000).⁹⁶⁵

Table 5.7 Leading U.S. goods imports from Côte d'Ivoire, by USITC digest sector, 2010–16

Leading U.S. imports from Côte d'Ivoire	2010	2016	Absolute	% change
			change	2010–16
			2010–16	2010–16
Million \$				
Cocoa, chocolate, and confectionery	770.2	1,035.3	265.1	34.4
Natural rubber	78.5	68.2	-10.3	-13.1
Edible nuts	12.0	20.3	8.3	69.0
Works of art and miscellaneous manufactured goods	2.0	15.7	13.7	690.5
Petroleum products	61.5	11.4	-50.1	-81.5
All other	250.7	10.7	-240.0	-95.7
Total	1,174.9	1,161.6	-13.3	-1.1

Source: USITC DataWeb/USDOC (accessed November 7, 2017).

Note: Because of rounding, figures may not add up to totals shown.

Trade in Services

Côte d'Ivoire's exports of commercial services to the world decreased throughout 2010–15, dropping from \$1.0 billion in 2010 to \$639 million in 2015. Transport services, other business services, and travel services accounted for the largest shares of the country's commercial services exports in 2015 at 25.8 percent, 25.7 percent, and 24.6 percent, respectively (figure 5.5). Côte d'Ivoire's exports in all three of these sectors posted overall declines during 2010–15.⁹⁶⁶

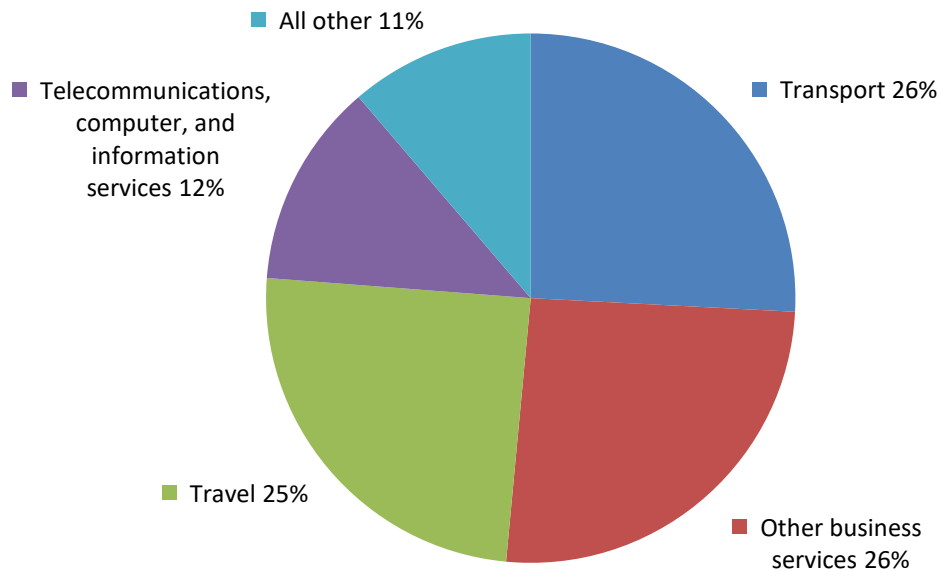
Côte d'Ivoire's imports of commercial services fluctuated throughout 2010–15, totaling \$2.8 billion in 2015. Transport services dominated the country's commercial services imports in 2015 (64.7 percent), followed by travel services (12.6 percent) and other business services (10.2 percent) (figure 5.6). Côte d'Ivoire's imports in these top three sectors fluctuated throughout 2010–15, posting small overall increases during the period.⁹⁶⁷

⁹⁶⁵ USITC DataWeb/USDOC (accessed November 7, 2017).

⁹⁶⁶ WTO, Statistics Database, Time Series on International Trade, "Trade in Commercial Services, 2005–Onward (BPM6)" (accessed November 7, 2017).

⁹⁶⁷ Ibid.

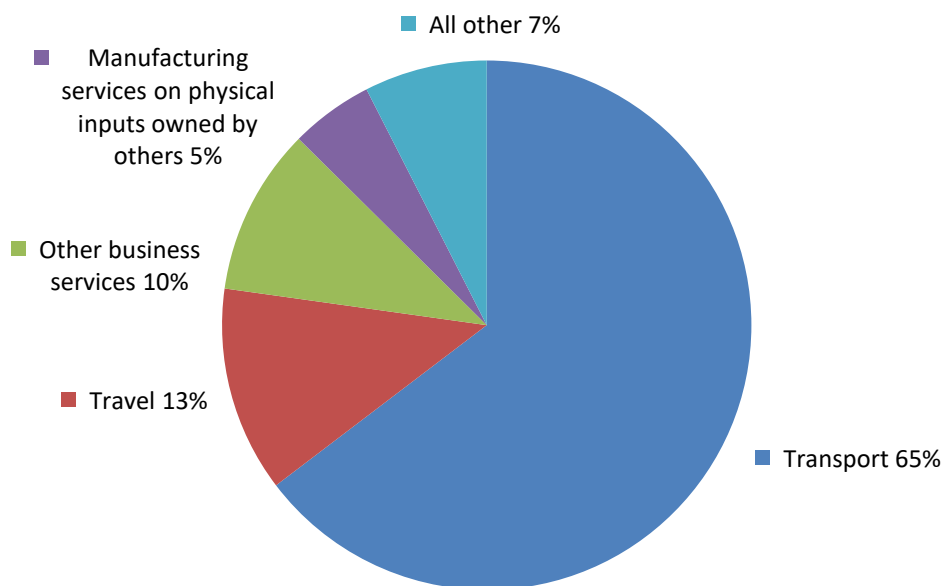
Figure 5.5 Côte d'Ivoire's exports of commercial services to the world, by industry, 2015



Source: WTO, Statistics Database, Time Series on International Trade, "Trade in Commercial Services, 2005–Onward (BPM6)" (accessed November 7, 2017).

Note: See [appendix table I.22](#) for a tabular presentation of the data in this figure.

Figure 5.6 Côte d'Ivoire's imports of commercial services from the world, by industry, 2015



Source: WTO, Statistics Database, Time Series on International Trade, "Trade in Commercial Services, 2005–Onward (BPM6)" (accessed November 7, 2017).

Note: See [appendix table I.23](#) for a tabular presentation of the data in this figure.

Data on U.S. cross-border services trade or affiliate transactions in services with Côte d’Ivoire are unavailable, but anecdotal evidence suggests that U.S.-Côte d’Ivoire services transactions are likely very small. Orbis identifies 11 services firms in Côte d’Ivoire with a U.S. ultimate beneficial owner: 5 wholesalers, 2 financial services firms, and 1 firm each in computer services, construction, media representation, and telecommunications.⁹⁶⁸ Furthermore, Côte d’Ivoire accounted for only 6,709—or 0.06 percent—of the nonimmigrant visas issued by the United States in 2016,⁹⁶⁹ suggesting that relatively few Ivoirian nationals travel to the United States to provide services.

Foreign Direct Investment

In 2016, Côte d’Ivoire’s total inward FDI stock from the world was \$7.6 billion, up from \$7.0 billion in 2010, and its total outward FDI stock to the world was \$127.3 million, up from \$93.6 million in 2010.⁹⁷⁰ Based on the most recently available bilateral FDI statistics for 2012, France was by far the largest source of Côte d’Ivoire’s inward FDI stock, followed by Switzerland, the United States, Belgium, and China.⁹⁷¹

The United States held an outward FDI position of \$185 million in Côte d’Ivoire in 2016, compared to \$1 million in 2010. Also in 2016, the United States had an inward FDI position of -\$1 million from Côte d’Ivoire, compared to \$1 million in 2010.⁹⁷² About 96.8 percent of U.S. FDI stock in Côte d’Ivoire was in the mining sector.⁹⁷³ According to the U.S. Department of State, U.S. firms have made major investments in oil and gas, banking, cocoa, and international courier services in Côte d’Ivoire.⁹⁷⁴

Ethiopia

Economic Overview

In 2016, Ethiopia was the world’s 75th-largest economy—and SSA’s 6th largest—with a GDP of \$52.3 billion.⁹⁷⁵ With an average annual growth rate of 10.2 percent in 2010–16, Ethiopia has one of the

⁹⁶⁸ Bureau van Dijk, Orbis database of companies (accessed November 30, 2017).

⁹⁶⁹ This figure reflects all nonimmigrant visas, a high percentage of which are issued to students and tourists. In 2016, Côte d’Ivoire accounted for 0.02 percent of all B-1, H-1B, and L-1 visas, three of the largest nonimmigrant visa categories, which are frequently issued to foreign services providers so they can enter the United States for business purposes. For more information on these nonimmigrant visa categories and services trade, see footnote 941. USDOS, Bureau of Consular Affairs, “FY 2016 Nonimmigrant Visas Issued,” March 13, 2017.

⁹⁷⁰ UNCTAD, FDI/TNC database, “Foreign Direct Investment: Inward and Outward Flows and Stock, Annual, 1970–2016” (accessed February 1, 2017).

⁹⁷¹ UNCTAD, Bilateral FDI Statistics, “Côte d’Ivoire, Table 3. FDI Stock in the Host Economy, by Geographical Origin” (accessed February 14, 2018).

⁹⁷² USDOC, BEA, International Transactions Account database, “U.S. Direct Investment Position Abroad on a Historical-Cost Basis” and “Foreign Direct Investment Position in the United States on a Historical-cost Basis” (accessed November 20, 2017).

⁹⁷³ USDOC, BEA, International Transactions Account database, “U.S. Direct Investment Position Abroad on a Historical-Cost Basis: Country Detail by Industry, 2016” (accessed December 4, 2017).

⁹⁷⁴ USDOS, “2015 Investment Climate Statement: Côte d’Ivoire,” May 2015,

<https://www.state.gov/e/eb/rls/othr/ics/2015/241528.htm>.

⁹⁷⁵ World Bank, “Gross Domestic Product 2016” (accessed December 18, 2017); CIA, *World Factbook*, “Ethiopia,” <https://www.cia.gov/library/publications/the-world-factbook/geos/et.html> (accessed December 18, 2017).

fastest-growing economies in the world, driven by its government’s investments in infrastructure, and has sustained its progress in the agricultural and service sectors.⁹⁷⁶ In 2016, its GDP growth rate slowed down slightly to 7.6 percent.⁹⁷⁷ Ethiopia is categorized by the World Bank as a low-income country;⁹⁷⁸ its GDP per capita was estimated at \$511.2 in 2016 (table 5.8).⁹⁷⁹

Table 5.8 Major economic indicators, Ethiopia, 2010–16

Economic indicators	2010	2012	2014	2016
GDP (2010 constant billion \$)	29.9	36.2	44.1	52.3
GDP growth (annual %)	12.6	8.6	10.3	7.6
GDP per capita (2010 constant \$)	341.3	391.2	452.8	511.2
Current account balance (% of GDP)	-1.4	-6.9	-10.3	-11.4
Inflation, consumer prices (annual %)	8.1	22.8	7.4	7.3
Population (millions)	87.7	92.4	97.4	102.4
Internet users (per 100 people)	0.8	2.9	7.7	15.4

Source: World Bank, World Development Indicators database (accessed January 3, 2018).

In 2016, services accounted for 42.2 percent of Ethiopia’s GDP, followed by agriculture (36.8 percent), construction (15.7 percent), manufacturing (4.3 percent), and mining and utilities (1.0 percent) (figure 5.7).⁹⁸⁰ Within manufacturing, the top three sectors in Ethiopia in terms of value added were food and beverages, non-metallic mineral products, and chemical products.⁹⁸¹

⁹⁷⁶ CIA, *World Factbook*, “Ethiopia” (accessed December 18, 2017).

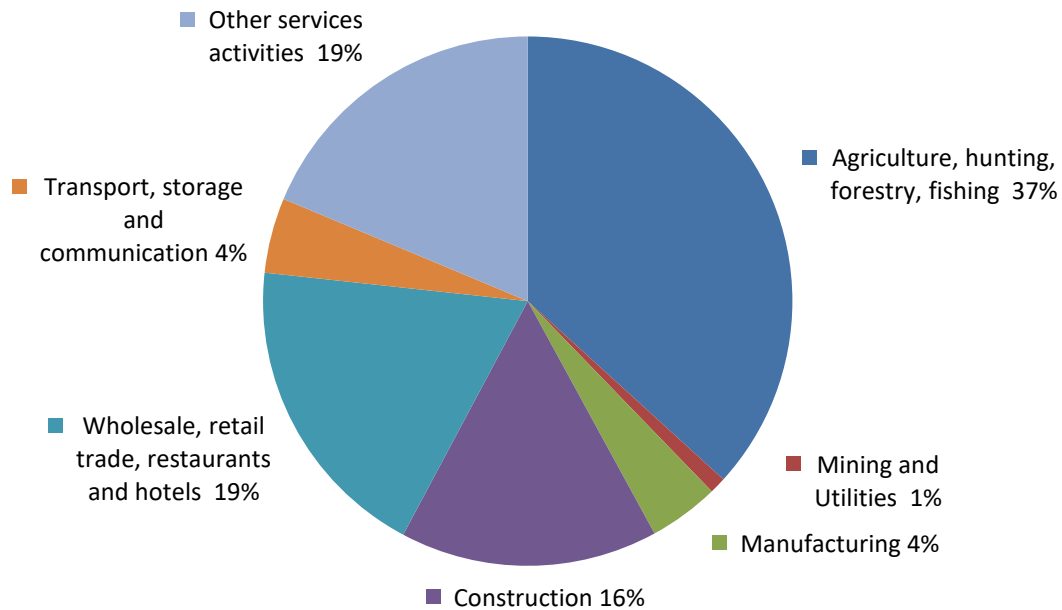
⁹⁷⁷ World Bank, World Development Indicators database (accessed January 3, 2018).

⁹⁷⁸ World Bank, “World Bank Analytical Classifications” (accessed December 18, 2017).

⁹⁷⁹ World Bank, World Development Indicators database (accessed January 3, 2018); UNSD, National Accounts Main Aggregates Database (accessed January 19, 2018).

⁹⁸⁰ UNSD, National Accounts Main Aggregates Database (accessed January 19, 2018).

⁹⁸¹ UNIDO, INDSTAT (accessed December 19, 2017).

Figure 5.7 GDP composition, Ethiopia, 2016

Source: UNSD, National Accounts Main Aggregates Database (accessed January 19, 2018).

Note: See [appendix table I.24](#) for a tabular presentation of the data in this figure.

Trade in Goods

In 2016, Ethiopia's two-way goods trade with the world totaled \$20.8 billion. China was Ethiopia's largest trading partner with a share of 29.7 percent, followed by the EU (17.6 percent), the United States (8.9 percent), India (7.0 percent), and Kuwait (5.1 percent). Intra-SSA regional trade accounted for 2.7 percent of Ethiopia's total goods trade.⁹⁸² Ethiopia is a member of the Common Market for Eastern and Southern Africa (COMESA), the largest regional economic organization in Africa. COMESA consists of 19 member states and features a free trade area and a customs union.⁹⁸³

Trade with the United States

In 2016, two-way goods trade between the United States and Ethiopia totaled \$1.1 billion, accounting for 0.03 percent of total U.S. trade. The United States had a goods trade surplus of \$523.2 million with Ethiopia.⁹⁸⁴

⁹⁸² IHS Markit, Global Trade Atlas database (accessed December 7, 2017).

⁹⁸³ The 19 member states are Burundi, Comoros, the Democratic Republic of the Congo, Djibouti, Egypt, Eritrea, Ethiopia, Kenya, Libya, Madagascar, Malawi, Mauritius, Rwanda, Seychelles, Sudan, Swaziland, Uganda, Zambia, and Zimbabwe. Source: USTR, "Common Market for Eastern and Southern Africa (COMESA)," <https://ustr.gov/countries-regions/africa/regional-economic-communities-rec/common-market-eastern-and-southern-africa-comesa> (accessed January 2, 2018). For more information on COMESA, see chapter 6.

⁹⁸⁴ USITC DataWeb/USDOC (accessed November 7, 2017).

Ethiopia has been an AGOA beneficiary country since 2000. It is also eligible for additional trade benefit under the AGOA textile and apparel provisions.⁹⁸⁵ Ethiopia is the first country to develop a national AGOA strategy, which singled out five key sectors as its focus: textiles and garments, handicrafts, leather and leather products, agroprocessing, and horticulture.⁹⁸⁶

U.S. goods exports to Ethiopia totaled \$732.5 million in 2016, a 0.9 percent increase from \$725.7 million in 2010. During this period, prepared or preserved vegetables experienced the largest increase of any sector at \$20.8 million, followed by computers and parts (\$8.7 million), circuit parts (\$7.4 million), and farm and garden machinery and equipment (\$6.9 million). Meanwhile, aircraft and cereals had the largest decreases at \$41.6 million and \$24.5 million, respectively. In 2016, the leading U.S. goods exports to Ethiopia were aircraft (61.4 percent), cereals (13.0 percent), and prepared or preserved vegetables (4.9 percent) (table 5.9).⁹⁸⁷

Table 5.9 Leading U.S. goods exports to Ethiopia, by USITC digest sector, 2010–16

Leading U.S. exports to Ethiopia	2010	2016	Absolute	% change
			change	2010–16
Million \$				
Aircraft	491.2	449.6	-41.6	-8.5
Cereals	119.1	94.6	-24.5	-20.6
Prepared or preserved vegetables, mushrooms, and olives	15.2	36.1	20.9	136.8
Computers, peripherals, and parts	3.9	12.6	8.7	225.6
Farm and garden machinery and equipment	5.6	12.5	6.9	124.2
All other	90.8	127.1	36.3	40.0
Total	725.7	732.5	6.8	0.9

Source: USITC DataWeb/USDOC (accessed November 7, 2017).

Note: Because of rounding, figures may not add up to totals shown.

U.S. goods imports from Ethiopia totaled \$209.2 million in 2016, an 88.0 percent increase from \$111.3 million in 2010. During this period, U.S. imports of apparel experienced the largest increase of any sector at \$30.4 million, followed by coffee and tea (\$27.5 million) and footwear (\$22.8 million). The leading U.S. goods imports from Ethiopia in 2016 were coffee and tea (47.0 percent); apparel (17.7 percent); and oilseeds (14.9 percent) (table 5.10).⁹⁸⁸

In 2016, U.S. imports under AGOA accounted for 29.3 percent of total U.S. goods imports from Ethiopia. Ethiopia's basic AGOA utilization rate was about 86.2 percent. In addition, 9.8 percent of AGOA-eligible products imported into the United States were entered under GSP. If the latter are included in the calculation, the total AGOA utilization rate would increase to roughly 96.0 percent. The leading U.S. imports under AGOA from Ethiopia were women's and children's footwear (HTS 6403.99.90;

⁹⁸⁵ USDOC, ITA, "General Country Eligibility Provisions" (accessed November 23, 2017).

⁹⁸⁶ Government of Ethiopia, Ministry of Trade, "Ethiopia's National AGOA Response Strategy Draft," October 2013. A national AGOA strategy is a document developed by participating AGOA-eligible countries that is aimed at helping local companies to better take advantage of trade benefits under AGOA. AGOA.info, "National AGOA Strategies," <https://agoa.info/toolkit/exporter-resources/national-agoa-strategies.html> (accessed January 19, 2018). For more information on national AGOA strategies, see chapter 6.

⁹⁸⁷ USITC DataWeb/USDOC (accessed November 7, 2017).

⁹⁸⁸ Ibid. For more information on U.S. imports of apparels and footwear from Ethiopia, see chapter 3.

\$18.1 million), babies' garments and clothing (HTS 6111.20.60; \$7.2 million), and men's or boys' shirts (HTS 6105.20.20; \$4.7 million).⁹⁸⁹

Table 5.10 Leading U.S. goods imports from Ethiopia, by USITC digest sector, 2010–16

Leading U.S. imports from Ethiopia	2010	2016	Absolute	% change
			change	2010–16
			2010–16	2010–16
Million \$				
Coffee and tea	70.8	98.4	27.6	38.9
Apparel	6.6	37.0	30.4	460.8
Oilseeds	25.8	31.3	5.5	21.2
Footwear	0.5	23.3	22.8	4,464.5
Natural and synthetic gemstones	0.3	3.9	3.6	1,340.9
All other	7.3	15.5	8.2	112.6
Total	111.3	209.2	97.9	88.0

Source: USITC DataWeb/USDOC (accessed November 7, 2017).

Note: Because of rounding, figures may not add up to totals shown.

Trade in Services

Ethiopia's exports of commercial services to the world fluctuated throughout 2010–15, but posted an overall CAGR of 8.0 percent during the period, reaching \$2.8 billion in 2015. Transport services dominated the country's commercial services exports in 2015 at 79.1 percent of the total, while travel services accounted for the next largest share (14.1 percent) (figure 5.8). Ethiopia's exports of transport services increased at a CAGR of 13.5 percent during 2010–15, while the country's exports of travel services declined at an overall rate of 5.4 percent.⁹⁹⁰

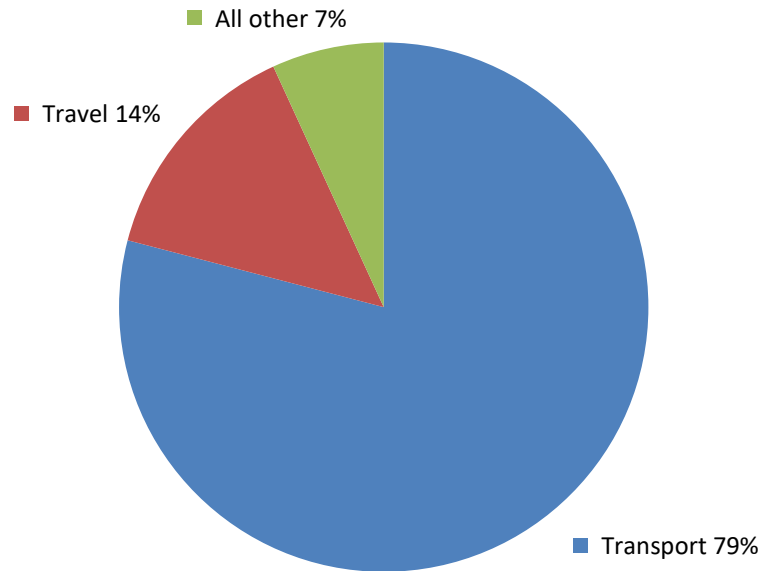
With the exception of a substantial one-year decline in 2013, Ethiopian imports of commercial services increased throughout 2010–15, totaling \$3.2 billion in 2015. Transport services dominated the country's commercial services imports in 2015 (54.3 percent), followed by travel services (11.0 percent) (figure 5.9). During 2010–15, Ethiopia's imports of transport services increased in every year except 2013, while the country's imports of travel services grew throughout the period.⁹⁹¹

⁹⁸⁹ USITC DataWeb/USDOC (accessed November 7, 2017).

⁹⁹⁰ WTO, Statistics Database, Time Series on International Trade, "Trade in Commercial Services, 2005–Onward (BPM6)" (accessed November 7, 2017).

⁹⁹¹ Ibid.

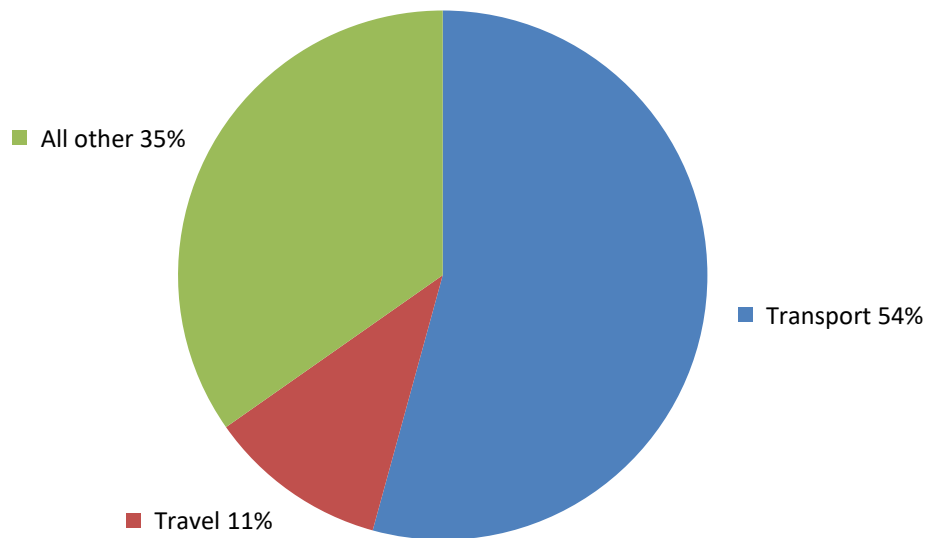
Figure 5.8 Ethiopia’s exports of commercial services to the world, by industry, 2015



Source: WTO, Statistics Database, Time Series on International Trade, “Trade in Commercial Services, 2005–Onward (BPM6)” (accessed November 7, 2017).

Note: See [appendix table I.25](#) for a tabular presentation of the data in this figure.

Figure 5.9 Ethiopia’s imports of commercial services from the world, by industry, 2015



Source: WTO, Statistics Database, Time Series on International Trade, “Trade in Commercial Services, 2005–Onward (BPM6)” (accessed November 7, 2017).

Note: See [appendix table I.26](#) for a tabular presentation of the data in this figure.

Data on U.S. cross-border services trade or affiliate transactions with Ethiopia are unavailable, but anecdotal evidence suggests that U.S.-Ethiopia services transactions are likely very small. Orbis identifies no services firms in Ethiopia with a U.S. ultimate beneficial owner.⁹⁹² Furthermore, Ethiopia accounted for only 20,390—or about 0.2 percent—of the nonimmigrant visas issued by the United States in 2016,⁹⁹³ suggesting that relatively few Ethiopian nationals travel to the United States to provide services.

Foreign Direct Investment

In 2016, Ethiopia's total inward FDI stock from the world was \$13.7 billion, more than triple the \$4.2 billion recorded in 2010.⁹⁹⁴ Based on the most recently available bilateral FDI statistics for 2012, China was by far the largest source of Ethiopia's inward FDI stock.⁹⁹⁵ The United States held an inward FDI position of \$1 million from Ethiopia in 2016, unchanged from its 2010 level.⁹⁹⁶ Official data from the U.S. Department of Commerce's Bureau of Economic Analysis (BEA) on U.S. outward FDI position in Ethiopia are unavailable for 2016 due to data suppression to avoid disclosing individual companies' information.

Kenya

Economic Overview

In 2016, Kenya had the world's 73rd-largest economy—and SSA's 4th-largest—with a GDP of \$55.4 billion.⁹⁹⁷ As the economic, financial, and transport hub of East Africa,⁹⁹⁸ Kenya has maintained steady economic growth in recent years. In 2016, the country's GDP growth rate was 5.8 percent (table 5.11).⁹⁹⁹ Kenya is categorized by the World Bank as a lower-middle-income country,¹⁰⁰⁰ with its GDP per capita estimated at \$1,143.¹⁰⁰¹

⁹⁹² Bureau van Dijk, Orbis database of companies (accessed December 1, 2017).

⁹⁹³ This figure reflects all nonimmigrant visas, a high percentage of which are issued to students and tourists. In 2016, Ethiopia accounted for 0.07 percent of all B-1, H-1B, and L-1 visas, three of the largest nonimmigrant visa categories which are frequently issued to foreign services providers to enter the United States for business purpose. For more information on these nonimmigrant visa categories and services trade, see footnote 941. Source: USDOS, Bureau of Consular Affairs, "FY 2016 Nonimmigrant Visas Issued," March 13, 2017.

⁹⁹⁴ UNCTAD, FDI/TNC database, "Foreign Direct Investment: Inward and Outward Flows and Stock, Annual, 1970–2016" (accessed February 1, 2017).

⁹⁹⁵ UNCTAD, Bilateral FDI Statistics, "Ethiopia, Table 3. FDI Stock in the Host Economy, by Geographical Origin" (accessed February 14, 2018).

⁹⁹⁶ USDOC, BEA, International Transactions Account database, "Foreign Direct Investment Position in the United States on a Historical-cost Basis" (accessed November 20, 2017).

⁹⁹⁷ World Bank, World Development Indicators database (accessed January 3, 2018).

⁹⁹⁸ CIA, *World Factbook*, "Kenya," <https://www.cia.gov/library/publications/the-world-factbook/geos/ke.html> (accessed January 5, 2018).

⁹⁹⁹ World Bank, World Development Indicators database (accessed January 3, 2018).

¹⁰⁰⁰ World Bank, "World Bank Analytical Classifications" and World Development Indicators database (accessed December 18, 2017).

¹⁰⁰¹ World Bank, World Development Indicators database (accessed January 3, 2018).

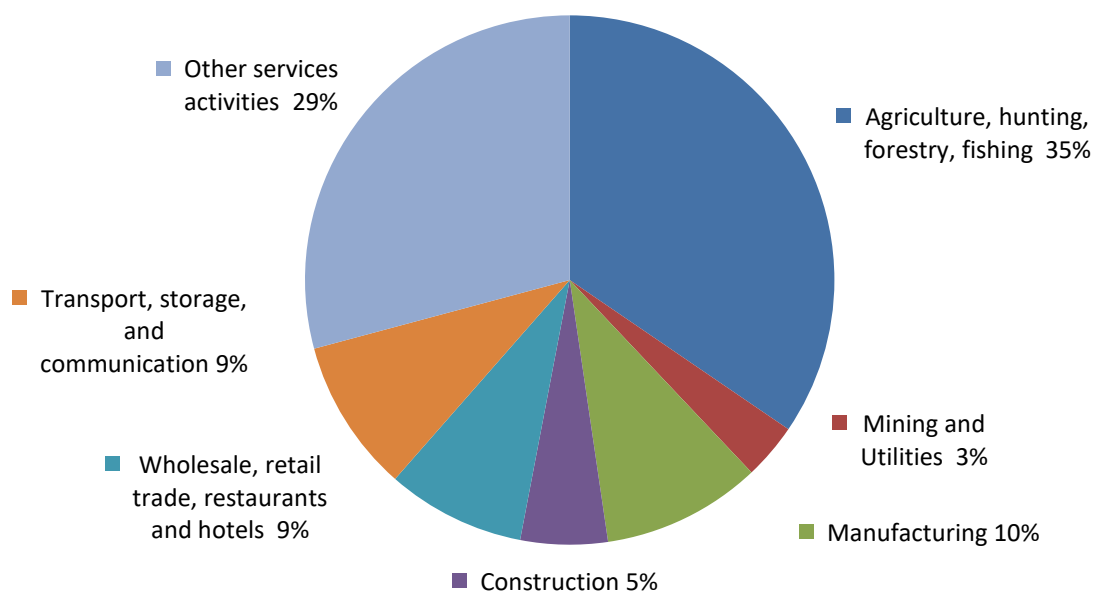
Table 5.11 Major economic indicators, Kenya, 2010–16

Economic indicators	2010	2012	2014	2016
GDP (2010 constant billion \$)	40.0	44.4	49.5	55.4
GDP growth (annual percent)	8.4	4.6	5.4	5.8
GDP per capita (2010 constant \$)	967.3	1,016.8	1,075.6	1,143.1
Current account balance (percent of GDP)	-5.9	-8.4	-10.4	-5.2
Inflation, consumer prices (annual percent)	4.0	9.4	6.9	6.3
Population (millions)	41.4	43.6	46.0	48.5
Internet users (per 100 people)	7.2	10.5	16.5	26.0

Source: World Bank, World Development Indicators database (accessed January 3, 2018).

In 2016, services accounted for 47.0 percent of Kenya’s GDP, followed by agriculture (34.5 percent), manufacturing (9.7 percent), construction (5.3 percent), and mining and utilities (3.4 percent) (figure 5.10).¹⁰⁰² Agriculture remains the backbone of the Kenyan economy, though tourism is another important sector with rapid growth.¹⁰⁰³ Within manufacturing, the top sectors in terms of value added were food and beverages, textiles, and printing and publishing.¹⁰⁰⁴

Figure 5.10 GDP composition, Kenya, 2016



Source: UNSD, National Accounts Main Aggregates Database (accessed January 19, 2018).

Note: See [appendix table I.27](#) for a tabular presentation of the data in this figure.

¹⁰⁰² UNSD, National Accounts Main Aggregates Database (accessed January 19, 2018).

¹⁰⁰³ CIA, *World Factbook*, “Kenya” (accessed January 5, 2018); World Bank, World Development Indicators database (accessed January 3, 2018).

¹⁰⁰⁴ UNIDO, INDSTAT (accessed November 21, 2017).

Trade in Goods

In 2016, Kenya's two-way goods trade with the world totaled \$19.5 billion. China was Kenya's largest trading partner with a share of 17.2 percent, followed by the EU (16.6 percent), India (10.8 percent), the United Arab Emirates (6.1 percent), and the United States (4.5 percent). Intra-SSA regional trade accounted for 16.1 percent of Kenya's goods trade with the world.¹⁰⁰⁵ Kenya is a member of COMESA and the East African Community (EAC).¹⁰⁰⁶

Trade with the United States

In 2016, two-way goods trade between the United States and Kenya totaled \$949 million, accounting for 0.3 percent of total U.S. goods trade. The United States had a goods trade deficit of \$132.8 million with Kenya.¹⁰⁰⁷

Kenya has been an AGOA beneficiary country since 2000. It is also eligible for additional trade benefits under the AGOA textile and apparel provisions.¹⁰⁰⁸ Kenya is one of 14 SSA countries that has developed a national AGOA strategy,¹⁰⁰⁹ which listed five key sectors to focus on: textiles and apparel, coffee, nuts, cut flowers, and home and fashion accessories.¹⁰¹⁰

U.S. goods exports to Kenya totaled \$379.5 million in 2016, a 6.3 percent increase from \$357.2 million in 2010. During this period, U.S. exports of telecommunications equipment experienced the largest increase at \$21.3 million, followed by aircraft (\$19.2 million) and cereals (\$10.6 million). In 2016, the leading U.S. goods exports to Kenya were aircraft (24.7 percent), cereals (7.9 percent), and telecommunications equipment (7.0 percent) (table 5.12).¹⁰¹¹

Table 5.12 Leading U.S. exports to Kenya, by USITC digest sector, 2010–16

Leading U.S. exports to Kenya	2010	2016	Absolute	% change
			change	2010–16
			2010–16	2010–16
Million \$				
Aircraft	74.4	93.6	19.2	25.8
Cereals	19.3	29.9	10.6	54.7
Telecommunications equipment	5.2	26.5	21.3	411.3
Pharmaceuticals	6.7	16.2	9.5	141.1
Polyvinyl chloride resins in primary forms	5.9	13.5	7.6	127.7
All other	245.6	199.8	-45.8	-18.6
Total	357.2	379.5	22.3	6.3

Source: USITC DataWeb/USDOC (accessed November 7, 2017).

Note: Because of rounding, figures may not add up to totals shown.

¹⁰⁰⁵ IHS Markit, Global Trade Atlas database (accessed December 7, 2017).

¹⁰⁰⁶ WTO, RTA-IS, "Kenya" (accessed January 11, 2018). See the Ethiopia entry, and chapter 6, for more information on COMESA.

¹⁰⁰⁷ USITC DataWeb/USDOC (accessed November 7, 2017).

¹⁰⁰⁸ USDOC, ITA, "General Country Eligibility Provisions" (accessed November 23, 2017).

¹⁰⁰⁹ AGOA.info, "National AGOA Strategies" (accessed January 19, 2018). For more information on national AGOA strategies, see chapter 6.

¹⁰¹⁰ USAID, "Kenya National AGOA Strategy," June 2012.

¹⁰¹¹ USITC DataWeb/USDOC (accessed November 7, 2017).

U.S. goods imports from Kenya totaled \$512.3 million in 2016, an increase of 73.7 percent from \$294.9 million in 2010. During this period, U.S. imports of apparel experienced the largest increase at \$138.9 million, followed by certain ores (\$25.1 million) and edible nuts (\$22.5 million). The leading U.S. goods imports from Kenya were apparel (66.5 percent), coffee and tea (12.7 percent), and edible nuts (8.4 percent) (table 5.13).¹⁰¹²

In 2016, U.S. imports under AGOA accounted for 76.3 percent of total U.S. goods imports from Kenya. Kenya's basic AGOA utilization rate is approximately 96.8 percent. Another 1.2 percent of AGOA-eligible products imported into the United States were entered under GSP. If the latter products are included in the calculation, the total AGOA utilization rate would increase to roughly 98.0 percent. The leading U.S. imports under AGOA from Kenya were men's or boys' trousers and shorts (HTS 6203.42.40; \$46.7 million), sweaters and similar articles (HTS 6110.30.30; \$41.0 million), and women's or girls' trousers and shorts (HTS 6204.62.40; \$38.5 million).¹⁰¹³

Table 5.13 Leading U.S. imports from Kenya, by USITC digest sector, 2010–16

Leading U.S. imports from Kenya	2010	2016	Absolute	% change
			change	2010–16
			2010–16	2010–16
Million \$				
Apparel	201.8	340.7	138.9	68.8
Coffee and tea	50.8	65.2	14.4	28.4
Edible nuts	20.3	42.8	22.5	111.0
Certain ores, concentrates, ash, and residues	0.0	25.1	25.1	^a
Animal or vegetable fats and oils	0.4	5.0	4.6	1246.9
All other	21.6	33.5	11.9	55.0
Total	294.9	512.3	217.4	73.7

Source: USITC DataWeb/USDOC (accessed November 7, 2017).

Note: Because of rounding, figures may not add up to totals shown.

^a Percentage change is not provided because the 2010 value was zero.

Trade in Services

Kenya's exports of commercial services to the world increased from \$3.0 billion to \$4.0 billion during 2010–13, and then decreased to \$3.6 billion during 2013–15. Kenyan exports of transport services accounted for more than half (54.4 percent) of the country's commercial services exports in 2015, having increased at a CAGR of 3.4 percent during 2010–15. Travel services and telecommunications services are also important export sectors, with travel services accounting for 20.1 percent of Kenyan commercial services exports in 2015, and telecommunications services accounting for 16.2 percent of such exports in 2014 (figure 5.11).¹⁰¹⁴ While Kenyan exports of travel services posted an overall decline during 2010–15, the country's exports of telecommunications services increased at a particularly rapid CAGR of 16.2 percent during 2010–14. This rapid increase is likely linked to the recent emergence and growth of the country's mobile money sector.¹⁰¹⁵

¹⁰¹² USITC DataWeb/USDOC (accessed November 7, 2017).

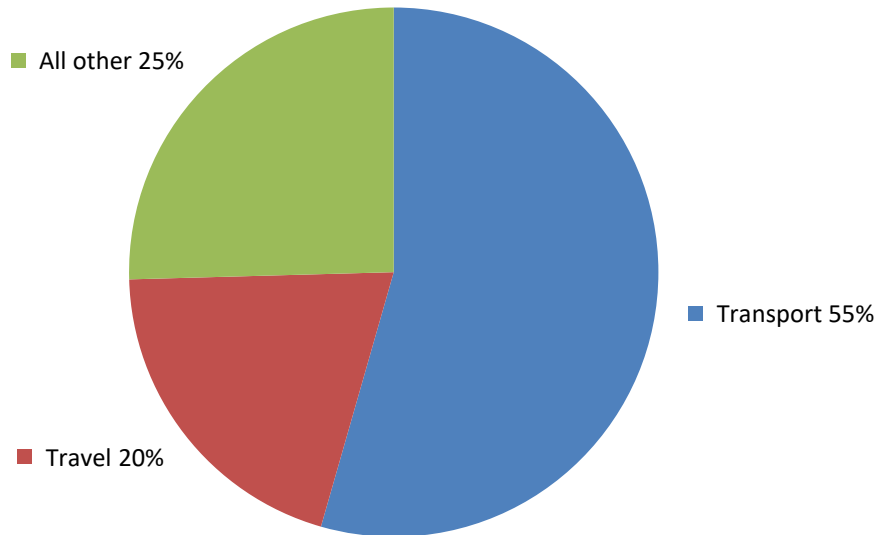
¹⁰¹³ Ibid.

¹⁰¹⁴ The WTO does not publish discrete data on Kenyan exports of business services for 2015.

¹⁰¹⁵ WTO, Statistics Database, Time Series on International Trade, "Trade in Commercial Services, 2005–Onward (BPM6)" (accessed November 7, 2017).

Kenya's imports of commercial services fluctuated throughout 2010–15, totaling \$2.2 billion in 2015. Travel services accounted for more than half of the country's commercial services imports in 2015 (figure 5.12). The other business services sector accounted for 16.3 percent of the country's commercial services imports in 2014.¹⁰¹⁶ Kenya's imports of both transport services and other business services increased in most years during the period.¹⁰¹⁷

Figure 5.11 Kenya's exports of commercial services to the world, by industry, 2015



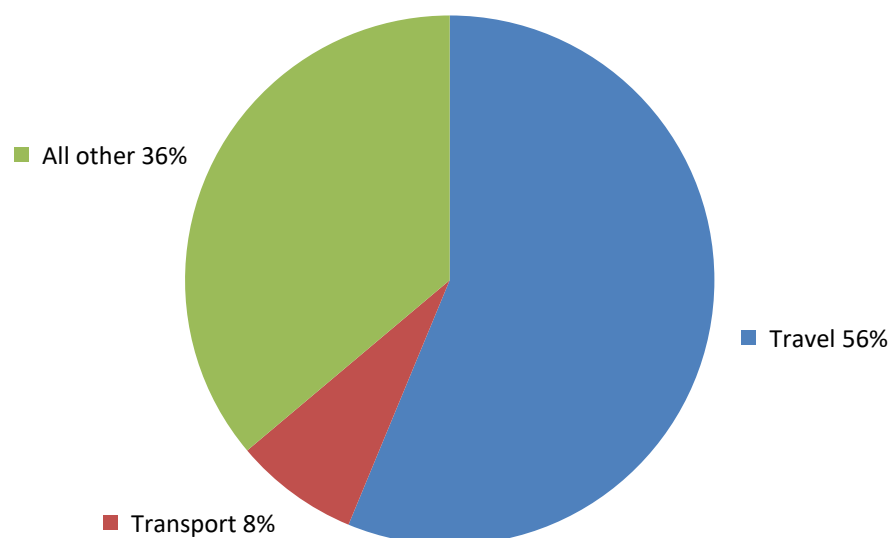
Source: WTO, Statistics Database, Time Series on International Trade, "Trade in Commercial Services, 2005–Onward (BPM6)" (accessed November 7, 2017).

Note: See [appendix table I.28](#) for a tabular presentation of the data in this figure.

¹⁰¹⁶ The WTO does not publish discrete data on Kenyan imports of business services for 2015.

¹⁰¹⁷ WTO, Statistics Database, Time Series on International Trade, "Trade in Commercial Services, 2005–Onward (BPM6)" (accessed November 7, 2017).

Figure 5.12 Kenya’s imports of commercial services from the world, by industry, 2015



Source: WTO, Statistics Database, Time Series on International Trade, “Trade in Commercial Services, 2005–Onward (BPM6)” (accessed November 7, 2017).

Note: See [appendix table I.29](#) for a tabular presentation of the data in this figure.

Data on U.S. cross-border services trade or affiliate transactions with Kenya are unavailable, but anecdotal evidence suggests that U.S.-Kenya services transactions are likely very small. Orbis identifies 15 services firms in Kenya with a U.S. ultimate beneficial owner: 3 wholesalers, 2 financial services firms, and firms in a wide variety of other industries.¹⁰¹⁸ Furthermore, Kenya accounted for only 27,079—or less than 0.3 percent—of the nonimmigrant visas issued by the United States in 2016,¹⁰¹⁹ suggesting that relatively few Kenyan nationals travel to the United States to provide services.

Foreign Direct Investment

In 2016, Kenya’s total inward FDI stock from the world was \$11.2 billion, more than double the \$5.4 billion it held in 2010; its outward FDI stock to the world was \$718.4 million, up 169.4 percent from \$266.7 million in 2010.¹⁰²⁰ Based on the most currently available bilateral FDI statistics for 2012, the

¹⁰¹⁸ Bureau van Dijk, Orbis database of companies (accessed January 9, 2018).

¹⁰¹⁹ This figure reflects all nonimmigrant visas, a high percentage of which are issued to students and tourists. In 2016, Kenya accounted for 0.08 percent of all B-1, H-1B, and L-1 visas, three of the largest nonimmigrant visa categories which are frequently issued to foreign services providers to enter the United States for business purpose. For more information on these nonimmigrant visa categories and services trade, see footnote 941. Source: USDOS, Bureau of Consular Affairs, “FY 2016 Nonimmigrant Visas Issued,” March 13, 2017.

¹⁰²⁰ UNCTAD, FDI/TNC database, “Foreign Direct Investment: Inward and Outward Flows and Stock, Annual, 1970–2016” (accessed February 1, 2017).

United Kingdom (UK) was the largest source of Kenya’s inward FDI stock, followed by China, France, South Africa, and the United States.¹⁰²¹

The United States held an outward FDI position of \$369 million in Kenya in 2016, a modest increase from \$308 million in 2010.¹⁰²² Data on U.S. inward FDI stock from Kenya are unavailable for 2016 due to data suppression to protect individual companies’ information. However, it is recorded at -\$8 million for 2015, compared to -\$5 million in 2010.¹⁰²³

Mauritius

Economic Overview

In 2016, Mauritius was the world’s 123rd-largest economy—and SSA’s 24th-largest—with a GDP of \$12.4 billion.¹⁰²⁴ Since independence in 1968, Mauritius has undergone an economic transformation from a low-income, agriculture-based economy to a diversified, upper-middle-income economy with growing industrial, financial, and tourist sectors.¹⁰²⁵ Mauritius has had stable economic growth in recent years. From 2010 to 2016, the country’s GDP growth rate averaged 3.8 percent.¹⁰²⁶ Ranked by the World Bank as the 25th globally—and number one in SSA—for ease of doing business, Mauritius is home to over 32,000 offshore entities.¹⁰²⁷ In 2016, Mauritius had a GDP per capita of \$9,822, the 3rd highest in the SSA region after Seychelles and Equatorial Guinea (table 5.14).¹⁰²⁸

Table 5.14 Major economic indicators, Mauritius, 2010–16

Economic indicators	2010	2012	2014	2016
GDP (2010 constant billion \$)	10.0	10.8	11.6	12.4
GDP growth (annual %)	4.4	3.5	3.7	3.8
GDP per capita (2010 constant \$)	8,000.4	8,580.1	9,163.6	9,822.0
Current account balance (% of GDP)	-10.1	-7.1	-5.6	-4.4
Inflation, consumer prices (annual %)	2.9	3.9	3.2	1.0
Population (million)	1.3	1.3	1.3	1.3
Internet users (per 100 people)	28.3	35.4	44.8	53.2

Source: World Bank, World Development Indicators database (accessed January 3, 2018).

In 2016, services accounted for 75.6 percent of Mauritius’s GDP, followed by manufacturing (13.9 percent), construction (4.2 percent), agriculture (3.5 percent), and mining and utilities

¹⁰²¹ UNCTAD, Bilateral FDI Statistics, “Kenya, Table 3. FDI Stock in the Host Economy, by Geographical Origin” (accessed February 14, 2018).

¹⁰²² USDOC, BEA, International Transactions Account database, “U.S. Direct Investment Position Abroad on a Historical-cost Basis” (accessed November 20, 2017).

¹⁰²³ USDOC, BEA, International Transactions Account database, “Foreign Direct Investment Position in the United States on a Historical-cost Basis” (accessed November 20, 2017).

¹⁰²⁴ World Bank, World Development Indicators database (accessed January 3, 2018).

¹⁰²⁵ CIA, *World Factbook*, “Mauritius,” <https://www.cia.gov/library/publications/the-world-factbook/geos/mp.html> (accessed January 12, 2018); World Bank, “World Bank Analytical Classifications” (accessed December 18, 2017).

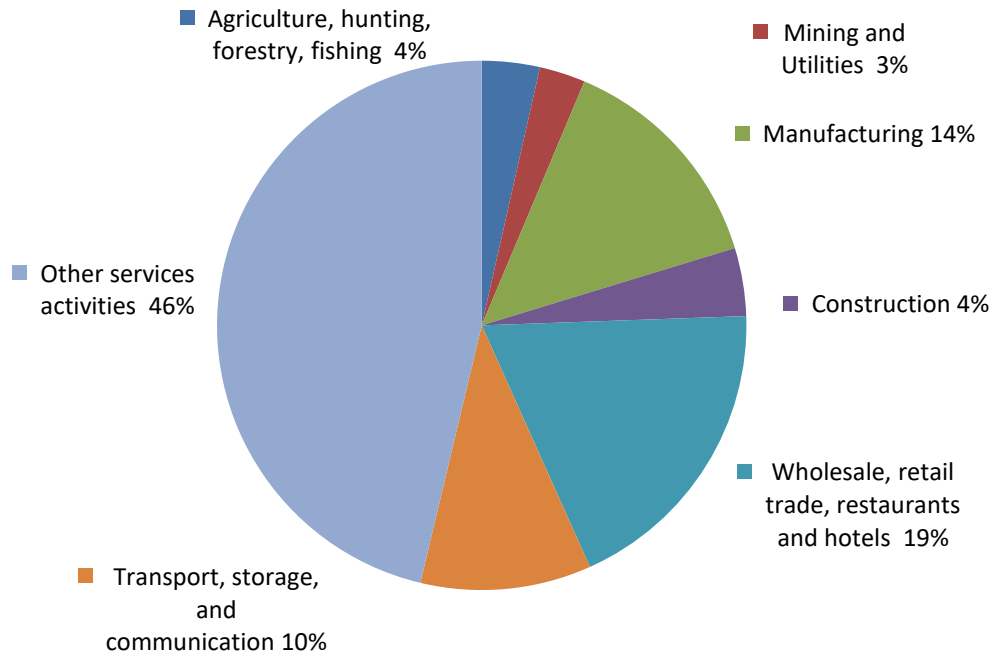
¹⁰²⁶ UNSD, National Accounts Main Aggregates Database (accessed January 12, 2018).

¹⁰²⁷ World Bank, “Doing Business—Measuring Business Regulations,” <http://www.doingbusiness.org/data/exploreeconomies/mauritius> (accessed January 12, 2018).

¹⁰²⁸ World Bank, World Development Indicators database (accessed January 3, 2018).

(2.8 percent) (figure 5.13).¹⁰²⁹ Within manufacturing, the top three sectors by value added were food and beverages; apparel and fur; and textiles.¹⁰³⁰ Sugar, tourism, textiles and apparel, and financial services are also important sectors in Mauritius, and the economy is expanding into fish processing, information and communications technology, and hospitality and property development.¹⁰³¹

Figure 5.13 GDP composition, Mauritius, 2016



Source: UNSD, National Accounts Main Aggregates Database (accessed January 19, 2018).

Note: See [appendix table I.30](#) for a tabular presentation of the data in this figure.

¹⁰²⁹ UNSD, National Accounts Main Aggregates Database (accessed January 5, 2018).

¹⁰³⁰ UNIDO, INDSTAT (accessed December 29, 2017).

¹⁰³¹ CIA, *World Factbook*, "Mauritius" (accessed January 12, 2018).

Trade in Goods

In 2016, Mauritius's two-way goods trade with the world totaled \$6.6 billion. The EU was Mauritius's largest trading partner with a share of 29.8 percent, followed by China (12.7 percent), India (11.4 percent), South Africa (7.7 percent), and the United States (5.2 percent). Intra-SSA regional trade accounted for 14.8 percent of Mauritius's goods trade with the world.¹⁰³²

Mauritius is a member of COMESA. It also belongs to the Southern African Development Community (SADC), an intergovernmental organization consisting of 15 member countries with a free trade area and a customs union.¹⁰³³

Trade with the United States

In 2016, two-way goods trade between the United States and Mauritius totaled \$422.4 million, accounting for 0.01 percent of total U.S. goods trade. The United States had a goods trade deficit of \$248.3 million with Mauritius.¹⁰³⁴

Mauritius has been an AGOA beneficiary country since 2000. It is also eligible for additional trade benefits under the AGOA textile and apparel provisions. Mauritius is 1 of 14 SSA countries that have developed a national AGOA strategy.¹⁰³⁵ The country identified six key sectors as its focus: textiles and apparel; jewelry; agro- and seafood processing; light manufacturing; plastic and metal-based products; and leather, handbags, and fashion accessories.¹⁰³⁶ In addition, the United States and Mauritius signed a TIFA in 2006 to promote an attractive investment climate and expand trade between the two countries.¹⁰³⁷ Negotiations for a bilateral investment treaty were launched in 2009.¹⁰³⁸

U.S. exports to Mauritius totaled \$84.9 million in 2016, a strong 121.9 percent increase from \$38.3 million in 2010. During this period, U.S. exports of aircraft experienced the largest increase at \$34.3 million, followed by natural gas and components (\$18.8 million). As the two leading U.S. exports to Mauritius, those sectors accounted for 42.3 percent and 22.1 percent of total U.S. goods exports to the country, respectively (table 5.15).¹⁰³⁹

¹⁰³² IHS Markit, Global Trade Atlas database (accessed December 7, 2017).

¹⁰³³ The 15 SADC member countries are Angola, Botswana, the Democratic Republic of the Congo, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Swaziland, Tanzania, Zambia, and Zimbabwe. Thirteen member countries participate in the SADC Free Trade Area, the exceptions being Angola and the Democratic Republic of the Congo. Source: SADC, "Member States," <http://www.sadc.int/member-states/> April 9, 2015; SADC, "Free Trade Area," 2012. For more information on SADC and COMESA, see chapter 6.

¹⁰³⁴ USITC DataWeb/USDOC (accessed November 7, 2017).

¹⁰³⁵ AGOA.info, "National AGOA Strategies" (accessed January 19, 2018). For more information on national AGOA strategies, see chapter 6.

¹⁰³⁶ USAID, *Mauritius National AGOA Strategy*, May 2013.

¹⁰³⁷ USTR, "U.S. -Mauritius TIFA," September 18, 2006, <https://ustr.gov/trade-agreements/trade-investment-framework-agreements>.

¹⁰³⁸ USTR, "Mauritius," <https://ustr.gov/countries-regions/africa/east-africa/mauritius> (accessed January 25, 2018).

¹⁰³⁹ USITC DataWeb/USDOC (accessed November 7, 2017).

Table 5.15 Leading U.S. goods exports to Mauritius, by USITC digest sector, 2010–16

Leading U.S. exports to Mauritius	2010	2016	Absolute	% change
			change	2010–16
Million \$				
Aircraft	1.7	35.9	34.2	2,046.5
Natural gas and components	0.0	18.8	18.8	^a
Medical goods	1.4	2.5	1.1	81.2
Computers, peripherals, and parts	0.8	2.2	1.4	167.9
Nonautomotive insulated electrical wire and related products	0.03	1.8	1.77	5,156.0
All other	34.3	23.6	-10.7	-31.2
Total	38.3	84.9	46.6	121.9

Source: USITC DataWeb/USDOC (accessed November 7, 2017).

Note: Because of rounding, figures may not add up to totals shown.

^a The percentage change is not provided because the 2010 value was zero.

U.S. goods imports from Mauritius totaled \$333.2 million in 2016, an increase of 71.6 percent from \$194.2 million in 2010. During this period, U.S. imports of apparel saw the largest increase at \$74.4 million, followed by canned fish (\$33.2 million) and natural and synthetic gemstones (\$26.4 million). These products were also the leading U.S. goods imports from Mauritius, accounting for 59.4 percent, 12.1 percent, and 17.6 percent of total U.S. goods imports from Mauritius, respectively (table 5.16).¹⁰⁴⁰

In 2016, U.S. imports under AGOA accounted for 56.4 percent of total U.S. goods imports from Mauritius. Mauritius's basic AGOA utilization rate was about 74.2 percent. Another 5.0 percent of AGOA-eligible products imported into the United States were entered under GSP. If the latter products are included in the calculation, the total AGOA utilization rate increases to roughly 79.2 percent. The leading U.S. imports under AGOA from Mauritius were men's or boys' shirts (HTS 6205.20.20; \$125.7 million), and men's or boys' trousers and shorts with different weights of down (HTS 6203.42.45 and HTS 6203.42.40; \$24.8 million).¹⁰⁴¹

Table 5.16 Leading U.S. imports from Mauritius, by USITC digest sector, 2010–16

Leading U.S. imports from Mauritius	2010	2016	Absolute	% change
			change	2010–16
Million \$				
Apparel	123.0	197.4	74.4	60.5
Natural and synthetic gemstones	32.2	58.6	26.4	81.9
Canned fish	7.0	40.2	33.2	476.9
Certain miscellaneous animals and meats	11.7	10.2	-1.5	-12.9
Sugar and other sweeteners	6.8	7.2	0.4	6.5
All other	13.5	19.6	6.1	44.9
Total	194.2	333.2	139.0	71.6

Source: USITC DataWeb/USDOC (accessed November 7, 2017).

Note: Because of rounding, figures may not add up to totals shown.

¹⁰⁴⁰ Ibid.

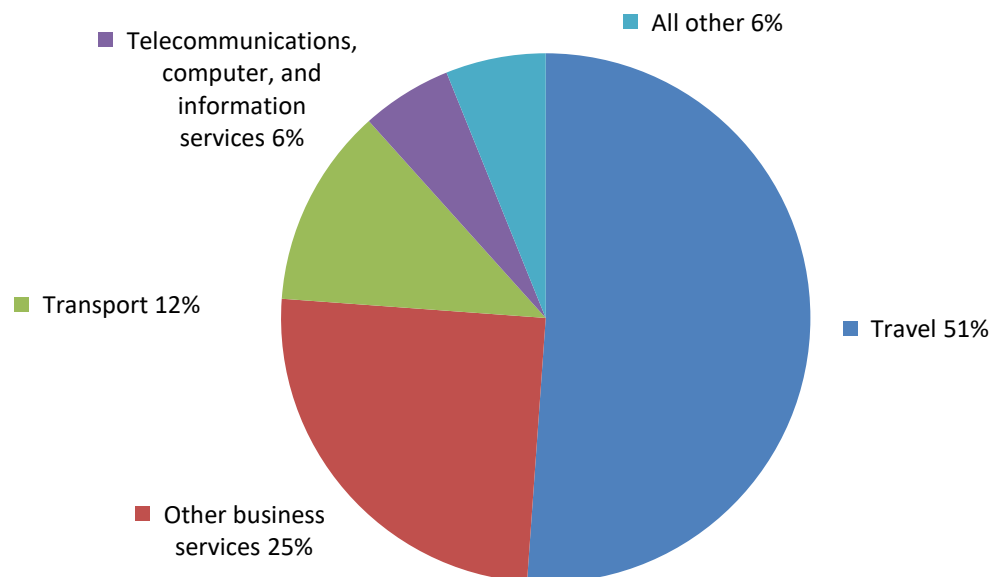
¹⁰⁴¹ Ibid.

Trade in Services

Mauritius’s exports of commercial services to the world fluctuated during 2010–15, totaling \$2.8 billion in 2015. Exports of travel services accounted for more than half (51.1 percent) of Mauritian commercial services exports in 2015, and increased at an overall CAGR of 2.2 percent during 2010–15. Other business services also accounted for a large share (25.0 percent) of the country’s commercial services exports in 2015, with totals ranging from \$1.0 billion (2012) to \$701 million (2015) during the period (figure 5.14).¹⁰⁴²

Mauritius’s imports of commercial services also fluctuated throughout 2010–15, totaling \$2.2 billion in 2015. Other business services accounted for the largest share (32.4 percent) of the country’s commercial services imports in 2015, followed by transport services (27.3 percent) and travel services (25.3 percent) (figure 5.15). Mauritius’s imports in all three of these services categories posted overall increases during 2010–15.¹⁰⁴³

Figure 5.14 Mauritius’s exports of commercial services to the world, by industry, 2015



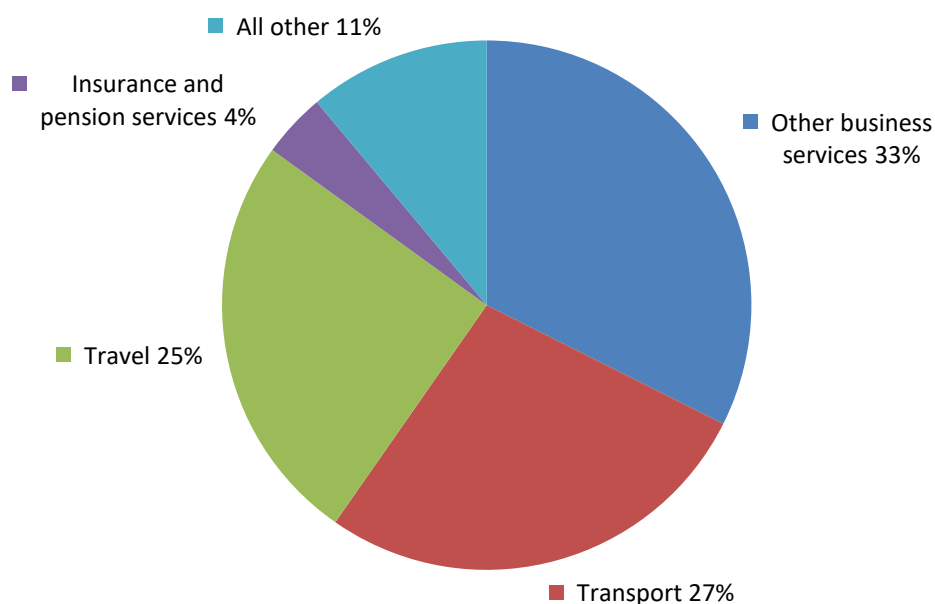
Source: WTO, Statistics Database, Time Series on International Trade, “Trade in Commercial Services, 2005–Onward (BPM6)” (accessed November 7, 2017).

Note: See [appendix table I.31](#) for a tabular presentation of the data in this figure.

¹⁰⁴² WTO, Statistics Database, Time Series on International Trade, “Trade in Commercial Services, 2005–Onward (BPM6)” (accessed November 7, 2017).

¹⁰⁴³ Ibid.

Figure 5.15 Mauritius’s imports of commercial services from the world, by industry, 2015



Source: WTO, Statistics Database, Time Series on International Trade, “Trade in Commercial Services, 2005–Onward (BPM6)” (accessed November 7, 2017).

Note: See [appendix table I.32](#) for a tabular presentation of the data in this figure.

While data on U.S. cross-border services trade or affiliate transactions with Mauritius are unavailable, anecdotal evidence suggests that some services transactions likely occur between the United States and Mauritius. Orbis identifies 170 services firms in Mauritius with a U.S. ultimate beneficial owner: 127 that engage in holding company activities; 33 that engage in financial services; and 10 others that provide services in the travel, real estate, professional, and business industries.¹⁰⁴⁴ The presence of these services firms in Mauritius creates an opportunity for U.S. affiliate sales in that market. At the same time, Mauritius accounted for only 3,794—or less than 0.04 percent—of the nonimmigrant visas issued by the United States in 2016,¹⁰⁴⁵ suggesting that relatively few Mauritian nationals travel to the United States to provide services.

Foreign Direct Investment

In 2016, Mauritius’s total inward FDI stock from the world was \$4.6 billion—a slight decrease from \$4.7 billion in 2010. The same year, its total outward FDI stock to the world was \$874.2 million, up from

¹⁰⁴⁴ Bureau van Dijk, Orbis database of companies (accessed January 9, 2018).

¹⁰⁴⁵ This figure reflects all nonimmigrant visas, a high percentage of which are issued to students and tourists. In 2016, Mauritius accounted for 0.02 percent of all B-1, H-1B, and L-1 visas, three of the largest nonimmigrant visa categories, which are frequently issued to foreign services providers to enter the United States for business purpose. For more information on these nonimmigrant visa categories and services trade, see footnote 941. Source: USDOS, Bureau of Consular Affairs, “FY 2016 Nonimmigrant Visas Issued,” March 13, 2017. The small number of nonimmigrant visas issued to Mauritian nationals also reflects the country’s small population, compared to other SSA countries profiled in this chapter.

\$863.5 million in 2010 but down substantially from \$1,504.7 million in 2013.¹⁰⁴⁶ Based on the bilateral FDI statistics for 2012 (the most recent available), Singapore was the largest source of Mauritius's inward FDI stock, followed by the Netherlands, the United States, and the UK. Meanwhile, nearly 50 percent of Mauritius's outward FDI stock went to India in 2012, making it the top destination for Mauritius's foreign investment.¹⁰⁴⁷

The United States held an outward FDI position of \$7.0 billion in Mauritius in 2016, down from \$7.9 billion in 2010. About \$3.0 billion of U.S. FDI stock in Mauritius was in non-bank holding companies, and \$2.8 billion was in the finance and insurance sector. In the same year, the United States had an inward FDI position of \$0.3 billion from Mauritius, down from \$1.2 billion in 2010.¹⁰⁴⁸

Nigeria

Economic Overview

In 2016, Nigeria was the world's 26th-largest economy, with a GDP of \$456.8 billion. It overtook South Africa in 2012 to become the largest economy in the SSA region.¹⁰⁴⁹ Nigeria holds the largest natural gas reserves in Africa and is the continent's largest oil exporter.¹⁰⁵⁰ Its economy relies heavily on oil as its main source of revenue.¹⁰⁵¹ Declining oil prices and decreasing oil production have therefore placed stress on Nigeria's economy, which contracted by -1.5 percent in 2016, the first contraction since 2010 (table 5.17).¹⁰⁵² Although Nigeria has promoted growth in non-oil sectors, such as agriculture, telecommunications, and services, these sectors have yet to turn in strong economic performances and to reduce poverty overall.¹⁰⁵³ Nigeria is categorized by the World Bank as a lower-middle-income country,¹⁰⁵⁴ with GDP per capita estimated at \$2,455.9 in 2016.¹⁰⁵⁵

¹⁰⁴⁶ UNCTAD, FDI/TNC database, "Foreign Direct Investment: Inward and Outward Flows and Stock, Annual, 1970–2016" (accessed February 1, 2017).

¹⁰⁴⁷ UNCTAD, Bilateral FDI Statistics, "Mauritius, Table 3. FDI Stock in the Host Economy, by Geographical Origin" and "Mauritius, Table 4. FDI Stock Abroad, by Geographical Destination" (accessed February 14, 2018).

¹⁰⁴⁸ USDOC, BEA, International Transactions Account database, "U.S. Direct Investment Position Abroad on a Historical-cost Basis" and "Foreign Direct Investment Position in the United States on a Historical-cost Basis" (accessed November 20, 2017).

¹⁰⁴⁹ World Bank, World Development Indicators database (accessed January 3, 2018).

¹⁰⁵⁰ World Bank, "The World Bank in Nigeria," <http://www.worldbank.org/en/country/nigeria/overview> (accessed January 19, 2018)

¹⁰⁵¹ CIA, *World Factbook*, "Nigeria," <https://www.cia.gov/library/publications/the-world-factbook/geos/ni.html> (accessed January 5, 2018).

¹⁰⁵² World Bank, World Development Indicators database (accessed January 3, 2018).

¹⁰⁵³ World Bank, "The World Bank in Nigeria" (accessed January 19, 2018); CIA, *World Factbook*, "Nigeria" (accessed January 5, 2018).

¹⁰⁵⁴ World Bank, "World Bank Analytical Classifications" and World Development Indicators database (accessed December 18, 2017).

¹⁰⁵⁵ World Bank, World Development Indicators database (accessed January 3, 2018).

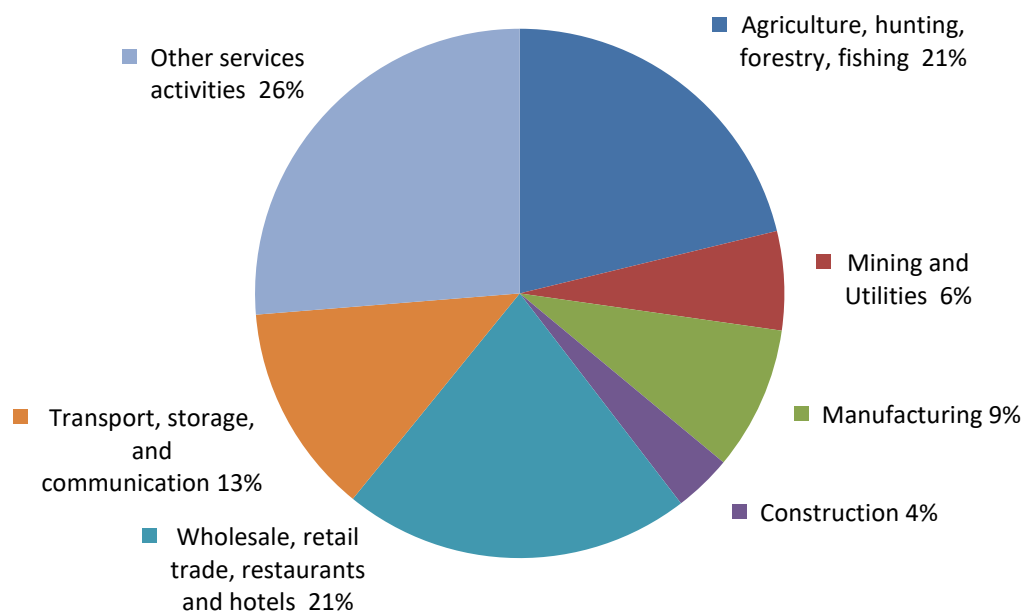
Table 5.17 Major economic indicators, Nigeria, 2010–16

Economic indicators	2010	2012	2014	2016
GDP (2010 constant billion \$)	369.1	403.7	452.3	456.8
GDP growth (annual %)	7.8	4.3	6.3	-1.5
GDP per capita (2010 constant \$)	2,327.3	2,412.9	2,563.1	2,455.9
Current account balance (% of GDP)	3.6	3.8	0.2	0.7
Inflation, consumer prices (annual %)	13.7	12.2	8.1	15.7
Population (million)	158.6	167.3	176.5	186.0
Internet users (per 100 people)	11.5	16.1	21.0	25.7

Source: World Bank, World Development Indicators database (accessed January 3, 2018).

In 2016, services accounted for 60.4 percent of Nigeria’s GDP, followed by agriculture (21.2 percent), manufacturing (8.8 percent), mining and utilities (6.0 percent), and construction (3.6 percent) (figure 5.16).¹⁰⁵⁶

Figure 5.16 GDP composition, Nigeria, 2016



Source: UNSD, National Accounts Main Aggregates Database (accessed January 19, 2018).

Note: See [appendix table I.33](#) for a tabular presentation of the data in this figure.

Trade in Goods

In 2016, Nigeria’s two-way goods trade with the world totaled \$68.1 billion. The EU (39.1 percent) was Nigeria’s largest trading partner, followed by India (11.4 percent), China (7.4 percent), the United States (10.0 percent), and South Africa (3.4 percent). Intra-SSA regional trade accounted for 8.4 percent of

¹⁰⁵⁶ UNSD, National Accounts Main Aggregates Database (accessed January 19, 2018).

Nigeria's goods trade with the world.¹⁰⁵⁷ Nigeria is a member of the Economic Community of West African States (ECOWAS).¹⁰⁵⁸

Trade with the United States

In 2016, two-way goods trade between the United States and Nigeria totaled \$6.1 billion, accounting for 0.2 percent of total U.S. goods trade. The United States had a trade deficit in goods of \$2.2 billion with Nigeria.¹⁰⁵⁹

Nigeria has been an AGOA beneficiary country since 2000. It is also eligible for additional trade benefits under the AGOA textile and apparel provisions.¹⁰⁶⁰ The United States and Nigeria signed a TIFA in 2000, which provides a mechanism for regular high-level dialogue on multilateral and bilateral trade and investment issues.¹⁰⁶¹ The eighth U.S.-Nigeria TIFA Council meeting was held in 2014.¹⁰⁶²

U.S. goods exports to Nigeria totaled \$1.9 billion in 2016, a 53.5 percent drop from \$4.0 billion in 2010 due to Nigeria's slower economic growth and softer demand. During this period, U.S. exports of cereals, petroleum products, and motor vehicles had the largest decreases, at \$540.1 million, \$500.9 million, and \$477.3 million respectively. Although U.S. exports grew in some sectors, the increases were much smaller by comparison. For instance, U.S. exports of centrifuges and filtering and purifying equipment showed the largest increase, but only by \$23.5 million. The leading U.S. goods exports to Nigeria in 2016 were cereals (15.6 percent), motor vehicles (12.8 percent), and petroleum products (8.2 percent) (table 5.18).¹⁰⁶³

Table 5.18 Leading U.S. goods exports to Nigeria, by USITC digest sector, 2010–16

Leading U.S. exports to Nigeria	2010	2016	Absolute	% change
			change	2010–16
			2010–16	2010–16
Million \$				
Cereals	832.4	292.2	-540.2	-64.9
Motor vehicles	715.9	238.6	-477.3	-66.7
Petroleum products	654.3	153.5	-500.8	-76.5
Aircraft	134.1	102.2	-31.9	-23.8
Aircraft engines and gas turbines	70.1	64.0	-6.1	-8.7
All other	1,613.5	1,019.7	-593.8	-36.8
Total	4,020.3	1,870.1	-2,150.2	-53.5

Source: USITC DataWeb/USDOC (accessed November 7, 2017).

Note: Because of rounding, figures may not add up to totals shown.

U.S. goods imports from Nigeria totaled \$4.1 billion in 2016, a drop of 86.6 percent from \$30.5 billion in 2010. During this period, U.S. imports of crude petroleum experienced the largest decrease of any sector at \$25.4 billion, attributable to reduced quantity as well as lower unit prices. However, crude

¹⁰⁵⁷ IHS Markit, Global Trade Atlas database (accessed December 7, 2017).

¹⁰⁵⁸ WTO, RTA-IS, "Nigeria" (accessed January 19, 2018). For more information about ECOWAS, see chapter 6.

¹⁰⁵⁹ USITC DataWeb/USDOC (accessed November 7, 2017).

¹⁰⁶⁰ USDOC, ITA, "Summary of AGOA I," <https://www.trade.gov/agoa/legislation/> (accessed December 11, 2017).

¹⁰⁶¹ USTR, "U.S. and Nigeria Conclude Meeting under Trade and Investment," December 3, 2012.

¹⁰⁶² USTR, "United States and Nigeria Hold 8th Trade and Investment," March 2014.

¹⁰⁶³ USITC DataWeb/USDOC (accessed November 7, 2017).

petroleum remained the top U.S. import from Nigeria, accounting for 89.0 percent of total U.S. goods imports from the country (table 5.19).¹⁰⁶⁴

In the same year, U.S. imports under AGOA accounted for 85.8 percent of total U.S. imports from Nigeria. Nigeria's basic AGOA utilization rate was about 88.8 percent in 2016. Less than 0.5 percent of AGOA-eligible products imported into the United States were entered under GSP. If the latter products are included in the calculation, the total AGOA utilization rate would increase to roughly 88.9 percent. Crude petroleum oil (HTS 2709.00.20; \$3,269.8 million) accounted for 93.9 percent of total U.S. imports under AGOA from Nigeria, followed by naphtha (HTS 2710.12.25; \$113.1 million) and light oil (HTS2710.12.45; \$81.5 million).¹⁰⁶⁵

Table 5.19 Leading U.S. goods imports from Nigeria, by USITC digest sector, 2010–16

Leading U.S. imports from Nigeria	2010	2016	Absolute	% change
			change	2010–16
			2010–16	2010–16
Million \$				
Crude petroleum	29,069.2	3,646.0	-25,423.2	-87.5
Petroleum products	1,152.5	386.9	-765.6	-66.4
Works of art and miscellaneous manufactured goods	3.0	9.4	6.4	210.0
Fertilizers	0.0	6.7	6.7	^a
Animal feeds	6.8	6.5	-0.3	-4.2
All other	272.4	39.9	-232.5	-85.3
Total	30,503.9	4,095.4	-26,408.5	-86.6

Source: USITC DataWeb/USDOC (accessed November 7, 2017).

Note: Because of rounding, figures may not add up to totals shown.

^a Percentage change is not provided because the 2010 value was zero.

Trade in Services

Nigeria's exports of commercial services to the world fell from \$2.6 billion in 2010 to \$1.5 billion in 2014, then rebounded to \$2.7 billion in 2015. Transport services accounted for the majority of the country's commercial services exports in 2015, followed by travel services (15.1 percent) and financial services (9.5 percent) (figure 5.17). Nigerian exports of transport services and travel services decreased in most years during 2010–15, while annual exports of financial services totaled \$22 million or less throughout 2010–14 before rising to \$259 million in 2015.¹⁰⁶⁶

Nigerian imports of commercial services fluctuated during 2010–15, posting a high of \$23.1 billion in 2014 and a low of \$18.7 billion in 2015. Transport services accounted for the largest share (42.5 percent) in 2015, followed by travel services (30.7 percent) and other business services (10.7 percent) (figure 5.18). Nigerian imports in all three of these sectors fluctuated throughout the period, posting their lowest values in 2015.¹⁰⁶⁷

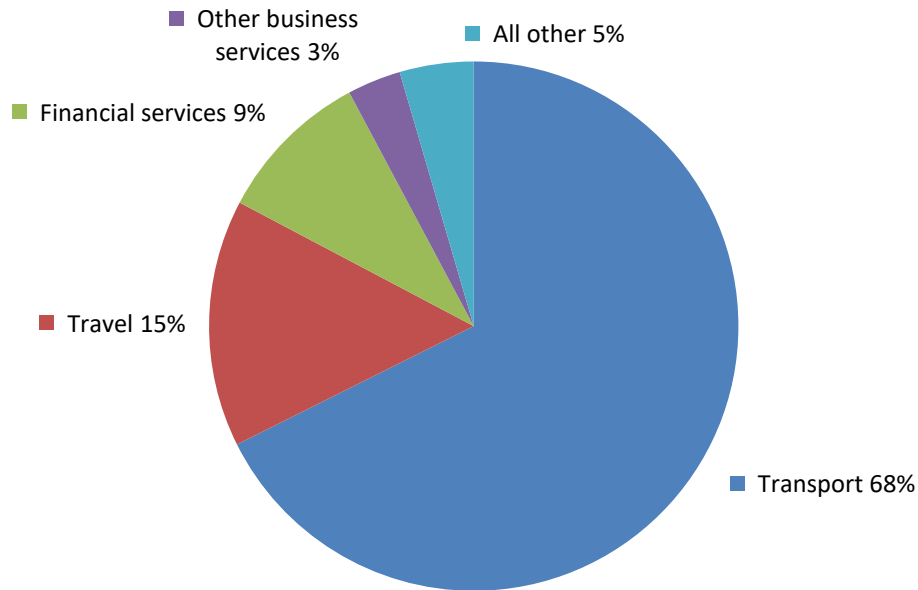
¹⁰⁶⁴ Ibid.

¹⁰⁶⁵ USDOC, ITA, "General Country Provisions" (accessed December 12, 2017).

¹⁰⁶⁶ WTO, Statistics Database, Time Series on International Trade, "Trade in Commercial Services, 2005–Onward (BPM6)" (accessed November 7, 2017).

¹⁰⁶⁷ Ibid.

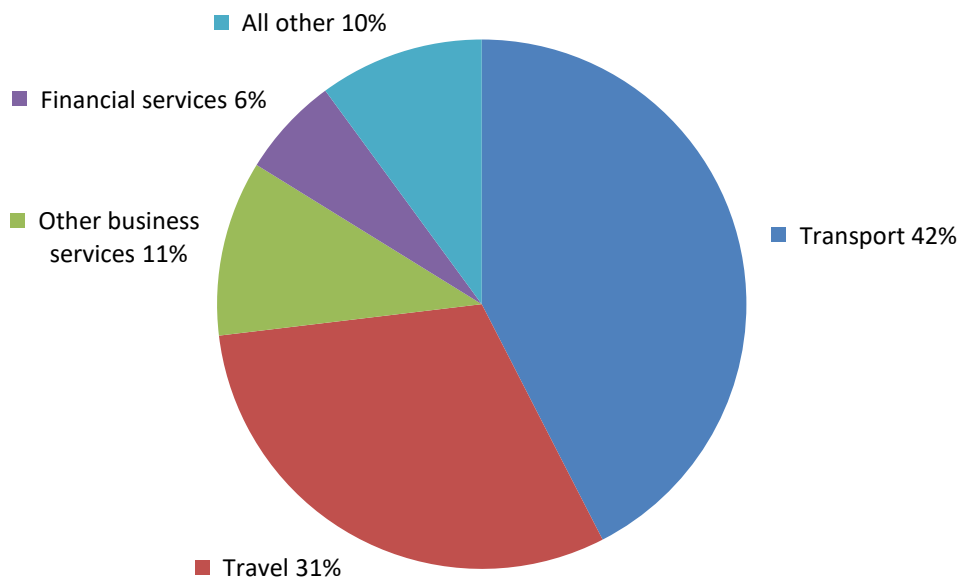
Figure 5.17 Nigeria’s exports of commercial services to the world, by industry, 2015



Source: WTO, Statistics Database, Time Series on International Trade, “Trade in Commercial Services, 2005–Onward (BPM6)” (accessed November 7, 2017).

Note: See [appendix table I.34](#) for a tabular presentation of the data in this figure.

Figure 5.18 Nigeria’s imports of commercial services from the world, by industry, 2015



Source: WTO, Statistics Database, Time Series on International Trade, “Trade in Commercial Services, 2005–Onward (BPM6)” (accessed November 7, 2017).

Note: See [appendix table I.35](#) for a tabular presentation of the data in this figure.

Trade with the United States

U.S. cross-border exports of private services to Nigeria increased from \$2.3 billion in 2013 to \$2.6 billion in 2015, and fell to \$2.4 billion in 2016. Travel services accounted for the largest shares of such exports in 2016 with 53.0 percent, followed by other business services (17.1 percent) and transport (13.5 percent). U.S. cross-border imports of private services from Nigeria decreased throughout the period, from \$505 million in 2013 to \$387 million in 2016. Travel accounted for the largest share of such imports (45.0 percent) in 2016, followed by other business services (26.4 percent) and transport (17.8 percent).¹⁰⁶⁸

U.S. services sales through Nigeria-based affiliates totaled \$1.2 billion in 2015 (most recent data available). The majority of these sales occurred through affiliates in the mining sector, while other sectors accounting for substantial shares of such sales included information (12.3 percent) and wholesale trade (6.3 percent).¹⁰⁶⁹ U.S. purchases of services from Nigeria-owned affiliates in the United States totaled \$2 million in the same year. It is unclear which sectors accounted for the largest shares of U.S. affiliate purchases from Nigeria in 2015 due to the suppression of data for certain sectors to protect individual firms' information; however, BEA reports that finance and insurance accounted for all U.S. affiliate purchases of services from Nigeria in 2013.¹⁰⁷⁰

Foreign Direct Investment

In 2016, Nigeria's total inward FDI stock from the world was \$94.1 billion, up from \$60.3 billion in 2010. Nigeria's total outward FDI stock to the world was valued at \$13.0 billion, up from \$5.0 billion in 2010.¹⁰⁷¹ Based on the most currently available bilateral FDI statistics for 2012, Mauritius was the largest source of Nigeria's inward FDI stock, followed by the Netherlands, China, and Lebanon. Belgium and France were the top two destinations for Nigeria's outward FDI stock.¹⁰⁷²

In 2016, the United States had an outward FDI position of \$3.8 billion in Nigeria, a 24.5 percent decrease from \$5.1 billion in 2010.¹⁰⁷³ Also in 2016, the United States had an inward FDI position of \$53 million

¹⁰⁶⁸ USDOC, BEA, Interactive data, International Transactions, Services, & IIP, International Services, table 2.3, (accessed November 13, 2017).

¹⁰⁶⁹ In order to avoid disclosing information on individual companies, BEA suppressed data on sales in Nigeria by U.S.-owned affiliates in four categories—finance and insurance; real estate and rental and leasing; professional, scientific, and technical services; and other industries—for both 2014 and 2015. BEA reported that sales by U.S.-owned professional, scientific, and technical services affiliates in Nigeria totaled \$27 million in 2013, and that data on sales by U.S.-owned affiliates in the real estate and rental and leasing and other industries categories were unavailable for that year. Data on 2013 sales by U.S.-owned finance and insurance affiliates in Nigeria were likewise suppressed. USDOC, BEA, Interactive data, International Transactions, Services, & IIP, International Services, table 4.4 (accessed November 13, 2017).

¹⁰⁷⁰ USDOC, BEA, Interactive data, International Transactions, Services, & IIP, International Services, table 5.4, (accessed November 13, 2017).

¹⁰⁷¹ UNCTAD, FDI/TNC database, "Foreign Direct Investment: Inward and Outward Flows and Stock, Annual, 1970–2016" (accessed February 1, 2017).

¹⁰⁷² UNCTAD, Bilateral FDI Statistics, "Nigeria, Table 3. FDI Stock in the Host Economy, by Geographical Origin" and "Nigeria, Table 4. FDI Stock Abroad, by Geographical Destination" (accessed February 14, 2018).

¹⁰⁷³ For more information on factors affecting U.S. outward FDI position in Nigeria, see chapter 4.

from Nigeria, more than double the \$23 million it held in 2010.¹⁰⁷⁴ Based on the available FDI data at the sectoral level, mining attracted 52.3 percent of U.S. investment in Nigeria, followed by manufacturing (3.1 percent).¹⁰⁷⁵

South Africa

Economic Overview

In 2016, South Africa was the world's 38th-largest economy with a GDP of \$419.5 billion.¹⁰⁷⁶ Since 2012, South Africa has been the second-largest economy in the SSA region, after Nigeria.¹⁰⁷⁷ South Africa is an emerging market economy with an abundant supply of natural resources and with well-developed financial, legal, communications, energy, and transport sectors. In addition, the country is home to the largest stock market in Africa¹⁰⁷⁸ and one of the best-regulated stock markets globally.¹⁰⁷⁹ However, its economic growth has slowed in recent years, slowing to only 0.3 percent in 2016,¹⁰⁸⁰ partly due to structural constraints such as skills shortages, declining global competitiveness, and frequent strikes.¹⁰⁸¹ South Africa is classified as an upper-middle-income country,¹⁰⁸² with GDP per capita estimated at \$7,503.3 (table 5.20).

Table 5.20 Major economic indicators, South Africa, 2010–16

Economic indicators	2010	2012	2014	2016
GDP (2010 constant billion \$)	375.3	396.2	413.0	419.5
GDP growth (annual %)	3.0	2.2	1.7	0.3
GDP per capita (2010 constant \$)	7,361.8	7,545.8	7,626.9	7,503.3
Current account balance (% of GDP)	-1.5	-5.1	-5.3	-3.2
Inflation, consumer prices (annual %)	4.3	5.7	6.1	6.3
Population (million)	51.0	52.5	54.1	55.9
Internet users (per 100 people)	24.0	41.0	49.0	54.0

Source: World Bank, World Development Indicators database (accessed January 3, 2018).

In 2016, services accounted for 68.6 percent of South Africa's GDP, followed by manufacturing (13.3 percent), mining and utilities (11.6 percent), construction (4.0 percent), and agriculture (2.4 percent). For a more detailed services breakdown, see figure 5.19.¹⁰⁸³ Within manufacturing, the top three sectors

¹⁰⁷⁴ USDOC, BEA, International Transactions Account database, "U.S. Direct Investment Position Abroad on a Historical-cost Basis" and "Foreign Direct Investment Position in the United States on a Historical-cost Basis" (accessed November 20, 2017).

¹⁰⁷⁵ USDOC, BEA, International Transactions Account database, "U.S. Direct Investment Position Abroad on a Historical-cost Basis" (accessed November 20, 2017).

¹⁰⁷⁶ World Bank, World Development Indicators database (accessed January 3, 2018).

¹⁰⁷⁷ Ibid.

¹⁰⁷⁸ CIA, *World Factbook*, "South Africa," <https://www.cia.gov/library/publications/the-world-factbook/geos/sf.html> (accessed November 27, 2017).

¹⁰⁷⁹ WEF, *The Global Competitiveness Report 2016–2017*, September 28, 2016.

¹⁰⁸⁰ World Bank, World Development Indicators database (accessed January 3, 2018).

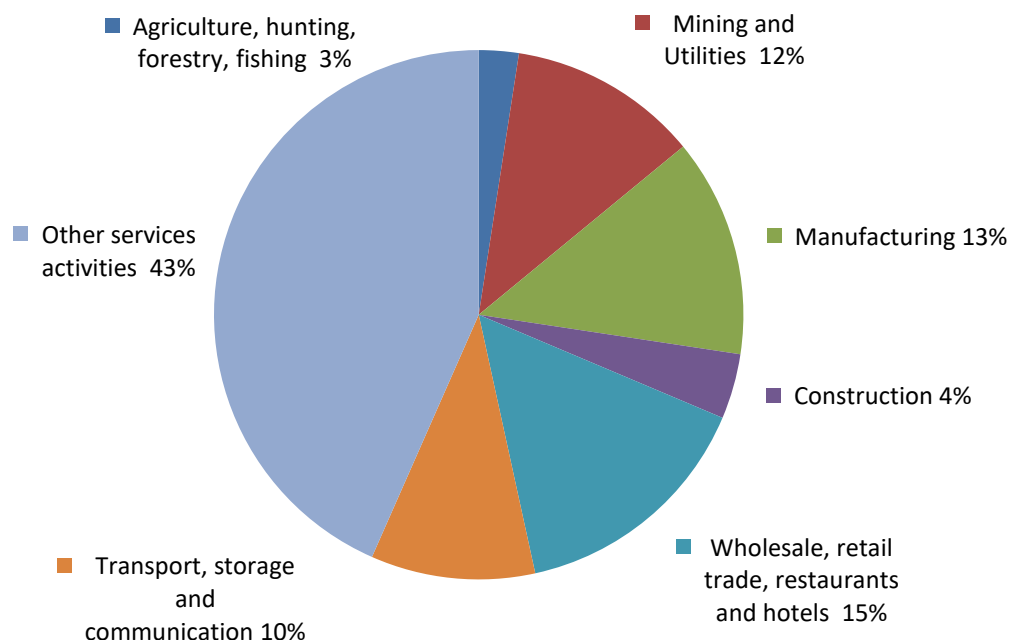
¹⁰⁸¹ CIA, *World Factbook*, "South Africa" (accessed November 27, 2017).

¹⁰⁸² World Bank, "World Bank Analytical Classifications" and World Development Indicators database (accessed December 18, 2017).

¹⁰⁸³ UNSD, National Accounts Main Aggregates Database (accessed January 19, 2018).

by value added were food and beverages, petroleum-related products, and furniture and other manufacturing.¹⁰⁸⁴

Figure 5.19 GDP composition, South Africa, 2016



Source: UNSD, National Accounts Main Aggregates Database (accessed January 19, 2018).

Note: See [appendix table I.36](#) for a tabular presentation of the data in this figure.

Trade in Goods

In 2016, South Africa’s two-way goods trade with the world totaled \$151.8 billion. The EU (26.7 percent) was South Africa’s largest trading partner, followed by China (13.4 percent), the United States (6.9 percent), India (4.2 percent), and Japan (4.0 percent). Intra-SSA regional trade accounted for 18.5 percent of South Africa’s total goods trade.¹⁰⁸⁵

South Africa is a member of the Southern African Customs Union (SACU), which permits duty-free trade of all goods between South Africa and the four other member countries (Botswana, Lesotho, Namibia, and Swaziland).¹⁰⁸⁶ South Africa also belongs to the Southern African Development Community (SADC).

¹⁰⁸⁴ UNIDO, INDSTAT database (accessed November 21, 2017).

¹⁰⁸⁵ IHS Markit, Global Trade Atlas database (accessed December 7, 2017).

¹⁰⁸⁶ Government of South Africa, Department of Trade and Industry, “Trade Agreements,” https://www.thedti.gov.za/trade_investment/ited_trade_agreement.jsp; Southern African Customs Union, “History of SACU,” <http://www.sacu.int/show.php?id=394>; USDOC, ITA, Export.gov, “South Africa—Trade Agreements,” <https://www.export.gov/article?id=South-Africa-trade-agreements> (accessed November 27, 2017). For more information on SACU and SADC, see chapter 6.

Trade with the United States

In 2016, two-way goods trade between the United States and South Africa totaled \$11.4 billion, accounting for 0.3 percent of total U.S. goods trade. The United States had a goods trade deficit of \$2.3 billion with South Africa.¹⁰⁸⁷

South Africa has been an AGOA beneficiary country since 2000. It is also eligible for additional trade benefits under the AGOA textile and apparel provisions.¹⁰⁸⁸ The U.S. and South Africa signed a TIFA in 2012 that amends the United States-South Africa TIFA originally signed in 1999.¹⁰⁸⁹ The amended agreement aims to expand trade in goods and services, incentivize private sector investment between the two countries, and secure favorable conditions for long-term development.¹⁰⁹⁰

U.S. goods exports to South Africa totaled \$4.4 billion in 2016, a 17.9 percent decrease from \$5.4 billion in 2010. During this period, U.S. exports of precious metals and non-numismatic coins posted the largest decrease of any sector at \$394.9 million, followed by construction and mining equipment (-\$275.3 million) and motor vehicles (-\$173.5 million). The leading U.S. goods exports to South Africa were aircraft (7.6 percent), certain motor vehicle parts (4.5 percent), and pharmaceuticals (4.4 percent) (table 5.21).¹⁰⁹¹

¹⁰⁸⁷ USITC DataWeb/USDOC (accessed November 7, 2017).

¹⁰⁸⁸ In November 2015, President Obama determined that South Africa had not made continual progress towards eliminating barriers to U.S. trade and investment, specifically barriers to exports of U.S. poultry, pork, and beef to South Africa. On January 11, 2016, the President issued a proclamation announcing that the United States would suspend the application of duty-free treatment for all AGOA-eligible goods in the agricultural sector from South Africa. Following a period of intense negotiations, all outstanding technical issues were resolved and South Africa came into compliance with the relevant AGOA criteria. On March 14, 2016, the President revoked his earlier proclamation and stated that South Africa would maintain full benefits under AGOA. Presidential proclamation 9388, January 11, 2016; Presidential proclamation 9406, March 14, 2016; South Africa Institute of International Affairs, “AGOA and the Future of US-Africa Trade Relations,” March 17, 2016; USTR, “U.S. to Suspend African Growth and Opportunity Act (AGOA) Benefits to South Africa,” November 2015, <https://ustr.gov/about-us/policy-offices/press-office/press-releases/2015/november/us-suspend-african-growth-and>; USDOC, ITA, “General Country Eligibility Provisions” (accessed November 23, 2017).

¹⁰⁸⁹ USTR, “South Africa,” <https://ustr.gov/countries-regions/africa/southern-africa/south-africa> (accessed November 23, 2017).

¹⁰⁹⁰ USTR, “U.S.-South Africa TIFA,” February 1, 2010, <https://ustr.gov/trade-agreements/trade-investment-framework-agreements>.

¹⁰⁹¹ USITC DataWeb/USDOC (accessed November 7, 2017).

Table 5.21 Leading U.S. goods exports to South Africa, by USITC digest sector, 2010–16

Leading U.S. exports to South Africa	2010	2016	Absolute	% change
			change	2010–16
Million \$				
Aircraft	286.3	334.0	47.7	16.7
Certain motor-vehicle parts	110.2	198.8	88.6	80.4
Pharmaceuticals	94.2	194.6	100.4	106.5
Construction and mining equipment	467.8	192.5	-275.3	-58.9
Medical goods	164.1	179.8	15.7	9.6
All other	4,250.1	3,309.7	-940.4	-22.1
Total	5,372.7	4,409.4	-963.3	-17.9

Source: USITC DataWeb/USDOC (accessed November 7, 2017).

Note: Because of rounding, figures may not add up to totals shown.

During 2010–16, U.S. exports of motor vehicle parts to South Africa increased by 80.4 percent, corresponding to growth in the South African automotive sector during this period. In 2010, South Africa produced 472,049 vehicles; in 2016, the output increased to 599,004 vehicles. As a result, South Africa’s ranking among the world’s auto-producing countries advanced from 25th in 2010 to 22nd in 2016.¹⁰⁹²

Several top U.S. automotive component suppliers have a business presence in South Africa, including Johnson Controls, Lear, TRW Automotive, Tenneco, Delphi, and Visteon. These U.S. companies have built strong business links with their South African operations, which may be one reason for the increase in U.S. auto parts exports to South Africa.¹⁰⁹³ In addition, the South African government has taken a number of steps in recent decades to encourage the growth of vehicle and component manufacturing and to strengthen the South African automotive industry’s international competitiveness. The government implemented a series of incentive programs—first the Motor Industry Development Program (MIDP) in 1995, and then its replacement, the Automotive Production and Development Program (APDP) in 2013. These programs lowered the barriers to entry into the industry and significantly reduced import duties on vehicle components and pre-assembled vehicles, which may also have facilitated U.S. auto parts exports to South Africa.¹⁰⁹⁴

During the same period, U.S. exports of pharmaceuticals surged by 106.5 percent. The expansion of healthcare capacity, the maturing of the business environment, and the increased levels of urbanization were among the factors driving up the demand for pharmaceutical products in Africa. South Africa also has seen a wave of growth in retail outlets for these products, with 400 new pharmacies opening in the country since 2006. The country has extended its pharmaceutical market through mergers and acquisitions, joint ventures, and strategic partnerships with multinational medical and pharmaceutical manufacturers such as Johnson & Johnson.¹⁰⁹⁵ The burgeoning South African pharmaceutical

¹⁰⁹² OICA, “Production Statistics,” <http://www.oica.net/category/production-statistics/2016-statistics/> (accessed December 28, 2017).

¹⁰⁹³ USDOC, ITA, Export.gov, “South Africa Automotive,” July 21, 2017.

¹⁰⁹⁴ Deloitte, “APDP a Step in the Right Direction” (accessed November 27, 2017); BCE Consulting, “How the APDP Benefits the Motor Industry in South Africa,” March 19, 2015; Global Alliance of SMEs, “New Auto Incentive Plan Approved” (accessed November 27, 2017); South African Revenue Service, “What Is the Motor Industry Development Programme (MIDP)?” (accessed November 27, 2017); NAACAM, “The South African Automotive Industry, the MIDP and the APDP,” October 2011.

¹⁰⁹⁵ Holt et al., “Africa: A Continent of Opportunity for Pharma and Patients,” June 2015; and *Insight into Pharmaceuticals and Medical Products*, April 2015.

manufacturing industry is heavily reliant on imports of active pharmaceutical ingredients (APIs); it sources 95 percent of its APIs from abroad.¹⁰⁹⁶

U.S. goods imports from South Africa totaled \$6.7 billion in 2016, a decrease of 18.1 percent from \$8.1 billion in 2010. U.S. imports of precious metals and non-numismatic coins saw the largest decrease (-\$725.5 million), followed by natural and synthetic gemstones (-\$578.2 million), and ferroalloys (-\$262.3 million).¹⁰⁹⁷ The leading U.S. goods imports from South Africa are motor vehicles (22.7 percent), precious metals and non-numismatic coins (22.3 percent), natural and synthetic gemstones (8.5 percent), ferroalloys (5.1 percent), and centrifuges and purifying equipment (4.4 percent). The latter sector (centrifuges and purifying equipment) is the only leading U.S. import sector from South Africa that experienced robust growth (table 5.22). Catalytic converters for automobiles made up the majority of U.S. imports in this category.¹⁰⁹⁸

In 2016, U.S. imports under AGOA accounted for 26.9 percent of total U.S. goods imports from South Africa. South Africa's AGOA utilization rate is approximately 62.4 percent. However, another 32.9 percent of AGOA-eligible products imported into the United States were entered under GSP. If the latter are included in the calculation, the total AGOA utilization rate would increase to roughly 95.3 percent. Motor vehicles (HTS 8703.23.00; \$1.5 billion) accounted for 80.3 percent of total U.S. imports under AGOA from South Africa, followed by industrial fatty alcohols (HTS 3823.70.60; \$47.0 million) and shelled macadamia nuts (HTS 0802.62.00; \$42.4 million).¹⁰⁹⁹

Table 5.22 Leading U.S. goods imports from South Africa, by USITC digest sector, 2010–16

Leading U.S. imports from South Africa	2010	2016	Absolute	% change
			change	2010–16
Million \$				
Motor vehicles	1,543.2	1,512.0	-31.2	-2.0
Precious metals and non-numismatic coins	2,214.1	1,488.6	-725.5	-32.8
Natural and synthetic gemstones	1,143.6	565.4	-578.2	-50.6
Ferroalloys	602.1	339.8	-262.3	-43.6
Centrifuges, filtering, purifying equipment	205.1	290.8	85.7	41.8
All other	2,428.8	2,466.0	37.2	1.5
Total	8,137.0	6,662.6	-1,474.4	-18.1

Source: USITC DataWeb/USDOC (accessed November 7, 2017).

Note: Because of rounding, figures may not add up to totals shown.

Trade in Services

While South Africa's exports of commercial services to the world fluctuated throughout 2010–15, they posted an overall average annual decline of 1.3 percent during the period, totaling \$14.7 billion in 2015.

¹⁰⁹⁶ UNCTAD, "Role of Competition in the Pharmaceutical Sector," June 2015; Export & Import Southern Africa, "Importing of Pharmaceutical Ingredients—South Africa" (accessed November 27, 2017); Government of South Africa, Department of Trade and Industry, "Industrial Development: The Chemical Sector" (accessed November 27, 2017).

¹⁰⁹⁷ USITC DataWeb/USDOC (accessed November 7, 2017).

¹⁰⁹⁸ Ibid. For more information on factors affecting U.S. imports of centrifuges and purifying equipment from South Africa, see chapter 3.

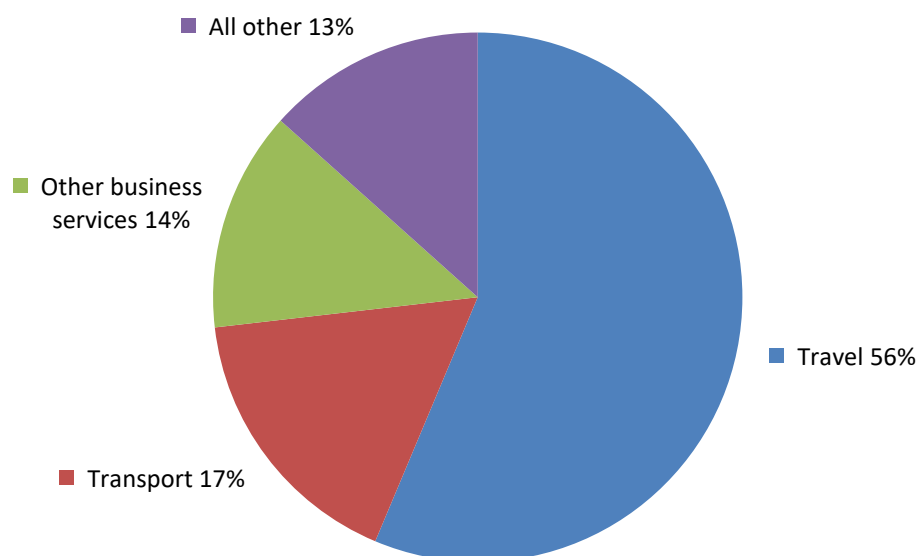
¹⁰⁹⁹ USITC DataWeb/USDOC (accessed November 7, 2017).

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Travel services accounted for more than half the country's commercial services exports in that year, followed by transport services (16.8 percent) and other business services (13.5 percent) (figure 5.20). South African exports of travel services and transport services decreased at overall rates of 1.9 percent and 4.4 percent, respectively, during 2010–15.¹¹⁰⁰

South Africa's imports of commercial services increased to \$20.4 billion during 2010–11 and decreased throughout the rest of the period, falling to \$15.1 billion in 2015. Transport services made up a dominant share (42.7 percent) of the country's commercial services imports in 2015, followed by travel services (19.8 percent), other business services (14.8 percent), and charges for intellectual property (11.3 percent) (figure 5.21). South Africa's imports in all four of these sectors posted overall decreases during 2010–15.¹¹⁰¹

Figure 5.20 South Africa's exports of commercial services to the world, by industry, 2015

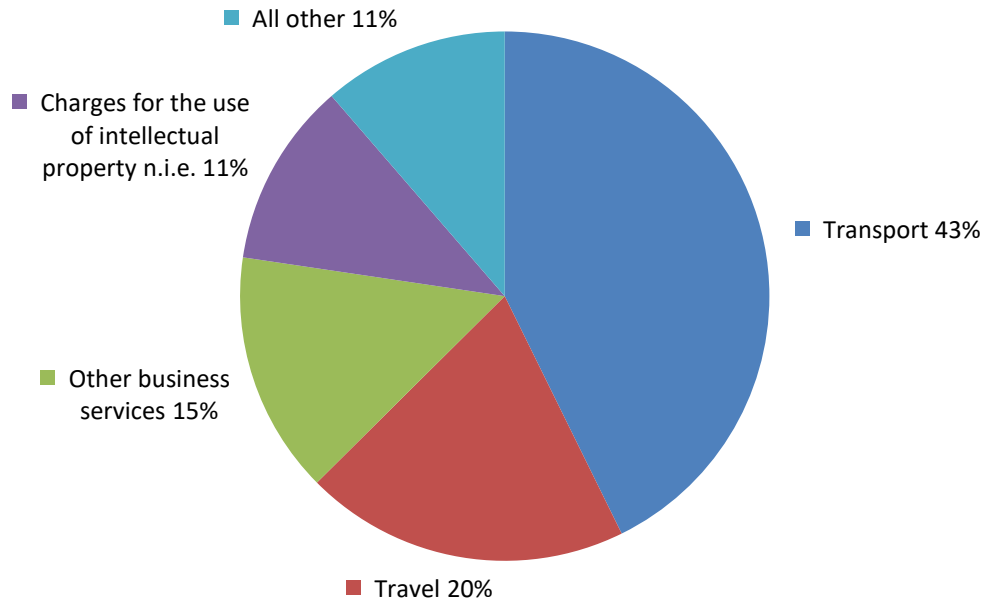


Source: WTO, Statistics Database, Time Series on International Trade, "Trade in Commercial Services, 2005–Onward (BPM6)" (accessed November 7, 2017).

Note: See [appendix table I.37](#) for a tabular presentation of the data in this figure.

¹¹⁰⁰ WTO, Statistics Database, Time Series on International Trade, "Trade in Commercial Services, 2005–Onward (BPM6)" (accessed November 7, 2017).

¹¹⁰¹ Ibid.

Figure 5.21 South Africa’s imports of commercial services from the world, by industry, 2015

Source: WTO, Statistics Database, Time Series on International Trade, “Trade in Commercial Services, 2005–Onward (BPM6)” (accessed November 7, 2017).

Note: See [appendix table I.38](#) for a tabular presentation of the data in this figure. N.i.e. = not included elsewhere.

Trade with the United States

U.S. cross-border exports of private services to South Africa increased from \$2.5 billion in 2010 to \$3.0 billion in 2015, then decreased to \$2.9 billion in 2016. Charges for the use of intellectual property and travel services accounted for the largest shares of such exports in 2016, at 23.6 percent and 23.4 percent, respectively. U.S. cross-border imports of private services from South Africa fluctuated throughout the period, totaling \$1.8 billion in 2016. Travel services and other business services dominated these U.S. imports, respectively accounting for 45.3 percent and 32.9 percent of the total in 2016.¹¹⁰²

U.S. services sales through South Africa-based affiliates totaled \$6.9 billion in 2015. Retail trade accounted for the largest share (40.2 percent) of U.S. affiliate sales to South Africa, followed by wholesale trade (17.1 percent) and professional, scientific, and technical services (15.1 percent).¹¹⁰³ U.S. purchases of services from South Africa-owned affiliates in the United States totaled \$498 million in the same year. It is unclear which sectors accounted for the largest shares of U.S. affiliate purchases from

¹¹⁰² USDOC, BEA, Interactive data, International Transactions, Services, & IIP, International Services, table 2.3, (accessed November 13, 2017).

¹¹⁰³ USDOC, BEA, Interactive data, International Transactions, Services, & IIP, International Services, table 4.4, (accessed November 13, 2017).

South Africa in 2015, due to the suppression of data for several sectors to protect the data of individual firms. However, wholesale trade dominated such purchases in 2013, with 71.9 percent of the total.¹¹⁰⁴

Foreign Direct Investment

In 2016, South Africa's total inward FDI stock was \$136.8 billion, a decrease of 24 percent from its 2010 level of \$179.6 billion. At the same time, its total outward FDI stock was \$172.8 billion, more than double its 2010 level of \$83.2 billion.¹¹⁰⁵ Based on available data for 2015, the UK (29.5 percent), the Netherlands (24.2 percent), and the United States (4.9 percent) were among the top investor countries in South Africa. Financial and insurance services, real estate, and business services were collectively the top invested sector at 40.7 percent. Other leading invested sectors were manufacturing (28.9 percent), mining (15.9 percent), and transport, storage, and communication services (10.0 percent).¹¹⁰⁶

The United States had an outward FDI position of \$5.1 billion in South Africa in 2016, a 15.9 percent decrease from its 2010 level of \$6.0 billion. South Africa accounted for 0.1 percent of the United States' total outward FDI position in 2016, but 14.5 percent of the U.S. FDI position in the SSA region.¹¹⁰⁷ Manufacturing accounted for over half of U.S. FDI in South Africa. The top invested manufacturing sectors were chemicals (21.3 percent), transportation equipment (16.4 percent), and machinery (4.0 percent). Based on the available data, the leading services sector receiving U.S. investment was professional, scientific, and technical services (10.4 percent).¹¹⁰⁸

The United States held an inward FDI position of \$3.1 billion from South Africa in 2016, a striking increase of 345.5 percent from its 2010 level of \$699 million. South Africa accounted for only 0.1 percent of U.S. total inward FDI stock, but 70 percent of all African FDI positions in the United States.¹¹⁰⁹

¹¹⁰⁴ USDOC, BEA, Interactive data, International Transactions, Services, & IIP, International Services, table 5.4, (accessed November 13, 2017).

¹¹⁰⁵ UNCTAD, FDI/TNC database, "Foreign Direct Investment: Inward and Outward Flows and Stock, Annual, 1970–2016" (accessed February 1, 2017). These figures in this table correspond to the Statistical Annexes of the UNCTAD World Investment Report 2017.

¹¹⁰⁶ 2015 is the latest available year for FDI breakdown by investing country and invested sector for South Africa. Source: South African Reserve Bank, Quarterly Bulletin March 2017, <https://www.resbank.co.za/Lists/News%20and%20Publications/Attachments/7718/08Statistical%20tables%20%E2%80%93%20International%20economic%20relations.pdf> (accessed December 12, 2017).

¹¹⁰⁷ USDOC, BEA, International Transactions Account database, "U.S. Direct Investment Position Abroad on a Historical-cost Basis, by Country Only" (accessed November 20, 2017).

¹¹⁰⁸ USDOC, BEA, International Transactions Account database, "U.S. Direct Investment Position Abroad on a Historical-cost Basis, by Country and Industry" (accessed November 20, 2017).

¹¹⁰⁹ Due to the suppression of data, sectoral information is not available. Source: USDOC, BEA, International Transactions Account database, "Foreign Direct Investment Position in the United States on a Historical-cost Basis, by Country and Industry" (accessed November 20, 2017).

Chapter 6

Selected AGOA Strategies and Recent Developments in SSA Regional Integration

The first part of this chapter, per the request letter from the U.S. Trade Representative (USTR), briefly summarizes the strategies that have been developed by SSA countries to take fullest advantage of their opportunities under the African Growth and Opportunity Act (AGOA). Currently, these strategies are at various stages of development and level of detail. However, they all have the same goal: to increase the use of AGOA preferences (“AGOA utilization”) by identifying high-priority trade sectors—those that have the potential to increase exports to the United States under AGOA.¹¹¹⁰

Regional integration also has the potential to help sectors and industries overcome trade barriers that inhibit AGOA utilization.¹¹¹¹ Indeed, the AGOA renewal law of 2015¹¹¹² encouraged the AU’s eight Regional Economic Communities (RECs) to prepare AGOA strategies on a regional level. The RECs are regional economic blocs focused on increasing intra-African trade and improving other aspects of SSA regional integration. The East African Community (EAC) is widely considered the most integrated REC, while the rest are moving forward at varying paces.

Ultimately, the AU envisions a single continent-wide market for Africa, the African Economic Community, which includes a Continental Free Trade Area (CFTA),¹¹¹³ to achieve the scale needed to improve SSA trade and investment. As of March 21, 2018, 44 out of 55 AU members have signed the text of the CFTA. The second part of this chapter, also as requested, provides a summary of recent developments of regional integration efforts in SSA, including progress on the negotiations for the CFTA.

AGOA Utilization Strategies

For years, the African Union (AU) and the United Nations Economic Conference on Africa (UNECA) have attempted to help SSA governments improve their strategic planning related to the African Growth and Opportunity Act (AGOA). Yet at the time of AGOA’s most recent renewal in 2015, many of these governments lacked clearly articulated strategies to benefit from the AGOA preferences. As prescribed by the AGOA renewal legislation, 15 out of 38 AGOA beneficiary countries have now prepared specific national AGOA strategies—typically in conjunction with the U.S. Agency for International Development (USAID).

Leading up to AGOA renewal, the AU and UNECA worked to develop a strategic approach to raise AGOA utilization rates in AGOA-eligible countries. In June 2012, the AU and UNECA’s Africa Trade Policy Centre

¹¹¹⁰ Chapter 5 provides more information for selected SSA countries on AGOA utilization rates.

¹¹¹¹ Regional integration is a process in which neighboring countries work out cooperative agreements that use regional structures and rules to manage common issues and foster prosperity.

¹¹¹² Trade Preferences Extension Act of 2015, Pub. L. 114-27, June 29, 2015, 129 Stat. 368.

¹¹¹³ AUC, “CFTA—Continental Free Trade Area” (accessed January 8, 2018).

released *Guidelines on Developing a National AGOA Strategy* to AGOA-eligible AU members. These guidelines set out for a sample framework for finding core sectors that an AU-member government might target for economic support as part of a national AGOA strategy. Broadly, the guidelines' priority sectors fell into two categories: (1) agriculture and food processing, and (2) light manufacturing.¹¹¹⁴ At the AU Conference in Ethiopia in October 2013, African ministers explicitly called for the development of national AGOA export strategies by AGOA-eligible AU member countries. At the same conference, AU reiterated the need for African governments to identify potentially competitive sectors for increased exports under AGOA.¹¹¹⁵

In April 2014, a joint AU/UNECA white paper said that piecemeal efforts by countries had failed to increase utilization of AGOA preferences, due largely to national supply-side constraints.¹¹¹⁶ The paper outlined the most common constraints as follows: national challenges to building and maintaining productive export capacity; lack of skilled and technical labor; lack of international marketing skills; physical infrastructure needs; and lack of effective government policy support. Other major challenges facing national governments included a lack of coordinated focus on common supply-side constraints by stakeholders—public, private, and donor—as well as limited U.S. investment in Africa. The paper argued for a more strategic framework that would allow countries to assess their key export promotion challenges in a more coordinated way.

In June 2015, the United States' Trade Preferences Extension Act of 2015 renewed the AGOA program. Title I, section 107 of the act addressed the ongoing need for national AGOA utilization strategies, stating that “beneficiary sub-Saharan African countries should develop utilization strategies on a biennial basis in order to more effectively and strategically utilize benefits available under the African Growth and Opportunity Act.”¹¹¹⁷ Of the 38 AGOA-eligible SSA countries,¹¹¹⁸ 15 had developed a national AGOA strategy by the end of 2017. In addition, Malawi's national export strategy mentions AGOA and includes a list of high-priority sectors for increased exports.¹¹¹⁹

Summaries of National AGOA Strategies

To overcome low utilization of AGOA preferences, the AU/UNECA guidelines recommended that AGOA-eligible countries develop a national AGOA response strategy, based on four elements: (1) the establishment of a national AGOA institutional infrastructure, including a national AGOA secretariat and a national AGOA ministerial task force; (2) the identification of priority sectors for support; (3) the development of support programs focused on priority sectors; and (4) the development of a comprehensive strategy to increase U.S. investment in-country, in particular by small and medium-sized

¹¹¹⁴ AUC-UNECA-ATPC, *Guidelines on Developing a National AGOA Strategy*, June 15, 2012, 17.

¹¹¹⁵ *Ibid.*, 13, 17, 21.

¹¹¹⁶ UNECA, *How 'AGOA 2.0' Could Be Different*, April 2014, 12.

¹¹¹⁷ Trade Preferences Extension Act of 2015, Pub. L. 114-27, June 29, 2015, 129 Stat. 368.

¹¹¹⁸ As of June 1, 2017, there were 38 sub-Saharan African countries eligible for AGOA trade benefits: Angola, Benin, Botswana, Burkina Faso, Cabo Verde, Cameroon, Central African Republic, Chad, Comoros, Côte d'Ivoire, Djibouti, Ethiopia, Gabon, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mauritius, Mozambique, Namibia, Niger, Nigeria, Republic of the Congo, Rwanda, São Tomé and Príncipe, Senegal, Sierra Leone, South Africa, Tanzania, Togo, Uganda, and Zambia. WTO, *United States—African Growth and Opportunity Act—Report of the Government of the United States for the Year 2016*, WT/L/1017, November 8, 2017, 1.

¹¹¹⁹ Government of Malawi, *Strategic Plan 2011–2016*, September 2011, 10.

enterprises.¹¹²⁰ Table 6.1 contains a list of countries that have completed national AGOA strategies, as well as the key industries and products highlighted in these plans.

Some other SSA countries' governments have released information about their AGOA strategies, which are reportedly in various stages of development. Côte d'Ivoire and Sierra Leone have both announced their AGOA strategies, but have not yet made them available online.¹¹²¹ In 2016, Uganda reported that its national AGOA response strategy was in draft form with consultations ongoing.¹¹²² Kenya is reportedly in the process of developing a second national AGOA strategy to increase countrywide awareness of the AGOA program.¹¹²³

Table 6.1 Countries that have completed national AGOA strategies in high-priority industries and products

AGOA beneficiary country	Agricultural and food processing	Textile, apparel, footwear and leather products	Jewelry and mining	Handicrafts	Other light manufacturing
Botswana	•	•	•	•	•
Burundi	•	•	•		•
Ethiopia	•	•			
Ghana	•	•	•	•	
Kenya	•	•			•
Lesotho	•	•	•	•	•
Madagascar	•	•	•	•	•
Malawi	•	•	•		
Mali	•	•	•	•	
Mauritius	•	•	•		•
Mozambique	•	•	•		•
Rwanda	•	•			•
Senegal	•	•		•	•
Tanzania	•	•		•	
Togo	•	•	•	•	
Zambia	•		•		

Source: Compiled from national AGOA strategy documents; Government of Togo, *Operational Action Plan for the Short and Medium Term Use of AGOA*, August 1, 2017; Government of Malawi, *Strategic Plan 2011–2016*, September 2011, 10.

Note: While not specifically an AGOA strategy, Malawi has a national export strategy dated 2011–16. "Other light manufacturing" includes categories such as headgear, toys, sporting goods, plastic, glass, and other ceramic products.

¹¹²⁰ AUC-UNECA-ATPC, *Guidelines on Developing a National AGOA Strategy*, June 15, 2012, 23–25, 34.

¹¹²¹ Côte d'Ivoire announced its AGOA strategy on October 30, 2017 in Abidjan, Côte d'Ivoire. Sierra Leone announced the launch of its AGOA strategy on October 24, 2017 in Freetown, Sierra Leone. USAID, "Ivorian Ministry of Commerce Launches AGOA National Strategy," November 13, 2017; SLIEPA, "SLIEPA and MTI Wraps Up," November 27, 2018.

¹¹²² Republic of Uganda, Ministry of Trade, Industry and Cooperatives, "New National AGOA Strategy," accessed January 25, 2018.

¹¹²³ TRALAC, "Kenya Develops New AGOA Strategy," January 19, 2018.

Overview of Regional Integration in SSA

African governments view regional integration¹¹²⁴ in SSA as a policy tool that could indirectly complement AGOA utilization by breaking down barriers to exports commonly found in African countries or RECs. Regional integration efforts can reduce barriers to trade, contribute to economies of scale, and build resilience against global price shocks. U.S. firms also see potential benefits of such integration for U.S.-SSA trade. As Florizelle Liser, of the Corporate Council on Africa, stated at the Commission hearing, “African regional integration is not only important for Africa, but for U.S. businesses seeking to trade with, do business, and invest in Africa. They want larger markets that create economies of scale, and which justify investing in one country so that they can take advantage and advance their business interests across an entire region.”¹¹²⁵

The SSA region is composed of 49 economies of varying sizes, each with its own tariffs and customs procedures.¹¹²⁶ Tariffs that SSA exporters face within the region can be substantial; for example, goods traded within Africa (among individual countries) face an average tariff of 8.7 percent, compared to an average tariff of 2.5 percent when African goods are exported to external markets.¹¹²⁷ At the same time, the poor condition of transportation infrastructure and frequent roadblocks in the SSA region translate into higher transaction costs in Africa than in other developing regions.¹¹²⁸ Most of the RECs have made some strides removing tariff and nontariff barriers to trade. Although their progress is uneven, the RECs have also continued their push toward forming the African Economic Community (AEC), which includes a Continental Free Trade Area (see more information about the CFTA below).

The Abuja Treaty, the AEC Roadmap, and the RECs

The fundamental regional integration policy behind the AU’s path to the CFTA is the Abuja Treaty, which includes North Africa as well as sub-Saharan Africa.¹¹²⁹ Fifty-one AU members signed the Abuja treaty in 1991, and it entered into force in 1994.¹¹³⁰ The Abuja treaty established the AEC roadmap, an operational framework that includes the expected integration components and deadlines for each of its six stages. Stage I is the creation of the regional blocs themselves, including deciding who would be

¹¹²⁴ In this chapter, the term “regional integration” includes both efforts to integrate within the regional economic communities and these communities’ efforts to integrate on a continent-wide basis via the Continental Free Trade Area. While this chapter focuses on AU-recognized RECs, it also includes profiles of other regional economic blocs: the Southern Africa Customs Union (SACU), the Economic and Monetary Community of Central Africa (known by its French acronym CEMAC), and the West African Economic and Monetary Union (WAEMU), also known as UEMOA. USTR’s *2016 Biennial Report on the Implementation of the Africa Growth and Opportunity Act*, 2016, specifically mentions these blocs.

¹¹²⁵ Liser, testimony to the USITC, January 23, 2018, 123–24.

¹¹²⁶ Hartzenberg, “Regional Integration in Africa,” 2011, 3.

¹¹²⁷ UNCTAD, *Economic Development in Africa: Intra-African Trade*, 2013, 51.

¹¹²⁸ The average cost of shipping a container from an African country to an overseas country is \$2,000, which compares unfavorably with the average cost of \$900 to ship a container from Asia to an overseas country. As an example of ground transport issues, African trucks faced 47 roadblocks between Kigali, Rwanda, and Mombasa, Kenya (1,470 km). Mo Ibrahim Foundation, *Regional Integration: Uniting to Compete*, 2014, 20; Ben Barka, “Border Posts, Checkpoints, and Intra-African Trade,” January 2012.

¹¹²⁹ The African Union’s regional integration efforts are continent-wide in scope. Thus, the data in this section include five North African countries: Algeria, Egypt, Libya, Morocco, and Tunisia.

¹¹³⁰ African Union, *Treaty Establishing the AEC*, June 3, 1991.

members of each REC. Stage II is the gradual reduction of tariffs via the establishment of preferential trade areas. In Stage III, each REC sets up a free trade area and a customs union. Stages IV–VI occur on a continental level, with all RECs working towards a continental customs union, a common market, and finally an economic and monetary union.

The eight RECs working toward the AEC Roadmap are expected to make progress on achieving the goals set forth by the roadmap. These RECs include the Arab Maghreb Union (known by its French acronym, UMA),¹¹³¹ the Community of Sahel-Saharan States (known by its French acronym, CEN-SAD), the Common Market for Eastern and Southern Africa (COMESA), the East African Community (EAC), the Economic Community of Central African States (ECCAS), the Economic Community of West African States (ECOWAS), the Intergovernmental Authority on Development (IGAD), and the Southern African Development Community (SADC).¹¹³² The RECs also feature overlapping memberships, both among the RECs themselves and with other African regional economic blocs (figure 6.1).¹¹³³

When these RECs were founded, they have not yet negotiated all of the intended regional integration components, such as a free trade area or a customs union.¹¹³⁴ The RECs agreed to monitor the progressive negotiation of integration components, largely based on the AEC roadmap.¹¹³⁵ In some instances, these components are still works in progress. Also, in some cases, not all members of the REC have agreed upon specific integration components (e.g., free trade areas and common external tariffs).

In addition, as shown in figure 6.1 (which includes North Africa), 43 countries are members of more than one REC. This phenomenon—dual, triple, and even quadruple REC memberships—may lead to challenges when member countries attempt to harmonize multiple policy agendas.¹¹³⁶

¹¹³¹ Of the five UMA members, only Mauritania is located in sub-Saharan Africa. The remaining members—Algeria, Libya, Morocco, and Tunisia—are in North Africa.

¹¹³² The African Union refers to these eight RECs as “AU-recognized” RECs. The RECs have developed independently and have varying structures and roles; some of the RECs (e.g., ECOWAS, ECCAS, and UMA) were established before the Abuja Treaty. In 2006, the AU put a moratorium on the recognition of regional economic communities. AU, “Regional Economic Communities” (accessed April 13, 2018); Mo Ibrahim Foundation, *Regional Integration: Uniting to Compete*, 2014, 7–10; AU, “Decision on the Moratorium,” July 1–2, 2006.

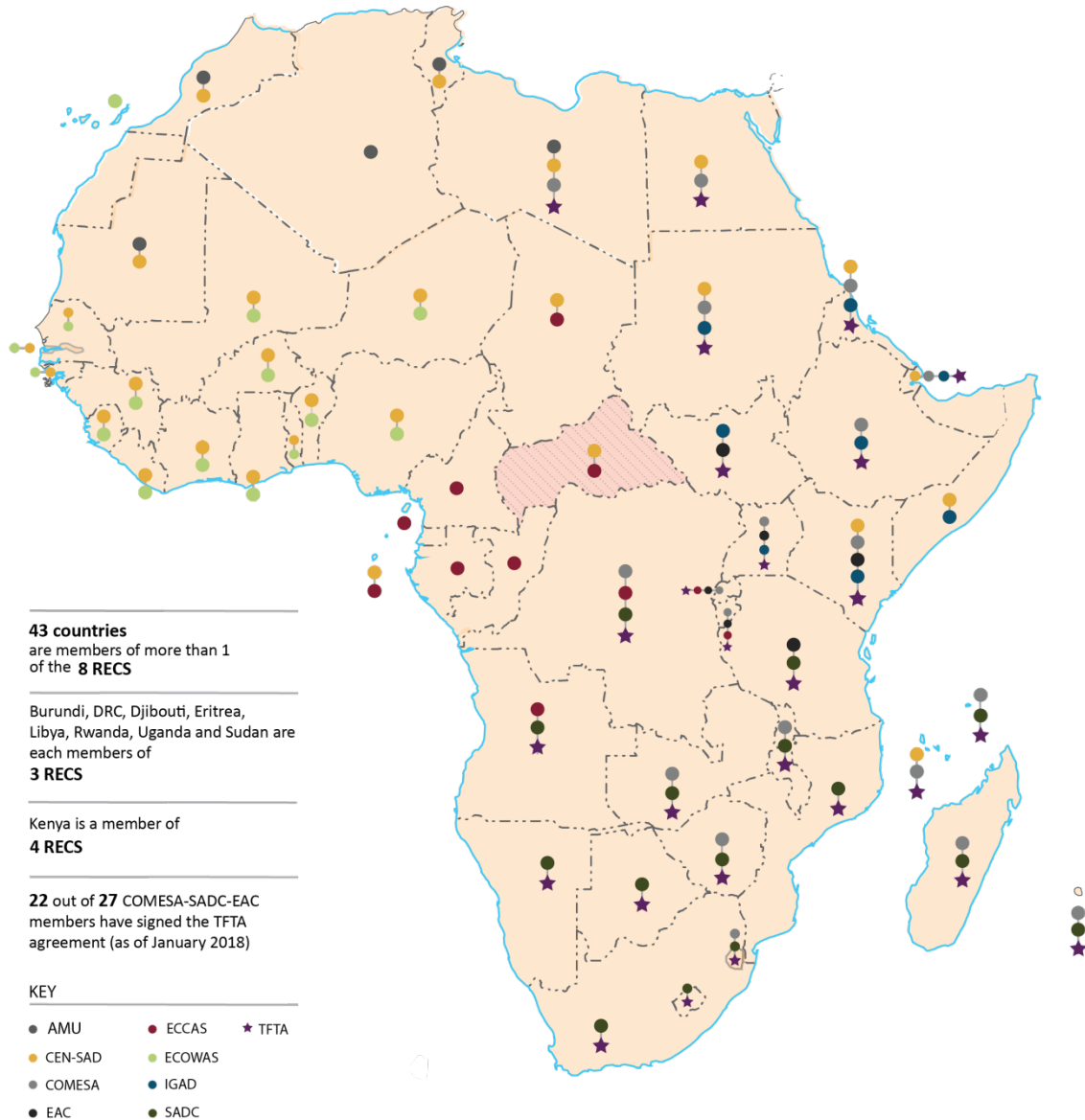
¹¹³³ Besides the RECs, this chapter also profiles three other regional economic blocs—the Southern Africa Customs Union (SACU), the Economic Community of Central African States (known by its French acronym CEMAC), and the West African Economic and Monetary Union (WAEMU), also known as UEMOA.

¹¹³⁴ See Mo Ibrahim Foundation, *Regional Integration: Uniting to Compete*, 2014, 7–10, for REC milestones.

¹¹³⁵ AU, “Regional Economic Communities” (accessed April 13, 2018).

¹¹³⁶ Sy, “Will There Be an African Economic Community?” January 9, 2014; Mengistu, “Multiplicity of African Regional Economic Communities,” October 2015, 424.

Figure 6.1 Map of regional economic communities and their overlapping memberships



Source: Compiled by the USITC from Mo Ibrahim Foundation, *Regional Integration: Uniting to Compete*, 2014, and updated with the following: AU, "Member State Profiles" (accessed March 13, 2018); UMA, "Member Countries" (accessed March 13, 2018); CEN-SAD, "Communiqué Final de la Session Extraordinaire" [Final communiqué of the extraordinary session], February 16, 2013; COMESA, "COMESA Member States" (accessed March 13, 2018); EAC, "Partner States" (accessed March 18, 2013); ECCAS, "Etats Members [Member States]" (accessed March 13, 2018); ECOWAS, "Member States" (accessed March 13, 2018); IGAD, "The IGAD Region" (accessed March 13, 2018); SADC, "Member States" (accessed March 13, 2018).

Note: Countries shaded in orange are members of the African Union in good standing; countries sanctioned (the Central African Republic) are shaded in pink with dashes. TFTA = Tripartite Free Trade Area between EAC, COMESA, and SADC members.

Measures of REC Progress

As of 2018, three of the RECs—UMA, CEN-SAD, and IGAD—are in stage II of the AEC roadmap. These RECs are still negotiating the details of their preferential trade agreements (table 6.2). COMESA, ECCAS, and SADC are in stage III. They have established preferential trade areas and free trade areas, but have yet to implement a customs union. ECOWAS has partially completed stage III (only Cabo Verde has yet to implement the ECOWAS common external tariff), while the EAC is the only REC that has completed stage III, having set up its free trade area and customs union. Stages IV through VI have deadlines approaching between 2019 and 2028.

Table 6.2 The six stages of the AEC Roadmap, their components, REC status, and AU deadlines

Stage and integration component	REC status	AU deadline
I. Creation of regional blocs	Complete	1999
II. Gradual reduction in tariffs—establishment of preferential trade areas	5 complete—EAC, ECCAS, ECOWAS, COMESA, and SADC 3 RECs past deadline—UMA, IGAD, and CEN-SAD	2007
III. Free trade areas /customs unions—free trade areas feature no tariffs and no quotas, and customs unions include a common external tariff	2 complete or nearing completion—EAC and ECOWAS (waiting on Cabo Verde to implement common external tariff) 3 progressing (free trade area complete)—COMESA, ECCAS, and SADC 3 incomplete—UMA, CEN-SAD, and IGAD	2017
IV. Continental African customs union	Incomplete	2019
V. African Common Market—includes free factor movement (e.g., labor mobility)	Incomplete	2023
VI. Monetary and economic union—includes harmonized economic policies and a single currency	Incomplete	2028

Source: REC Profiles; Sy, “Will There Be an African Economic Community?” January 9, 2014; AUC, *The Status of Integration in Africa IV*, 2013, 3; EAC Customs, “EAC Customs Union: What It Is” (accessed January 26, 2018).

To better track the progress of the RECs, in 2016 the AU Commission¹¹³⁷ launched the Africa Regional Integration Index (ARII), composed of 16 indicators across five dimensions: trade integration, regional infrastructure, productive integration, free movement of people, and financial and macroeconomic integration.¹¹³⁸ RECs received an average overall score based on all five dimensions (table 6.3). According to the ARII overall average scores for regional integration, three RECs—EAC, SADC, and ECOWAS—are performing above the average score of 0.470. The EAC is the top performer overall, while the other five RECs—UMA, IGAD, ECCAS, COMESA, and CEN-SAD—are performing below average overall. Despite the low aggregate scores for these RECs, each one is performing above average in at least one dimension.

¹¹³⁷ The AU Commission collaborated on the ARII with the African Development Bank (AfDB) and the United Nations’ Economic Commission on Africa (UNECA).

¹¹³⁸ Further descriptions for the five dimensions of the ARII appear in appendix H.

Table 6.3 RECs' average Africa Regional Integration Index scores, 2016

REC	Overall					
	ARII average score	Trade integration	Regional infrastructure	Productive integration	Free movement of people	Financial and macroeconomic integration
EAC	0.540	0.780	0.496	0.553	0.715	0.156
SADC	0.531	0.508	0.502	0.350	0.530	0.397
ECOWAS	0.509	0.442	0.426	0.265	0.800	0.611
UMA	0.459	0.631	0.491	0.481	0.493	0.199
IGAD	0.457	0.505	0.630	0.434	0.454	0.221
ECCAS	0.454	0.526	0.451	0.293	0.400	0.599
COMESA	0.415	0.572	0.439	0.452	0.268	0.343
CEN-SAD	0.395	0.353	0.251	0.247	0.479	0.524
Eight-REC average	0.470	0.540	0.461	0.384	0.517	0.381

Source: AUC, *Africa Regional Integration Index Report*, 2016, 15 and 16.

Intra-trade Performance of the RECs

SSA countries trade more with the rest of the world than with each other. The value of SSA trade with the rest of the world, however, has fluctuated substantially in recent years, rising sharply from \$531 billion in 2010 to \$682 billion in 2011, leveling off in 2012–13, and then falling from \$669 billion in 2014 to \$450 billion in 2016.¹¹³⁹ This is in line with a decline in commodity prices (particularly for crude oil, gold, copper, and iron ore).¹¹⁴⁰ According to the *Africa Economic Outlook 2017*, weak demand for SSA's oil and gas exports has hurt the region's export performance during this most recent period.¹¹⁴¹

The value of intra-REC trade (trade flows among the members of each REC) increased substantially for all of the RECs from 2000 to 2016. For example, average intra-REC grew by more than 300 percent from 2000 to 2016, rising from \$4.6 billion to \$17.1 billion.¹¹⁴² Recent intra-REC trade is shown in table 6.4. Despite the gains since 2000, intra-REC trade peaked for all but one of the RECs in 2012–13 and has since declined. Yet intra-REC trade has declined more slowly than each REC's trade with the rest of the world. The level of intra-REC trade as a share of total trade with the world has remained steady in most RECs. The EAC and SADC consistently had the largest intra-REC shares through 2010–16 (appendix G.9).

One key advantage of intra-Africa trade compared with SSA's trade with the rest of the world is that intra-Africa trade is often more resilient to global price shocks. SSA countries trade a more diverse set of products (which are less concentrated in primary commodities) with each other than they trade externally.¹¹⁴³

¹¹³⁹ UNCTAD STAT, "Merchandise: Intra-trade and Extra-trade of Country Groups by Product, Annual, 1995–2016" (accessed January 8, 2018).

¹¹⁴⁰ AEO, "Trade Policies and Regional Integration in Africa," 2017, 80.

¹¹⁴¹ The value of oil exports from the Africa region fell by 41 percent from 2014 to 2015. AEO, "Trade Policies and Regional Integration in Africa," 2017, 77.

¹¹⁴² UNCTAD STAT, "Merchandise: Intra-trade and Extra-trade of Country Groups by Product, Annual, 1995–2016" (accessed January 8, 2018).

¹¹⁴³ Manufactured products represented 50 percent of intra-Africa trade in 2016. AEO, "Trade Policies and Regional Integration in Africa," 2017, 82.

Table 6.4 Intra-REC total trade, by REC, 2010–16

REC	2010	2011	2012	2013	2014	2015	2016	Absolute	Compound
								change	annual
								2010–16	growth rate
	Million \$								2010–16
									Percent
EAC	4,308	5,090	6,084	5,385	5,985	5,648	4,912	604	2.2
SADC	62,455	72,550	80,216	80,176	78,070	66,461	60,657	-1,798	-0.5
ECOWAS	16,255	21,244	21,951	25,876	22,543	16,829	16,006	-249	-0.3
UMA	6,767	7,077	9,220	10,691	10,033	6,704	6,089	-679	-1.7
IGAD	3,778	4,472	4,229	4,525	4,485	4,340	3,612	-165	-0.7
ECCAS	4,208	6,087	5,070	5,406	3,407	3,139	2,437	-1,770	-8.7
COMESA	17,277	17,855	20,470	22,369	19,647	17,413	14,459	-2,817	-2.9
CEN-SAD	29,715	33,352	36,961	40,800	35,645	28,707	28,485	-1,230	-0.7

Source: UNCTAD STAT, “Merchandise: Intra-trade and Extra-trade of Country Groups by Product, Annual, 1995–2016” (accessed January 8, 2018).

Note: “Total trade” is total merchandise trade (exports plus imports).

Recent Developments in SSA Regional Integration

Tripartite Free Trade Area

The Tripartite Free Trade Area is a free trade area between COMESA, EAC, and SADC. It grants most-favored-nation (MFN) status to members and features a timetable to gradually phase out tariffs over time among members. COMESA, EAC, and SADC launched negotiations on this trade area in June 2011, and finalized the text of the agreement on June 10, 2015.¹¹⁴⁴ As of January 2018, 22 out of 27 members of the three RECs have signed the agreement.¹¹⁴⁵ In order for the agreement to go into effect, it will also require ratification by 14 of its members’ parliaments. As of December 2017, only Egypt and Uganda had both signed and ratified this agreement.¹¹⁴⁶

The Tripartite Free Trade Area members divided negotiations into two parts: phase I, covering rules of origin, trade remedies, and tariffs, and phase II, covering trade in services and other trade-related issues (intellectual property, cooperation on trade and development, and competitiveness).¹¹⁴⁷ The Tripartite Free Trade Area members have missed the June 2016 and October 2017 deadlines for phase I. However,

¹¹⁴⁴ TRALAC, “SADC-EAC-COMESA Tripartite Free Trade Area Legal Texts and Policy Documents,” (accessed December 12, 2017).

¹¹⁴⁵ The 22 members that have signed include Angola, Botswana, Burundi, Comoros, the Democratic Republic of the Congo (DRC), Djibouti, Egypt, Kenya, Libya, Madagascar, Malawi, Mauritius, Namibia, Rwanda, Seychelles, Sudan, Tanzania, Uganda, South Africa, Swaziland, Zambia, and Zimbabwe. South Sudan joined the EAC in 2011 (see EAC profile), which adds another member to the Tripartite (27 members, up from 26 members). COMESA, “22 Countries Have Now Signed,” February 16, 2018.

¹¹⁴⁶ TRALAC, “SADC-EAC-COMESA Tripartite Free Trade Area Legal Texts and Policy Documents,” (accessed December 12, 2017).

¹¹⁴⁷ Ibid; Sikuka, “Grand FTA to Boost Trade in Africa,” February 5, 2018.

South Africa (July 2017) recently signed the agreement; its signature was expected to build momentum for further negotiations.¹¹⁴⁸

The Continental Free Trade Area

Until very recently there has been limited progress with respect to the Continental Free Trade Area (CFTA) negotiations. AU members first announced negotiations for the CFTA in 2015¹¹⁴⁹ with the aim of resolving the problem of overlapping REC memberships and accelerating regional integration in the region.¹¹⁵⁰ Unlike the Tripartite Free Trade Area, the CFTA includes all 55 AU member states. In December 2017, AU members made progress on the CFTA text in a trade ministerial in Niamey, Niger.¹¹⁵¹ The CFTA would create a continental customs union, and eliminate duties on 90 percent of trade in goods among the members.¹¹⁵²

Recently AU members met in Kigali, Rwanda, during March 17–21, 2018, for an Extraordinary Summit on the African Continental Free Trade Area.¹¹⁵³ Representatives from 44 of the 55 CFTA countries signed the CFTA consolidated text on March 21, 2018.¹¹⁵⁴ Some of the fastest-growing economies in SSA—Ghana, Ethiopia, and Côte d’Ivoire—have signed.¹¹⁵⁵ However, the two largest economies, Nigeria and South Africa, were not fully ready to give their approval.¹¹⁵⁶ The current president of Nigeria, Muhammadu Buhari, noted that he needed more time to examine how the agreement would impact the Nigerian economy and security.¹¹⁵⁷ President Cyril Ramaphosa of South Africa spoke positively of the agreement and signed the Kigali declaration, but not the treaty itself, pending consultations with domestic stakeholders. The Kigali declaration launches the CFTA and is viewed as a commitment to further negotiations.¹¹⁵⁸ Another summit is expected to take place in Mauritania in July 2018.¹¹⁵⁹ After signing the agreement, member countries of the CFTA must ratify it before full implementation of the agreement is possible.¹¹⁶⁰

REC Profiles

Table 6.5 summarizes the profiles of the RECs listed below in order of their overall regional integration score based on the ARII. The table also profiles three other regional economic blocs—the Southern Africa Customs Union (SACU), the Economic Community of Central African States (known by its French acronym CEMAC), and the West African Economic and Monetary Union (WAEMU)—as also covered in

¹¹⁴⁸ TRALAC, “The Tripartite Free Trade Area—A Breakthrough,” July 10, 2017.

¹¹⁴⁹ UNCTAD, “The Continental Free Trade Area: Making It Work,” December 2015, 1.

¹¹⁵⁰ AU, “CFTA—Continental Free Trade Area” (accessed March 4, 2018).

¹¹⁵¹ AU, “Statement of the Chairperson of the Commission of the African Union,” December 8, 2017.

¹¹⁵² *Economist*, “Africa Unite!” December 7, 2017.

¹¹⁵³ AU, “African Continental Free Trade Area: Creating One African Market,” (accessed March 13, 2018).

¹¹⁵⁴ AU, “Indication of Legal Instruments Signed at the 10th Extraordinary Session” (accessed March 22, 2018).

¹¹⁵⁵ Adegoke, “Africa’s Economic Outlook Is Promising for 2018,” January 15, 2018.

¹¹⁵⁶ *Arab News*, “44 African Nations Sign Pact Establishing Free Trade Area,” March 21, 2018.

¹¹⁵⁷ Wakili, “Nigeria: Why I Opted Out of AU Trade Deal,” March 21, 2018.

¹¹⁵⁸ Fin24, “Ramaphosa Signs Declaration on African Free Trade Region,” March 21, 2018.

¹¹⁵⁹ *Arab News*, “44 African Nations Sign Pact Establishing Free Trade Area,” March 21, 2018.

¹¹⁶⁰ The specific number of members required to ratify has not been decided yet. Al Jazeera, “African Continental Free Trade Area,” March 20, 2018.

USTR's 2016 Biennial Report on the Implementation of the Africa Growth and Opportunity Act (June 2016).

The United States has one trade, investment, and development cooperation agreement (TIDCA) with SACU and four trade and investment framework agreements (TIFAs) with other regional blocs or RECs (EAC, ECOWAS, COMESA and WAEMU).¹¹⁶¹ Five RECs (EAC, SADC, ECCAS, ECOWAS, and COMESA) have free trade areas in place, as have SACU, WAEMU, and CEMAC. However, the free trade areas for SADC and COMESA currently apply only to a portion of their members. EAC, ECOWAS, SACU, WAEMU, and CEMAC all have customs unions that feature common external tariffs and some degree of harmonization of customs procedures. In fact, SACU is the oldest customs union in the world, founded in 1910.¹¹⁶² EAC and ECOWAS have both made some progress towards monetary union,¹¹⁶³ while SACU, WAEMU, and CEMAC feature longstanding currency and monetary unions that are linked to former colonial powers.¹¹⁶⁴

¹¹⁶¹ In addition, the United States has bilateral TIFAs with eight SSA countries: Angola, Ghana, Liberia, Mauritius, Mozambique, Nigeria, Rwanda, and South Africa. USTR, "Trade and Investment Framework Agreements," (accessed April 13, 2018).

¹¹⁶² SACU, "About SACU" (accessed February 2018).

¹¹⁶³ Oketch, "East Africa: There Is Big Progress," September 1, 2017; Yartey, "West Africa's Single Currency," June 17, 2015.

¹¹⁶⁴ Gulde, *The CFA Franc Zone: Common Currency, Uncommon Challenges*, April 2, 2008, 4; Wang et al., "The Common Monetary Area in Southern Africa," July 2007.

Table 6.5 REC summary table: U.S. trade agreements in place and key integration components

REC	TIFA or TIDCA in place with the United States	Key integration components		
		Free trade area	Customs union	Currency or monetary union
East African Community (EAC)	TIFA since 2008	Yes	Yes	In progress
Southern African Development Community (SADC)	No	13 out of 15 members since 2015	In progress	No
Economic Community of West African States (ECOWAS)	TIFA since 2014	Yes	Yes	In progress
Arab Maghreb Union (UMA)	No	Incomplete	No	No
Intergovernmental Authority on Development (IGAD)	No	Incomplete	No	No
Economic Community of Central African States (ECCAS)	No	Yes	No	No
Common Market for Eastern and Southern Africa (COMESA)	TIFA since 2001	16 out of 19 members since 2016	In progress	No
Community of Sahel-Saharan States (CEN-SAD)	No	Incomplete	No	No
Other Relevant Regional Economic Blocs				
Southern African Customs Union (SACU)	TIDCA since 2008	Yes	Yes	Partial ^a
West African Economic and Monetary Union (WAEMU)	TIFA since 2002	Yes	Yes	Yes
Central African Economic and Monetary Community (CEMAC)	No	Yes	Yes, with exceptions ^b	Yes

Source: USTR, *2016 Biennial Report on the Implementation of the Africa Growth and Opportunity Act*, June 2016, 60–63; AEO, “Trade Policies and Regional Integration in Africa,” 2017, 86–91; AUC, *The Status of Integration in Africa V (SIA V)*, 2014, 3; USTR, “East African Community” (accessed March 13, 2018); EAC, “Overview of the EAC” (accessed March 13, 2018); SADC, “Free Trade Area,” 2012; ETLs, “About ETLs” (accessed March 2018); Dersso, “East Africa and the Intergovernmental Authority on Development,” October 2014; USTR, “Common Market for Eastern and Southern Africa” (accessed March 13, 2018); COMESA, “Sixteen Countries Now in Free Trade Area,” April 29, 2016; USTR, “Southern African Customs Union” (accessed March 13, 2018); SACU, “Agreements” (accessed March 13, 2018); Office of the U.S. Trade Representative official, email message to USITC staff, March 13, 2018.

Note: TIDCA = trade, investment, and development cooperation agreement; TIFA = trade and investment framework agreement.

^a Four of five members use national currencies with exchange rates pegged to the South African rand. Botswana left SACU’s monetary union in 1975, but it still ties its currency to the rand using a weighted currency basket. Wang et al., “The Common Monetary Area in Southern Africa,” July 2007.

^b Each CEMAC member has tariff lines for certain products for which the applied rates are higher or lower than the common external tariff (CET). WTO, *Trade Policy Review Report by the Secretariat Countries*, June 24, 2013, 34–36.

East African Community (EAC)¹¹⁶⁵

REC members	<ul style="list-style-type: none"> • (6 members) Burundi, Kenya, Rwanda, South Sudan, Tanzania, and Uganda
Progress	<ul style="list-style-type: none"> • AEC roadmap: stage III, complete • ARII score: 0.54—most integrated REC
REC trade relationship with the United States	<ul style="list-style-type: none"> • TIFA in place since 2008 • U.S. Trade Africa Initiative for trade facilitation established in 2013

EAC has completed stage III of the AEC roadmap, and its ARII overall scores in 2016 indicated that it was the most integrated REC. EAC member states established a free trade area in 2000, and their customs union protocol was fully functional by 2010.¹¹⁶⁶ Later in 2010, all EAC members had fully ratified the EAC Common Market Protocol.¹¹⁶⁷ The value of trade between EAC members nearly quadrupled during 2000–16, from \$1.3 billion to \$4.9 billion. However, this trade actually peaked at \$6.1 billion in 2012, and then declined by 19 percent from 2012 to 2016. This decline in the value of intra-trade is a trend the EAC has in common with the other RECs, and is attributed to a decline in total trade brought on by a drop in commodity prices.¹¹⁶⁸

The EAC Common Market Protocol sets the ground rules for EAC to obtain free movement of some factors of production (labor, inputs, etc.) between its member states.¹¹⁶⁹ Currently, to some extent the EAC member citizens are free to trade, do business, work, or live throughout the EAC region. The EAC has made progress on common travel documents. For example, community members may use national passports to travel within the EAC, or they may use the EAC passport.¹¹⁷⁰ Also, Kenya, Rwanda, and Uganda have waived work permits for professionals who are citizens of these three countries.¹¹⁷¹ However, some members, Tanzania in particular, have been reluctant to follow through with the EAC Common Market Protocol commitments.¹¹⁷²

¹¹⁶⁵ EAC, “About the EAC” (accessed January 26, 2018).

¹¹⁶⁶ A customs union builds on the free trade area because it features a common external tariff, which entails a common set of import duty rates applied to goods from third countries. EAC Customs, “EAC Customs Union: What It Is” (accessed January 26, 2018); EAC, “Overview of the EAC “ (accessed March 13, 2018).

¹¹⁶⁷ EAC, “About the EAC: Brief History: Milestones” (accessed July 9, 2015).

¹¹⁶⁸ AEO, “Trade Policies and Regional Integration in Africa,” 2017, 77.

¹¹⁶⁹ Ibid, 87.

¹¹⁷⁰ EAC, “Traveling in East Africa: Documents You Need,” January 10, 2013.

¹¹⁷¹ Trademark East Africa, “EAC Leaders Waive Permit Fees for Citizens,” March 12, 2015.

¹¹⁷² USAID, “EAC Common Market Update,” April 13, 2017.

More recently, the EAC and the United States entered a trade facilitation partnership via the Trade Africa initiative starting in 2013.¹¹⁷³ The REC also gained a new member when South Sudan¹¹⁷⁴ joined the EAC (September 2016). And in May 2017, the EAC Heads of State adopted the Political Confederation, which is a transitional model for political federation of the EAC.¹¹⁷⁵

The Southern African Development Community (SADC)¹¹⁷⁶

REC members	<ul style="list-style-type: none">• (15 members) Angola, Botswana, Democratic Republic of the Congo, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Swaziland, Tanzania, Zambia, Zimbabwe
Progress	<ul style="list-style-type: none">• AEC roadmap: stage III (free trade area)• ARII score: 0.531 (second most integrated REC)
REC trade relationship with the United States	<ul style="list-style-type: none">• No formal trade agreements in place

SADC is the second most integrated REC, based on the ARII overall scores.¹¹⁷⁷ Thirteen out of the 15 SADC members had implemented the free trade area by 2015.¹¹⁷⁸ Those remaining outside the free trade area include two SADC members with large economies—Angola and the Democratic Republic of the Congo.¹¹⁷⁹ The transition from a free trade area to a customs union has posed a challenge for SADC, which missed its 2010 and 2013 deadlines for implementing the customs union protocol. According to the SADC secretariat, the delay in moving on to the customs union stems from member disagreement over rule-of-origin issues.¹¹⁸⁰ Despite these problems, intra-SADC trade quadrupled during 2000–2016, from \$14.7 billion to \$60.7 billion. As in the EAC, intra-SADC trade peaked in 2012, when it reached \$80.2 billion, and then declined by 24 percent during 2012–16.¹¹⁸¹ Note that five members of SADC are also part of SACU.

¹¹⁷³ USTR, *2016 Biennial Report on the Implementation of the Africa Growth and Opportunity Act*, June 2016, 62.

¹¹⁷⁴ South Sudan gained independence from Sudan on July 9, 2011. GOSS, “New Map of the Republic of South Sudan” (accessed March 20, 2018).

¹¹⁷⁵ EAC, “Timeline of East Africa Regional Integration” (accessed January 25, 2018); EAC, “Political Federation: What Is a Political Federation?” (accessed January 25, 2018).

¹¹⁷⁶ SADC, “Member States,” April 9, 2015.

¹¹⁷⁷ AUC, *Africa Regional Integration Index Report*, 2016, 15.

¹¹⁷⁸ SADC, “Free Trade Area,” 2012.

¹¹⁷⁹ AEO, “Trade Policies and Regional Integration in Africa,” 2017, 88.

¹¹⁸⁰ SADC, “Customs Unions,” 2012; AEO, “Trade Policies and Regional Integration in Africa,” 2017, 88.

¹¹⁸¹ UNCTAD STAT, “Merchandise: Intra-trade and Extra-trade of Country Groups by Product, Annual, 1995–2016” (accessed January 8, 2018).

Economic Community of West African States (ECOWAS)¹¹⁸²

REC members	<ul style="list-style-type: none"> • (15 members) Benin, Burkina Faso, Cape Verde, Côte d'Ivoire, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone, and Togo
Progress	<ul style="list-style-type: none"> • AEC roadmap: stage III, near completion • ARII score: 0.509 (third most integrated REC)
REC trade relationship with the United States	<ul style="list-style-type: none"> • TIFA in place since 2014

ECOWAS is ranked as the third most integrated REC based on its ARII overall score.¹¹⁸³ ECOWAS established its free trade area in 1990.¹¹⁸⁴ In January 2015, ECOWAS announced the first phase of implementation of its common external tariff (CET), a common set of import duty rates applied on goods from third countries. The CET initiates the phased implementation of the ECOWAS customs union, with the first implementation phase covering 2015–19. The ECOWAS CET supersedes CETs from other regional blocs. For example, the eight countries within ECOWAS that also belong to WAEMU will now use the ECOWAS CET protocol.¹¹⁸⁵ As of December 2017, 14 out of the 15 ECOWAS countries had implemented the CET; Cabo Verde is the only ECOWAS country that has not yet implemented it.¹¹⁸⁶ The value of intra-ECOWAS trade tripled from \$5.3 billion in 2000 to \$16 billion in 2016, having peaked in 2013 at \$26 billion; it fell by 38 percent to \$16 billion in 2016.¹¹⁸⁷

ECOWAS has made significant progress with respect to labor mobility. ECOWAS grants 90-day work visas to members and offers a regional passport to facilitate the movement of ECOWAS members. Thus far, Benin, Ghana, Guinea, Liberia, Niger, Nigeria, and Senegal have converted to the ECOWAS passport.¹¹⁸⁸ In addition, ECOWAS and the United States entered a trade and investment framework agreement in 2014, which culminated in the first meeting of the U.S.-ECOWAS TIFA Council in 2015.¹¹⁸⁹

¹¹⁸² ECOWAS, "Member States" (accessed January 26, 2018).

¹¹⁸³ AUC, *Africa Regional Integration Index Report*, 2016, 15.

¹¹⁸⁴ ETLs, "About ETLs" (accessed March 2018).

¹¹⁸⁵ Echenin, "Understanding ECOWAS Common External Tariff," July 1, 2015.

¹¹⁸⁶ Joaque, "Salone Goes Live with ECOWAS Common External Tariff," December 19, 2017.

¹¹⁸⁷ UNCTAD STAT, "Merchandise: Intra-trade and Extra-trade of Country Groups by Product, Annual," 1995–2016 (accessed January 8, 2018).

¹¹⁸⁸ UNECA, *Assessing Regional Integration in Africa V*, 2012.

¹¹⁸⁹ USTR, *2016 Biennial Report on the Implementation of the Africa Growth and Opportunity Act*, June 2016, 62.

Arab Maghreb Union (UMA)¹¹⁹⁰

REC Members	<ul style="list-style-type: none">• (5 members) Algeria, Libya, Mauritania, Morocco, and Tunisia.• Only Mauritania is in the sub-Saharan Africa region. The other members are in North Africa.
Progress	<ul style="list-style-type: none">• AEC roadmap: stage II• ARII score: 0.459 (below-average performer)
REC trade relationship with the United States	<ul style="list-style-type: none">• No formal trade agreements in place

The UMA adopted a free trade area protocol in 1991, but has yet to implement it.¹¹⁹¹ Algeria and Morocco disagree on the sovereign status of the Western Sahara, which is reported to have created tension between members of the UMA and may have disrupted regional integration initiatives.¹¹⁹² However, in 2013, the UMA announced an investment bank with \$100 million in capital to fund infrastructure projects in the region.¹¹⁹³ There are currently no U.S. trade agreements in place with UMA, but the United States-Morocco free trade agreement entered into force on January 1, 2006.¹¹⁹⁴ Despite the lack of progress in terms of the AEC roadmap, intra-UMA trade nearly tripled during the study period, from \$2.1 billion in 2000 to \$6.1 billion in 2016.¹¹⁹⁵ However, this intra-UMA trade actually peaked at \$10.7 billion in 2013, and has declined since.

¹¹⁹⁰ The UMA acronym is from the French name for the union—*l'Union du Maghreb Arabe*. UMA, “L’Union du Maghreb Arabe” (accessed January 26, 2018).

¹¹⁹¹ AU Commission, *The Status of Integration in Africa V (SIA V)*, 2014, 3.

¹¹⁹² Bigoni, “The Union of the Arab Maghreb and Regional Integration,” January 16, 2014.

¹¹⁹³ On the other hand, there are no recent status updates on the investment bank’s activities. Reuters, “Arab Maghreb Union States Create Investment Bank,” January 9, 2013.

¹¹⁹⁴ USTR, “Morocco Free Trade Agreement” (accessed April 19, 2018).

¹¹⁹⁵ UNCTAD STAT, “Merchandise: Intra-trade and Extra-trade of Country Groups by Product, Annual, 1995–2016” (accessed January 8, 2018).

Inter-Governmental Authority on Development (IGAD)¹¹⁹⁶

REC members	<ul style="list-style-type: none"> • (8 members) Djibouti, Eritrea, Ethiopia, Kenya, Somalia, South Sudan, Sudan, and Uganda
Progress	<ul style="list-style-type: none"> • AEC roadmap: stage II • ARII Score: 0.457 (below-average performer)
REC trade relationship with the United States	<ul style="list-style-type: none"> • No formal trade agreements in place

Intra-IGAD trade rose from \$1.4 billion to \$3.7 billion during 2000–2016, having peaked at \$4.5 billion in 2013.¹¹⁹⁷ However, IGAD has focused mainly on peace and security issues in recent years rather than trade liberalization. IGAD members have provided mediation and monetary support toward ending long-running conflicts in South Sudan and Somalia. A notable institution is IGAD’s Conflict Early Warning and Response Mechanism, an effort to mitigate and prevent violent conflict in the region.¹¹⁹⁸ IGAD had planned to launch a free trade area in 2012, but this deadline reportedly lapsed due to geopolitical issues.¹¹⁹⁹

Economic Community of Central African States (ECCAS)

REC members	<ul style="list-style-type: none"> • (11 members) Angola, Burundi, Cameroon, Central African Republic, Chad, Republic of the Congo, Democratic Republic of the Congo, Equatorial Guinea, Gabon, Rwanda, and São Tomé and Príncipe
Progress	<ul style="list-style-type: none"> • AEC roadmap: stage III • ARII score: 0.454 (below-average performer)
REC trade relationship with the United States	<ul style="list-style-type: none"> • No formal trade agreements in place

¹¹⁹⁶ IGAD, “About Us” (accessed January 26, 2018).

¹¹⁹⁷ UNCTAD STAT, “Merchandise: Intra-trade and Extra-trade of Country Groups by Product, Annual, 1995–2016” (accessed January 8, 2018).

¹¹⁹⁸ IGAD, “About CEWARN” (accessed January 26, 2018).

¹¹⁹⁹ Derso, “East Africa and the Intergovernmental Authority on Development,” October 2014.

The Economic Community of Central African States (ECCAS; French acronym CEEAC) launched a free trade area in 2004, but has had difficulty with implementation.¹²⁰⁰ The last ordinary session of ECCAS was held on May 25, 2015, and although it issued no updated deadline for completion of the free trade area, it is working with CEMAC members to address some barriers to free trade (see CEMAC profile below).¹²⁰¹ ECCAS members also faced difficulty in setting up a CET.¹²⁰² However, ECCAS members agreed to establish a “laissez-passer” (free passage) travel document for government officials and community workers working within ECCAS member states. ECCAS also readmitted Rwanda to the regional economic community (Rwanda had left ECCAS in 2007).¹²⁰³ Intra-ECCAS trade increased from less than a billion dollars in 2000 to \$2.4 billion in 2016; however, trade peaked at \$6.1 billion in 2011 and has declined since.¹²⁰⁴

Common Market for Eastern and Southern Africa (COMESA)

REC members	<ul style="list-style-type: none">• (19 members) Burundi, Comoros, Democratic Republic of the Congo, Djibouti, Egypt, Eritrea, Ethiopia, Kenya, Libya, Madagascar, Malawi, Mauritius, Rwanda, Seychelles, Sudan, Swaziland, Uganda, Zambia, and Zimbabwe
Progress	<ul style="list-style-type: none">• AEC roadmap: stage III• ARII score: 0.415 (below-average performer)
REC trade relationship with the United States	<ul style="list-style-type: none">• TIFA in place since 2001

COMESA may have “common market” in its name, but it does not yet have in place all the components of a common market, as defined by the AEC roadmap.¹²⁰⁵ The COMESA free trade area went into effect in 2000.¹²⁰⁶ As of 2016, 16 of the 19 COMESA members (all but Eritrea, Ethiopia, and Swaziland) belonged to its free trade area, and these 16 members have reportedly made steady progress towards the elimination of tariffs.¹²⁰⁷ COMESA launched its customs union initiative in 2009, but has missed

¹²⁰⁰ AU Commission, *The Status of Integration in Africa V (SIA V)*, 2014, 3.

¹²⁰¹ ECCAS, “XVIème Session Ordinaire de la Conférence” [16th ordinary session of the conference], May 25, 2015.

¹²⁰² AEO, “Trade Policies and Regional Integration in Africa,” 2017, 89.

¹²⁰³ Mwai, “Rwanda Re-admitted into ECCAS,” May 27, 2015.

¹²⁰⁴ UNCTAD STAT, “Merchandise: Intra-trade and Extra-trade of Country Groups by Product, Annual, 1995–2016” (accessed January 8, 2018).

¹²⁰⁵ A common market as defined by the AEC roadmap (table 6.2) includes a free trade area, CET, and free factor movement (e.g., labor mobility).

¹²⁰⁶ COMESA, “Overview of COMESA” (accessed January 26, 2018).

¹²⁰⁷ COMESA, “Sixteen Countries Now in Free Trade Area,” April 29, 2016.

some deadlines in this area.¹²⁰⁸ The value of Intra-COMESA trade, however, more than quadrupled in 2000–16; it grew from \$3.2 billion to \$14.5 billion, having peaked at \$22.4 billion in 2013.¹²⁰⁹

Community of Sahel-Saharan States (CEN-SAD)¹²¹⁰

REC members	<ul style="list-style-type: none"> • (11 members) Angola, Burundi, Cameroon, Central African Republic, Chad, Republic of the Congo, Democratic Republic of the Congo, Equatorial Guinea, Gabon, Rwanda, and São Tomé and Príncipe
Progress	<ul style="list-style-type: none"> • AEC roadmap: stage II • ARII score: 0.395 (below-average performer)
REC trade relationship with the United States	<ul style="list-style-type: none"> • No formal trade agreements in place

The Community of Sahel-Saharan States agreed to a free trade area in 2007, but missed the 2010 deadline for implementing it.¹²¹¹ CEN-SAD held its most recent summit in 2013. The summit focused primarily on peace and security issues, notably recent conflicts in the Central African Republic, Libya, Mali, Somalia, South Sudan, and Sudan. CEN-SAD provided monetary support to the UN’s Multidimensional Integrated Stabilization Mission in Mali (MINUSMA) in 2013,¹²¹² which focused on stabilizing Mali during concurrent rebellions involving Al Qaeda in the Islamic Maghreb, Ansar Dine, and the National Movement for the Liberation of Azawad.¹²¹³ One notable CEN-SAD institution is the regional investment bank, Le Groupe Banque Sahélo-Saharienne pour l’Investissement et le Commerce (or Groupe BSIC), which funds infrastructure and other projects that support regional integration.¹²¹⁴ CEN-SAD trade more than tripled from \$8.6 billion in 2000 to \$28.5 billion in 2016; however, trade peaked at \$40.8 billion in 2013.¹²¹⁵

¹²⁰⁸ Zamfir, “The Tripartite Free Trade Area Project,” March 2015.

¹²⁰⁹ UNCTAD STAT, “Merchandise: Intra-trade and Extra-trade of Country Groups by Product, Annual, 1995–2016” (accessed January 8, 2018).

¹²¹⁰ CEN-SAD, “Communauté des États Sahélo-sahariens” [Community of Sahel-Saharan States] (accessed January 26, 2018); UNECA, “Regional Economic Communities” (accessed January 26, 2018).

¹²¹¹ AUC, *The Status of Integration in Africa IV (SIA IV)*, 2013, 30.

¹²¹² CEN-SAD, “Communiqué Final de la Session Extraordinaire” [Final communiqué of the extraordinary session], February 16, 2013.

¹²¹³ Gaffey, “Peacekeeping in Mali: The U.N.’s Most Dangerous Mission,” June 6, 2016.

¹²¹⁴ Groupe BSIC, “Le Groupe” (accessed January 26, 2018).

¹²¹⁵ UNCTAD STAT, “Merchandise: Intra-trade and Extra-trade of Country Groups by Product, Annual, 1995–2016” (accessed January 8, 2018).

Other Relevant Regional Economic Blocs

Southern African Customs Union (SACU)

Bloc members	<ul style="list-style-type: none">• (5 members) Botswana, Lesotho, Namibia, South Africa, and Swaziland
Bloc trade relationship with the United States	<ul style="list-style-type: none">• TIDCA in place since 2008

Five SADC members compose the South African Customs Union (SACU), which is the oldest customs union in the world (established in 1910).¹²¹⁶ Four of these—Lesotho, Namibia, South Africa, and Swaziland—belong to a common monetary area. In addition, SACU has a TIDCA with the United States.¹²¹⁷ Analysts have noted that the overlap between SADC and SACU members has slowed down progress on the SADC customs union because of the competing priorities of the two regional economic communities.¹²¹⁸

West African Economic and Monetary Union (WAEMU)

Bloc members	<ul style="list-style-type: none">• (8 members) Benin, Burkina Faso, Côte d'Ivoire, Guinea-Bissau, Mali, Niger, Senegal, and Togo
Bloc trade relationship with the United States	<ul style="list-style-type: none">• TIFA in place since 2002

Members of WAEMU, or in French UEMOA, were early adopters of the ECOWAS free trade area, implemented in 1996. These members established the WAEMU customs union with a CET in 2000.¹²¹⁹

¹²¹⁶ SACU, "About SACU," (accessed March 13, 2018).

¹²¹⁷ USTR, "Southern Africa FTA" (accessed January 26, 2018).

¹²¹⁸ Zamfir, "The Tripartite Free Trade Area Project Integration," March 2015.

¹²¹⁹ Gorette and Weisfeld, "Trade in the WAEMU," March 2008.

WAEMU is also served by an established monetary union, which predates the formation of the WAEMU.¹²²⁰ WAEMU has a TIFA with the United States as well.¹²²¹

Economic and Monetary Community of Central Africa (CEMAC)



Six ECCAS members (Cameroon, Central African Republic, Chad, Republic of the Congo, Equatorial Guinea, and Gabon) are also members the Economic and Monetary Community of Central Africa (known by the French acronym CEMAC), which uses the Central African CFA franc as a unified currency. Reportedly, ECCAS and CEMAC are working to streamline operations to avoid expensive institutional redundancies and to overcome some barriers to the ECCAS free trade area. In the most recent meeting, held in 2015, of the Committee for Restructuring Regional Economic Communities in Central Africa (COPII-CER in French), committee members adopted draft language on trade liberalization, but failed to agree on the drafts of other areas of coordination (e.g., security, labor mobility).¹²²²

¹²²⁰ Page and Bilal, "Regional Integration in West Africa," September 2001.

¹²²¹ USTR, "West African Economic and Monetary Union" (accessed January 28, 2018).

¹²²² AU, "Troisième Réunion du Comité de Pilotage de la Rationalisation [Third meeting of the steering committee for the restructuring], April 24, 2015.

Bibliography

- ABC News. "World's Largest Macadamia Grower Warns South African Recovery Could Cause Price Dip," March 13, 2017. <http://www.abc.net.au/news/rural/2017-03-13/worlds-largest-macadamia-grower-warns-of-possible-price-dip/8349164>.
- Abiodun, Eromosele. "Nigeria: Greenoaks Completes Acquisition of 92.8 Percent Stake in Union Assurance." *AllAfrica*, December 11, 2014. <http://allafrica.com/stories/201412110487.html>.
- Acheampong, Jessica. "Ghana, Côte d'Ivoire Collaborate to Control Prices of Cocoa." *Graphic Online* (Ghana), June 6, 2017. <https://www.graphic.com.gh/news/general-news/ghana-cote-d-ivoire-collaborate-to-control-prices-of-cocoa.html>.
- Adegoke, Yinka. "Africa's Economic Outlook is Promising for 2018, but there are Clouds on the Horizon." *Quartz*, January 15, 2018. <https://qz.com/1179387/africas-economic-outlook-is-promising-for-2018-but-there-clouds-on-the-horizon/>.
- African Business Magazine*. "India, China Challenge Big Pharmaceutical Companies in Africa," December 10, 2014. <http://africanbusinessmagazine.com/%20uncategorised/india-china-challenge-big-pharmaceutical-africa/>.
- African Business Magazine*. "Pharmaceuticals: India's Generics Flow into Africa," January 19, 2012. <http://africanbusinessmagazine.com/uncategorised/pharmaceuticals-indias-generics-flow-into-africa/>.
- African Development Bank (AfDB). *Africa Tourism Monitor* 1, no. 1 (September 2013). https://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/September_2013_-_Africa_Tourism_Monitor.pdf.
- African Development Bank (AfDB). *Africa Tourism Monitor: Unlocking Africa's Tourism Potential*, vol. 3, no. 1, October 2015. https://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/Africa_Tourism_Monitor_-_Unlocking_Africa%E2%80%99s_Tourism_Potential_%E2%80%93_Vol_3_%E2%80%93_Issue_1.pdf.
- African Development Bank (AfDB). "Air Côte d'Ivoire Modernization and Expansion Program." Project Appraisal Report, October 2017. <https://www.afdb.org/en/documents/document/cote-divoire-air-cote-divoire-modernization-and-expansion-program-98918/>.
- African Development Bank (AfDB). "Chinese Trade and Investment Activities in Africa." Policy Brief 1, no. 4, July 29, 2010. <https://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/Chinese%20Trade%20%20Investment%20Activities%20in%20Africa%2020Aug.pdf>.

U.S. Trade and Investment with Sub-Saharan Africa: Recent Developments

- African Development Bank (AfDB), Organisation for Economic Co-operation and Development (OECD), and United Nations Development Programme (UNDP). "Trade Policies and Regional Integration in Africa." Chap. 3 in *African Economic Outlook*, 2017.
<http://www.africaneconomicoutlook.org/en/outlook/trade-policies-and-regional-integration-in-africa>.
- African Export-Import Bank (Afreximbank). "Kenya Airways Receives First Dreamliner in Transaction Arranged by Afreximbank," March 31, 2014. <https://afreximbank.com/kenya-airways-receives-first-dreamliner-transaction-arranged-afreximbank/>.
- African Leadership Magazine* (UK). "Italy to Increase Investments in Ethiopia's Industry, Infrastructure Development," December 17, 2015. <http://africanleadership.co.uk/italy-to-increase-investments-in-ethiopias-industry-infrastructure-development/>.
- African Review of Business and Technology*. "African Packagers Rise to Challenge of Increase Demand," December 28, 2012. <http://www.africanreview.com/manufacturing/industry/african-packagers-rise-to-challenge-of-increase-demand>.
- African Union (AU). "Abuja Treaty Status List," June 15, 2017.
https://au.int/sites/default/files/treaties/7775-sl-treaty_establishing_the_african_economic_community.pdf.
- African Union (AU). "African Continental Free Trade Area: Creating One African Market." Extraordinary Summit on the AfCFTA held March 17–21, 2018, Kigali, Rwanda, March 12, 2018.
<https://au.int/en/slides/20180312/extraordinary-summit-afcfta>.
- African Union (AU). "CFTA—Continental Free Trade Area." <https://au.int/en/ti/cfta/about> (accessed January 8 and March 13, 2018).
- African Union (AU). "Member State Profiles."
http://www.umaghrebarabe.org/?q=en/member_countries (accessed March 13, 2018).
- African Union (AU). "Indication of Legal Instruments Signed at the 10th Extraordinary Session Of The Assembly On The Launch Of The AFCFTA." Press Release (accessed March 22, 2018).
<https://au.int/en/pressreleases/20180321/list-african-countries-signed-establishment-african-continental-free-trade>.
- African Union (AU). "Statement of the Chairperson of the Commission of the African Union on the Continental Free Trade Area." Press release, December 8, 2017.
<https://au.int/en/pressreleases/20171208/statement-chairperson-commission-african-union-continental-free-trade-area>.
- African Union (AU). *The Status of Integration in Africa IV*, 2013.
https://au.int/sites/default/files/documents/29939-doc-sia_2013latest_en.pdf.
- African Union (AU). *The Status of Integration in Africa V*, 2014.
<https://au.int/sites/default/files/documents/32854-doc-status-of-integration-in-africa-v.pdf>.

- African Union (AU). *Treaty Establishing the AEC*, June 3, 1991. https://au.int/sites/default/files/treaties/7775-treaty-0016_-_treaty_establishing_the_african_economic_community_e.pdf.
- African Union (AU). Assembly of the AU. Decisions and Declarations. “Decision on the Moratorium on the Recognition of Regional Communities.” Assembly/AU/Dec.111 – 133 (VII). Assembly/AU/Decl.1 – 4 (VII). Banjul, The Gambia, July 1–2, 2006. https://au.int/sites/default/files/decisions/9555-assembly_au_dec_111-133_vii_e.pdf.
- African Union (AU). Conference of the AU. Ministers of Trade. “Declaration on the African Growth and Opportunity Act.” AU/TI/TD/CAMoT-8/AGOA/DECL.FINAL. Addis Ababa, Ethiopia: AU, October 25, 2013. <https://au.int/en/documents/20131025-1>.
- African Union Commission (AUC). *Methodology for Calculating the Africa Regional Integration Index Report*, 2016. <https://www.uneca.org/oria/pages/highlights-%E2%80%93-africa-regional-integration-index-report-2016>.
- African Union (AU). Economic Community of Central African States. Comité de Pilotage de la Rationalisation des Communautés Économiques Régionales en Afrique Centrale (COPIIL/CER). “Troisième Réunion du Comité de Pilotage de la Rationalisation des Communautés Économiques Régionales en Afrique Centrale” [Third meeting of the Steering Committee for the Restructuring of Regional Economic Communities in Central Africa], April 24, 2015. https://www.uneca.org/sites/default/files/uploaded-documents/SROs/NA/COPIIL-CER-AC-3/communiqué_final_-_ministers.pdf.
- African Union Commission (AUC), African Development Bank (AfDB), and United Nations Economic Conference on Africa (UNECA). *Africa Regional Integration Index Report 2016*, 2016. https://www.integrate-africa.org/fileadmin/uploads/afdb/Documents/ARII-Report2016_EN_web.pdf.
- African Union Commission (AUC), United Nations Economic Commission for Africa (UNECA), and Africa Trade Policy Centre (ATPC). *Guidelines on Developing a National AGOA Strategy*, June 15, 2012. <https://agoa.info/downloads/national-strategies/6188.html>.
- Aglionby, John. “Africa’s Insurance Market a ‘Giant Waking Up.’” *Financial Times*, June 28, 2016. <https://www.ft.com/content/bc87016a-2430-11e6-9d4d-c11776a5124d>.
- AGOA.info. “AGOA Product Eligibility,” n.d. <https://agoa.info/about-agoa/product-eligibility.html> (accessed February 7, 2018).
- AGOA.info. *Improving Business Environments for Agile Markets (IBEAM): AGOA National Strategy; The Republic of Ghana*. Dexis Consulting Group for U.S. Agency for International Development (USAID), November 4, 2016. <https://agoa.info/downloads/national-strategies/15271.html>.
- AGOA.info. *Informing the Mozambique National AGOA Utilization Strategy: Supporting the Policy Environment for Economic Development (SPEED+)*. Draft. SPEED+ for U.S. Agency for International Development (USAID), June 18, 2017. <https://agoa.info/downloads/national-strategies/15272.html>.

U.S. Trade and Investment with Sub-Saharan Africa: Recent Developments

AGOA.info. "Kenya Develops New AGOA Strategy." Article by Philip Meso, HiviSasa (Kenya) local news website, January 19, 2018. <https://agoa.info/news/article/15324-kenya-develops-new-agoa-strategy.html>.

AGOA.info. *Kenya National AGOA Strategy*. Chemonics International Inc. for U.S. Agency for International Development (USAID), June 28, 2012. <https://agoa.info/downloads/national-strategies/5943.html>.

AGOA.info. *Madagascar National AGOA Strategy*, April 9, 2015. <https://agoa.info/downloads/national-strategies/5942.html>.

AGOA.info. *Mauritius National AGOA Strategy*, May 30, 2013. <https://agoa.info/downloads/national-strategies/5945.html>.

AGOA.info. "National AGOA Strategies." <https://agoa.info/toolkit/exporter-resources/national-agoa-strategies.html> (accessed January 31, 2018).

AGOA.info. "President Obama Removes Swaziland, Reinstates Madagascar for AGOA Benefits," June 27, 2014. <https://agoa.info/news/article/5440-africa-president-obama-removes-swaziland-reinstates-madagascar-for-agoa-benefits.html>.

Airbnb. "Overview of the Airbnb Community in Africa," October 2017. https://www.airbnbcitizen.com/wp-content/uploads/sites/78/2017/10/Africa_Insight_Report.pdf.

Airbus SE. *Global Market Forecast 2017–2036*, 2017. <http://www.aircraft.airbus.com/market/global-market-forecast-2017-2036/>.

Airbus SE. "South African Airways Becomes Airbus A330 Operator." Press release, February 8, 2011. <http://www.airbus.com/newsroom/press-releases/en/2011/02/south-african-airways-becomes-airbus-a330-operator.html>.

Airbus SE. "South African Airways (SAA) Takes Delivery of Its First Two A320s." Press release, July 23, 2013. <http://www.airbus.com/newsroom/press-releases/en/2013/07/south-african-airways-saa-takes-delivery-of-its-first-two-a320s.html>.

Air Cargo News. "South African Airways Cargo: A Hard Road to Travel," April 3, 2017. <http://www.aircargonews.net/news/people/interviews/single-view/news/south-african-airways-cargo-a-hard-road-to-travel.html?Continue=1>.

Air Transport Action Group (ATAG) (Geneva). *Aviation Benefits beyond Borders: Powering Global Economic Growth, Employment, Trade Links, Tourism, and Support for Sustainable Development*, July 2016. https://aviationbenefits.org/media/149668/abbb2016_full_a4_web.pdf.

Aizenman, Joshua, and Mark M. Spiegel. "Institutional Efficiency, Monitoring Costs and the Investment Share of FDI." *Review of International Economics* 14, no. 4 (September 2006): 683–97. <http://onlinelibrary.wiley.com/doi/10.1111/j.1467-9396.2006.00595.x/full>.

- Akibode, Comlanvi Sitou. "Trends in the Production, Trade, and Consumption of Food-legume Crops in Sub-Saharan Africa." Master's thesis, Michigan State University, 2011.
<https://ageconsearch.umn.edu/bitstream/114247/2/Final%20draft%20submitted%20to%20the%20AFRE.pdf>.
- Akpan, Udeme. "Nigeria's LPG Market Rises to Over 600,000 Mt Per Annum, With Massive Investments in Infrastructure – Nuhu Yakubu." Vanguard, February 6, 2018.
<https://www.vanguardngr.com/2018/02/nigerias-lpg-market-rises-600000-mt-per-annum-massive-investments-infrastructure-nuhu-yakubu/>.
- Albert, Eleanor. "China in Africa." Council on Foreign Relations backgrounder, July 12, 2017.
<https://www.cfr.org/backgrounder/china-africa>.
- Alerigi, Albetro, and Thais Freitas. "'Operation Weak Flesh' Takes Bite out of Brazil's Meat Exports." Reuters, March 24, 2017. <https://www.reuters.com/article/us-brazil-corruption-food-exports/operation-weak-flesh-takes-bite-out-of-brazils-meat-exports-idUSKBN16V281>.
- Aliyu, Abdullateef. "Delta Takes Over Arik's US Destination." *Daily Trust* (Nigeria), August 22, 2017.
<https://www.dailytrust.com.ng/news/business/delta-takes-over-arik-s-us-destination/211010.html>.
- Al Jazeera. "African Continental Free Trade Area: What You Need to Know." March 20, 2018.
<https://www.aljazeera.com/news/2018/03/african-continental-free-trade-area-afcfta-180317191954318.html>.
- AllAfrica. "It's Time for United States Companies to See Africa as an Investment Destination," January 29, 2017. <http://allafrica.com/stories/201701290065.html>.
- Allix, Mark. "Hulamin Welcomes Strong Performance." *Business Day* (South Africa), Companies/Industrials, August 1, 2017.
<https://www.businesslive.co.za/bd/companies/industrials/2017-08-01-hulamin-welcomes-strong-performance/>.
- Alushula, Patrick. "How Indian Tycoon Ambani Controls Kenya's Oil Import Trade." *Standard* (Kenya), April 3, 2016. <https://www.standardmedia.co.ke/business/article/2000196960/how-indian-tycoon-ambani-controls-kenya-s-oil-import-trade>.
- American Wind Energy Association (AWEA). "U.S. Wind Energy Industry Manufacturing and Supply Chain." *U.S. Wind Industry 2016: Annual Market Update*, 2017. <http://awea.files.cms-plus.com/FileDownloads/pdfs/Manufacturing.pdf>.
- Anderson, James E., and Eric van Wincoop. "Gravity with Gravitas: A Solution to the Border Puzzle." *American Economic Review* 93, no. 1 (2003): 170–92. DOI: [10.1257/000282803321455214](https://doi.org/10.1257/000282803321455214).
- Arab Maghreb Union (UMA). "Member Countries." http://www.umaghrebarabe.org/?q=en/member_countries (accessed January 26, 2018).
- Arab Maghreb Union (UMA). "L'Union Arab Maghreb Arab" http://www.umaghrebarabe.org/?q=fr/Union_du_Maghreb_Arabe (accessed January 26, 2018).

U.S. Trade and Investment with Sub-Saharan Africa: Recent Developments

Arab News. "44 African Nations Sign Pact Establishing Free Trade Area," March 21, 2018. <http://www.arabnews.com/node/1270936/business-economy>.

Argus Media (London). "LPG as a Cooking and Heating Fuel." Argus White Paper, 2014. <https://www.argusmedia.com/~media/files/pdfs/africa/africa-lpg.pdf>.

Arik Air. "Arik Air, Boeing Strengthen Partnership." News release, September 26, 2012. <https://www.arikair.com/arik-air-boeing-strengthen-partnership>.

Armitage, Ian. "KFC Nigeria." *Africa Outlook*, May 13, 2013. <http://www.africaoutlookmag.com/outlook-features/kfc-nigeria>.

Asiedu, Elizabeth. "On the Determinants of Foreign Direct Investment to Developing Countries: Is Africa Different?" *World Development* 30, no. 1 (January 2002): 107–19. [https://doi.org/10.1016/S0305-750X\(01\)00100-0](https://doi.org/10.1016/S0305-750X(01)00100-0).

Asu, 'Femi. "Nigeria's Gas Export Remains High amid Domestic Shortage." *Punch* (Nigeria), June 22, 2017. <http://punchng.com/nigerias-gas-export-remains-high-amid-domestic-shortage/>.

A.T. Kearney. *The 2015 African Retail Development Index: Retail in Africa; Still the Next Big Thing*, 2015.

Auers, John R. "U.S. Refined Product Exports: Developments, Prospects, and Challenges." PowerPoint prepared for the 2017 U.S. Energy Information Administration (EIA) Energy Conference, June 27, 2017. https://www.eia.gov/conference/2017/pdf/presentations/john_auers.pdf.

Australian Macadamias. "2017 Australian Macadamia Crop Reaches 46,000 Tonnes In-Shell." Crop forecasts, December 7, 2017. <https://www.australian-macadamias.org/trade/news-and-reports/news/2017-australian-macadamia-crop-reaches-46000-tonnes-in-shell>.

Awoko (Sierra Leone). "Sierra Leone News: Choithram Opens Biggest Supermarket East of Freetown," April 4, 2016. <https://awoko.org/2016/04/04/sierra-leone-news-choithram-opens-biggest-supermarket-east-of-freetown/>.

AXA. "AXA Has Completed Acquisition of a Majority Stake in Mansard Insurance Plc in Nigeria." Press release, December 8, 2014. <https://group.axa.com/en/newsroom/press-releases/complete-acquisition-mansard>.

Azito Energie. "Azito Energie Inaugurates Côte d'Ivoire's First Operational CCGT Power Plant." News release, June 30, 2015. <http://www.electricenergyonline.com/news.php?ID=536752>.

Azzimonti, Marina, and Pierre-Daniel G. Sarte. "Barriers to Foreign Direct Investment under Political Instability." *Economic Quarterly* 93, no. 3 (2007): 287–315. https://www.richmondfed.org/~media/richmondfedorg/publications/research/economic_quarterly/2007/summer/pdf/azzimontia_sarte.pdf.

Baafi, Nana Yaw. "Cashew Industry Association of Ghana (CIAG) Holds First National Cashew Dialogue." Modern Ghana, January 11, 2016. <https://www.modernghana.com/news/667239/cashew-industry-association-of-ghana-ciag-holds-first-nati.html>.

- Babatope, Oluwole. "Côte d'Ivoire ICT Market Overview, 2017." International Data Corporation (IDC), August 24, 2017. <https://www.idc.com/getdoc.jsp?containerId=CEMA42992417> (fee required).
- Babatope, Oluwole. "Ghana Market Overview, 2017." International Data Corporation (IDC), August 2017. <https://www.idc.com/getdoc.jsp?containerId=CEMA42692417> (fee required).
- Barnes, Jonathan. "Copper Belts." *Metal Bulletin*, March 2017.
- Barrie, Leonie. "South Africa Clothing Production Continues to Fall." *Just-Style* (UK), September 29, 2016. https://www.just-style.com/news/south-africa-clothing-production-continues-to-fall_id128902.aspx.
- Barrow, Keith. "Transnet South Africa Orders 1064 Locomotives." *International Railway Journal*, March 17, 2014. <https://www.railjournal.com/index.php/locomotives/transnet-south-africa-orders-1064-locomotives.html>.
- Bartels, Frank L., Francesco Napolitano, and Nicola E. Tissi. "FDI in Sub-Saharan Africa: A Longitudinal Perspective on Location-Specific Factors (2003–2010)." *International Business Review* 23, no. 3 (June 2014): 516–29. <https://doi.org/10.1016/j.ibusrev.2013.08.013>.
- Baumgarten, Stefan. "U.S. Set to Become Net Energy Exporter by 2022—EIA." ICIS News, February 6, 2018. <https://www.icis.com/resources/news/2018/02/06/10190892/us-set-to-become-net-energy-exporter-by-2022-eia/>.
- BBC News. "Kenya Plastic Bag Ban Comes into Force after Years of Delays," August 28, 2017. <http://www.bbc.com/news/world-africa-41069853>.
- BBC News. "South African Airways 'Is on Verge of Bankruptcy,'" August 3, 2017. <http://www.bbc.com/news/business-40813582>.
- BBC News. "South Sudan Country Profile," January 17, 2018. <http://www.bbc.com/news/world-africa-14069082>.
- BBC News. "UK Banks 'Exposed to Money Laundering in South Africa,'" October 19, 2017. <http://www.bbc.com/news/business-41672793>.
- BCEConsulting. "How the APDP Benefits the Motor Industry in South Africa." *BCE Blog*, March 19, 2015. <http://www.bceconsulting.co.za/blog/entry/how-the-apdp-benefits-the-motor-industry-in-south-africa>.
- Behera, Nirmalya. "India Needs 533 Mn Tonnes Refining Capacity by 2040 to Meet Domestic Demand." *Business Standard*, January 13, 2018. http://www.business-standard.com/article/economy-policy/india-needs-533-mn-tonnes-refining-capacity-by-2040-to-meet-domestic-demand-118011300666_1.html.
- Ben Barka, Habiba. "Border Posts, Checkpoints, and Intra-African Trade: Challenges and Solutions." *AfDB Chief Economist Complex*, January 2012. <https://www.afdb.org/en/news-and-events/border-posts-checkpoints-and-intra-african-trade-challenges-and-solutions-12377>.

U.S. Trade and Investment with Sub-Saharan Africa: Recent Developments

Bensassi, Sami, Joachim Jarreau, and Cristina Mitaritonna. "Determinants of Cross Border Informal Trade: The Case of Benin," 2012.

<http://pubdocs.worldbank.org/en/643351466184172074/Jarreau.pdf>.

Berg, Achim, Saskia Hedrich, and Bill Russo. "East Africa: The Next Hub for Apparel Sourcing?" McKinsey & Company, August 2015. <https://www.mckinsey.com/industries/retail/our-insights/east-africa-the-next-hub-for-apparel-sourcing>.

Bigoni, Michele. "The Union of the Arab Maghreb and Regional Integration: Challenges and Prospects." *European Parliamentary Research Service Blog*, January 16, 2014.

<http://epthinktank.eu/2014/01/16/the-union-of-the-arab-maghreb-and-regional-integration-challenges-and-prospects/>.

BIO Ventures for Global Health (BVGH). "African Access Initiative (AAI): BVGH Overview," July 19, 2017.

<https://bvgh.org/wp-content/uploads/2017/12/BVGH-African-Access-Initiative-Company-Partner-Overview-7-19-2017.pdf>.

Birol, Fatih. "We Need More and Better Oil Refineries." *Hindu Business Line*, January 9, 2018.

<http://www.thehindubusinessline.com/opinion/we-need-more-and-better-oil-refineries/article9995610.ece>.

Blackden, Richard. "U.S. Insurer Prudential Financial Makes African Bet." *Financial Times*, January 21, 2016. <https://www.ft.com/content/83d93056-e2be-3e29-8d22-713162e085de>.

Blonigen, Bruce A., and Jeremy Piger. "Determinants of Foreign Investment." *Canadian Journal of Economics* 47, no. 3 (August 2014): 775–812.

<http://onlinelibrary.wiley.com/doi/10.1111/caje.12091/full>.

Bloomberg. Bloomberg New Energy Finance (BNEF) database. <https://www.bnef.com> (accessed various dates).

Bloomberg. "Company Overview of Majority Interest in Six Forestry Companies in Gabon."

<https://www.bloomberg.com/research/stocks/private/snapshot.asp?privcapId=208462676> (accessed January 15, 2018).

Bloomberg. "Company Overview on Hengtong Optic-Electric Corporation."

<https://www.bloomberg.com/research/stocks/private/snapshot.asp?privcapId=9637462> (accessed January 15, 2018).

Blue Swan Daily. "Delta Air Lines Fills Lagos-New York Void as It Grows Its Network Out of Africa," August 23, 2017. <https://blueswandaily.com/delta-air-lines-fills-lagos-new-york-void-as-it-grows-its-network-out-of-africa/>.

BMI Research. "Pharmaceuticals and Healthcare Outlook for 2016: Sub-Saharan Africa," November 24, 2015. <https://www.bmiresearch.com/articles/pharmaceuticals-healthcare-outlook-for-2016-sub-saharan-africa>.

- Boakye-Gyasi, Kwasi, and Yao Li. "The Linkage between China's Foreign Direct Investment and Ghana's Building and Construction Sector Performance." *Eurasian Journal of Business and Economics* 9, no. 18 (2016): 81–97. DOI: 10.17015/ejbe.2016.018.05.
- Boeing Company. "Boeing, TAAG Angola Airlines Celebrate Delivery of Carrier's 777-300ER," May 3, 2016. <http://boeing.mediaroom.com/news-releases-statements?item=129686>.
- Boeing Company. Orders & Deliveries database. <http://www.boeing.com/commercial/#/orders-deliveries> (accessed January 17, 2018).
- Boland, M.A. "Nickel—Makes Stainless Steel Strong." U.S. Geological Survey Fact Sheet 2012-3024, 2012. <https://pubs.usgs.gov/fs/2012/3024/>.
- BP. *BP Statistical Review of World Energy 2017*, June 2017. <https://www.bp.com/content/dam/bp/en/corporate/pdf/energy-economics/statistical-review-2017/bp-statistical-review-of-world-energy-2017-full-report.pdf>.
- Braden, Dustin. "US Poultry Export Rebound Ready to Hatch." *Journal of Commerce*, June 29, 2016. https://www.joc.com/economy-watch/us-economy-news/us-poultry-export-rebound-ready-hatch_20160629.html.
- Brand South Africa. "Ford Secures Africa Export Contract," May 8, 2008. <https://www.brandsouthafrica.com/investments-immigration/business/trade/export/ford-080508>.
- Branstetter, Lee, and Nicholas Lardy. "China's Embrace of Globalization." National Bureau of Economic Research. Working Paper Series no. 12373, July 2006. DOI: 10.3386/w12373.
- Branthôme, François-Xavier. "Nigeria: A New Plant?" *Tomato News*, August 11, 2017. http://www.tomatonews.com/en/nigeria-a-new-plant_2_197.html.
- Breeze, Victoria, and Nathan Moore. "China Has Overtaken the US and UK as the Top Destination for Anglophone African Students." *Quartz*, June 30, 2017. <https://qz.com/1017926/china-has-overtaken-the-us-and-uk-as-the-top-destination-for-anglophone-african-students/>.
- Brelsford, Robert. "Nigeria's Edo State Due Refinery." *Oil & Gas Journal*, January 22, 2018, 23–24. <https://www.ogj.com/articles/2018/01/nigeria-s-edo-state-due-refinery.html>.
- Bright, Jake. "Expanding in Africa, eBay Partners with MallForAfrica.com." *TechCrunch*, June 27, 2017. <https://techcrunch.com/2016/06/27/expanding-in-africa-ebay-partners-with-mallforafrica-com/>.
- Broadman, Harry G. *Africa's Silk Road: China and India's New Economic Frontier*. Washington, DC: World Bank, 2007. https://siteresources.worldbank.org/AFRICAEXT/Resources/Africa_Silk_Road.pdf.
- Brock, Joe. "Angola Halves Growth Forecast, Cuts Spending as Oil Price Bites." Reuters, July 11, 2016. <https://af.reuters.com/article/africaTech/idAFKCN0ZR1JO>.

U.S. Trade and Investment with Sub-Saharan Africa: Recent Developments

Bryan, Chelsea. "Air Côte d'Ivoire: Growing Business and New Avionics." *Avionics*, March 7, 2014. <http://www.aviationtoday.com/2014/03/07/air-cte-divoire-growing-business-and-new-avionics/>.

Bureau van Dijk. Zephyr database (accessed various dates).

Burke, Jack. *40th Power Generation Order Survey. Diesel and Gas Turbine Worldwide*, June 2016. <https://dieselgasturbine.com/market-surveys/>.

Burke, Jack. *41st Power Generation Order Survey. Diesel and Gas Turbine Worldwide*, 2017. <https://dieselgasturbine.com/market-surveys/>.

Business Day (South Africa). "SA Suspends Brazil Meat Imports after Scandal," March 22, 2017. <https://www.businesslive.co.za/bd/business-and-economy/2017-03-22-sa-suspends-brazil-meat-imports-after-scandal/>.

Business in Cameroon. "Dutch Company Théobroma to Finance the Production of 4,000 Tonnes of Cocoa Certified in Cameroon," March 6, 2014. <http://www.businessincameroon.com/agriculture/0603-4695-dutch-company-theobroma-to-finance-the-production-of-4-000-tonnes-of-cocoa-certified-in-cameroon>.

BusinessNews (Nigeria). "Plastic Sub-Sector to Grow by 7% by 2025," May 7, 2015. <http://businessnews.com.ng/2015/05/07/plastic-sub-sector-to-grow-by-7-by-2025/>.

Capstone Turbine Corp. "Capstone Turbine Corporation Receives 1.2 MW Order from Nigerian Distributor, Makon Power Systems Ltd." News release, December 27, 2011. <https://www.capstoneturbine.com/news/press-releases/detail/1484/capstone-turbine-corporation-receives-1-2mw-order-from>.

Capstone Turbine Corp. "Swineline Farm." Case study, 2016. https://www.capstoneturbine.com/case-studies/listing/all?s=®ion=africa&fuel_type=&product=&industry.

Cargill. "Cargill and Mondelez International Sign Agreement to Support Sustainable Cocoa." News release, February 19, 2015. <https://www.cargill.com/news/releases/2015/NA31742287.jsp>.

Cargill. "Cocoa Certifications." <https://www.cargill.com/sustainability/cocoa/cocoa-certifications> (accessed January 23, 2018).

Castellano, Antonio, Adam Kendall, Mikhail Nikomarov, and Tarryn Swemmer. "Brighter Africa: The Growth Potential of the Sub-Saharan Electricity Sector." McKinsey & Company, February 2015. https://www.mckinsey.com/~media/McKinsey/dotcom/client_service/EPNG/PDFs/Brighter_Africa-The_growth_potential_of_the_sub-Saharan_electricity_sector.ashx.

Catalytic Converter Interest Group (CCIG). "Proposed Support for the Beneficiation of Platinum Group Metals (PGMS) and Chromium in the Catalytic Converter Industry." Slide presentation, August 2014. <http://slideplayer.com/slide/3826926/>.

CEN-SAD. See Community of Sahel-Saharan States.

- Central Intelligence Agency (CIA). See U.S. Central Intelligence Agency.
- Centre for Aviation (Australia). "Africa Outlook: Ethiopian Airlines and Air Mauritius Grow, but Others Face Strong Headwinds," June 3, 2016. <https://centreforaviation.com/insights/analysis/africa-outlook-ethiopian-airlines-and-air-mauritius-grow-but-others-face-strong-headwinds-282282>.
- Centre for Aviation (Australia). "Arik Air Could Finally Start to Deliver on Its Long Haul Strategy with the Arrival of A330-200s," July 16, 2013. <https://centreforaviation.com/insights/analysis/arik-air-could-finally-start-to-deliver-on-its-long-haul-strategy-with-the-arrival-of-a330-200s-119142>.
- Centre for Aviation (Australia). "China's Hainan Airlines Invests in Africa World Airlines," July 23, 2012. <https://centreforaviation.com/insights/analysis/chinas-hna-group-of-hainan-airlines-invests-in-africa-world-airlines-third-new-start-up-in-ghana-78748>.
- Centre for Aviation (Australia). "Hainan Airlines Buys 6.2% of South Africa's Comair, Accelerating China-Africa Aviation Links," June 1, 2015. <https://centreforaviation.com/insights/analysis/hnahainan-airlines-buys-62-of-south-africas-comair-accelerating-china-africa-aviation-links-227225>.
- Centre for Aviation (Australia). "TAAG Partners with Emirates," July 22, 2016. <https://centreforaviation.com/insights/analysis/taag-angola-airlines-partners-with-emirates-to-expand-despite-difficult-market-conditions-video-293271>.
- Centre for Public Impact. "Developing the African Cashew Market." Case study, September 21, 2017. <https://www.centreforpublicimpact.org/case-study/developing-african-cashew-market-african-cashew-initiative/#>.
- Channels Television (Nigeria). "Côte d'Ivoire Achieves Record Cocoa Production," September 29, 2017. <https://www.channelstv.com/2017/09/29/cote-divoire-achieves-record-cocoa-production/>.
- Chen, Wenjie, David Dollar, and Heiwei Tang. "China's Direct Investment in Africa: Reality Versus Myth." Washington, DC: Brookings Institution, September 3, 2015. <https://www.brookings.edu/blog/africa-in-focus/2015/09/03/chinas-direct-investment-in-africa-reality-versus-myth/>.
- China Daily*. "Yihua Plans Massive \$1 Billion Investment in Gabon," May 12, 2017. http://usa.chinadaily.com.cn/epaper/2017-05/12/content_29320203.htm.
- ChinaGoAbroad. "Asoko Sector Brief—Nigeria Plastic Production Q4 2017," n.d. <http://www.chinagoabroad.com/en/article/asoko-sector-brief-nigeria-plastic-production-q4-2017> (accessed December 15, 2017).
- Chitnu, Namukale, and Peter Williamson. "Chinese State-Owned Enterprises in Africa: Myths and Realities." *Ivey Business Journal*, March–April 2013. <https://iveybusinessjournal.com/publication/chinese-state-owned-enterprises-in-africa-myths-and-realities/>.
- Chorin, Ethan. "Trump's Ready Argument for Keeping the Lights On at 'Power Africa.'" *Forbes*, January 25, 2017. <https://www.forbes.com/sites/ethanchorin/2017/01/25/trumps-ready-argument-for-keeping-the-lights-on-at-power-africa/#107178f36fa7>.

U.S. Trade and Investment with Sub-Saharan Africa: Recent Developments

Clozel, Lalita. "What Barclays' Africa Pullout Means for De-Risking Phenomenon." *American Banker*, March 24, 2016. <https://www.americanbanker.com/news/what-barclays-africa-pullout-means-for-de-risking-phenomenon>.

CNN. "How Africa Is Giving Fast Food a New Spin," December 11, 2015. <http://www.cnn.com/2015/12/11/africa/fast-food-in-africa/index.html>.

CNN. "KFC's Secret Recipe for Africa," January 15, 2016. <http://www.cnn.com/2016/01/15/africa/kfc-africa-expansion-mpa/index.html>.

CoalSwarm. Global Coal Plant Tracker database. <https://endcoal.org/tracker/> (accessed January 18, 2018).

Cochrane, Nancy, James Hansen, and Ralph Seeley. *Poultry Production and Trade in the Republic of South Africa: A Look at Alternative Trade Policy Scenarios*. U.S. Department of Agriculture. Economic Research Service. Outlook, AES-96, November 2016. <https://www.ers.usda.gov/webdocs/publications/81067/aes-96.pdf?v=42690>.

Coffin, David, Jeff Horowitz, Danielle Nesmith, and Mitchell Semanik. "Examining Barriers to Trade in Used Vehicles." USITC Office of Industries Working Paper ID-044, August 2016. https://www.usitc.gov/sites/default/files/publications/332/used_vehicle_wp_id-44_final_web_0.pdf.

Cokayne, Roy. "GMSA, Tenneco Win R6bn Order." *Independent Online* (South Africa). Business Report, July 3, 2013. <https://www.iol.co.za/business-report/economy/gmsa-tenneco-win-r6bn-order-1541049>.

Cokayne, Roy. "Mixed Reactions to Vehicle Review." *Independent Online* (South Africa). Business Report, November 10, 2015. <https://www.iol.co.za/business-report/economy/mixed-reactions-to-vehicle-review-1942998>.

Cokayne, Roy. "SA Lagging Behind on Clean Fuel Specifications." *Independent Online* (South Africa). Business Report, September 2, 2016. <https://www.iol.co.za/business-report/economy/sa-lagging-behind-on-clean-fuel-specifications-2063696>.

Common Market for Eastern Southern Africa (COMESA). "COMESA Member States," <http://www.comesa.int/comesa-members-states/> (accessed March 13, 2018).

Common Market for Eastern and Southern Africa (COMESA). *Final Communiqué of the Eighteenth Summit of the COMESA Authority of Heads of State and Government*, March 31, 2015. <http://foreign.govmu.org/English/News/Documents/18th%20Summit%20Communique.pdf>.

Common Market for Eastern and Southern Africa (COMESA). "Overview of COMESA," <http://www.comesa.int/overview-of-comesa/> (accessed January 26, 2018).

Common Market for Eastern and Southern Africa (COMESA). "Sixteen Countries Now in Free Trade Area." Press release, April 29, 2016. <http://www.comesa.int/sixteen-countries-now-in-free-trade-area/>.

- Common Market for Eastern and Southern Africa (COMESA). "Tripartite Has Secured \$4.5m for Infrastructure." News article, June 24, 2015. http://www.comesa.int/index.php?option=com_content&view=article&id=1572:tripartite-has-secured-45m-for-infrastructure&catid=5:latest-news&Itemid=41.
- Common Market for Eastern and Southern Africa (COMESA). "Twenty-two Countries Have Now Signed the Tripartite Agreement," February 16, 2018. <http://www.comesa.int/22-countries-have-now-signed-the-tripartite-agreement/>.
- Common Market for Eastern and Southern Africa (COMESA), East African Community (EAC), and Southern African Development Community (SADC). "Tripartite Free Trade Agreement, Section IX.30. Dispute Settlement," June 10, 2015.
- Community of Sahel-Saharan States (CEN-SAD). "Communauté des Etats Sahélo-Sahariens." <http://www.censad.org/> (accessed January 26, 2018).
- Community of Sahel-Saharan States (CEN-SAD). "Communiqué final de la session extraordinaire de la Conférence des Chefs d'Etat et/ou de Gouvernement de la CEN-SAD à N'Djamena (Tchad)" [Final communiqué of the extraordinary session of the Conference of Heads of State and/or Government of CEN-SAD in N'Djamena (Chad)], February 16, 2013. <http://www.peaceau.org/fr/article/final-communique-of-the-extraordinary-session-of-the-assembly-of-heads-of-state-and-or-government-of-the-cen-sad-in-n-djamena-chad-16-february-2013>.
- Congressional Research Service (CRS). *China's Economic Rise: History, Trends, Challenges, and Implications for the United States*, by Wayne M. Morrison. CRS Report RL33534, September 15, 2017. <https://fas.org/spp/crs/row/RL33534.pdf>.
- Congressional Research Service (CRS). *Sudan and South Sudan: Current Issues for Congress and U.S. Policy*, by L.P. Blanchard. CRS Report R42774, October 5, 2012. <https://fas.org/spp/crs/row/R42774.pdf>.
- Cory, Nigel. *Cross-Border Data Flows: Where Are the Barriers, and What Do They Cost?* Information Technology and Innovation Foundation (ITIF) report, May 1, 2017. <https://itif.org/publications/2017/05/01/cross-border-data-flows-where-are-barriers-and-what-do-they-cost>.
- Cotterill, Joseph, Martin Arnold, and Caroline Binham. "HSBC Accused of 'Possible Criminal Complicity' in Gupta Scandal." *Financial Times*, November 1, 2017. <https://www.ft.com/content/adfb1d2c-bf0f-11e7-b8a3-38a6e068f464>.
- Daftari, Amir. "First Ever 'Made in Ghana' Cars Are Built to Survive Anything." CNN, January 28, 2016. <http://www.cnn.com/2015/12/29/africa/ghana-katanka-cars-feat/index.html>.
- Daude, Christian, and Ernesto Stein. "The Quality of Institutions and Foreign Direct Investment." *Economics and Politics* 19, no. 3 (November 2007): 317–44. <http://onlinelibrary.wiley.com/doi/10.1111/j.1468-0343.2007.00318.x/abstract>.

U.S. Trade and Investment with Sub-Saharan Africa: Recent Developments

- David, Andrew, and Dennis Fravel. "U.S. Wind Turbine Export Opportunities in Canada and Latin America." U.S. International Trade Commission, Office of Industries Working Paper, July 2012. https://www.usitc.gov/publications/332/ID-032_final.pdf.
- De Coster, Jozef. "Madagascar Back on the Apparel Sourcing Radar." *Just-Style* (UK), November 22, 2016. https://www.just-style.com/analysis/madagascar-back-on-the-apparel-sourcing-radar_id129356.aspx.
- Deloitte. "APDP a Step in the Right Direction for the Automotive Sector." Press release, December 7, 2015. <https://www2.deloitte.com/za/en/footerlinks/pressreleasespage/apdp.html#>.
- Deloitte. *Navigating the African Automotive Sector: Ethiopia, Kenya, and Nigeria*. Deloitte Africa Automotive Insights, April 2016. https://www2.deloitte.com/content/dam/Deloitte/za/Documents/manufacturing/ZA_Deloitte-Africa-automotive-insights-Ethiopia-Kenya-Nigeria-Apr16.pdf.
- Deloitte. *Sub-Saharan Africa Power Trends: Power Disruption in Africa*, 2017. <https://www2.deloitte.com/content/dam/Deloitte/mx/Documents/Infraestructura/2017/Africa-Power-Trends-2017.pdf>.
- Delta Air Lines. "More Access to Africa on Delta with New York-JFK Nonstop Service to Lagos." Cision news release, August 20, 2017. <https://www.prnewswire.com/news-releases/more-access-to-africa-on-delta-with-new-york-jfk-nonstop-service-to-lagos-300506635.html>.
- Derso, Solomon. "East Africa and the Intergovernmental Authority on Development." International Peace Institute, Mapping Multilateralism in Transition no. 4, October 2014. https://www.ipinst.org/wp-content/uploads/publications/ipi_e_pub_igad.pdf.
- Dollar, David. *China's Engagement with Africa: From Natural Resources to Human Resources*. Washington, DC: Brookings Institution, John Thornton China Center, 2016. <https://www.brookings.edu/research/chinas-engagement-with-africa-from-natural-resources-to-human-resources/>.
- Donaldson, Tara. "What a 10-Year AGOA Renewal Will Mean for Sourcing in Africa." *Sourcing Journal*, May 22, 2015. <https://sourcingjournalonline.com/will-10-year-agoa-renewal-mean-sourcing-africa-td-draft-ready-yet>.
- Dontoh, Ekow. "Ghana Considers Lowering Cocoa Prices to Help Local Processors." Bloomberg Markets, May 3, 2017. <https://www.bloomberg.com/news/articles/2017-05-03/ghana-considers-lowering-cocoa-prices-to-help-local-processors>.
- Dontoh, Ekow. "Ghana Produces Biggest Cocoa Crop in Six Years." Bloomberg Markets, August 4, 2017. <https://www.bloomberg.com/news/articles/2017-08-04/ghana-is-said-to-produce-biggest-cocoa-crop-in-six-years>.
- Dow Chemicals. "Dow Inaugurates First Polyurethanes Systems House in Sub-Saharan Africa." Press release, September 28, 2015. <https://www.dow.com/en-us/polyurethane/news-and-events/2015/09/20150928a>.

- Drabek, Zdenek, and Warren Payne. "The Impact of Transparency on Foreign Direct Investment." World Trade Organization. Staff Working Paper ERAD-99-02, November 2001.
https://www.wto.org/english/res_e/reser_e/erad-99-02.doc.
- Duddu, Praveen. "Oil Giants: The Ten Biggest Offshore Oil and Gas Companies by Revenue." *Offshore Technology*, July 17, 2016. <https://www.offshore-technology.com/features/featureoil-giants-the-ten-biggest-offshore-oil-and-gas-companies-by-revenue-4944982/>.
- Dzimwasha, Taku. "Airlines Hit by African Foreign Currency Crunch." *Africa Business Magazine*, January 13, 2017. <http://africanbusinessmagazine.com/sectors/finance/airlines-hit-african-foreign-currency-crunch/>.
- Eagle Online (Uganda). "Kenya Bans Plastic Bags," March 28, 2017.
<http://eagle.co.ug/2017/03/28/kenya-bans-plastic-bags.html>.
- East African Community (EAC). "About the EAC." <http://www.eac.int/index.php> (accessed January 26, 2018).
- East African Community (EAC). "About the EAC: Brief History: Milestones in the EAC Integration Process."
http://www.eac.int/index.php?option=com_content&view=article&id=44&Itemid=54&limitstart=1 (accessed July 9, 2015).
- East Africa Community (EAC). "EAC Partner States." <https://www.eac.int/eac-partner-states> (accessed March 13, 2018).
- East Africa Community (EAC). "Overview of the EAC." <https://www.eac.int/overview-of-eac> (accessed March 13, 2018).
- East African Community (EAC). "Milestones of East Africa Regional Integration." <https://www.eac.int/> (accessed January 25, 2018).
- East African Community (EAC). "Traveling in East Africa: Documents You Need," January 10, 2013.
http://www.travel.eac.int/index.php?option=com_content&view=article&id=107&Itemid=78#.
- East African Community Customs. "EAC Customs Union: What It Is"
https://customs.eac.int/index.php?option=com_content&view=article&id=18&Itemid=84 (accessed January 26, 2018).
- Eatherton, Traci. "Brazil Resumes Exporting Meat to Major Markets." *Fence Post*, April 10, 2017.
<https://www.thefencepost.com/news/brazil-resumes-exporting-meat-to-major-markets/>.
- Eberhard, Anton, Joel Kolker, and James Leigland. *South Africa's Renewable Energy IPP Procurement Program: Success Factors and Lessons*. World Bank Group, May 2014.
<http://www.gsb.uct.ac.za/files/ppiafreport.pdf>.
- Echenin, Samson. "Understanding ECOWAS Common External Tariff." *Leadership* (Nigeria), July 1, 2015.
<http://leadership.ng/business/443946/understanding-ecowas-common-external-tariff>.

U.S. Trade and Investment with Sub-Saharan Africa: Recent Developments

Economic Community of Central African States (ECCAS). “Etats Membres [member states],” <http://www.ceeac-eccas.org/index.php/fr/> (accessed March 13, 2018).

Economic Community of Central African States (ECCAS). “XVIème Session Ordinaire de la Conférence des Chefs d’Etat et de Gouvernement de la Communauté Economique des Etats de l’Afrique Central (CEEAC)” [Sixteenth ordinary session of the Conference of the Heads of State and of Government of the Economic Community of Central African States]. Final statement, N’Djamena (Chad), May 25, 2015. <http://www.ceeac-eccas.org/index.php/fr/ressources/telechargement/download/6-communique-final/299-communique-final-16eme-session-ordinaire-de-la-conference-des-chefs-d-etat-et-de-gouvernement-de-la-ceeac>.

Economic Community of West African States (ECOWAS). “Member States.” (accessed March 13, 2018). <http://www.ecowas.int/member-states/>

ECOWAS Trade Liberalization Scheme (ETLS). “ECOWAS Trade Liberalization Scheme (ETLS): About ETLS,” <http://www.etls.ecowas.int/etls/about-etls/> (accessed March 2018).

Economist. “Africa’s Banking Boom: Scrambled in Africa,” September 16, 2010. <http://www.economist.com/node/17043662>.

Economist. “Africa Unite! African Countries Are Building a Giant Free-Trade Area,” December 7, 2017. <https://www.economist.com/news/finance-and-economics/21732154-they-have-long-traded-world-now-they-want-trade-each>.

Economist. “Banking in Africa: Continent of Dreams,” March 2, 2013. <https://www.economist.com/news/finance-and-economics/21572768-across-africa-banks-are-expanding-their-returns-arent-continent-dreams>.

Economist. “Brains Without Borders,” January 30, 2016. <https://www.economist.com/news/international/21689540-australia-and-canada-see-attract-more-foreign-students-america-and-britain-could>.

Economist. “Chinese Business in Africa: It’s a Steel,” July 13, 2015. <https://www.economist.com/news/business-and-finance/21657626-chinese-steel-firms-are-playing-long-game-africa-its-steel>.

Economist. “The Yamoussoukro Indecision: Why African Aviation Needs to be Set Free,” December 4, 2015. <https://www.economist.com/blogs/gulliver/2015/12/yamoussoukro-indecision>.

Educargas Transitário. “Angola—New Rules for Importing Vehicles,” June 17, 2014. <https://www.educargas.pt/pt/noticias/195-angola-novas-regras-para-importacao-de-viaturas-194>.

Edwards, Jackie. “Visa-Free Travel in Africa for Americans.” *Lawson’s Safaris* (South Africa) (blog). <https://www.lawsons-africa.co.za/visa-free-travel-africa-americans/> (accessed December 11, 2017).

- Egger, Peter H. "An Econometric View on the Estimation of Gravity Models and the Calculation of Trade Potentials." *World Economy* 25, no. 2 (2002): 297–312. <https://doi.org/10.1111/1467-9701.00432> (subscription required).
- Egger, Peter, and Michael Pfaffermayr. "The Impact of Bilateral Investment Treaties on Foreign Direct Investment." *Journal of Comparative Economics* 32, no. 4 (December 2004): 788–804. <https://doi.org/10.1016/j.jce.2004.07.001>.
- EIA. See U.S. Energy Information Administration.
- Eisenstein, Zoe. "Nowhere to Go but Up for Angola's Car-Loving Classes." *Africa Report* (Paris), December 15, 2014. <http://www.theafricareport.com/Southern-Africa/nowhere-to-go-but-up-for-angolas-car-loving-classes.html>.
- Ekeghe, Nume, and Nosa Alekhuogie. "FG Bans Importation of Packaged Tomato Paste." *This Day* (Nigeria), March 28, 2017. <https://www.thisdaylive.com/index.php/2017/03/28/fg-bans-importation-of-packaged-tomato-paste/>.
- Ekwealor, Victor. "List of Data Centres across Africa." Techpoint.ng (Nigeria), October 26, 2017. <https://techpoint.ng/2017/10/26/data-centres-across-africa/>.
- El Wardany, Salma. "Why One Giant Gas Field Is a Big Deal for Egypt." Bloomberg, December 19, 2017. <https://www.bloomberg.com/news/articles/2017-12-19/why-one-giant-gas-field-is-a-big-deal-for-egypt-quicktake-q-a>.
- Embraer. *Market Outlook Report 2017*, 2017. <http://www.embraermarketoutlook2017.com/>.
- Energias Market Research. "Floating Production Storage and Offloading (FPSO) Crucial Component of Early Production Facility, to Witness a CAGR of 11.2% during 2017–2023." Press release through GlobeNewswire, December 20, 2017. <https://globenewswire.com/news-release/2017/12/20/1267189/0/en/Floating-Production-Storage-and-Offloading-FPSO-Crucial-Component-of-Early-Production-Facility-to-Witness-a-CAGR-of-11-2-during-2017-2023.html>.
- Energy Business Review (London). "Angola to Enhance Grid Reliability with GE's Gas Turbines," November 7, 2012. <http://utilitiesretail.energy-business-review.com/news/angola-to-enhance-grid-reliability-with-ge-gas-turbines-071112>.
- England, Andrew. "Africa's Expanding Financial Sector Draws Increasing Interest from Investors." *Financial Times*, October 5, 2014. <https://www.ft.com/content/d8edbc78-1e50-11e4-ab52-00144feabdc0>.
- England, Andrew. "Angolan Industrial Sector Counts the Cost of Cheap Oil." *Financial Times*, May 6, 2015. <https://www.ft.com/content/c307ab62-edcb-11e4-987e-00144feab7de>.
- England, Andrew. "International Banks Ramp Up Presence in Africa." *Financial Times*, January 2, 2012. <https://www.ft.com/content/600b6880-0fa0-11e1-a36b-00144feabdc0>.

U.S. Trade and Investment with Sub-Saharan Africa: Recent Developments

EPA Monitoring. “Nigerian Government Adopts Trade Measures against Tomato Imports,” May 15, 2017. <http://epamonitoring.net/nigerian-government-adopts-trade-measures-against-tomato-imports/>.

Essential Chemical Industry. “Polymers: Poly(ethene) (Polyethylene),” April 27, 2017. <http://www.essentialchemicalindustry.org/polymers/polyethene.html>.

Ethiopian Airlines. *Ethiopian Airlines Annual Report 2015/16*, 2016. https://www.ethiopianairlines.com/Cms_Data/Contents/EthiopianAirlines/Media/Corporate/Company/Reports/Annual-Report-2015-16.pdf.

European Commission (EC). “EU Agricultural Outlook for the EU Agricultural Markets and Income 2017–2030,” December 2017. https://ec.europa.eu/agriculture/markets-and-prices/medium-term-outlook_en.

European Commission (EC). “EU Agriculture and Rural Development: Sugar; Factsheet on the End of EU Sugar Production Quotas.” https://ec.europa.eu/agriculture/sugar_en (accessed December 18, 2017).

European Commission (EC). “EU Trade Helpdesk: Economic Partnership Agreements (EPAs).” <http://trade.ec.europa.eu/tradehelp/economic-partnership-agreements-epas> (accessed various dates).

European Commission (EC). “EU Trade Helpdesk: Everything But Arms (EBA).” <http://trade.ec.europa.eu/tradehelp/everything-arms> (accessed various dates).

European Commission. “EU Trade: Policy; Countries and Regions; South Africa,” updated February 22, 2017. <http://ec.europa.eu/trade/policy/countries-and-regions/countries/south-africa/>.

Export-Import Bank of the United States (Ex-Im Bank). “Ex-Im Bank Provides \$1 Billion to Finance Sub-Saharan African Purchases of HIV/AIDS Medicines from U.S. Pharmaceutical Firms.” Press release, July 18, 2000. <https://www.exim.gov/news/ex-im-bank-provides-1-billion-finance-sub-saharan-african-purchases-hiv-aids-medicines-us>.

Export-Import Bank of the United States (Ex-Im Bank). *Export-Import Bank of the United States 2017 Annual Report*, December 13, 2017. <https://www.exim.gov/news/reports/annual-reports>.

ExxonMobil. “Angola.” <http://corporate.exxonmobil.com/en/company/worldwide-operations/locations/angola/about/overview> (accessed February 27, 2018).

ExxonMobil. “ExxonMobil Starts Oil Production at Erha North Phase 2 Project Ahead of Schedule and Well under Budget.” News release, September 16, 2015. <http://news.exxonmobil.com/press-release/exxonmobil-starts-oil-production-erha-north-phase-2-project-ahead-schedule-and-well-un>.

ExxonMobil. “Worldwide Operations: Crude Oils; Zafiro Blend.” <http://corporate.exxonmobil.com/en/company/worldwide-operations/crude-oils/zafiro-blend> (accessed February 27, 2018).

- EY. *Waves of Change: Revisited; Insurance Opportunities in Sub-Saharan Africa 2016*, 2016. [http://www.ey.com/Publication/vwLUAssets/ey-insurance-opportunities-sub-saharan-africa/\\$FILE/ey-insurance-opportunities-sub-saharan-africa.pdf](http://www.ey.com/Publication/vwLUAssets/ey-insurance-opportunities-sub-saharan-africa/$FILE/ey-insurance-opportunities-sub-saharan-africa.pdf).
- Eze, Chinedu. "Nigeria: Underutilization of Commercial Aircraft." *This Day* (Nigeria) via news service AllAfrica, October 27, 2017. <http://allafrica.com/stories/201710270732.html>.
- Fairtrade (Germany). "The Nigerian Plastics, Printing, and Packaging Sector," 2017. <http://www.ppp-nigeria.com/nigeria-plastic-print-package.html>.
- Farole, Thomas, and Deborah Winkler. *Making Foreign Direct Investment Work for Sub-Saharan Africa: Local Spillovers and Competitiveness in Global Value Chains*. Washington, DC: World Bank Group, 2013. <http://documents.worldbank.org/curated/en/720931468203986757/Making-foreign-direct-investment-work-for-Sub-Saharan-Africa-local-spillovers-and-competitiveness-in-global-value-chains>.
- Faure, François. "South Africa: What's Behind the Growth Slowdown?" *Eco Conjoncture*. BNP Paribas research paper, April 21, 2017. <http://economic-research.bnpparibas.com/pdf/en-US/South-Africa-8217-behind-growth-slowdown-4/28/2017,29842>.
- Fin24. "Fin24. "Ramaphosa Signs Declaration on African Free Trade Region." March 21, 2018. <https://www.fin24.com/Economy/sa-signs-african-free-trade-agreement-20180321>.
- Fin24. "SA Dependence on Petrol Imports Growing," September 2, 2014. <https://www.fin24.com/Economy/SA-dependence-on-petrol-imports-growing-20140902>.
- Financial Nigeria*. "Arik Air Suspends Flights to New York due to Maintenance Checks," February 9, 2017. <http://www.financialnigeria.com/arik-air-suspends-flights-to-new-york-due-to-maintenance-checks-news-1092.html>.
- Financial Times. fDiMarkets database (accessed various dates).
- Fletcher, Martin. "Can Modern Technology Save Rhinos from Poachers?" *Telegraph*, June 29, 2017. <https://www.telegraph.co.uk/technology/2017/06/24/can-modern-technology-save-rhinos-poachers/>.
- Fleurette Group. "Mutanda Mining SARL Fourth Quarter 2016 Production Report." News release, February 2, 2017. <http://fleurettegroup.com/media-center/media-center-press-releases>.
- Food and Agricultural Organization of the United Nations (FAO). "Pulses Contribute to Food Security," 2016. <http://www.fao.org/3/a-i5387e.pdf>.
- Food and Agricultural Organization of the United Nations (FAO). *The State of Agricultural Commodity Markets 2015–16: Trade and Food Security; Achieving a Better Balance between National Priorities and the Collective Good*, 2015. <http://www.fao.org/3/a-i5090e.pdf>.
- Food and Agricultural Organization of the United Nations (FAO). FAOSTAT database. <http://www.fao.org/faostat/en/> (accessed various dates).

U.S. Trade and Investment with Sub-Saharan Africa: Recent Developments

Food and Agriculture Organization of the United Nations (FAO). FAOSTAT database. Food Balance: Food Supply— Livestock and Fish Primary Equivalent database.

<http://www.fao.org/faostat/en/#data/CL> (accessed November 30, 2017).

Footwearbiz. “Kenya Shoe Manufacturers Could Benefit from Tax Break,” October 16, 2017.

<http://footwearbiz.com/fullitem.aspx?id=147173>.

Footwearbiz. “Kenya Takes Footwear Seriously in Five-Year Plan,” February 2, 2018.

<http://footwearbiz.com/fullitem.aspx?id=146250>.

Footwearbiz. “Pittards Adds Shoe Factory to Its Ethiopia Operations,” November 22, 2017.

<http://footwearbiz.com/fullitem.aspx?id=146607>.

Ford Motor Company. “Ford Invests \$170 Million in South Africa to Build the All-New Everest SUV, Creating 1,200 New Jobs.” Press release, April 5, 2016.

<https://media.ford.com/content/fordmedia/fna/us/en/news/2016/04/05/ford-invests-170-million-in-south-africa-to-build-new-everest-suv.html>.

Forden, Eric. “Mobile Money in Kenya.” U.S. International Trade Commission. Executive Briefing on Trade, June 2015.

https://www.usitc.gov/publications/332/executive_briefings/forden_mobile_money_kenya_june2015_0.pdf.

Frazier, Reid. “This Is Exactly How Natural Gas Gets Turned into Plastics.” *Allegheny Front* (Pittsburgh, PA). Radio news article, September 9, 2016 (republished April 7, 2017).

<https://www.alleghenyfront.org/this-is-exactly-how-natural-gas-gets-turned-into-plastics/>.

Freeport-McMoRan Inc. “Freeport-McMoRan Completes Sale of Interest in TF Holdings Limited for \$2.65 Billion in Cash.” News release, November 16, 2016.

<https://investors.fcx.com/investors/news-releases/news-release-details/2016/Freeport-McMoRan-Completes-Sale-of-Interest-in-TF-Holdings-Limited-for-265-Billion-in-Cash/default.aspx>.

Gaffey, Connor. “Peacekeeping In Mali: The U.N.’s Most Dangerous Mission.” *Newsweek*, June 6, 2016.

<http://www.newsweek.com/mali-un-mission-northern-mali-conflict-aqim-africa-peacekeeping-468907>.

Gale, Julian. *Dried Fruit and Nuts: 2017*. Informa. Agribusiness Intelligence. Foodnews, March 30, 2017.

<https://agribusinessintelligence.informa.com/resources/product-content/dried-fruit-and-nuts-report-2017> (registration required).

GAO. See U.S. Government Accountability Office.

General Motors (GM). “GM Awards R6 Billion Export Programme to Local Unit.” News release, June 27, 2013.

http://media.gm.com/media/za/en/gm/news.detail.html/content/Pages/news/za/en/2013/jun/27_06_gm_export_programme.html.

George, Fred. “Strong Business Aircraft Growth Ahead in Africa.” *Aviation Week News*, May 20, 2015.

<http://aviationweek.com/ebace-2015/strong-business-aircraft-growth-ahead-africa>.

- Ghana Tourism Authority. "Tourism Information on Ghana." Tourism statistics 2010–14, n.d. <http://www.ghana.travel/wp-content/uploads/2016/11/Tourism-Statistics.docx> (accessed February 2, 2018).
- Global Alliance of SMEs (GASME). "New Auto Incentive Plan Approved." <http://www.globalsmes.org/news/index.php?func=detail&detailid=593&catalog=32&lan=en> (accessed November 27, 2017).
- Global Construction Review* (UK). "Bagamoyo Megaport 'to Unload First Ships in 2020,'" October 31, 2017. <http://www.globalconstructionreview.com/news/bagamoyo-megaport-unload-first-ships-2020/>.
- Global Economy.com. "Angola: Economic Growth," n.d. http://www.theglobaleconomy.com/Angola/Economic_growth/ (accessed January 15, 2018).
- Global Economy.com. "Angola: Economic Growth Forecast," n.d. http://www.theglobaleconomy.com/Angola/gdp_growth_outlook_imf/ (accessed January 11, 2018).
- Global Economy.com. "Angola: Government Spending, Percent of GDP," n.d. http://www.theglobaleconomy.com/Angola/Government_size/ (accessed January 16, 2018).
- Global Renewable Fuels Alliance. "Global Biofuel Mandates," n.d. <http://globalrfa.org/biofuels-map/> (accessed December 12, 2017).
- Golub, Stephen. "Entrepôt Trade and Smuggling in West Africa: Benin, Togo and Nigeria." *World Economy* 35, no. 9 (September 2012): 1139–61. 10.1111/j.1467-9701.2012.01469.x.
- Gopinath, Gita, Elhanan Helpman, and Kenneth Rogoff, eds. *Handbook of International Economics*, vol. 4. Amsterdam: Elsevier, 2014.
- Goretti, Manuela, and Hans Weisfeld. "Trade in the WAEMU: Development and Reform Opportunities." International Monetary Fund Working Paper WP/08/68, March 2008. <https://www.imf.org/external/pubs/ft/wp/2008/wp0868.pdf>.
- Govender, Peroshni. "South Africa Tries Gunfire Location System to Catch Rhino Poachers." Reuters, September 5, 2014. <https://www.reuters.com/article/us-safrica-rhinos-tech/south-africa-tries-gunfire-location-system-to-catch-rhino-poachers-idUSKBN0H00LM20140905>.
- Government of Botswana. *National AGOA Response Strategy for Botswana*, September [1], 2017. <https://agoa.info/downloads/national-strategies/15259.html>.
- Government of China. National Bureau of Statistics of China. *China Statistical Yearbook*, 2016. <http://www.stats.gov.cn/tjsj/ndsj/2016/indexeh.htm>
- Government of China. Statistical Bulletin of China's Outward Foreign Direct Investment. *Commerce Yearbook* (formerly the *Almanac of China's Foreign Economic Relations and Trade*) (accessed February 1, 2018).

U.S. Trade and Investment with Sub-Saharan Africa: Recent Developments

Government of Equatorial Guinea. Ministry of Mines, Industry, and Energy. “ExxonMobil Makes New Oil Find in Equatorial Guinea Block EG-06.” GlobeNewswire news release, December 11, 2017. <https://globenewswire.com/news-release/2017/12/11/1250601/0/en/ExxonMobil-Makes-New-Oil-Find-in-Equatorial-Guinea-Block-EG-06.html>.

Government of Ethiopia. Ethiopia Investment Commission. “Leather Shoes and Leather Products: Key Reasons for Investing,” n.d. <http://www.investethiopia.gov.et/investment-opportunities/strategic-sectors/leather-shoes-and-leather-products> (accessed December 18, 2017).

Government of Ethiopia. Ministry of Trade. *Ethiopia’s National AGOA Response Strategy*, October 2013, published November 25, 2015. <https://agoa.info/downloads/national-strategies/5946.html>.

Government of Ethiopia. National Planning Commission. *Federal Democratic Republic of Ethiopia Growth and Transformation Plan II (GTP II) (2015/16–2019/20)*. Vol. I: Main Text, May 2016. http://dagethiopia.org/new//docstation/com_content/article/100/gtpii_english_translation_final_june_21_2016.pdf.

Government of Lesotho. Ministry of Trade and Industry. *The AGOA Response Strategy for Lesotho*, June 1, 2016. <https://agoa.info/downloads/national-strategies/6186.html>.

Government of Malawi. Ministry of Industry and Trade. Department of Policy and Planning. *Strategic Plan 2011–2016*, September 2011. <http://www.moit.gov.mw/index.php/policies-strategies-regulations/policies-strategies>.

Government of Mali. Ministère du Commerce et de l’Industrie. *Stratégie Nationale AGOA du Mali* [Mali’s national AGOA strategy], June [15], 2016. <https://agoa.info/downloads/national-strategies/6187.html>.

Government of Nigeria. Commercial Investment Division. Nigerian National Petroleum Corporation (NNPC). “NNPC JV Takes Delivery of Two LPG Carriers.” News release, January 23, 2017. <http://nnpcgroup.com/PublicRelations/NNPCinthenews/tabid/92/articleType/ArticleView/articleId/712/NNPC-JV-Takes-Delivery-of-Two-LPG-Carriers.aspx>.

Government of Nigeria. Embassy of Nigeria, Washington, DC. “Visas: Online Visa Application Requirements and Procedures.” <http://www.nigeriaembassyusa.org/index.php?page=visas> (accessed December 11, 2017).

Government of Nigeria. Nigerian Customs Service (NCS). “Import Prohibition List.” <https://customs.gov.ng/ProhibitionList/import.php> (accessed January 1, 2018).

Government of Rwanda. Ministry of Trade and Industry. *Rwanda AGOA Action Plan*, April 15, 2016. <https://agoa.info/downloads/national-strategies/6212.html>.

Government of Senegal. Ministère du Commerce, de l’Entrepreneuriat et du Secteur Informel. *Sénégal: Stratégie de Développement des Exportations Sénégalaises sous AGOA* [Senegal: Strategy for development of Senegalese exports under AGOA]. National AGOA Strategy, February 9, 2015. <https://agoa.info/downloads/national-strategies/6087.html>.

- Government of South Africa. Department of Agriculture, Forestry and Fisheries. "Cultivation of Macadamias." <http://www.nda.agric.za/docs/macadamia/macadamia.htm> (accessed December 17, 2017).
- Government of South Africa. Department of Environmental Affairs. "Operation Phakisa—Oceans Economy." <https://www.environment.gov.za/projectsprogrammes/operationphakisa/oceanseconomy> (accessed March 6, 2018).
- Government of South Africa. Department of Trade and Industry (DTI). "Industrial Development: Plastics," n.d. http://www.dti.gov.za/industrial_development/plastic.jsp (accessed January 5, 2017).
- Government of South Africa. Department of Trade and Industry (DTI). "Industrial Development: The Chemical Sector." http://www.thedti.gov.za/industrial_development/sec_chemicals.jsp (accessed November 27, 2017).
- Government of South Africa. Energy Department, National Treasury, and Development Bank of South Africa. *Independent Power Producer Procurement Programme (IPPPPP): An Overview*, March 31, 2017. http://sawea.org.za/images/20170601_IPP%20Office%20Q4_2016-17%20Overview.pdf.
- Government of South Africa. South African Revenue Service (SARS). "Schedule No. 1: Ordinary Customs Duty." <http://www.sars.gov.za/AllDocs/LegalDoclib/SCEA1964/LAPD-LPrim-Tariff-2012-04%20-%20Schedule%20No%201%20Part%201%20Chapters%201%20to%2099.pdf> (accessed January 1, 2018).
- Government of South Africa. South African Revenue Service (SARS). "Schedule No. 2: Anti-dumping, Countervailing and Safeguard Duties on Imported Goods." <http://www.sars.gov.za/AllDocs/LegalDoclib/SCEA1964/LAPD-LPrim-Tariff-2012-15%20-%20Schedule%20No%202.pdf> (accessed January 1, 2018).
- Government of South Africa. South African Revenue Service (SARS). "What Is the Motor Industry Development Programme (MIDP)?" <http://www.sars.gov.za/FAQs/Pages/414.aspx> (accessed November 27, 2017).
- Government of South Sudan (GOSS). Embassy of the Republic of South Sudan (Washington, DC). "New Map of the Republic of South Sudan with 28 States." <http://www.southsudanembassyusa.org/map-2/>.
- Government of Tanzania. Ministry of Home Affairs. Immigration Department. "Immigration Services: Visa Information; Entry Requirements and Visa Information." <https://www.immigration.go.tz/index.php/en/services/visa-information> (accessed December 11, 2017).
- Government of Tanzania. Ministry of Industry, Trade and Investment. *Tanzania National AGOA Strategy*, May 10, 2016. <https://agoa.info/downloads/national-strategies/6213.html>.

U.S. Trade and Investment with Sub-Saharan Africa: Recent Developments

Government of Togo. Ministère du Commerce, de l'Industrie, de la Promotion du Secteur Privé et du Tourisme. *Plan d'Action Opérationnel d'Utilisation de l'AGOA à Court et à Moyen Termes* [Operational action plan for utilizing AGOA in the short and medium term], August 1, 2017. http://commerce.gouv.tg/sites/default/files/documents/plan_dactions_operationnel_utilisation_de_lagoa_a_court_et_a_moyen_termes_vf_1.pdf.

Government of Uganda. Ministry of Trade, Industry and Cooperatives. *New National AGOA Strategy to Improve Uganda's Performance in AGOA*, n.d. http://www.mtic.go.ug/index.php?option=com_content&view=article&id=202:new-national-agoa-strategy-to-improve-uganda-s-performance-in-agoa&catid=10&Itemid=118 (accessed January 25, 2018).

Government of Zambia. Ministry of Commerce, Trade and Industry. *The Zambia AGOA Strategy Development Initiative: Facilitating the Implementation of a Sustainable Strategy Following the Reauthorisation of AGOA*, March 4, 2016. <https://agoa.info/downloads/national-strategies/6236.html>.

Greve, Natalie. "Sasol Inaugurates R1.9bn Polyethylene Plant." *Engineering News*, January 14, 2017. <http://www.engineeringnews.co.za/print-version/sasol-inaugurates-r19bn-polyethylene-plant-2014-01-14>.

Grizio, Miranda. "Mondelēz International's Cocoa Life Program Promises Farmers a Sweeter Deal." *Op-ed*, Foodtank. <https://foodtank.com/news/2017/12/mondelez-cocoa-sustainability/> (accessed December 29, 2017).

Groupe Banque Sahélo-Saharienne pour l'Investissement et le Commerce (Groupe BSIC). "Le Groupe." <http://www.bsicbank.com/cotedivoire/?-Groupe-BSIC-#1> (accessed January 26, 2018).

Gulde, Anne Marie and Charalambos Tsangarides. *The CFA Franc Zone: Common Currency, Uncommon Challenges*. Washington, DC: IMF, 2008. ISBN/ISSN: 978158906675. Overview can be found at <https://www.imf.org/~media/Websites/IMF/imported-publications/external/pubs/nft/books/2008/cfazone/chap1.ashx>.

Gurevich, Tamara, and Peter Herman. "The Dynamic Gravity Dataset: 1948–2016." USITC Working Paper 2018-02-A, 2018. https://www.usitc.gov/publications/332/working_papers/gurevich_herman_2018_dynamic_gravity_dataset_201802a.pdf.

Haight, Brent. *35th Power Generation Order Survey. Diesel and Gas Turbine Worldwide*, May 2011. <https://dieselgasturbine.com>.

Haight, Brent. *36th Power Generation Order Survey. Diesel and Gas Turbine Worldwide*, May 2012. <https://dieselgasturbine.com>.

Haight, Brent. *37th Power Generation Order Survey. Diesel and Gas Turbine Worldwide*, May 2013. <https://dieselgasturbine.com>.

Haight, Brent. *38th Power Generation Order Survey. Diesel and Gas Turbine Worldwide*, May 2014. <https://dieselgasturbine.com>.

- Haight, Brent. *39th Power Generation Order Survey. Diesel and Gas Turbine Worldwide*, May 2015. <https://dieselgasturbine.com/market-surveys/>.
- Hale, Thomas, and Elaine Moore. "Strong Demand for Ivory Coast Bond." *Financial Times*, July 16, 2014. <https://www.ft.com/content/3228071a-0d05-11e4-bcb2-00144feabdc0>.
- Hammond, Joseph. "Sudan: China's Original Foothold in Africa." *Diplomat*, June 14, 2017. <https://thediplomat.com/2017/06/sudan-chinas-original-foothold-in-africa/>.
- Hartzenberg, Trudi. "Regional Integration in Africa." World Trade Organization Economic Research and Statistics Division. Staff Working Paper ERSD-2011-14, October 2011. https://www.wto.org/english/res_e/reser_e/ersd201114_e.pdf.
- Hauge, Jostein, and Muhammad Irfan. "Ethiopia Is On Track to Become Africa's Industrial Powerhouse." Quartz Africa, June 26, 2016. <https://qz.com/717228/ethiopia-is-on-track-to-become-africas-industrial-powerhouse/>.
- Head, Keith, and Thierry Mayer. "Gravity Equations: Workhorse, Toolkit, and Cookbook." Chap. 3 in Gopinath, Helpman, and Rogoff, *Handbook of International Economics*, 2014. http://www.cepii.fr/pdf_pub/wp/2013/wp2013-27.pdf.
- Hepola, Sarah. "How Rwanda Became the Unlikeliest Tourism Destination in Africa." Bloomberg, September 28, 2017. <https://www.bloomberg.com/news/features/2017-09-28/how-rwanda-became-the-unlikeliest-tourism-destination-in-africa>.
- Herald* (South Africa). "Motor, Catalytic Converter Firms Hold Breath for End to Dispute," June 13, 2014. <http://www.heraldive.co.za/business/2014/06/13/motor-catalytic-converter-firms-hold-breath-for-end-to-dispute/>.
- Hershey. "Cocoa Sustainability Strategy." https://stage.thehersheycompany.com/en_us/responsibility/good-business/creating-goodness/cocoa-sustainability.html (accessed January 23, 2018).
- Hess, T.M., J. Sumberg, T. Biggs, M. Georgescu, D. Haro-Monteagudo, G. Jewitt, M. Ozdogan, M. Marshall, P. Thenkabail, A. Caccache, F. Marin, and J.W. Knox. "A Sweet Deal? Sugarcane, Water and Agricultural Transformation in Sub-Saharan Africa." *Global Environmental Change* 39 (July 2016): 181–94. <https://www.sciencedirect.com/science/article/pii/S0959378016300619>.
- Hilton Worldwide. "Hilton Builds for the Future at AHIF with Its First Modular Hotel in Africa." News release, October 5, 2016. <http://newsroom.hilton.com/index.cfm/news/hilton-builds-for-the-future-at-ahif-with-its-first-modular-hotel-in-africa>.
- Hinshaw, Drew. "Nigeria Plays Tough Game of Chicken with Smugglers." *Wall Street Journal*, November 10, 2015. <https://www.wsj.com/articles/nigeria-plays-tough-game-of-chicken-with-smugglers-1447197546>.

U.S. Trade and Investment with Sub-Saharan Africa: Recent Developments

Holt, Tania, Mehdi Lahrichi, Jean Mina, and Jorge Santos da Silva. *Africa: A Continent of Opportunity for Pharma and Patients*. McKinsey report, June 2015.

<https://www.mckinsey.com/industries/pharmaceuticals-and-medical-products/our-insights/africa-a-continent-of-opportunity-for-pharma-and-patients>.

Hruby, Aubrey. "Escaping China's Shadow: Finding America's Competitive Edge in Africa." Atlantic Council. Issue brief, September 2017. <http://www.atlanticcouncil.org/publications/issue-briefs/escaping-china-shadow>.

Hulamin. *Hulamin Executive Report*, February 19, 2015. <http://www.hulamin.com/iar2014/pdf/hulamin-ar2014-executive-report.pdf>.

Hulamin. "Hulamin Integrated Report 2016: Overview," February 23, 2017. http://hulamin.com/iar2016/Overview_executive_report.html.

Hume, Neil. "Nickel Rebound Gathers Pace on Electric Car Boom." *Financial Times*, October 24, 2017. <https://www.ft.com/content/38cb62fc-b8c8-11e7-8c12-5661783e5589>.

Hydrocarbon Processing. "IHS: Asia Driving Strong Global Demand for Polyethylene," January 25, 2017. <http://www.hydrocarbonprocessing.com/news/2017/01/ihs-asia-driving-strong-global-demand-for-polyethylene>.

IBISWorld. *Chocolate Production in the U.S.: U.S. Market Research Report*. Industry Report 31135, November 2017. <https://www.ibisworld.com/industry-trends/market-research-reports/manufacturing/food/chocolate-production.html> (fee required).

ICIS Chemical Business. "Market Outlook: Africa Polymers Attract Interest," February 2, 2016. <https://www.icis.com/resources/news/2017/02/02/10075661/market-outlook-africa-polymers-attract-interest/>.

ICIS News. "OUTLOOK '16: Africa Is an Attractive but Challenging Market for PP, PE," January 12, 2016. <https://www.icis.com/resources/news/2016/01/12/9959507/outlook-16-africa-is-an-attractive-but-challenging-market-for-pp-pe/>.

Igunza, Emmanuel. "Why Are Cars So Expensive in Ethiopia?" BBC News, January 16, 2017. <http://www.bbc.com/news/world-africa-38607986>.

IHS Markit. World Trade Atlas database (accessed various dates).

Imbert, Camille. "South African Airways Expands West Africa Network with New Service between Washington, D.C. and Accra, Ghana." South African Airways press release, 2015. https://www.flysaa.com/cms/US/AccraPressRelease.html?utm_source=social&utm_medium=facebook&utm_campaign=US.

Informa Agribusiness Intelligence/F.O. Licht. "European Union—Preferential EPA/EBA Sugar Imports." *International Sugar and Sweetener Report*, December 29, 2017. <https://www.agranet.com/agra/international-sugar-and-sweetener-report/sugar-news/cane-sugar/european-union---preferential-epaeba-sugar-imports---december-29-2017--1.htm> (subscription required).

- Institute for International Education (IIE). "International Students by Field of Study." From *2017 Open Doors Report on International Educational Exchange*, 2017. <https://www.iie.org/Research-and-Insights/Open-Doors/Data/International-Students/Fields-of-Study>.
- Institute for International Education (IIE). "International Student Totals by Place of Origin, 2012/2013 and 2011/2012." From *Open Doors Data Portal*, 2013. <https://www.iie.org/Research-and-Insights/Open-Doors/Data/International-Students/Places-of-Origin>.
- Institute for International Education (IIE). "International Student Totals by Place of Origin, 2014/2015 and 2013/2014," *Open Doors Data Portal*, 2015. <https://www.iie.org/Research-and-Insights/Open-Doors/Data/International-Students/Places-of-Origin>.
- Institute for International Education (IIE). "International Student Totals by Place of Origin, 2015/16 and 2016/17." From *2017 Open Doors Report on International Educational Exchange*, 2017. <https://www.iie.org/Research-and-Insights/Open-Doors/Data/International-Students/Places-of-Origin>.
- Intergovernmental Authority on Development (IGAD). Conflict Early Warning and Response Mechanism (CEWARN). "About CEWARN." <http://www.cewarn.org/index.php/about-cewarn> (accessed January 26, 2018).
- Intergovernmental Authority on Development (IGAD). "About Us." <http://igad.int/> (accessed January 26, 2018).
- Intergovernmental Authority on Development (IGAD). "The IGAD Region," <https://igad.int/about-us/the-igad-region> (accessed March 13, 2018).
- International Air Transport Association. "Ethiopian Airlines: A Glass Half Full," June 1, 2013. <http://airlines.iata.org/ceo-interviews/ethiopian-airlines-a-glass-half-full>.
- International Cocoa Organization (ICCO). *ICCO Quarterly Bulletin of Cocoa Statistics* 43, no. 3 (Cocoa Year 2016/17): August 31, 2017.
- International Copper Association (ICA). "Copper Demand from Electric Vehicles Expected to Be Nine Times Higher by 2027, Study Shows." Press release, June 12, 2017. <http://copperalliance.org/wordpress/wp-content/uploads/2017/06/E-Mobility-June-2017.pdf>.
- International Copper Study Group (ICSG). *Directory of Copper and Copper Alloy Fabricators: 2016 Edition*. Lisbon, Portugal: International Copper Study Group, 2016.
- International Copper Study Group (ICSG). *Directory of Copper Mines and Plants up to 2020*. Lisbon, Portugal: International Copper Study Group, July 2017.
- International Copper Study Group (ICSG). ICSG Statistical database. <http://icsg.org/index.php/external-database> (accessed December 6, 2017).
- International Energy Agency (IEA). "Energy for Cooking in Developing Countries." In *World Energy Outlook 2006*, 419–45. Paris, France: OECD/IEA, 2006.

U.S. Trade and Investment with Sub-Saharan Africa: Recent Developments

- International Energy Agency (IEA). *Boosting the Power Sector in Sub-Saharan Africa: China's Involvement*. July 6, 2016. <https://webstore.iea.org/partner-country-series-boosting-the-power-sector-in-sub-saharan-africa>.
- International Institute for Sustainable Development. *The State of Sustainability Initiatives Review 2014*, March 2014. <http://www.iisd.org/library/state-sustainability-initiatives-review-2014-standards-and-green-economy>.
- International Monetary Fund (IMF). *Nigeria: 2017 Article IV Consultation*. Country report no. 17/80. Washington, DC: IMF, April 5, 2017. <https://www.imf.org/en/Publications/CR/Issues/2017/04/05/Nigeria-2017-Article-IV-Consultation-Press-Release-Staff-Report-and-Statement-by-the-44792>.
- International Monetary Fund (IMF). *Regional Economic Outlook: Sub-Saharan Africa*, May 2017. <https://www.imf.org/~media/Files/Publications/REO/AFR/2017/May/pdf/sreo0517.ashx?la=en>
- International Nut and Dried Fruit Council Foundation. *Nutfruit*, March 2016. https://issuu.com/nutfruit/docs/nutfruit_march2016_final_lr.
- International Nut and Dried Fruit Council Foundation. *Nutfruit*, March 2017. https://issuu.com/nutfruit/docs/rev_nutfruit_march17.
- International Nut and Dried Fruit Council Foundation. *Nutfruit*, July 2017. https://issuu.com/nutfruit/docs/nutfruit_july2017_websiteoptimized/2.
- International Nut and Dried Fruit Council. "Technological Improvements in the Cashew Industry." Paper presented at the XXXVI World Nut and Dried Fruit Congress, May 2017.
- International Organization of Motor Vehicle Manufacturers (OICA). "Vehicles in Use." <http://www.oica.net/vehicles-in-use-2/> (accessed January 10, 2018).
- International Platinum Group Metals Association (IPA). "Autocatalysts and Platinum Group Metals (PGMs). Fact sheet, 2015. http://ipa-news.com/assets/sustainability/Autocatalyst%20Fact%20Sheet_LR.pdf.
- International Railway Journal*. "Transnet South Africa Orders 1064 Locomotives," March 17, 2014. <https://www.railjournal.com/index.php/locomotives/transnet-south-africa-orders-1064-locomotives.html>.
- International Service for the Acquisition of Agri-Biotech Applications (ISAAA). "Biotech Country Facts and Trends: South Africa," November 29, 2017. http://www.isaaa.org/resources/publications/biotech_country_facts_and_trends/download/Facts%20and%20Trends%20-%20South%20Africa.pdf.
- International Service for the Acquisition of Agri-Biotech Applications (ISAAA). "Policy Reforms Key in Biotech/GM Crops Adoption in Africa." *Crop Biotech Update*, September 6, 2017. <http://www.isaaa.org/kc/cropbiotechupdate/article/default.asp?ID=15762>.

- International Stainless Steel Forum. "Stainless Steel in Figures 2017," May 2017.
http://www.worldstainless.org/Files/issf/non-imagefiles/PDF/ISSF_Stainless_Steel_in_Figures_2017_English_Public.pdf.
- International Telecommunications Union (ITU). ITU World Telecommunications/ICT database (accessed various dates).
- International Trade Administration Commission of South Africa (ITAC). "Anti-dumping Duties Imposed on Frozen Chicken Portions Imports." ITAC Latest News, March 2, 2015.
<http://www.itac.org.za/news-headlines/media-releases/anti-dumping-duties-imposed-on-frozen-chicken-portions-imported-from-germany,-the-netherlands,-and-the-united-kingdom>.
- International Trade Advisory Commission of South Africa (ITAC). "Draft Guidelines for the Application of a DAFF Quota Allocation Import Permit for U.S. Chicken." October 2015.
<http://www.itac.org.za/upload/Draft%20Guidelines%20US%20Chicken%20SAPA%20AGOA%2030%20Oct%202015.pdf>.
- International Trade Centre (Switzerland). "Export Potential Map," 2016.
<http://exportpotential.intracen.org/#/home>.
- International Trade Centre (Switzerland). Export Potential Map interactive tool.
<http://exportpotential.intracen.org/#/products/tree-map?fromMarker=i&exporter=842&toMarker=re&market=1&whatMarker=k> (accessed January 29, 2018).
- IT News Africa (South Africa). "IBM Opens Cloud Data Centers in Africa," March 8, 2016.
<http://www.itnewsafrika.com/2016/03/ibm-opens-cloud-data-center-in-south-africa/>.
- Iwuoha, John-Paul. "Automobiles—Lucrative Opportunities You Can Exploit in Africa's Huge and Rapidly Growing Vehicle Market." Smallstarter (Nigeria), June 29, 2013.
<http://www.smallstarter.com/browse-ideas/automobile-related-businesses/>.
- Jackson, Mike. "Proactive Positioning: Changing Dynamics in North America and Beyond." IHS Markit. South Carolina Automotive Summit presentation, Greenville, SC, February 22, 2017.
<http://www.scautomotivecouncil.com/wp-content/uploads/2017/03/SCAS-IHS-Markit-MJackson-22FEB2017-4D.pdf>.
- Jacobsen Elektro AS (Norway). "Kinyerezi I 150 MW Power Plant Inaugurated in Tanzania." News release, October 21, 2015. <http://www.jel.no/en/kinyerezi-i-150mw-power-plant-inaugurated-in-tanzania/>.
- Jaganathan, Jessica. "East Africa Move to Cleaner Fuels to Soak Up New Low-Sulphur Supplies." Reuters, August 29, 2014. <https://af.reuters.com/article/investingNews/idAFKBN0GTOMV20140829>.
- Jansen, Bart. "Ethiopian Airlines Plans to Expand Flights to U.S." *USA Today*, August 6, 2014.
<https://www.usatoday.com/story/todayinthesky/2014/08/06/ethiopian-airlines-washington-los-angeles-dreamliner/13673109/>.

U.S. Trade and Investment with Sub-Saharan Africa: Recent Developments

- Japan External Trade Organization (JETRO). Institute of Developing Economies. "Outward FDI from Developing Countries: A Case of Chinese Firms in South Africa," by K. Kimura. Discussion Paper 385, February 2013. <http://hdl.handle.net/2344/1212>.
- Jaschik, Scott. "International Graduates Winning Right to Work in U.S." *Inside Higher Ed*, May 19, 2017. <https://www.insidehighered.com/news/2017/05/19/data-show-international-graduates-us-colleges-are-winning-right-stay-country-and>.
- Jaskula, Brian. "Lithium." Mineral Commodity Summaries. Reston, VA: U.S. Geological Survey, January 2017. <https://minerals.usgs.gov/minerals/pubs/commodity/lithium/mcs-2017-lithi.pdf>.
- Joaque, Zainab. "Sierra Leone News: Salone Goes Live with ECOWAS Common External Tariff." *Awoko News*, December 19, 2017. <https://awoko.org/2018/01/04/sierra-leone-news-salone-goes-live-with-ecowas-common-external-tariff-2/>.
- Jobson, Elissa. "Shoemaker Huajian Says New \$2bn Manufacturing Zone Will Transfer Skills to Locals So They Can Become the Future Managers." *Guardian*, April 30, 2013. <https://www.theguardian.com/global-development/2013/apr/30/chinese-investment-ethiopia-shoe-city>.
- Johnson Matthey. *PGM Market Report May 2017: Summary of Platinum Supply and Demand in 2016*, May 2017. http://www.platinum.matthey.com/documents/new-item/pgm%20market%20reports/pgm_market_report_may_2017.pdf.
- Johnson, Stuart E., Caroline Baxter, James T. Bartis, and Duncan Long. *Promoting International Energy Security: Volume 4, The Gulf of Guinea*. RAND report for the U.S. Air Force, 2012. https://www.rand.org/content/dam/rand/pubs/technical_reports/2012/RAND_TR1144z4.sum.pdf.
- Juma, Calestous, and Francis Manganii. "A Trade Deal Is About to Give Africa a Major Economic Boost." *Daily Star* (Lebanon), July 2, 2015. <http://www.dailystar.com.lb/Opinion/Commentary/2015/Jul-02/304694-a-trade-deal-is-about-to-give-africa-a-major-economic-boost.ashx>.
- Jumia Travel (Nigeria). "Hospitality Report: Nigeria 2017," March 2, 2017. <https://travel.jumia.com/en-gb/hospitality-report-nigeria>.
- Jung, Andy. "Opportunities for U.S. Insurance Companies in Africa." *Borgen Magazine*, February 11, 2017. <http://www.borgenmagazine.com/insurance-companies-in-africa/>.
- Kalebaila, George. "The Internet of Things in Africa—Beyond the Hype." International Data Corporation (IDC), October 4, 2017. <https://www.idc.com/getdoc.jsp?containerId=CEMA43088517> (fee required).
- Kamau, George. "Money Laundering Sees Cut-off SWIFT Payments in the Region." *The East African*, November 7, 2017. <http://www.theeastafrican.co.ke/business/Money-laundering-sees-cut-off-SWIFT-payments/2560-4176766-wmo2xv/index.html>.

- Kangethe, Kennedy. "Kenya Airways to Fly Direct to US Next Year after Approval." Capital FM, September 8, 2017. <https://www.capitalfm.co.ke/business/2017/09/kenya-airways-fly-direct-us-next-year-approval/>.
- Kassem, Mahmoud. "Adnoc Takes the 10-Year View on LPG Exports." *National* (United Arab Emirates), February 22, 2017. <https://www.thenational.ae/business/adnoc-takes-the-10-year-view-on-lpg-exports-1.68402>.
- Katanga Mining Ltd. "Annual Information Form for the Year Ended December 31, 2015." <http://www.katangamining.com/investor-relations.aspx> (accessed December 14, 2017).
- Katanga Mining Ltd. "Management's Discussion and Analysis for the Three Months Ended December 31, 2014 and 2013." <http://www.katangamining.com/investor-relations/financial-results/2014.aspx> (accessed December 15, 2017).
- Katanga Mining Ltd. "Management's Discussion and Analysis for the Three Months Ended December 31, 2016 and 2015 Restated." <http://www.katangamining.com/investor-relations/financial-results/2017.aspx> (accessed December 15, 2017).
- Kazeem, Yomi. "Only One in Four Nigerians Applying to University Will Get a Spot." Quartz, February 22, 2017. <https://qz.com/915618/only-one-in-four-nigerians-applying-to-university-will-get-a-spot/>.
- Kazeem, Yomi. "Why Nigerians Are Saving Up to \$50,000 to Pay for UK and US Degrees." Quartz, November 25, 2015. <https://qz.com/558224/why-nigerians-are-saving-up-to-50000-to-pay-for-uk-and-us-degrees/>.
- Kenya Airways. *Kenya Airways Annual Report and Financial Statements for the Year Ended 31 March 2106*. https://www.kenya-airways.com/uploadedFiles/Content/About_Us/Investor_Information/KQ_Annual_Report_2016.PDF.
- Khadaroo, A.J., and B. Seetanah. "Transport Infrastructure and Foreign Direct Investment." *Journal of International Development* 22, no. 1 (January 2010): 103–23. <http://onlinelibrary.wiley.com/doi/10.1002/jid.1506/abstract>.
- Kolstad, Ivar, and Arne Wiig. "Better the Devil You Know? Chinese Foreign Direct Investment in Africa." *Journal of African Business* 12, no. 1 (2011): 31–50. <https://doi.org/10.1080/1536710X.2011.555259>.
- KPMG. Global Mining Institute. *Democratic Republic of Congo: Country Mining Guide*. KPMG International Strategy Series, 2014. <https://assets.kpmg.com/content/dam/kpmg/pdf/2014/09/democratic-republic-congo-mining-guide.pdf>.
- KPMG. "Evolve: Intelligent Insurance," 2017. <https://home.kpmg.com/content/dam/kpmg/za/pdf/2017/08/2017-insurance-survey.pdf>.

U.S. Trade and Investment with Sub-Saharan Africa: Recent Developments

- KPMG. *Sub-Saharan Africa Power Outlook 2016*. KPMG Africa Infrastructure, 2016.
<https://assets.kpmg.com/content/dam/kpmg/pdf/2016/05/kpmg-sub-saharan-africa-power-outlook.pdf>.
- Krishnakumar, P.K. "Tight Global Supplies Hit Cashew Nut Industry in India." *Economic Times* (India), May 4, 2017.
- Kuck, Peter. "Nickel." Mineral Commodity Summaries. Reston, VA: U.S. Geological Survey, 2015–16.
<https://minerals.usgs.gov/minerals/pubs/commodity/nickel/mcs-2015-nicke.pdf>.
- Kuwonu, Franck. "Cashing In on the Cashew Nuts Boom." *Africa Renewal*, August 2015.
[Http://www.un.org/africarenewal/magazine/august-2015/cashing-cashew-nuts-boom](http://www.un.org/africarenewal/magazine/august-2015/cashing-cashew-nuts-boom).
- Larginois, Frederic. "Microsoft Will Soon Open Its First Two Data Centers in Africa." TechCrunch, May 18, 2017. <https://techcrunch.com/2017/05/18/microsoft-will-soon-open-its-first-two-data-centers-in-africa/>.
- Lindt & Sprungli. "Sustainability." <http://www.lindt-spruengli.com/sustainability/ask-lindt-spruengli/> (accessed December 29, 2017).
- Liquiang, Hou, and Wang Chao. "Chinese Tourists to Africa on Rise." *China Daily*, November 28, 2014.
http://www.chinadaily.com.cn/world/2014-11/28/content_18995323.htm.
- Liser, Florizelle, CEO/President, Corporate Council on Africa. Hearing testimony to the U.S. International Trade Commission in connection with investigation no. 332-564, *U.S. Trade and Investment in Sub-Saharan Africa: Recent Developments*, January 23, 2018.
- Lo, Chris. "Nurturing an African Pharma Boom." *Pharmaceutical Technology*, July 25, 2016.
<http://www.pharmaceutical-technology.com/features/featurenurturing-an-african-pharma-boom-4960692/>.
- Logistics Update Africa*. "Ethiopian Launches Two New Cargo Routes to Europe," April 19, 2017.
<http://www.logupdateafrica.com/ethiopian-launches-two-new-cargo-routes-to-europe-aviation>.
- Lokeshwarri, SK. "Why Money Flow via Mauritius Is Drying Up." *Hindu Business Line*, January 20, 2018.
<http://www.thehindubusinessline.com/economy/why-money-flow-via-mauritius-is-drying-up/article8397075.ece>.
- LPG Business Review (Singapore). "Understanding LPG in West Africa," July 26, 2016.
<http://www.lpgbusinessreview.com/2016/07/26/understanding-lpg-in-west-africa/>.
- Luiz, John Manuel, and Harris Charalambous. "Factors Influencing Foreign Direct Investment of South African Financial Services Firms in Sub-Saharan Africa." *International Business Review* 18, no. 3 (June 2009): 305–17. <https://doi.org/10.1016/j.ibusrev.2009.02.008>.
- Lundin Mining Corp. "Management's Discussion and Analysis for the Year Ended December 31, 2016." <http://www.lundinmining.com/s/FinancialStatements.asp> (accessed December 1, 2017).

- Maasho, Aaron. "Ethiopia Bets on Clothes to Fashion Industrial Future." Reuters, November 21, 2017. <https://www.reuters.com/article/us-ethiopia-textiles/ethiopia-bets-on-clothes-to-fashion-industrial-future-idUSKBN1DL1VU>.
- MacGregor, Karen, and Francis Kokutse. "U.S. Colleges Look to Recruit More Students from Africa." University World News. *Chronicle of Higher Education*, March 16, 2016. <https://www.chronicle.com/article/US-Colleges-Look-to-Recruit/235727>.
- Mackintosh, Maureen, Geoffrey Banda, Paula Tibandebage, and Watu Wamae. *Making Medicines in Africa: The Political Economy of Industrializing for Local Health*, 2016. <https://link.springer.com/book/10.1007%2F978-1-137-54647-0>.
- Malet, Jean-Baptiste. "Tomato-Paste Colonialism: How a Mao-era Chinese Agricultural Conglomerate Came to Dominate the African Tomato Market." *Nation*, June 2, 2017. <https://www.thenation.com/article/tomato-paste-colonialism/>.
- Management Mania. "Primary Sector (Raw Materials)." n.d. (accessed April 20, 2018). <https://managementmania.com/en/raw-materials-primary-sector>.
- Mander, Benedict. "Argentina's YPF to Invest \$30 Bn to Emulate U.S. Shale Boom." *Financial Times*, October 25, 2017. <https://www.ft.com/content/6b764232-b98e-11e7-8c12-5661783e5589>.
- Manyika, James, Armando Cabral, Lohini Moodley, Suraj Moraje, Safroadu Yeboah-Amankwah, Michael Chui, and Jeremy Anthonyrajah. "Lions Go Digital: The Internet's Transformative Potential in Africa." McKinsey Global Institute, November 2013. <https://www.mckinsey.com/industries/high-tech/our-insights/lions-go-digital-the-internets-transformative-potential-in-africa>.
- Marriott International, Inc. "Marriott International's Commitment to Expansion across Africa Gathers Momentum." News release, October 2, 2014. <http://news.marriott.com/2014/10/marriott-internationals-commitment-to-expansion-across-africa-gathers-momentum.html>.
- Masare, Alawi. "Tanzanians to Use Sh21bn on Oil Daily." *Citizen (Tanzania)*, February 19, 2015. <http://www.thecitizen.co.tz/magazine/businessweek/Tanzanians-to-use-Sh21bn-on-oil-daily/1843772-2628798-5sgqjz/index.html>.
- Maslin, Elaine. "African FPSOs." *Offshore Engineer*, January 1, 2016. <http://www.oedigital.com/component/k2/item/11271-african-fpsos>.
- McFarland, Matt. "East Africa Is Leading the World in Drone Delivery." CNNtech, August 24, 2017. <http://money.cnn.com/2017/08/24/technology/east-africa-drones/index.html>.
- McGowan, Joe. PHV Corporation. Written testimony submitted to the U.S. International Trade Commission in connection with inv. no. 332-564, *U.S. Trade and Investment with Sub-Saharan Africa: Recent Developments*, January 11, 2018.
- McGroarty, Patrick, Drew Hinshaw, and Matina Stevis. "Fall in Oil Prices Threatens Africa's Economic Growth." *Wall Street Journal*, December 11, 2014. <https://www.wsj.com/articles/fall-in-oil-prices-threatens-africas-economic-growth-1418347811>.

U.S. Trade and Investment with Sub-Saharan Africa: Recent Developments

McKinsey & Co. *Dance of the Lions and Dragons: How Are Africa and China Engaging, and How Will the Partnership Evolve?* June 2017. <https://www.africa-newsroom.com/files/download/aa9f2979a3dc18e>.

McKinsey & Co. *Global Insurance Industry Insights: An In-Depth Perspective*. North America edition. Global Insurance Pools, 4th edition, 2014. https://www.mckinsey.com/~media/mckinsey/dotcom/client_service/Financial%20Services/Latest%20thinking/Insurance/Global_insurance_industry_insights_An_in-depth_perspective.ashx.

McKinsey & Co. “Sub-Saharan Africa: A Major Potential Revenue Opportunity for Digital Payments,” February 2014. <https://www.mckinsey.com/industries/financial-services/our-insights/sub-saharan-africa-a-major-potential-revenue-opportunity-for-digital-payments>.

McKinsey Global Institute. *Lions on the Move: The Progress and Potential of African Economies*, June 2010. https://www.mckinsey.com/~media/McKinsey/Global%20Themes/Middle%20East%20and%20Africa/Lions%20on%20the%20move/MGI_Lions_on_the_move_african_economies_full_report.ashx.

McNeil, Jr., Donald G. “South Africa’s Bitter Pill for World’s Drug Makers.” *New York Times*, March 29, 1998. <https://www.nytimes.com/1998/03/29/business/south-africa-s-bitter-pill-for-world-s-drug-makers.html>.

McNevin, Ambrose. “Mega Data Centers Open in Nigeria.” *DataCenterDynamics*, June 27, 2013. <http://www.datacenterdynamics.com/content-tracks/servers-storage/mega-data-centers-open-in-nigeria/80600.fullarticle>.

Mengistu, Muhabie Mekonnen. “Multiplicity of African Regional Economic Communities and Overlapping Memberships: A Challenge for African Integration.” *International Journal of Economics, Finance and Management Sciences* 3, no. 5 (2015): 417–25. [doi:10.11648/j.ijefm.20150305.12](https://doi.org/10.11648/j.ijefm.20150305.12).

Middle East Logistics. “Ethiopian Airlines Launches Largest Air Cargo Terminal in Africa.” *Arabian Supply Chain*, July 10, 2017. <http://www.arabiansupplychain.com/article-13363-ethiopian-airlines-launches-largest-air-cargo-terminal-in-africa/>.

Miemoukanda, Mervin. “The Rise of Innovation Accelerators in Sub-Saharan Africa.” *Information Data Corporation (IDC)*, April 2017. <https://www.idc.com/getdoc.jsp?containerId=CEMA41402517> (fee required).

Miemoukanda, Mervin. “The State of Big Data and Analytics in South Africa: Driving Digital Transformation.” *International Data Corporation (IDC)*, July 2017. <https://www.idc.com/getdoc.jsp?containerId=CEMA42083917>.

Millan, Carolina, and Nizar Manek. “African Roses Are U.S.- Bound as Ethiopian Growers Go Global.” *Bloomberg*, December 18, 2017. <https://www.bloomberg.com/news/articles/2017-12-19/from-africa-to-your-loved-one-ethiopia-targets-u-s-rose-market>.

- Minder, Raphael. "Investment in Angolan Banking May Prove a Crippling Deal for Portugal." *New York Times*, July 29, 2014. https://www.nytimes.com/2014/07/30/business/international/for-banco-espirito-santo-questions-over-angolan-subsiary.html?_r=1.
- Mirondo, Rosemary. "Govt Loosens Foreigners' Grip on Fuel Importation." *Citizen (Tanzania)*, September 22, 2016. <http://www.thecitizen.co.tz/News/Govt-loosens-foreigners--grip-on-fuel-importation/1840340-3390800-12tyk62z/index.html>.
- Mistry, Hetain. *Special Report: Petrochemicals; India to Outweigh Chinese Polyolefin Demand Growth over the Next Ten Years*. Platts McGraw Hill Financial, September 2014. <https://www.platts.com/IM.Platts.Content/InsightAnalysis/IndustrySolutionPapers/sr-india-china-polyolefins-0914.pdf>.
- Mo Ibrahim Foundation. *Regional Integration Uniting to Compete*, 2014. <http://static.moibrahimfoundation.org/downloads/publications/2014/2014-facts-&-figures-regional-integration-uniting-to-compete.pdf>
- Moody's Investors Service. "Higher Education—US: 2018 Outlook Changed to Negative as Revenue Growth Moderates," December 5, 2017. https://www.insidehighered.com/sites/default/server_files/media/2018%20Outlook%20for%20Higher%20Education%20Changed%20to%20Negative.pdf.
- Moody's Investors Service. "Moody's Downgrades Ratings of South African Insurance Groups Following Action on the South African Sovereign," June 12, 2017. https://www.moodys.com/research/Moodys-downgrades-ratings-of-South-African-insurance-groups-following-action--PR_367862.
- Morris, Mike, and Cornelia Staritz. "Industrialization Trajectories in Madagascar's Export Apparel Industry: Ownership, Embeddedness, Markets, and Upgrading." *World Development* 56 (April 2014): 243–57. <https://www.sciencedirect.com/user/chooseorg?targetURL=%2Fscience%2Farticle%2Fpii%2FS0305750X13002428>.
- Moss, Sebastian. "MTN Business Opens \$13 Million Data Center in Nairobi, Kenya." *DataCenterDynamics*, March 30, 2017. <http://www.datacenterdynamics.com/content-tracks/colo-cloud/mtn-business-opens-13-million-data-center-in-nairobi-kenya/98083.fullarticle>.
- Mtshali, Khanya. "African Instagrammers Documenting Rare, Hidden Hotspots on the Continent Are Disrupting Tourism." *Quartz*, August 19, 2017. <https://qz.com/1049479/startups-are-using-instagram-to-give-a-fresh-and-african-take-on-tourism-on-the-continent/>.
- Mulder, Nan-Dirk. "Time for Africa: Modern Poultry Industry Is Taking Shape in Africa." Report summary. Rabobank, February 2017. <https://research.rabobank.com/far/en/sectors/animal-protein/Time-for-Africa-Report.html>.
- Mwai, Collins. "Rwanda Re-Admitted into ECCAS." *New Times (Rwanda)*, May 27, 2015. <http://www.newtimes.co.rw/section/article/2015-05-27/189185/>.

U.S. Trade and Investment with Sub-Saharan Africa: Recent Developments

Mwamunyange, Joseph. "Tanzania Overhauls Petroleum Import System." *East African* (Kenya), August 21, 2016. <http://www.theeastafrican.co.ke/business/Tanzania-overhauls-petroleum-import-system/2560-3352056-17l7epz/index.html>.

National Association of Automotive Component and Allied Manufacturers of South Africa (NAACAM). "Supply Chain Partners Collaborate to Showcase Catalytic Converter Industry at the 2017 NAACAM Show." News release, March 28, 2017. <https://www.rnews.co.za/article/13811/supply-chain-partners-collaborate-to-showcase-catalytic-converter-industry-at-the-2017-naacam-show>.

National Association of Automotive Component and Allied Manufacturers of South Africa (NAACAM). "The South African Automotive Industry, the MIDP and the APDP." Presentation by Roger Pitot at NAACAM conference, October 2011. <http://www.automechanikasa.co.za/pdf/2013-docs/NAACAM-Presentation.pdf>.

National Energy Regulator of South Africa (NERSA). *Monitoring Renewable Energy Performance of Power Plants: Progress in the First Half of 2017*. Issue 10, September 2017. http://www.nersa.org.za/Admin/Document/Editor/file/Electricity/SustainableEnergy/Monitoring%20Report%20Oct2017_No2.pdf.

National Public Radio. "Meet A Tractor That Can Plow Fields and Talk to the Cloud," March 29, 2016. <https://www.npr.org/sections/goatsandsoda/2016/03/29/472129577/meet-a-tractor-that-can-plow-fields-and-talk-to-the-cloud>.

Nedelcovych, Mima. "How the US and China Are Empowering Ethiopia's Private Sector." *Africa Report* (Paris), February 11, 2016. <http://www.theafricareport.com/East-Horn-Africa/how-the-us-and-china-are-empowering-ethiopias-private-sector.html>.

Nedumaran, S., P. Abinaya, P. Jyosthnaa, B. Shraavya, Parthasarathy Rao, and Cynthia Bantilan. *Grain Legumes Production, Consumption and Trade Trends in Developing Countries*. ICRISAT Research Program. Working Paper Series no. 60, 2015. <http://oar.icrisat.org/8991/1/2015-101%20WPS%2060.pdf>.

Nestlé. "Cocoa: Our Commitment." <https://www.nestle.com/csv/communities/nestle-cocoa-plan> (accessed January 23, 2018).

Netherlands Enterprise Agency. Centre for the Promotion of Imports from Developing Countries (CBI). "Exporting Cocoa to the Netherlands," updated May 10, 2017. <https://www.cbi.eu/market-information/cocoa/netherlands/>.

New African Magazine. "Health in Africa: Building an African Pharmaceutical Industry," June 29, 2017. <http://newafricanmagazine.com/changing-landscape-health-africa-building-pharmaceutical-industry/>.

News24Wire. "Shell Gets Nod to Drill Wells in SA's Orange Basin." *Engineering News* (South Africa), October 19, 2015. http://www.engineeringnews.co.za/article/shell-gets-nod-to-drill-wells-in-sas-orange-basin-2015-10-19/rep_id:4136.

- Newsweek*. "Business Advice for United States Companies in Africa: Do What You Do Best," June 25, 2017. <http://www.newsweek.com/business-advice-us-africa-business-china-africa-628320>.
- Nigeria Data Portal. "Foreign Trade in Goods Statistics." <http://nigeria.opendataforafrica.org/NBSNFRS2016Q1/foreign-trade-in-goods-statistics-q1-2017> (accessed December 14, 2017).
- Nikolic, Frank. "Electric Vehicle Revolution and Implications for the Nickel Market." Presentation at CRU-Ryan's Notes Ferroalloys Conference, Scottsdale, AZ, October 24, 2017. http://www.fullertreacymoney.com/system/data/files/PDFs/2017/October/20th/Vale_EV%20and%20Nickel%20-%20Conference%20Oct%202017v3.pdf.
- Njobeni, Siseko. "Cleaner Fuels Hitting a Refineries Snag." *Mercury* (South Africa), December 13, 2017. <https://www.pressreader.com/south-africa/the-mercury/20171213/281917363424555>.
- Nonnenberg, Marcelo José Braga, and Mario Jorge Cardoso de Mendonca. "The Determinants of Foreign Direct Investment in Developing Countries." Study published in *Anais do XXXII Encontro Nacional de Economia [Proceedings of the 32nd Brazilian Economics Meeting]* 061, Associação Nacional dos Centros de Pós-graduação em Economia [Brazilian Association of Graduate Programs in Economics], 2004. <https://ideas.repec.org/p/anp/en2004/061.html>.
- Novartis. "Novartis, ASCP and ACS Join Forces to Fight Cancer in Ethiopia, Uganda and Tanzania." Press release, November 15, 2017. <https://www.novartis.com/news/media-releases/novartis-ascp-and-acsc-join-forces-fight-cancer-ethiopia-uganda-and-tanzania>.
- Nugent, Rory. "Hope Floats: As The Recession Blows a Gale, the World's Most Expensive Cruise Ship Nears Completion." *Atlantic*, June 2009. <https://www.theatlantic.com/magazine/archive/2009/06/hope-floats/307441/>
- Odell, Cinnamon. "Top 10 Offshore Driller Survey Sees Some Shakeup." *Offshore* (Houston), February 15, 2017. <http://www.offshore-mag.com/articles/print/volume-77/issue-2/top-10-drillers/top-10-offshore-driller-survey-sees-some-shakeup.html>.
- Offshore* (Houston). "Egina FPSO Sets Sail for Nigeria," November 2, 2017. <http://www.offshore-mag.com/articles/2017/11/egina-fpso-sets-sail-for-nigeria.html>.
- Offshore* (Houston). "Total Starts Up Moho Nord Offshore Congo," March 15, 2017. <http://www.offshore-mag.com/articles/2017/03/total-starts-up-moho-nord-offshore-congo.html>.
- Offshore Energy Today* (Rotterdam). "Chinese Driller Signs 'Innovative' Rig Deal in Nigeria," November 16, 2016. <https://www.offshoreenergytoday.com/chinese-driller-signs-innovative-rig-deal-in-nigeria/>.
- Offshore Energy Today* (Rotterdam). "COPL Not Giving Up on Liberian Offshore Block," September 27, 2017. <https://www.offshoreenergytoday.com/copl-not-giving-up-on-liberian-offshore-block/>.

- Offshore Engineer* (Houston). "ExxonMobil Assessing Equatorial Guinea Well," December 11, 2017. <http://www.oedigital.com/production/fpso/item/16692-exxonmobil-assessing-equatorial-guinea-well>.
- Offshore Technology (UK). "Erha Deepwater Development." <https://www.offshore-technology.com/projects/erha-deepwater-development/> (accessed February 27, 2018).
- Ohuocha, Chijioko. "Nigeria Asks Goldman, Stanbic to Help Sell Debut 'Diaspora Bond.'" Reuters, January 30, 2017. <https://www.reuters.com/article/us-nigeria-bonds-diaspora/nigeria-asks-goldman-stanbic-to-help-sell-debut-diaspora-bond-idUSKBN15E1T1>.
- Ohuocha, Chijioko. "Second Nigerian Tomato Paste Plant Shuts." Reuters, January 18, 2017. <https://www.reuters.com/article/us-nigeria-food/second-nigerian-tomato-paste-plant-shuts-in-embarrassment-for-buhari-idUSKBN1522JZ>.
- Oil and Gas Journal*. "ExxonMobil Unit Extends FPSO Contract for Zafiro Field off Equatorial Guinea," May 12, 2017. <http://www.ogj.com/articles/2017/05/exxonmobil-unit-extends-fpso-contract-for-zafiro-field-off-equatorial-guinea.html>.
- Oil and Gas Year (TOGY) (United Arab Emirates). "Markets: Republic of Congo Overview." <http://www.theoilandgasyear.com/market/republic-of-congo/> (accessed February 27, 2018).
- Okello, Easter Elizabeth. "Revival of Production in the Footwear Industry in Kenya: The Case of Kariokor in Nairobi." MA project paper, University of Nairobi, n.d. [2014]. <http://erepository.uonbi.ac.ke/handle/11295/99775> (accessed January 30, 2018).
- Oketch, Martin Luther. "East Africa: There is Big Progress in Monetary Union-Regional Governors." *The Daily Monitor*, September 1, 2017. <http://www.monitor.co.ug/Business/There-is-big-progress-in-Monetary-Union---regional-governors/688322-4078588-i1sj40/index.html> also found at <http://allafrica.com/stories/201709010081.html>.
- Okonjo-Iweala, Ngozi. "Fulfilling the Promise of Sub-Saharan Africa." McKinsey & Company, June 2010. <https://www.mckinsey.com/global-themes/middle-east-and-africa/fulfilling-the-promise-of-sub-saharan-africa>.
- Olawunmi, Muderat. "Erisco Foods Begins Relocating Operations to China." Nairametrics article published in Asoko Insight (Nigeria), November 3, 2016. <https://asokoinsight.com/news/erisco-foods-begins-relocating-operations-to-china-nigeria>.
- One Source Food Solutions. "Paste: Spectacular Growth of US Exports," 2013. <http://www.onesourcefoodsolutions.com/user-files//Tomato%20Paste%20Export%20Growth%202013.pdf>.
- Organisation for Economic Co-operation and Development (OECD). "FDI Regulatory Restrictiveness Index." <http://www.oecd.org/investment/fdiindex.htm> (accessed December 8, 2017).
- Organisation for Economic Co-operation and Development (OECD). "Foreign Direct Investment Statistics: Explanatory Notes," 2015. <http://www.oecd.org/daf/inv/FDI-statistics-explanatory-notes.pdf>.

- Organisation for Economic Co-operation and Development (OECD). "OECD Economic Surveys: South Africa 2017," July 24, 2017. http://dx.doi.org/10.1787/eco_surveys-zaf-2017-en.
- Organisation for Economic Co-operation and Development (OECD). "Total Unit Labor Cost: Manufacturing for South Africa [LCULMN01ZAQ661S]." Data for 1/1/1963 to 1/1/2017 retrieved from Federal Reserve Bank of St. Louis (FRED). <https://fred.stlouisfed.org/series/LCULMN01ZAQ661S> (accessed January 24, 2018).
- Organisation for Economic Co-operation and Development (OECD) and the Food and Agricultural Organization of the United Nations (FAO). "Agriculture in Sub-Saharan Africa: Prospects and Challenges for the Next Decade." Chap. 2 in *OECD-FAO Agricultural Outlook 2016–2025*. Paris: OECD Publishing, 2016. <http://www.fao.org/3/a-i5778e.pdf>.
- Organization of the Petroleum Exporting Countries (OPEC). "OPEC: About Us; Member Countries," http://www.opec.org/opec_web/en/about_us/25.htm (accessed March 5, 2018).
- Osman, Osman Mohamed. "Will Kenya's War on Plastic Be Successful This Time?" CNN, August 31, 2017. <http://www.cnn.com/2017/08/31/africa/kenya-plastic-ban/index.html>.
- Overseas Private Investment Corporation (OPIC). "MIGA and OPIC Team Up to Support Private Equity Fund, Supporting Half a Million Small Farmers in Sub-Saharan Africa." Press release, June 9, 2014. <https://www.opic.gov/press-releases/2014/miga-and-opic-team-support-private-equity-fund-supporting-half-million-small-farmers-sub-saharan-africa>.
- Overseas Private Investment Corporation (OPIC). "Non-Confidential Business Project Summary," n.d. [https://www.opic.gov/sites/default/files/files/kipeto-info-summary\(1\).pdf](https://www.opic.gov/sites/default/files/files/kipeto-info-summary(1).pdf) (accessed February 5, 2018).
- Page, Sheila, and Sanoussi Bilal. *Regional Integration in Western Africa*. Overseas Development Institute (UK), September 2001. <https://www.odi.org/resources/docs/4628.pdf>.
- Park, Y.J. "Chinese Migration in Africa." South African Institute of International Affairs. China in Africa Project, Occasional Paper no. 24, 2009. <https://www.saiia.org.za/occasional-papers/132-chinese-migration-in-africa/file>.
- Peyper, Leisel. "SAA Will Continue to Lease Aircraft, Says Board." Fin24 (South Africa), March 20, 2017. <https://www.fin24.com/Companies/Industrial/saa-will-continue-to-lease-aircraft-says-board-20170320>.
- Piermartini, Roberta, and Yoto V. Yotov. "Estimating Trade Policy Effects with Structural Gravity." WTO Working Paper ERSD-2016-10, 2016. http://www.cesifo-group.de/DocDL/cesifo1_wp6009.pdf.
- Pigato, Miria, and Wenxia Tang. "China and Africa: Expanding Economic Ties in an Evolving Global Context." World Bank Working Paper no. 95161. Washington, DC: World Bank Group, March 2015. <http://documents.worldbank.org/curated/en/241321468024314010/China-and-Africa-expanding-economic-ties-in-an-evolving-global-context>.
- Pigato, Miria, and Wenzia Tang. "Investing in Africa Forum." World Bank, March 2015.

U.S. Trade and Investment with Sub-Saharan Africa: Recent Developments

- Pilling, David. "Chinese Investment in Africa: Beijing's Testing Ground." *Financial Times*, June 13, 2017. <https://www.ft.com/content/0f534aa4-4549-11e7-8519-9f94ee97d996>.
- Platts McGraw Hill Financial. "Shale Gas to Polyethylene: Global Outlook to 2023." Platts Petrochemical Analytics, n.d. [2014]. <https://www.platts.ru/IM.Platts.Content/ProductsServices/Products/Petchemanalysis-ShaletoPE.pdf> (accessed January 10, 2018).
- Poultry Site (UK). "Nigerian Poultry Prices Soar after Smuggling Crackdown," July 22, 2015. <http://www.thepoultrysite.com/poultrynews/35469/nigerian-poultry-prices-soar-after-smuggling-crackdown/>.
- Power Engineering. "APR Energy to Provide Mobile Gas Turbines in Angola," December 6, 2013. <http://www.power-eng.com/articles/2013/12/apr-energy-to-provide-mobile-gas-turbines-in-angola.html>.
- Power Engineering International. "GE to Build 1200 MW Gas-fired Power Plant in Ghana," January 28, 2015. <http://www.powerengineeringint.com/articles/2015/01/ge-to-build-1200-mw-power-plant-in-ghana.html>.
- Purvin & Gertz, Inc. "Regional Outlook: Sub-Saharan Africa." PowerPoint presentation by Chris Holmes for the WLPGA East Africa Summit, Nairobi, Kenya, July 2011. https://www.wlpga.org/wp-content/uploads/2015/09/Chris_Holmes.pdf.
- PVH (formerly Phillips-Van Heusen). "Moving the Needle in Ethiopia." Corporate responsibility featured story, 2017. <https://www.pvh.com/responsibility/Moving-the-Needle-in-Ethiopia>.
- PW Power Systems Inc. "PW Power Systems Announces Successful Commercial Operation of MOBILEPAC Gas Turbine Generators in Sub-Saharan Africa." News release, 2015. <http://www.pwps.com/latestnews/pw-power-systems-announces-successful-commercial-operation-of-mobilepac-gas-turbine-generators-in-sub-saharan-africa/>.
- PW Power Systems Inc. "PW Power Systems to Provide Guinea's First MOBILEPAC Gas Turbine Generator Package." News release, April 14, 2015. <http://www.pwps.com/latestnews/pw-power-systems-to-provide-guineas-first-mobilepac-gas-turbine-generator-package/>.
- PwC. "Africa's Next Automotive Hub." PwC Nigeria Automotive Industry, 2015. <https://www.pwc.com/ng/en/assets/pdf/africas-next-automotive-hub.pdf>.
- PwC. "New Africa Energy World: A More Positive Power Utilities Outlook." *PwC Africa Power & Utilities Sector Survey*, July 2015. <https://www.pwc.com/gx/en/utilities/publications/assets/pwc-africa-power-utilities-survey.pdf>.
- Raballand, Gaël, and Edmond Mjekiqi. "Nigeria's Trade Policy Facilitates Unofficial Trade but Not Manufacturing." Chap. 6 in *Putting Nigeria to Work: A Strategy for Employment and Growth*, edited by Volker Treichel. Washington, DC: World Bank, 2010. <http://documents.worldbank.org/curated/en/63625146833316118/pdf/550230PUB0Nige10Box349432B01PUBLIC1.pdf>.

- Rabany, C., N. Rullier, and P. Ricau. *The African Cashew Sector in 2015: General Trends and Country Profiles; Analysis of Cashew Production, Processing and Trade in Africa*. Prepared for the African Cashew Initiative (ICA) by Rongread, April–October 2015.
http://www.rongread.org/IMG/pdf/african_cashew_market_review_rongread_ica_2015.pdf.
- Rahman, Majeed. “China-Africa Relations: A Case Study of China’s Foreign Direct Investment in Ghana.” *International Business and Management* 33, 151–72 (2017).
http://citation.allacademic.com/meta/p560450_index.html.
- Rainbow Reservoirs (South Africa). “Water Storage Tanks and Reservoirs,” n.d.
<http://www.rainbowtanks.co.za/water-storage-tanks-angola.html> (accessed January 17, 2018).
- RelationshipScience. “Overview of Assur Africa Holding Ltd.”
<https://relationshipscience.com/organization/assur-africa-holding-ltd-1845031> (accessed February 8, 2018).
- Reuters. “Agriculture: Cameroon to Increase Cocoa Processing Output.” In *Africa Report* (Paris), March 16, 2015. <http://www.theafricareport.com/Central-Africa/agriculture-cameroon-to-increase-cocoa-processing-output.html>.
- Reuters. “Allianz Buys Nigerian Insurer for \$35 Million in African Push,” August 30, 2017.
<https://www.reuters.com/article/ensure-ma-allianz/update-1-allianz-buys-nigerian-insurer-for-35-mln-in-african-push-idUSL8N1LG3G9>.
- Reuters. “Arab Maghreb Union States Create Investment Bank,” January 9, 2013.
<http://www.reuters.com/article/2013/01/10/mauritania-investment-bank-idUSL5E9CA00520130110>.
- Reuters. “Can Africa Deal With an Expected Boom in Demand for Meat?” March 13, 2017.
<https://www.reuters.com/article/us-africa-food-livestock/can-africa-deal-with-an-expected-boom-in-demand-for-meat-idUSKBN16K1V3>.
- Reuters. “Insight: Tiny Togo Thinks Big in Pursuit of Pan-African Dream,” June 11, 2015.
<https://www.reuters.com/article/africa-economy-togo/insight-tiny-togo-thinks-big-in-pursuit-of-pan-african-dream-idUSL5N0Y43YI20150611>.
- Reuters. “Ivory Coast and Ghana to Create Joint Cocoa Body—Draft Document,” June 3, 2017.
<https://af.reuters.com/article/topNews/idAFKBN18U081-OZATP>.
- Reuters. “Kenya Oil Product Imports Likely to Hit Record, Offset Tepid Asia Demand,” May 12, 2015.
<https://www.reuters.com/article/kenya-oil-imports/kenya-oil-product-imports-likely-to-hit-record-offset-tepid-asia-demand-idUSL3N0Y24D120150512>.
- Reuters. “Nigeria Unlikely to Cut Fuel Sulphur Level Anytime Soon: Rainoil,” September 22, 2017.
<https://af.reuters.com/article/topNews/idAFKCN1BX18Z-OZATP?feedType=RSS&feedName=topNews>.

U.S. Trade and Investment with Sub-Saharan Africa: Recent Developments

- Reuters. "Niger Takes Delivery of New Boeing 737 Presidential Jet," September 4, 2014. http://www.defenceweb.co.za/index.php?option=com_content&view=article&id=36143:niger-takes-delivery-of-new-boeing-737-presidential-jet.
- Reuters. "Sulphurous Fuels Flow to West Africa as States Defer Tougher Rules," September 13, 2017. <https://www.reuters.com/article/africa-fuels-sulphur/sulphurous-fuels-flow-to-west-africa-as-states-defer-tougher-rules-idUSL8N1LI4MA>.
- Reuters. "U.S. Bird Flu Outbreak in Poultry," May 29, 2015. <https://www.reuters.com/article/us-health-birdflu-usa-factbox/u-s-bird-flu-outbreak-in-poultry-idUSKBN0OE2OG20150529>.
- Routely, Nick. "Mapped: The World's Network of Undersea Cables." *Business Insider*, August 26, 2017. <http://www.businessinsider.com/map-the-worlds-network-of-undersea-cables-2017-8>.
- Ruiz, Neil G. *The Geography of Foreign Students*. Brookings Institution, August 2014. <https://www.brookings.edu/interactives/the-geography-of-foreign-students-in-u-s-higher-education-origins-and-destinations/>.
- Russell, Michelle. "Tariff Preferences 'Not Enough' for AGOA Success." *Just-Style* (UK), August 1, 2014. https://www.just-style.com/analysis/tariff-preferences-not-enough-for-agoa-success_id122460.aspx.
- Ryberg, Paul. African Coalition for Trade, Inc. Written testimony submitted to the U.S. International Trade Commission in connection with inv. no. 332-564, *U.S. Trade and Investment with Sub-Saharan Africa: Recent Developments*, January 23, 2018.
- S&P Global Platts. "Nigeria Aims to Reduce Fuel Imports Further, Eyes LPG: Oil Minister," April 28, 2017. <https://www.platts.com/latest-news/oil/lagos/nigeria-aims-to-reduce-fuel-imports-further-eyes-26723652>.
- Sanchez, Dana. "Why Tomato Paste Is Such a Big Deal in Nigeria." *AFK Insider*, November 10, 2016. <https://afkinsider.com/134998/why-tomato-paste-is-such-a-big-deal-in-nigeria/>.
- Santos Silva, João, and Silvana Tenreiro. "The Log of Gravity." *Review of Economics and Statistics* 88, no. 4 (2006): 641–58. <https://doi.org/10.1162/rest.88.4.641>.
- Sasse, Allegresse, and Paul Carsten. "Nigeria Recession Deals Blow to Smuggling Hub Benin." Reuters, March 20, 2017. <https://www.reuters.com/article/us-nigeria-benin-smuggling-idUSKBN17125X>.
- Sasso, Michael. "United Airlines Cancels Houston-to-Nigeria Route, Its Only Flight to Africa." *Dallas News*, May 2016. <https://www.dallasnews.com/business/airlines/2016/05/26/united-airlines-cancels-houston-to-nigeria-route-ending-its-only-flight-to-africa>.
- Saul, Stephanie. "As Flow of Foreign Students Wanes, U.S. Universities Feel the Sting." *New York Times*, January 2, 2018. https://www.nytimes.com/2018/01/02/us/international-enrollment-drop.html?_r=0#story-continues-2.

- Scarano, Genevieve. "Trybus Group to Open Garment Production Facility in Ethiopia." *Sourcing Journal*, August 15, 2017. <https://sourcingjournalonline.com/trybus-group-to-open-garment-production-facility-in-ethiopia/>.
- Schlag, Nicolai, and Fiona Zuzarte. *Market Barriers to Clean Cooking Fuels in Sub-Saharan Africa: A Review of Literature*. Stockholm Environment Institute, April 2008. http://www.sei-international.org/mediamanager/documents/Publications/Climate/market_barriers_clean_cooking_fuels_21april.pdf.
- Schnebele, Emily. "Nickel." Mineral Commodity Summaries. Reston, VA: U.S. Geological Survey, 2017. <https://minerals.usgs.gov/minerals/pubs/commodity/nickel/mcs-2017-nicke.pdf>.
- Schneidman, Witney, and Zenia A. Lewis. *The African Growth and Opportunity Act: Looking Back, Looking Forward*. Brookings Africa Growth Initiative report, Brookings Institute, June 2012. https://www.brookings.edu/wp-content/uploads/2016/06/agoa_full_report.pdf.
- Schulmann, Paul. "African Student Mobility: Regional Trends and Recommendations for U.S. HEIs." *World Education News and Reviews (WENR)*, March 7, 2017. <https://wenr.wes.org/2017/03/african-student-mobility-insights-and-recommendation-for-u-s-heis>.
- Sea Harvest. "Cape Hake: Responsible Trawling for Cape Hake," June 26, 2017. <http://seaharvest.co.za/article/cape-hake/>
- Searcey, Dionne, and Matt Richtel. "Obesity Was Rising as Ghana Embraced Fast Food. Then Came KFC." *New York Times*, October 2, 2017. <https://www.nytimes.com/2017/10/02/health/ghana-kfc-obesity.html>.
- Seetanah, Boopen. "Inward FDI in Mauritius and Its Policy Context." Vale Columbia Center on Sustainable International Investment, Columbia FDI profiles, April 30, 2013. http://ccsi.columbia.edu/files/2014/03/Mauritius_IFDI_-_April_30_-_FINAL.pdf.
- Senelwa, Kennedy. "Smart LPG Meters Out in Kenya, Tanzania." *East African (Kenya)*. October 24, 2017. <http://www.theeastafrican.co.ke/business/Smart-LPG-meters-in-Kenya-Tanzania/2560-4153990-n0tavvz/index.html>.
- Sherritt International Corp. "Operations: Metals; Ambatovy Joint Venture," 2017. <http://www.sherritt.com/English/operations/metals/Ambatovy-Joint-Venture/default.aspx>.
- Sherritt International Corp. *Sherritt International Corp. Annual Report—2016*, March 28, 2017. http://s2.q4cdn.com/343762060/files/doc_financials/Annual-Report/2016/2016-Financial-Report-FINAL.pdf.
- Sherritt International Corp. "Sherritt: The Name in Nickel; Investor Presentation," December 1, 2017. http://s2.q4cdn.com/343762060/files/doc_presentations/2017/11/2017-11-IR-presentation-December-1.pdf.

U.S. Trade and Investment with Sub-Saharan Africa: Recent Developments

Sierra Leone Investment and Export Promotion Agency (SLIEPA). “SLIEPA and MTI Wraps Up Nationwide AGOA Consultative Meeting in Makeni.” News release, November 27, 2018.

<http://sliepa.org/sliepa-and-mti-wraps-up-nationwide-agoa-consultative-meeting-in-makeni/>.

Sikuka, Kizuto. “Africa’s Trade Enters Bold New Area,” *The Herald*, June 24, 2015.

<https://www.herald.co.zw/africas-trade-enters-bold-new-era/>.

Slater, Dylan. “Local Plastics Sector Shows Solid Performance.” *Engineering News* (South Africa), January 15, 2016. <http://www.engineeringnews.co.za/print-version/local-plastics-sector-shows-solid-growth-performance-2016-01-15>.

Société Générale (Paris). “Société Générale Partners with American Express in Africa.” Press release, November 21, 2016. <https://www.societegenerale.com/en/content/societe-generale-partners-american-express-africa-1>.

Söderling, Ludvig. “Is the Middle East and North Africa Region Achieving Its Trade Potential?” International Monetary Fund Working Paper WP/05/90, May 2005.

<https://www.imf.org/~media/Websites/IMF/imported-full-text-pdf/external/pubs/ft/wp/2005/wp0590.ashx>.

Solar Turbines Inc. “Worldwide Locations,” 2017.

<http://s7d2.scene7.com/is/content/Caterpillar/CM20150630-30875-28751>.

Song, Steve. “Africa’s Telecoms Infrastructure in 2016.” *Many Possibilities* (blog), September 8, 2017.

<https://manypossibilities.net/2017/09/african-telecoms-infrastructure-in-2016/>.

Song, Steve. “Africa’s Telecoms Infrastructure: 2015 at a Glance.” *International Telecommunications Union (ITU) Blog*, February 15, 2016. <https://itu4u.wordpress.com/2016/02/15/africas-telecoms-infrastructure-2015-at-a-glance/>.

Song, Steve. “African Undersea Cables” (version 47). *Many Possibilities* (blog), update July 2017.

<https://manypossibilities.net/african-undersea-cables/> (accessed February 2, 2018).

South African Airways. *South African Airways Integrated Annual Report for the Year Ended 2016*, 2016.

<https://www.flysaa.com/documents/51855150/51859528/SAA+IAR+2016.pdf/0276a1d0-2848-41bc-a62c-2a5a624605c5>.

Southern African Customs Union (SACU). “Agreements.” <http://www.sacu.int/list.php?type=Agreements> (accessed March 13, 2018).

Southern African Customs Union (SACU). “About SACU: History of SACU.”

<http://www.sacu.int/show.php?id=394> (accessed various dates).

Southern African Development Community (SADC). “Customs Unions,” 2012.

<http://www.sadc.int/about-sadc/integration-milestones/customs-union/>.

Southern African Development Community (SADC). “SADC Member States.”

<http://www.sadc.int/member-states> (accessed March 13, 2018).

- Southern African Development Community (SADC). "Free Trade Area," 2012. <http://www.sadc.int/about-sadc/integration-milestones/free-trade-area/>.
- Southern African Macadamia Growers' Association. "Industry Statistics," June 2, 2017. <https://www.samac.org.za/industry-statistics-southern-african-macadamia-industry/>.
- Spend Matters. "Cashew Nut Prices Soar on Tight Supply," July 10, 2017. <http://spendmatters.com/2017/07/10/cashew-nut-prices-soar-tight-supply/>.
- Staatz, John. "Strengthening Regional Agricultural Integration in West Africa." OECD Development Matters, July 26, 2017. <https://oecd-development-matters.org/2017/07/26/strengthening-regional-agricultural-integration-in-west-africa/>.
- Stein, Chris. "Airlines Pull Out of Nigeria as Its Economy Tanks." Voice of America News, June 3, 2016. <https://www.voanews.com/a/airlines-pull-out-nigeria-economy-tanks/3360854.html>.
- Still, John. "Civil Aviation in Sub-Saharan Africa: Governance, Security, and Safety Challenges." Strategy Bridge, September 22, 2016. <https://thestrategybridge.org/the-bridge/2016/9/22/civil-aviation-in-sub-saharan-africa-governance-security-and-safety-challenges>.
- Stivaros, Chrystalleni. *Seasoning, Sauce and Condiment Production in the United States*. IBISWorld Industry Report 31194, October 2017 (fee required).
- Swiss Re. *Insuring the Frontier Markets*. Sigma 2, 2016. [http://www.swissre.com/library/022016 Insuring the frontier markets.html](http://www.swissre.com/library/022016%20Insuring%20the%20frontier%20markets.html).
- Sy, Amadou. Full Statement before the U.S. House of Representatives Committee on Foreign Affairs Subcommittee on Africa, Global Health, Global Human Rights, and International Organizations. Hearing on, "Will there be an African Economic Community?" January 9, 2014. <http://docs.house.gov/meetings/FA/FA16/20140109/101628/HHRG-113-FA16-Wstate-SyA-20140109.pdf>.
- Tadias. "Ethiopian Airlines Re-launches Flight to Newark Liberty Airport in New Jersey," July 3, 2016. <http://www.tadias.com/07/03/2016/ethiopian-airlines-re-launches-flight-to-newark-liberty-airport-in-new-jersey/>.
- Tairo, Apolinari. "Kenya Airways Eyes New York as Its First Destination in United States." eTurboNews Tanzania, September 19, 2017. <https://www.eturbonews.com/165028/kenya-airways-eyes-new-york-first-destination-united-states>.
- Teixeira, Marcelo, and José Roberto Gomes. "New Brazil Ethanol Policy Should Boost Demand, M&A." Reuters, August 11, 2017. <https://www.reuters.com/article/us-brazil-ethanol-policy-analysis/new-brazil-ethanol-policy-should-boost-demand-ma-idUSKBN1AR22Q>.
- Telecommunications Industry Association (TIA). *TIA's 2015-2018 ICT Market Review and Forecast*. Arlington, VA: TIA, 2015. <https://www.tiaonline.org/resources/tias-2016-2020-ict-market-review-and-forecast>.

Tende, S., and E. Obumneke. "Impact of Petroleum on SMEs Growth in Nigeria." *International Journal of Entrepreneurial Knowledge* 2, no. 2 (2014): 4–14.

<https://www.degruyter.com/downloadpdf/j/ijek.2014.2.issue-2/ijek-2015-0001/ijek-2015-0001.pdf>.

Teravanithorn, Supee, and Gaël Raballand. *Transport Prices and Costs in Africa: A Review of the Main International Corridors*. Washington, DC: World Bank, 2009.

<https://openknowledge.worldbank.org/bitstream/handle/10986/6610/461810PUB0Box3101OFICIALOUSE0ONLY1.pdf;sequence=1>.

Textron Aviation. "Textron Aviation Begins Delivery of 10 Cessna Grand Caravan EX Turboprops to Support Charter Service in Botswana." News release, November 14, 2017.

<http://txtav.com/en/newsroom/2017/11/textron-aviation-begins-delivery-of-10-cessna-grand-caravan-ex-turboprops>.

Thomas, Elizabeth. "EXIM Bank: Supporting U.S. Business and Driving Development in Africa." *Export Finance Solutions* (blog). Export-Import Bank of the United States (EXIM), January 26, 2017.

<http://grow.exim.gov/blog/supporting-us-business-and-driving-development-in-africa>.

Times Higher Education (London). "World University Rankings 2016–2017."

<https://www.timeshighereducation.com/world-university-rankings/2017/world-ranking#survey-answer> (accessed January 21, 2018).

Todd, Benjamin S. "Doing Business in Africa." Export-Import Bank of the United States. PowerPoint presentation, Governors State University, March 11, 2016.

https://www.govst.edu/uploadedFiles/Academics/Colleges_and_Programs/CBPA/gsu/DBI%20Africa%20-%20EXIM%20Ben%20Todd%20presentation.pdf.

TOGY. *See Oil and Gas Year*.

Trade Data Services, Inc. Import Genius database. <https://app.importgenius.com/> (accessed December 5, 2017).

Trade Law Centre (TRALAC) (South Africa). "SADC-EAC-COMESA Tripartite Free Trade Area Legal Texts and Policy Documents," 2017. <https://www.tralac.org/resources/by-region/comesa-eac-sadc-tripartite-fta.html>.

Trade Law Centre (TRALAC) (South Africa). "The Status of Integration in Africa V (SIA V)", June 30, 2014. <http://www.tralac.org/images/docs/5820/status-of-integration-in-africa-v.pdf>.

Trade Law Centre (TRALAC) (South Africa). "The Tripartite Free Trade Area—A Breakthrough," July 10, 2017. <https://www.tralac.org/news/article/11860-the-tripartite-free-trade-area-a-breakthrough-in-july-2017-as-south-africa-signs-the-tripartite-agreement.html>.

Trade Law Centre (TRALAC) (South Africa). "The Tripartite FTA: Technical Features, Potential and Implementation," June 18, 2015. <http://www.tralac.org/discussions/article/7568-the-tripartite-fta-technical-features-potential-and-implementation.html>.

- Trademark East Africa. “EAC Leaders Waive Permit Fees for Citizens.” *New Vision* (Uganda) article by David Lumu and David Lukiiza, March 12, 2015. <https://www.trademarka.com/news/eac-leaders-waive-permit-fees-for-citizens/>.
- Transparency Market Research. “Nuts and Seeds Market: Global Industry Analysis; Rising Awareness about Health Benefits and Increased Affordability to Boost Demand for Nuts and Seeds Globally.” Press release distributed by GlobeNewswire, September 28, 2016. <https://globenewswire.com/news-release/2016/09/28/875242/0/en/Nuts-and-Seeds-Market-Global-Industry-Analysis-Rising-Awareness-about-Health-Benefits-and-Increased-Affordability-to-Boost-Demand-for-Nuts-and-Seeds-Globally-States-TMR.html>.
- T-Systems. “T-Systems and Huawei Extend Successful OTC into South Africa.” News release, April 20, 2017. <https://www.t-systems.com/za/en/about-t-systems/newsroom/news/news/t-systems-and-huawei-extend-successful-otc-into-south-africa-664638>.
- Tullet, Jonathan. “Amazon: AWS Platform Expansions and Their Impact on XaaS Markets in South Africa.” International Data Corporation (IDC). July 2017. <https://www.idc.com/getdoc.jsp?containerId=CEMA42885817> (fee required).
- Tullet, Jonathan. “South Africa Cloud, Hosted, Managed, and Outsourced Services Market 2016 Analysis and 2017–2021 Forecast.” International Data Corporation (IDC), September 2017. <https://www.idc.com/getdoc.jsp?containerId=CEMA42083517> (fee required).
- Tyler, Geoff. “The African Sugar Industry—A Frustrated Success Story.” Chapter 6 in *All-Africa Review of Experiences with Commercial Agriculture*. Background paper for the Competitive Commercial Agriculture in Africa (CCAA) study, World Bank, Washington, DC, 2008. http://siteresources.worldbank.org/INTAFRICA/Resources/257994-1215457178567/Ch6_Sugar.pdf.
- United Nations (UN). Department of Economic and Social Affairs (DESA). Development Policy and Analysis Division. “Least Developed Countries (LDCs).” <https://www.un.org/development/desa/dpad/least-developed-country-category.html> (accessed January 8, 2018).
- United Nations Conference on Trade and Development (UNCTAD). “The Continental Free Trade Area: Making It Work for Africa.” UNCTAD Policy Brief no. 44, December 2015. http://unctad.org/en/PublicationsLibrary/presspb2015d18_en.pdf.
- United Nations Conference on Trade and Development (UNCTAD). *Economic Development in Africa: Intra-African Trade; Unlocking Private Sector Dynamism*. New York and Geneva: UNCTAD, 2013. http://unctad.org/en/PublicationsLibrary/aldcafrica2013_en.pdf.
- United Nations Conference on Trade and Development (UNCTAD). *Economic Development in Africa Report 2017: Tourism for Transformative and Inclusive Growth*. New York and Geneva: UNCTAD, 2017. http://unctad.org/en/PublicationsLibrary/aldcafrica2017_en.pdf.
- United Nations Conference on Trade and Development (UNCTAD). *Investment Policy Review: The Sudan*. New York and Geneva: UNCTAD, 2015. http://unctad.org/en/PublicationsLibrary/diaepcb2014d5_en.pdf.

U.S. Trade and Investment with Sub-Saharan Africa: Recent Developments

- United Nations Conference on Trade and Development (UNCTAD). “Role of Competition in the Pharmaceutical Sector and Its Benefits for Consumers.” Meeting presentation, June 2015. http://unctad.org/meetings/es/Presentation/CCPB_7RC2015_RTPharma_SouthAfrica_en.pdf.
- United Nations Conference on Trade and Development (UNCTAD). UNCTAD STAT database. <http://unctadstat.unctad.org> (accessed January 3, 2018).
- United Nations Conference on Trade and Development (UNCTAD). UNCTAD STAT database. “Merchandise: Intra-trade and Extra-trade of Country Groups by Product, Annual, 1995–2016.” http://unctadstat.unctad.org/wds/ReportFolders/reportFolders.aspx?sCS_ChosenLang=en (accessed January 8, 2018).
- United Nations Conference on Trade and Development (UNCTAD). *World Investment Report: Investment in the Digital Economy*. New York and Geneva: UNCTAD, 2017. http://unctad.org/en/PublicationsLibrary/wir2017_en.pdf.
- United Nations Development Programme (UNDP). “Cocoa: Côte d’Ivoire Sustainable Cocoa Initiative (CISCI),” 2014. <http://www.undp.org/content/dam/undp/library/Environment%20and%20Energy/Green%20Commodities%20Programme/Ivory%20Coast.pdf>.
- United Nations Economic Commission for Africa (UNECA). *Assessing Regional Integration in Africa V: Towards an African Continental Free Trade Area*. Addis Ababa, Ethiopia: UNECA, 2012. <http://www.uneca.org/publications/assessing-regional-integration-africa-v>.
- United Nations. Economic Commission for Africa (UNECA). *Economic Report on Africa 2015: Industrializing through Trade*. Addis Ababa, Ethiopia: UNECA, November 2015. <http://www.un.org/en/africa/osaa/pdf/pubs/2015era-uneca.pdf>.
- United Nations Economic Conference on Africa (UNECA). *How “AGOA 2.0” Could Be Different: Outlining Africa’s Position on the AGOA Review Process*. White paper. Addis Ababa, Ethiopia: UNECA, April 2014. <http://repository.uneca.org/bitstream/handle/10855/22335/b10796666.pdf?sequence=1>.
- United Nations Economic Commission for Africa (UNECA). “Regional Economic Communities.” <https://www.uneca.org/oria/pages/regional-economic-communities> (accessed January 26, 2018).
- United Nations (UN). Secretary-General’s Climate Change Support Team. “Trends in Private Sector Climate Finance,” October 9, 2015. <http://www.un.org/climatechange/wp-content/uploads/2015/SG-TRENDS-PRIVATE-SECTOR-CLIMATE-FINANCE-AW-HI-RES-WEB1.pdf>.
- United Nations Statistics Division (UNSD). Energy Statistics Database. <http://data.un.org/Data.aspx?d=EDATA&f=cmID%3AEC> (accessed January 4, 2018).
- United Nations World Tourism Organization (UNWTO). *UNWTO Tourism Highlights: 2010 Edition*, 2010. <http://www.e-unwto.org/doi/pdf/10.18111/9789284413720>.
- United Nations World Tourism Organization (UNWTO). *World Tourism Barometer 15*, May 2017 (excerpt). http://cf.cdn.unwto.org/sites/all/files/pdf/unwto_barom17_03_june_excerpt_1.pdf.

- United Nations World Tourism Organization (UNWTO). *World Tourism Barometer* 15, October 2017 (excerpt).
http://cf.cdn.unwto.org/sites/all/files/pdf/unwto_barom17_05_october_excerpt_.pdf.
- United Nations World Tourism Organization (UNWTO). *Yearbook of Tourism Statistics, Data 2011–2015 (2017 Edition)* Madrid: UNWTO Publications, February 2017.
<http://www2.unwto.org/publication/yearbook-tourism-statistics-data-2011-2015-2017-edition>.
- U.S. Agency for International Development (USAID). *Burundi National AGOA Strategy Draft*, February 19, 2014. <https://agoa.info/downloads/national-strategies/5944.html>.
- U.S. Agency for International Development (USAID). “EAC Common Market Update: Tracking Tanzania’s Compliance to the EAC Common Market Protocol.” Slide presentation, April 13, 2017.
http://www.eatradehub.org/eac_common_market_protocol_update.
- U.S. Agency for International Development (USAID). East Africa Trade and Investment Hub. “Anbessa Shoe S.C.” Project profile, UNCTAD World Investment Forum, 2016.
https://d3n8a8pro7vnm.cloudfront.net/eatradehub/pages/2478/attachments/original/1470045119/ANBESSA_SHOE.pdf?1470045119.
- U.S. Agency for International Development (USAID). West Africa Trade and Investment Hub. “Ivorian Ministry of Commerce Launches AGOA National Strategy with Trade Hub and AfDB Support.” News release, November 13, 2017. <https://www.watradehub.com/en/ivorian-ministry-commerce-launches-agoa-national-strategy-trade-hub-afdb-support/>.
- U.S. Agency for International Development (USAID). West Africa Trade and Investment Hub. “Workshops Offer Training before Sierra Leone’s AGOA National Strategy Launch.” News release, November 28, 2017. <https://www.watradehub.com/en/workshops-offer-training-sierra-leones-agoa-national-strategy-launch/>.
- U.S. Census Bureau. “Business and Industry: Foreign Trade; Section XXII—chap. 98; Special Classification Provisions; Statistical Notes, note 3.” <https://www.census.gov/foreign-trade/schedules/b/2018/c98.html>.
- U.S. Census Bureau. “Profile of U.S. Importing and Exporting Companies,” 2015.
<https://www.census.gov/foreign-trade/Press-Release/edb/2015/index.html>.
- U.S. Census Bureau. Foreign Trade Division. “Aircraft Industry Trade Data Changes.” Foreign Trade Statistics, updated June 10, 2009. <https://www.census.gov/foreign-trade/statistics/notices/aircraft/index.html>.
- U.S. Central Intelligence Agency (CIA). *The World Factbook* (accessed January 17, 2018).
<https://www.cia.gov/library/publications/the-world-factbook/>.
- U.S. Central Intelligence Agency (CIA). *The World Factbook: South Sudan*.
<https://www.cia.gov/library/publications/the-world-factbook/geos/od.html> (accessed March 19, 2018).

U.S. Trade and Investment with Sub-Saharan Africa: Recent Developments

- U.S. Citizenship and Immigration Services (USCIS). “H-1B Fiscal Year (FY) 2018 Cap Season,” n.d. <https://www.uscis.gov/working-united-states/temporary-workers/h-1b-specialty-occupations-and-fashion-models/h-1b-fiscal-year-fy-2018-cap-season> (accessed March 7, 2018).
- U.S. Department of Agriculture (USDA). Economic Research Service (ERS). “Assessing the Growth of U.S. Broiler and Poultry Meat Exports.” *Livestock, Dairy, and Poultry Outlook* no. LDPM-231-01, November 2013. <https://www.ers.usda.gov/publications/pub-details/?pubid=37532>.
- U.S. Department of Agriculture (USDA). Economic Research Service (ERS). *Livestock, Dairy, and Poultry Outlook*, by Kenneth Mathews and Mildred Haley, May 19, 2015. <http://usda.mannlib.cornell.edu/usda/ers/LDP-M/2010s/2015/LDP-M-05-18-2015.pdf>.
- U.S. Department of Agriculture (USDA). Economic Research Service (ERS). “South Africa Resumes Imports of U.S. Chicken Following 15 Years of Anti-Dumping Duties.” *Amber Waves*, March 6, 2017. <https://www.ers.usda.gov/amber-waves/2017/march/south-africa-resumes-imports-of-us-chicken-following-15-years-of-anti-dumping-duties/>.
- U.S. Department of Agriculture (USDA). Economic Research Service (ERS). Sugar and Sweeteners Yearbook Tables; Table 4—U.S. raw sugar price, duty-fee paid, New York, monthly, quarterly, and by calendar and fiscal year. [https://www.ers.usda.gov/data-products/sugar-and-sweeteners-yearbook-tables/sugar-and-sweeteners-yearbook-tables/#World and U.S. Sugar and Corn Sweetener Prices](https://www.ers.usda.gov/data-products/sugar-and-sweeteners-yearbook-tables/sugar-and-sweeteners-yearbook-tables/#World%20and%20U.S.%20Sugar%20and%20Corn%20Sweetener%20Prices) (accessed January 9, 2018).
- U.S. Department of Agriculture (USDA). Economic Research Service (ERS). “The United States Is the World’s Leading Poultry Exporter to Sub-Saharan Africa,” by Fawzi Taha. *Amber Waves*, March 7, 2016. <https://www.ers.usda.gov/amber-waves/2016/march/the-united-states-is-the-world-s-leading-poultry-exporter-to-sub-saharan-africa/>.
- U.S. Department of Agriculture (USDA). Economic Research Service (ERS). “Tree Nuts: Supply and Use Tables.” <https://www.ers.usda.gov/data-products/fruit-and-tree-nut-data/fruit-and-tree-nut-yearbook-tables/> (accessed December 28, 2017).
- U.S. Department of Agriculture (USDA). Food Safety and Inspection Service (FSIS). “Export Requirements for Republic of Congo (Brazzaville),” January 9, 2018. <https://www.fsis.usda.gov/wps/portal/fsis/topics/international-affairs/exporting-products/export-library-requirements-by-country/Congo-Brazzaville>.
- U.S. Department of Agriculture (USDA). Foreign Agricultural Service (FAS). *Algeria: Agricultural Biotechnology Annual*, by Nabila Hales. GAIN Report no. AG1605, December 4, 2016. [http://gain.fas.usda.gov/Recent%20GAIN%20Publications/Agricultural%20Biotechnology%20Annual Algerias Algeria 12-4-2016.pdf](http://gain.fas.usda.gov/Recent%20GAIN%20Publications/Agricultural%20Biotechnology%20Annual%20Algeria%2012-4-2016.pdf).
- U.S. Department of Agriculture (USDA). Foreign Agricultural Service (FAS). *Angola: Agricultural Biotechnology Annual*, by Ricardo Dias. GAIN Report, December 6, 2017. [https://gain.fas.usda.gov/Recent%20GAIN%20Publications/Agricultural%20Biotechnology%20Annual Pretoria Angola 12-6-2017.pdf](https://gain.fas.usda.gov/Recent%20GAIN%20Publications/Agricultural%20Biotechnology%20Annual%20Pretoria%20Angola%2012-6-2017.pdf).

- U.S. Department of Agriculture (USDA). Foreign Agricultural Service (FAS). *Benin: Agricultural Situation*, March 20, 2014. http://gain.fas.usda.gov/Recent%20GAIN%20Publications/Agricultural%20Situation_Lagos_Benin_3-20-2014.pdf.
- U.S. Department of Agriculture (USDA). Foreign Agricultural Service (FAS). *Ethiopia: Agricultural Biotechnology Annual*. GAIN Report no. ET1637, December 21, 2016. https://gain.fas.usda.gov/Recent%20GAIN%20Publications/Agricultural%20Biotechnology%20Annual_Addis%20Ababa_Ethiopia_12-21-2016.pdf.
- U.S. Department of Agriculture (USDA). Foreign Agricultural Service (FAS). *Ethiopia: Ethiopia's Ag Imports Continue Growing*. GAIN Report no. ET1643 (updated), February 7, 2017. <https://www.fas.usda.gov/data/ethiopia-ethiopia-s-ag-imports-continue-growing>.
- U.S. Department of Agriculture (USDA). Foreign Agricultural Service (FAS). *Ethiopia: Grain and Feed Annual*, by Abu Tefera. GAIN Report no. ET1608, March 18, 2016. https://gain.fas.usda.gov/Recent%20GAIN%20Publications/Grain%20and%20Feed%20Annual_Addis%20Ababa_Ethiopia_5-24-2013.pdf.
- U.S. Department of Agriculture (USDA). Foreign Agricultural Service (FAS). *EU-27: Agricultural Biotechnology Annual*, by Marie-Cecile Henard, Leif Rehder, Barrie Williams, and FAS biotechnology specialists in the EU. GAIN Report no. FR9105, August 3, 2012. https://gain.fas.usda.gov/Recent%20GAIN%20Publications/Agricultural%20Biotechnology%20Annual_Paris_EU-27_8-3-2012.pdf.
- U.S. Department of Agriculture (USDA). Foreign Agricultural Service (FAS). *Ghana: Retail Foods*, by Joshua Taylor. GAIN report, May 22, 2017. <https://www.fas.usda.gov/data/ghana-retail-foods-report>.
- U.S. Department of Agriculture (USDA). Foreign Agricultural Service (FAS). *Kenya: Agricultural Biotechnology Annual*, by Carol N. Kamau. GAIN Report, December 14, 2017. https://gain.fas.usda.gov/Recent%20GAIN%20Publications/Agricultural%20Biotechnology%20Annual_Nairobi_Kenya_12-14-2017.pdf.
- U.S. Department of Agriculture (USDA). Foreign Agricultural Service (FAS). *Nigeria: Retail Foods*, by Peace Olaito. GAIN report, March 11, 2014. https://gain.fas.usda.gov/Recent%20GAIN%20Publications/Retail%20Foods_Pretoria_South%20Africa%20-%20Republic%20of_11-7-2017.pdf.
- U.S. Department of Agriculture (USDA). Foreign Agricultural Service (FAS). *South Africa Grain and Feed Update*, by Dirk Esterhuizen. GAIN Report, March 15, 2017. https://gain.fas.usda.gov/Recent%20GAIN%20Publications/Grain%20and%20Feed%20Annual_Pretoria_South%20Africa%20-%20Republic%20of_3-16-2017.pdf.
- U.S. Department of Agriculture (USDA). Foreign Agricultural Service (FAS). *A Turning Point for Agricultural Exports to Sub-Saharan Africa*. International Agricultural Trade Reports, November 2, 2015. <https://www.fas.usda.gov/data/turning-point-agricultural-exports-sub-saharan-africa>.

U.S. Trade and Investment with Sub-Saharan Africa: Recent Developments

- U.S. Department of Commerce (USDOC). Bureau of Economic Analysis (BEA). Balance of Payments and Direct Investment Position Database, “Direct Investment Positions for 2016.” <https://www.bea.gov/international/di1fdibal.htm> (accessed December 4, 2017).
- U.S. Department of Commerce (USDOC). Bureau of Economic Analysis (BEA). “Geographic Area Definitions,” n.d. https://www.bea.gov/international/bp_web/geographic_area_definitions.pdf (accessed October 10, 2017).
- U.S. Department of Commerce (USDOC). Bureau of Economic Analysis (BEA). “A Guide to BEA’s Services Surveys.” <https://www.bea.gov/surveys/pdf/surveysu.pdf> (accessed October 10, 2017).
- U.S. Department of Commerce (USDOC). Bureau of Economic Analysis (BEA). Interactive data. International Services Tables 2.1, 4.1, and 5.1. https://www.bea.gov/iTable/index_ita.cfm (accessed November 7, 2017).
- U.S. Department of Commerce (USDOC). Bureau of Economic Analysis (BEA). “Interactive data, International Transactions, Services, &IIP, International Services, table 2.3,” October 24, 2017. <https://www.bea.gov/iTable/iTable.cfm?ReqID=62&step=1#reqid=62&step=9&isuri=1&6210=4>.
- U.S. Department of Commerce (USDOC). Bureau of Economic Analysis (BEA). “Interactive data, International Transactions, Services, &IIP, International Services, table 4.4,” October 24, 2017. <https://www.bea.gov/iTable/iTable.cfm?ReqID=62&step=1#reqid=62&step=9&isuri=1&6210=4>.
- U.S. Department of Commerce (USDOC). Bureau of Economic Analysis (BEA). *Quarterly Survey of Foreign Airline Operators’ Revenues and Expenses in the United States*, Form BE-9. <https://www.bea.gov/surveys/pdf/Be9final.pdf> (accessed November 13, 2017).
- U.S. Department of Commerce (USDOC). Bureau of Economic Analysis (BEA). Table 2.3, “U.S. Trade in Services, by Country or Affiliation and by Type of Service”, (accessed October 24, 2017).
- U.S. Department of Commerce (USDOC). Bureau of Economic Analysis (BEA). Tables 2.3, 4.4, and 5.4. Interactive tables: International Data, International Services. <https://www.bea.gov/iTable/iTable.cfm?ReqID=62&step=1#reqid=62&step=9&isuri=1&6210=4> (accessed December 7, 2017).
- U.S. Department of Commerce (USDOC). Bureau of Economic Analysis (BEA). “U.S. International Economic Accounts: Concepts and Methods,” June 2014. https://www.bea.gov/international/concepts_methods.htm.
- U.S. Department of Commerce (USDOC). International Trade Administration (ITA). “2016 Top Markets Report: Construction Equipment.” www.trade.gov/topmarkets/pdf/Construction_Equipment_Executive_Summary.pdf (accessed January 5, 2018).
- U.S. Department of Commerce (USDOC). International Trade Administration (ITA). “AGOA: General Country Eligibility Provisions,” n.d. <http://trade.gov/agoa/eligibility/> (accessed February 7, 2018).

- U.S. Department of Commerce (USDOC). International Trade Administration (ITA). “For Small and Rural Businesses, the Time to Export Is Now.” <https://www.trade.gov/publications/ita-newsletter/0811/rural.asp> (accessed February 2, 2018).
- U.S. Department of Commerce (USDOC). International Trade Administration (ITA). “Nigeria Country Commercial Guide: Executive Summary,” July 13, 2016. <https://www.export.gov/apex/article2?id=Nigeria-Executive-Summary>.
- U.S. Department of Commerce (USDOC). International Trade Administration (ITA). “Trade and Development Act of 2000,” n.d. http://trade.gov/agoa/legislation/agoa_main_002118.pdf (accessed February 7, 2018).
- U.S. Department of Commerce (USDOC). International Trade Administration (ITA). “United States–SSA Trade and Investment,” August 2014. <https://www.trade.gov/dbia/us-sub-saharan-africa-trade-and-investment.pdf>.
- U.S. Department of Commerce (USDOC). International Trade Administration (ITA). “U.S. Trade with Sub-Saharan Africa, January–December 2016.” Prepared by Giancarlo Cavallo, n.d. <https://www.trade.gov/agoa/pdf/2016%20US-SSA%20Trade%20One-Pager.pdf> (accessed November 17, 2017).
- U.S. Department of Commerce (USDOC). International Trade Administration (ITA). Export.gov. “Benin: Agricultural Sectors,” March 1, 2017. <https://www.export.gov/apex/article2?id=Benin-Agricultural-Sectors>.
- U.S. Department of Commerce (USDOC). International Trade Administration (ITA). Export.gov. “Côte d’Ivoire—Plastic Material and Resins,” June 10, 2016. <https://www.export.gov/article?id=Cote-d-Ivoire-Plastic-Material-and-Resins>.
- U.S. Department of Commerce (USDOC). International Trade Administration (ITA). Export.gov. “Doing Business in Nigeria,” August 26, 2016. <https://2016.export.gov/nigeria/doingbusinessinnigeria/index.asp>.
- U.S. Department of Commerce (USDOC). International Trade Administration (ITA). Export.gov. “Exporting to South Africa—Market Overview,” November 21, 2017. <https://www.export.gov/article?id=South-Africa-Market-Overview>.
- U.S. Department of Commerce (USDOC). International Trade Administration (ITA). Export.gov. “Liberia—Oil and Gas,” July 12, 2017. <https://www.export.gov/article?id=Liberia-Petroleum>.
- U.S. Department of Commerce (USDOC). International Trade Administration (ITA). Export.gov. “Nigeria—Aerospace/Aviation/Avionics,” June 20, 2016. <https://www.export.gov/article?id=Nigeria-Aerospace-Aviation-Avionics>.
- U.S. Department of Commerce (USDOC). International Trade Administration (ITA). Export.gov. “Republic of Congo—Petroleum Sector,” July 18, 2017. <https://www.export.gov/article?id=Republic-of-Congo-Petroleum-Sector>.

U.S. Trade and Investment with Sub-Saharan Africa: Recent Developments

U.S. Department of Commerce (USDOC). International Trade Administration (ITA). Export.gov. “South Africa—Aerospace,” July 21, 2017. <https://www.export.gov/article?id=South-Africa-aerospace>.

U.S. Department of Commerce (USDOC). International Trade Administration (ITA). Export.gov. “South Africa Automotive,” July 21, 2017. <https://www.export.gov/article?id=South-Africa-automotive>.

U.S. Department of Commerce (USDOC). International Trade Administration (ITA). Export.gov. “South Africa Country Commercial Guide: South Africa Mining Equipment,” July 21, 2017. www.export.gov/article?id=South-Africa-mining.

U.S. Department of Commerce (USDOC). International Trade Administration (ITA). Export.gov. “South Africa: Market Challenges,” July 19, 2017. <https://www.export.gov/article?id=South-Africa-market-challenges>.

U.S. Department of Commerce (USDOC). International Trade Administration (ITA). Office of Textiles and Apparel (OTEXA). “AGOA Preferences: Country Eligibility, Apparel Eligibility, and Textile Eligibility (Category 0 and Category 9).” Excel table, December 20, 2016. http://otexa.trade.gov/SpreadSheets/AGOA_ELIGIBILITY_INCL_CAT_0.xls.

U.S. Department of Commerce (USDOC). International Trade Administration (ITA). Office of Textiles and Apparel (OTEXA). The Major Shippers Report. <https://otexa.trade.gov/msrpoint.htm> (accessed January 3, 2018).

U.S. Department of Commerce (USDOC). International Trade Administration (ITA). Office of Textiles and Apparel (OTEXA). “Major Shippers Report: U.S. General Imports by Part-Category, 11/2017 Data; Category 347-D, Blue Denim Trousers, MB.” <http://otexa.trade.gov/msrpart/vp347-D.htm> (accessed various dates).

U.S. Department of Commerce (USDOC). International Trade Administration (ITA). Office of Textiles and Apparel (OTEXA). “Major Shippers Report: U.S. Textiles and Apparel Imports by Category, 11/27 Data; Category 1, Total Apparel Imports (MFA).” <http://otexa.trade.gov/msr/catV1.htm> (accessed various dates).

U.S. Department of Commerce (USDOC). International Trade Administration (ITA). Office of Textiles and Apparel (OTEXA). “Summary of AGOA Apparel, Footwear, and Non-Textile Travel Goods Provisions.” https://otexa.trade.gov/AGOA_Trade_Preference.htm (accessed January 8, 2018).

U.S. Department of Commerce (USDOC). International Trade Administration (ITA). Office of Textiles and Apparel (OTEXA). “Trade Preference Programs: The African Growth and Opportunity Act (AGOA).” http://otexa.trade.gov/AGOA_Trade_Preference.htm (accessed January 8, 2018).

U.S. Department of Commerce (USDOC). International Trade Administration (ITA). Export.gov. “Angola—Oil and Gas.” *Angola Country Commercial Guide*, July 17, 2017. <https://www.export.gov/article?id=Angola-Oil-and-Gas>

U.S. Department of Commerce (USDOC). National Institute of Standards and Technology (NIST). “Standard Reference Materials: SRM Definitions,” August 25, 2016. <https://www.nist.gov/srm/srm-definitions>.

- U.S. Department of Commerce (USDOC). Office of Travel and Tourism Industries (OTTI). "Profile of U.S. Resident Travelers Visiting Overseas Destinations: 2015 Outbound."
https://travel.trade.gov/outreachpages/download_data.../2015_Outbound_Profile.pdf
(accessed January 24, 2018).
- U.S. Department of Homeland Security (USDHS). U.S. Customs and Border Protection (USCBP). *Commodity Status Reports and Tariff Preference Levels, Year-End Commodity Status Reports, 2010–2016*. <https://www.cbp.gov/trade/quota/tariff-rate-quotas> (accessed various dates).
- U.S. Department of State (USDOS). "Bilateral Investment Treaties and Related Agreements."
<https://www.state.gov/e/eb/ifd/bit/>.
- U.S. Department of State (USDOS). "FY 2014 Nonimmigrant Visas Issued," 2014.
<https://travel.state.gov/content/travel/en/legal/visa-law0/visa-statistics/nonimmigrant-visa-statistics.html>.
- U.S. Department of State (USDOS). Bureau of Consular Affairs. "Alerts and Warnings."
<https://travel.state.gov/content/travel/en/traveladvisories/traveladvisories.html.html> (accessed December 11, 2017).
- U.S. Department of Transportation (USDOT). Bureau of Transportation Statistics (BTS). National Transportation Statistics. Table 1-15: Annual U.S. Motor Vehicle Production and Factory (Wholesale) Sales (Thousands of units).
https://www.rita.dot.gov/bts/sites/rita.dot.gov/bts/files/publications/national_transportation_statistics/html/table_01_15.html_mfd. (accessed December 14, 2017).
- U.S. Energy Information Administration (USEIA). *Annual Energy Outlook 2017*, January 5, 2017.
<https://www.eia.gov/outlooks/aeo/data/browser/>.
- U.S. Energy Information Administration (USEIA). "Exports." Petroleum and Other Liquids database.
https://www.eia.gov/dnav/pet/pet_move_exp_dc_NUS-Z00_mbb1_a.htm (accessed January 9, 2018).
- U.S. Energy Information Administration (USEIA). "Natural Gas Plant Field Production." Petroleum and Other Liquids database. https://www.eia.gov/dnav/pet/pet_pnp_gp_dc_nus_mbb1_a.htm
(accessed January 2, 2018).
- U.S. Energy Information Administration (USEIA). "Natural Gas Spot and Futures Prices (NYMEX)." Natural Gas database. https://www.eia.gov/dnav/ng/ng_pri_fut_s1_a.htm (accessed December 7, 2017).
- U.S. Energy Information Administration (USEIA). "Refinery Utilization and Capacity." Petroleum and Other Liquids database. https://www.eia.gov/dnav/pet/pet_pnp_unc_dcu_nus_a.htm (accessed January 9, 2018).
- U.S. Energy Information Administration (USEIA). "Spot Prices." Petroleum and Other Liquids database.
https://www.eia.gov/dnav/pet/pet_pri_spt_s1_a.htm (accessed January 9, 2018).

U.S. Trade and Investment with Sub-Saharan Africa: Recent Developments

- U.S. Energy Information Administration (USEIA). “U.S. Petroleum Product Exports Exceeded Imports in 2011 for First Time in Over Six Decades,” March 7, 2012. <https://www.eia.gov/todayinenergy/detail.php?id=5290>.
- U.S. Geological Survey (USGS). “Mineral Commodity Summaries: Platinum-Group Metals,” 2017. <https://minerals.usgs.gov/minerals/pubs/commodity/platinum/index.html#mcs>.
- U.S. Geological Survey (USGS). “Mineral Industry Surveys: Copper,” December 2010. <https://minerals.usgs.gov/minerals/pubs/commodity/copper/>.
- U.S. Geological Survey (USGS). “Mineral Industry Surveys: Copper,” December 2012. <https://minerals.usgs.gov/minerals/pubs/commodity/copper/>.
- U.S. Geological Survey (USGS). “Mineral Industry Surveys: Copper,” December 2014. <https://minerals.usgs.gov/minerals/pubs/commodity/copper/>.
- U.S. Geological Survey (USGS). “Mineral Industry Surveys: Copper,” December 2016. <https://minerals.usgs.gov/minerals/pubs/commodity/copper/>.
- U.S. Government Accountability Office (GAO). *African Growth and Opportunity Act: USAID Could Enhance Utilization by Working with More Countries to Develop Export Strategies*. GAO-15-215. Washington, DC: GAO, January 22, 2015. <http://www.gao.gov/products/GAO-15-218>.
- U.S. Government Publishing Office. “Trade Preferences Extension Act of 2015,” January 6, 2015. <https://www.gpo.gov/fdsys/pkg/BILLS-114hr1295enr/pdf/BILLS-114hr1295enr.pdf>.
- U.S. Grains Council (USGC). “Algeria Removes Value-Added Tax on U.S. DDGS, Corn Gluten Feed.” News release, January 18, 2018. <http://grains.org/news/20180118/algeria-removes-value-added-tax-us-ddgs-corn-gluten-feed/>.
- U.S. Grains Council (USGC). “Council Begins West African Poultry Training Program with Moroccan Partners.” News release, March 31, 2017. <http://grains.org/news/20170331/council-begins-west-african-poultry-training-program-moroccan-partners>.
- U.S. Grains Council (USGC). “Industry Development Comes from USGC Food for Progress Work in Tanzania.” News release, January 22, 2015. <http://grains.org/news/20150122/audio-industry-development-comes-usgc-food-progress-work-tanzania>.
- U.S. Grains Council (USGC). “South Africa Approves Biotech Corn Events.” News release, December 9, 2016. <http://grains.org/news/20161209/south-africa-approves-biotech-corn-events-opening-door-us-sales>.
- U.S. Grains Council (USGC). “USGC Exploring Future Market Opportunities in Ethiopia.” News release, July 14, 2017. <http://grains.org/news/20170714/usgc-exploring-future-market-opportunities-ethiopia>.
- U.S. Grains Council (USGC). “USGC Leaders Assess Sub-Saharan Africa as Next Frontier.” News release, December 10, 2015. <http://grains.org/news/20151210/usgc-leaders-assess-sub-saharan-africa-next-frontier-us-grain-exports>.

- U.S. Grains Council (USGC). "USGC Supports Tanzanian Industry in Eliminating Tax on Animal Feed Sales." News release, August 11, 2017. <http://grains.org/news/20170811/usgc-supports-tanzanian-industry-eliminating-tax-animal-feed-sales>.
- U.S. Grains Council (USGC). "USGC Trains Côte d'Ivoire Poultry Producers." News release, June 8, 2017. <http://grains.org/news/20170608/usgc-trains-c%C3%B4te-d%E2%80%99ivoire-poultry-producers>.
- U.S. International Trade Commission (USITC). *AGOA: Trade and Investment Performance Overview*. USITC Publication no. 4461. Washington, DC: USITC, April 2014. <https://www.usitc.gov/sites/default/files/publications/332/pub4461.pdf>.
- U.S. International Trade Commission (USITC). *Harmonized Tariff Schedule of the United States (2017): Revision 1*. USITC Publication 4706. Washington, DC: USITC, 2017.
- U.S. International Trade Commission (USITC). *Harmonized Tariff Schedule of the United States, 2018, Basic Edition*. Publication Number 4750. Washington, DC: USITC, January 2018. <https://hts.usitc.gov/current>.
- U.S. International Trade Commission (USITC). Hearing transcript in connection with inv. no. 332-564, *U.S. Trade and Investment with Sub-Saharan Africa: Recent Developments*, January 23, 2018.
- U.S. International Trade Commission (USITC). Hearing transcript in connection with inv. no. 332-TA-545, *AGOA Rules of Origin: Possible Changes to Promote Regional Integration and Increase Exports to the United States*, January 14, 2014.
- U.S. International Trade Commission (USITC). Interactive Tariff and Trade DataWeb (DataWeb)/U.S. Department of Commerce (USDOC). <https://dataweb.usitc.gov> (accessed various dates).
- U.S. International Trade Commission (USITC). *Overview of Cuban Imports of Goods and Services and Effects of U.S. Restrictions*. USITC Publication 4597. Washington, DC: USITC, March 2016. <https://www.usitc.gov/publications/332/pub4597.pdf>.
- U.S. International Trade Commission (USITC). *Recent Trends in U.S. Services Trade: 2017 Annual Report*. USITC Publication 4682. Washington, DC: USITC, 2017. <https://www.usitc.gov/publications/332/pub4682.pdf>.
- U.S. International Trade Commission (USITC). *Rice: Global Competitiveness of the U.S. Industry*. USITC Publication 4530. Washington, DC: USITC, April 2015. <https://www.usitc.gov/publications/332/pub4530.pdf>.
- U.S. International Trade Commission (USITC). *Small and Medium-Sized Enterprises: Overview of Participation in U.S. Exports*. USITC Publication 4125. Washington, DC: USITC, January 2010. <https://www.usitc.gov/publications/332/pub4125.pdf>.
- U.S. International Trade Commission (USITC). *Small and Medium-Sized Enterprises: Characteristics and Performance*. USITC Publication 4189. Washington, DC: USITC, November 2010. <https://www.usitc.gov/publications/332/pub4189.pdf>.

U.S. Trade and Investment with Sub-Saharan Africa: Recent Developments

U.S. International Trade Commission (USITC). *Sub-Saharan African Textile and Apparel Inputs: Potential for Competitive Production*. USITC Publication 4078. Washington, DC: USITC, May 2009. <https://www.usitc.gov/sites/default/files/publications/332/pub4078.pdf>.

U.S. International Trade Commission (USITC). *Sugar from Mexico*. Investigation nos. 701-TA-513 and 731-TA-1249 (Final). Publication no. 4577. Washington, DC: USITC, November 2015. https://www.usitc.gov/investigations/701731/2014/sugar_mexico/final.htm

U.S. International Trade Commission (USITC). “The Sub-Saharan African Services Economy: Insights and Trends.” Office of Industries Working Paper ID-046. Washington, DC: USITC, 2017.

U.S. International Trade Commission (USITC). *The Year in Trade 2016: Operation of the Trade Agreements Program, 68th Report*. USITC Publication 4711. Washington, DC: USITC, 2017. <https://www.usitc.gov/publications/332/pub4711.pdf>.

U.S. Trade Representative (USTR). *2016 Biennial Report on the Implementation of the Africa Growth and Opportunity Act*. Washington, DC: USTR, June 2016. <https://ustr.gov/sites/default/files/2016-AGOA-Implementation-Report.pdf>.

U.S. Trade Representative (USTR). “Ambassador Froman Announces FY 2017 WTO Tariff-Rate Quota Allocations for Raw Cane Sugar, Refined and Specialty Sugar and Sugar-Containing Products.” Press release, May 2016. <https://ustr.gov/about-us/policy-offices/press-office/press-releases/2016/may/USTR-Froman-announces-FY-2017-WTO-TRQ-Allocations-Sugar>.

U.S. Trade Representative (USTR). *Beyond AGOA—Looking to the Future of U.S.-Africa Trade and Investment*. Washington, DC: USTR, September 2016. <https://ustr.gov/sites/default/files/2016-AGOA-Report.pdf>.

U.S. Trade Representative (USTR). “Common Market for Eastern and Southern Africa.” <https://ustr.gov/countries-regions/africa/regional-economic-communities-rec/common-market-eastern-and-southern-africa-comesa> (accessed March 13, 2018).

U.S. Trade Representative (USTR). “East African Community.” <https://ustr.gov/countries-regions/africa/regional-economic-communities-rec/east-african-community> (accessed March 13, 2018).

U.S. Trade Representative (USTR). “Morocco Free Trade Agreement.” <https://ustr.gov/trade-agreements/free-trade-agreements/morocco-fta> (accessed April 19, 2018).

U.S. Trade Representative (USTR). “Southern African Customs Union.” <https://ustr.gov/countries-regions/africa/regional-economic-communities-rec/southern-african-customs-union-sacu> (accessed March 13, 2018).

U.S. Trade Representative (USTR). “Trade Agreements: Southern Africa FTA.” <https://ustr.gov/trade-agreements/other-agreements/southern-african-customs-union-sacu> (accessed January 26, 2018).

- U.S. Trade Representative (USTR). "Trade and Investment Framework Agreements." <https://ustr.gov/trade-agreements/trade-investment-framework-agreements> (accessed January 30, 2018).
- U.S. Trade Representative (USTR). "United States and Nigeria Hold 8th Trade and Investment Framework Agreement Meeting." Press release, March 2014. <https://ustr.gov/about-us/policy-offices/press-office/press-releases/2014/March/US-and-Nigeria-hold-8th-Trade-Investment-Framework-Agreement-meeting>.
- U.S. Trade Representative (USTR). "U.S. and Nigeria Conclude Meeting under Trade and Investment Framework Agreement." Press release, December 3, 2012. <https://ustr.gov/about-us/policy-offices/press-office/press-releases/2012/december/us-nigeria-conclude-tifa-meeting>.
- U.S. Trade Representative (USTR). "USTR Announces Reallocation of Unused FY 2017 World Trade Organization Tariff-Rate Quota Volume for Raw Cane Sugar." Press release, July 2017. <https://ustr.gov/about-us/policy-offices/press-office/press-releases/2017/july/ustr-announces-reallocation-unused-fy>.
- U.S. Trade Representative (USTR). "West African Economic and Monetary Union." <https://ustr.gov/countries-regions/africa/regional-economic-communities-rec/west-african-economic-and-monetary-union-uemoa> (accessed January 28, 2018).
- Utz. "Cocoa." <https://utz.org/what-we-offer/certification/products-we-certify/cocoa/> (accessed January 23, 2018).
- Van Leeuwen, Richenda, Alex Evans, and Besnik Hyseni. "Increasing the Use of Liquefied Petroleum Gas in Cooking in Developing Countries." *Live Wire*, 2017/74. Washington, DC: World Bank, 2017. <https://openknowledge.worldbank.org/handle/10986/26569>.
- Vanguard* (Nigeria). "Why We Can't Set Up Polyethylene Plant in Nigeria Now—Allesandro, Dow Chemical," October 4, 2017. <https://www.vanguardngr.com/2017/10/cant-set-polyethylene-manufacturing-plant-nigeria-now-allesandro-dow-chemical/>.
- Vasagar, Jeevan. "Oil Trader Vitol Targets Africa Expansion." *Financial Times*, February 5, 2017. <https://www.ft.com/content/a3a7793a-e9e3-11e6-893c-082c54a7f539>.
- Vehicle Exports (UK). "Import Used UK Cars into Kenya." <http://vehicleexports.co.uk/import-cars-kenya/> (accessed December 18, 2017).
- Venter, Irma. "Catalytic Converter Industry 'Dying': Platinum Tax Possible Saviour—Naacam." *Mining Weekly*, February 17, 2014. <http://www.miningweekly.com/print-version/catalytic-converter-industry-dying-platinum-tax-possible-saviour---naacam-2014-02-17>.
- Veselinovic, Milena. "How Africa Is Giving Fast Food a New Spin." CNN, December 11, 2015. <https://www.cnn.com/2015/12/11/africa/fast-food-in-africa/index.html>.
- VOICE Network, FNV Mondiaal, Hivos, and Solidaridad (Netherlands). *Cocoa Barometer USA 2015*. http://www.cocoabarometer.org/International_files/Cocoa%20Barometer%202015%20USA.pdf (accessed January 23, 2018).

- W Hospitality Group. "Hotel Chain Development Pipelines in Africa 2016," May 2016. <http://w-hospitalitygroup.com/wp-content/uploads/2016/05/W-Hospitality-Group-Hotel-Chain-Development-Pipeline-in-Africa-2016-1.pdf>.
- Wacker, Konstantin M. "On the Measurement of Foreign Direct Investment and Its Relationship to Activities of Multinational Corporations." European Central Bank, Working Paper Series no. 1614, November 2013. <https://www.ecb.europa.eu/pub/pdf/scpwps/ecbwp1614.pdf?53ce65f8e8d83467da09c56469b8d927>.
- Wakili, Isiaka. "Nigeria: Why I Opted Out of AU Trade Deal – Buhari," Daily Trust, March 21, 2018 (found via AllAfrica.com). <http://allafrica.com/stories/201803220024.html>.
- Wall Street Journal*. "United States Companies Race to Catch Up in Africa," June 6, 2011. <https://www.wsj.com/articles/SB10001424052748703841904576257233342891732>.
- Wallis, William. "China Plans MultiMillion Ethiopia Investment." *Financial Times*, June 3, 2013. <https://www.ft.com/content/37011562-cc6d-11e2-9cf7-00144feab7de>.
- Walsh, James P., and Jiangyan Yu. "Determinants of Foreign Direct Investment: A Sectoral and Institutional Approach." IMF Working Paper WP/10/187, July 2010. <https://www.imf.org/external/pubs/ft/wp/2010/wp10187.pdf>.
- Wang, Jian-Ye, Iyabo Masha, Kazuko Shirono, and Leighton Harris. "The Common Monetary Area in Southern Africa: Shocks, Adjustment, and Policy Challenges," IMF Working Paper No. 07/158 July 2007. <https://www.imf.org/external/pubs/ft/wp/2007/wp07158.pdf>.
- Weaver, Matthew. "Chinese Trade Team Tours U.S. Pea Industry." *Capital Press* (Salem, OR), October 22, 2013. <http://www.capitalpress.com/article/20131022/ARTICLE/131029986/1014>.
- Wekesa, Carol Teresa, Nelson H. Wawire, and George Kosimbei. "Effects of Infrastructure Development on Foreign Direct Investment." *Journal of Infrastructure Development* 8, no. 2, 2016. <http://journals.sagepub.com/doi/abs/10.1177/0974930616667875?journalCode=joia>.
- World Bank. "Doing Business: Measuring Business Regulations," <http://www.doingbusiness.org/>.
- World Bank. "Linkages between China and Sub-Saharan Africa." Box 2.1 in *Global Economic Prospects*, July 2015. <https://www.worldbank.org/content/dam/Worldbank/GEP/GEP2015b/Global-Economic-Prospects-June-2015-China-and-Sub-Saharan-Africa.pdf>.
- World Bank. *Tourism in Africa: Harnessing Tourism for Growth and Improved Livelihoods*. Report overview, 2013. <http://www.worldbank.org/content/dam/Worldbank/document/Africa/Report/africa-tourism-report-2013-overview.pdf>.
- World Bank. *West Africa: Liquefied Petroleum Gas (LPG) Market Development Study*. Washington, DC: World Bank, 2001. <http://documents.worldbank.org/curated/en/314861468202450985/West-Africa-Liquefied-Petroleum-Gas-LPG-market-development-study>.

- World Bank. World Development Indicators database. <https://data.worldbank.org/region/sub-saharan-africa> (accessed January 9, 2018).
- World Bank. World Development Indicators database. <http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators> (accessed December 11, 2017).
- World Bureau of Metal Statistics (WBMS). "Nickel." In *World Metal Statistics, 2017 Yearbook*, May 2017. https://www.researchandmarkets.com/research/27hdz6/world_metal.
- World Customs Organization (WCO). *Harmonized Commodity Description and Coding System (HS) Explanatory Notes*. 5th ed. Vol. 5, Section XVI, XVI-8502-1, 2012.
- World Economic Forum (WEF). "Travel and Tourism Competitiveness Report 2017," April 5, 2017. <https://www.weforum.org/reports/the-travel-tourism-competitiveness-report-2017>.
- World Economic Forum (WEF). "Why SMEs Are Key to Growth in Africa," August 4, 2015. <https://www.weforum.org/agenda/2015/08/why-smes-are-key-to-growth-in-africa/>.
- World Folio. "Leather Manufacturing in Ethiopia: Pittards Exemplifies Ethiopia's Potential." Interview with Pittards CEO Reg Hankey, 2015. <http://www.theworldfolio.com/interviews/pittards-exemplifies-ethiopias-potential/3960>.
- World Food Programme. Food Aid Information System database. <http://www.wfp.org/fais/quantity-reporting> (accessed January 10, 2018).
- World Footwear*. "Local Leather Gives Ethiopia an Advantage," November/December 2017, 4.
- World Footwear*. "News: Ethiopia," November/December 2017, 2., November/December 2017, 2.
- World Footwear*. "News: Kenya," *World Footwear, Volume 31, No. 6*. November/December 2017, 2.
- World Footwear*. "Platform for Change: Cameroon-based Manufacturer OMES Uses Local Wood to Create Clogs and Soles for Overseas Brands, in an Attempt to Claw Back Some Shoemaking to the African Country," November/December 2017, 36–37. <http://footwearbiz.com/downloadarchive.aspx?id=3527>.
- World Health Organization (WHO). "Vaccines," n.d. <http://www.who.int/topics/vaccines/en/> (accessed February 28, 2018).
- WorldStandards.eu. "List of Left- and Right-Driving Countries." <https://www.worldstandards.eu/cars/list-of-left-driving-countries/> (accessed December 18, 2017).
- World Trade Organization. "Annex 3—Côte d'Ivoire." *Trade Policy Review: Report by the Secretariat; The Member Countries of the West African Economic and Monetary Union (WAEMU)*. WT/TPR/S/362, September 14, 2017. https://www.wto.org/english/tratop_e/tpr_e/s362-03_e.pdf.

U.S. Trade and Investment with Sub-Saharan Africa: Recent Developments

- World Trade Organization (WTO). *Trade Policy Review: Report by the Secretariat; Countries of the Central African Economic and Monetary Community (CEMAC)*. WT/TPR/S/285, June 24, 2013. https://www.wto.org/english/tratop_e/tpr_e/s285_e.pdf.
- World Trade Organization (WTO). General Council. *United States—African Growth and Opportunity Act—Report of the Government of the United States for the Year 2016 under the Decision of 30 November 2015*. WT/L/1017, November 8, 2017. <https://docs.wto.org/dol2fe/Pages/SS/directdoc.aspx?filename=q:/WT/L/1017.pdf>.
- World Trade Organization (WTO). Statistics Database, Time Series on International Trade, “Trade in Commercial Services, 2005–onward (BPM6).” <http://stat.wto.org/StatisticalProgram/WSDDBStatProgramHome.aspx?Language=E> (accessed November 7, 2017).
- Wright, Jon. “The Future of Grocery Retailing in Sub-Saharan Africa.” *Africa Outlook*, August 3, 2016. www.africaoutlookmag.com/news/the-future-of-grocery-retailing-in-sub-saharan-africa.
- Wroblewska, Anna B. “Tourism in Nigeria: Slow Burn,” September 26, 2016. <http://www.thisisafricaonline.com/News/Tourism-in-Nigeria-Slow-burn>.
- Xiaoyang, Tang. “Does Chinese Employment Benefit Africans? Investigating Chinese Enterprises and Their Operations in Africa.” *African Studies Quarterly* 16, no. 3–4 (December 2016). http://asq.africa.ufl.edu/files/v16a8.Tang_HD.pdf.
- Xin' An. “2016 Annual Report (revised),” September 6, 2017. <http://finance04.com/sbdm/stock/share,disc,2017-06-09,600596,000000000000iaywb.shtml>
- Xinhua. “Africa Becoming Popular Destination among Chinese Tourists,” April 7, 2016. http://www.xinhuanet.com/english/2016-04/07/c_135258964.htm.
- Yan, Sophia. “‘Made in China’ Isn’t So Cheap Anymore, and That Could Spell Headache for Beijing.” CNBC, February 27, 2017. <https://www.cnbc.com/2017/02/27/chinese-wages-rise-made-in-china-isnt-so-cheap-anymore.html>.
- Yartey, Emmanuel. “West Africa’s Single Currency,” *African Review*, June 17, 2015. <http://www.africanreview.com/finance/economy/west-africa-s-single-currency-reliant-on-economic-growth>.
- Young, Robb. “Made in Ethiopia: But Can East Africa Really Provide an Affordable Sourcing Alternative to Asia?” October 17, 2016. <https://www.businessoffashion.com/articles/global-currents/made-in-ethiopia-fashions-next-sourcing-hub>.
- Yun Sun. “China’s Pains over Zimbabwe’s Indigenization Plan.” Brookings Institution, April 2016. <https://www.brookings.edu/blog/africa-in-focus/2016/04/26/chinas-pains-over-zimbabwes-indigenization-plan/>.

Zamfir, Ionel. "The Tripartite Free Trade Area Project: Integration in Southern and Eastern Africa." European Parliamentary Research Service (EPRS) briefing, March 2015. [http://www.europarl.europa.eu/RegData/etudes/BRIE/2015/551308/EPRS_BRI\(2015\)551308_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/BRIE/2015/551308/EPRS_BRI(2015)551308_EN.pdf).

Zizhu, Zhang. "Inside the Chinese Factory in Ethiopia Where Ivanka Trump Places Her Shoe Orders." Africa-China Reporting Project, University of the Witwatersrand (WITS), Johannesburg, January 30, 2017. <http://africachinareporting.co.za/2017/01/inside-the-chinese-factory-in-ethiopia-where-ivanka-trump-places-her-shoe-orders/>.

Appendix A

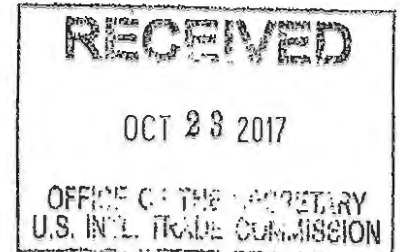
Request Letter

DOCKET NUMBER 3267
Office of the Secretary Int'l Trade Commission



THE UNITED STATES TRADE REPRESENTATIVE
EXECUTIVE OFFICE OF THE PRESIDENT
WASHINGTON, D.C. 20508

October 16, 2017



The Honorable Rhonda K. Schmidlein
Chairman
U.S. International Trade Commission
500 E Street, S.W.
Washington, DC 20436

Dear Chairman Schmidlein:

I am writing today regarding the Office of the United States Trade Representative's ongoing work on trade and investment issues related to sub-Saharan Africa (SSA).

As the Administration works to encourage fair and reciprocal trade with our African trading partners, it is important to have factual information on where we are succeeding in African markets, where we have the greatest prospects for increased trade and investment, and the factors that could impede that progress. We also need similar information on SSA's trade performance and on future prospects for its exports to the United States, including those under the African Growth and Opportunity Act (AGOA).

Therefore, pursuant to section 332(g) of the Tariff Act of 1930, and the authority delegated by the President to the United States Trade Representative, I request that the U.S. International Trade Commission (the Commission) conduct an investigation and provide a report on U.S. trade and investment with SSA. To the extent that information is available, the report should focus primarily on the years 2010–2016, but where appropriate examine longer-term trends since 2000. To the extent practical, the report should provide the most recent 2017 data on U.S. trade flows of goods with SSA and include the following:

1. An overview of U.S. exports of goods and services to SSA, which should, to the extent information is available:
 - a. Identify the sectors in which U.S. exports of goods and services to SSA have increased the most, in both value and percentage terms, and indicate the key factors behind this growth.
 - b. Identify the countries to which U.S. exports of goods and services have increased the most, in both value and percentage terms, and indicate the key factors behind this growth.
 - c. Based on a review of available quantitative and qualitative information, identify non-crude petroleum sectors and SSA markets that present the greatest potential for U.S.

exports of goods and services and for U.S. foreign direct investment (FDI). Also, identify significant factors impacting U.S. exports and FDI in these sectors, as well as principal third-country suppliers and investors in these sectors and SSA markets.

- d. Provide a brief description of the exports of goods and services from U.S. small and medium-sized enterprises (SMEs) to SSA and describe the challenges that U.S. SMEs face when exporting to SSA.
2. An overview of U.S. imports of goods and services from sub-Saharan Africa, which should, to the extent information is available:
 - a. Identify the sectors in which SSA exports of goods and services to the United States have increased the most, in both value and percentage terms, and indicate the key factors behind this growth. Data on goods should include both AGOA and non-AGOA imports.
 - b. Identify the SSA countries from which imports of goods and services to the United States have increased the most, in both value and percentage terms, and indicate the key factors behind this growth. Data on goods should include both AGOA and non-AGOA imports.
 - c. Based on a review of available quantitative and qualitative information, identify non-crude petroleum sectors and SSA markets that present the greatest potential to increase exports of goods under AGOA to the United States. Identify sectors and SSA markets that present the greatest potential to increase services exports and FDI, and indicate significant factors impacting SSA companies achieving such exports and FDI.
 3. Provide profiles of the markets in Cameroon, Cote d'Ivoire, Ethiopia, Kenya, Mauritius, Nigeria, and South Africa that include information on macroeconomic indicators, goods and services trade, and FDI flows in those countries.
 4. Provide a summary of recent developments of regional integration efforts in sub-Saharan Africa, including progress on the negotiation of the Continental Free Trade Agreement.
 5. Briefly summarize the AGOA strategies that have been developed by SSA countries.

I request that the Commission deliver the report by April 30, 2018. As I intend to make the report available to the public, I request that the Commission not include any confidential business information or national security information in the report. Your assistance in this matter is appreciated.

Sincerely yours,



Ambassador Robert E. Lighthizer
United States Trade Representative

Appendix B

Federal Register Notice

National Heritage Area is designated by its own authorizing legislation.

Tim Goddard,

*Information Collection Clearance Officer,
National Park Service.*

[FR Doc. 2017-25238 Filed 11-21-17; 8:45 am]

BILLING CODE 4312-52-P

**INTERNATIONAL TRADE
COMMISSION**

[Investigation No. 332-564]

U.S. Trade and Investment With Sub-Saharan Africa: Recent Developments

AGENCY: United States International Trade Commission.

ACTION: Institution of investigation and scheduling of public hearing.

SUMMARY: Following receipt of a request dated October 23, 2017 from the United States Trade Representative (USTR) under the section 332(g) of the Tariff Act of 1930, the U.S. International Trade Commission (Commission) has instituted investigation No. 332-564, *U.S. Trade and Investment with Sub-Saharan Africa: Recent Developments*, for the purpose of preparing the report requested by the USTR. The Commission has scheduled a public hearing in connection with this investigation for January 23, 2018.

DATES:

January 9, 2018: Deadline for filing requests to appear at the public hearing.

January 11, 2018: Deadline for filing pre-hearing briefs and statements.

January 23, 2018: Public hearing.

January 30, 2018: Deadline for filing post-hearing briefs and statements.

February 6, 2018: Deadline for filing all other written submissions.

April 30, 2018: Transmittal of Commission report to USTR.

ADDRESSES: All Commission offices, including the Commission's hearing rooms, are located in the United States International Trade Commission Building, 500 E Street SW., Washington, DC. All written submissions should be addressed to the Secretary, United States International Trade Commission, 500 E Street SW., Washington, DC 20436. The public record for this investigation may be viewed on the Commission's electronic docket (EDIS) at <https://edis.usitc.gov/edis3-internal/app>.

FOR FURTHER INFORMATION CONTACT:

Project Leaders Joann Peterson (joann.peterson@usitc.gov or 202-205-3032) or Wen Jin (Jean) Yuan (wenjin.yuan@usitc.gov or 202-205-

2383) for information specific to this investigation. For information on the legal aspects of this investigation, contact William Gearhart of the Commission's Office of the General Counsel (william.gearhart@usitc.gov or 202-205-3091). The media should contact Margaret O'Laughlin, Office of External Relations (margaret.olaughlin@usitc.gov or 202-205-1819). Hearing-impaired individuals may obtain information on this matter by contacting the Commission's TDD terminal at 202-205-1810. General information concerning the Commission may also be obtained by accessing its Internet server (<https://www.usitc.gov>). Persons with mobility impairments who will need special assistance in gaining access to the Commission should contact the Office of the Secretary at 202-205-2000.

Background: The Commission instituted this investigation following receipt of a request from the USTR dated October 23, 2017. The request asked the Commission to provide a report on U.S. trade and investment with sub-Saharan Africa (SSA). It asked that the Commission's report focus primarily on the years 2010-2016, to the extent information is available, but examine longer-term trends since 2000 where appropriate. The request also asked that, to the extent practical, the report provide the most recent 2017 data on U.S. trade flows of goods with SSA and include the following:

1. An overview of the U.S. exports of goods and services to SSA, which should, to the extent information is available:

a. Identify the sectors in which U.S. exports of goods and services to SSA have increased the most, in both value and percentage terms, and indicate the key factors behind this growth.

b. Identify the countries to which U.S. exports of goods and services to SSA have increased the most, in both value and percentage terms, and indicate the key factors behind this growth.

c. Based on a review of available quantitative and qualitative information, identify non-crude petroleum sectors and SSA markets that present the greatest potential for U.S. exports of goods and services and for U.S. foreign direct investment (FDI). Also, identify significant factors impacting U.S. exports and FDI in these sectors, as well as principal third-country suppliers and investors in these sectors and SSA markets.

d. Provide a brief description of the exports of goods and services from U.S. small and medium-sized enterprises (SMEs) to SSA and describe the challenges that U.S. SMEs face when exporting to SSA.

2. An overview of U.S. imports of goods and services from SSA, which should, to the extent information is available:

a. Identify sectors in which SSA exports of goods and services to the United States have increased the most, in both value and percentage terms, and indicate the key factors behind this growth. Data on goods should include both AGOA and non-AGOA imports.

b. Identify the SSA countries from which imports of goods and services to the United States have increased the most, in both value and percentage terms, and indicate the key factors behind this growth. Data on goods should include both AGOA and non-AGOA imports.

c. Based on a review of available quantitative and qualitative information, identify non-crude petroleum sectors and SSA markets that present the greatest potential to increase exports of goods under AGOA to the United States. Identify sectors and SSA markets that present the greatest potential to increase services exports and FDI, and indicate significant factors impacting SSA companies achieving such exports and FDI.

3. Provide profiles of the markets in Cameroon, Cote d'Ivoire, Ethiopia, Kenya, Mauritius, Nigeria, and South Africa that include information on macroeconomic indicators, goods and services trade, and FDI flows in those countries.

4. Provide a summary of recent developments of regional integration efforts in SSA, including progress on the negotiation of Continental Free Trade Agreement.

5. Briefly summarize the AGOA strategies that have been developed by SSA countries.

Public Hearing: A public hearing in connection with this investigation will be held at the U.S. International Trade Commission Building, 500 E Street SW., Washington, DC, beginning at 9:30 a.m. on January 23, 2018. Requests to appear at the hearing should be filed with the Secretary no later than 5:15 p.m., January 9, 2018, in accordance with the requirements in the "written submissions" section below. All pre-hearing briefs and statements should be filed not later than 5:15 p.m., January 11, 2018; and all post-hearing briefs and statements addressing matters raised at the hearing should be filed not later than 5:15 p.m., January 30, 2018. In the event that, as of the close of business on January 9, 2018, no witnesses are scheduled to appear at the hearing, the hearing will be canceled. Any person interested in attending the hearing as an observer or nonparticipant may call the

Secretary to the Commission (202–205–2000) after January 9, 2018, for information concerning whether the hearing will be held.

Written Submissions: In lieu of or in addition to participating in the hearing, interested parties are invited to file written submissions concerning this investigation. All written submissions should be addressed to the Secretary, and should be received not later than 5:15 p.m., February 6, 2018. All written submissions must conform to the provisions of section 201.8 of the Commission's Rules of Practice and Procedure (19 CFR 201.8). Section 201.8 and the Commission's Handbook on Filing Procedures https://www.usitc.gov/secretary/documents/handbook_on_filing_procedures.pdf require that interested parties file documents electronically on or before the filing deadline and submit eight (8) true paper copies by 12:00 p.m. eastern time on the next business day. In the event that confidential treatment of a document is requested, interested parties must file, at the same time as the eight paper copies, at least four (4) additional true paper copies in which the confidential business information must be deleted (see the following paragraphs for further information regarding confidential business information). Persons with questions regarding electronic filing should contact the Office of the Secretary, Docket Services Division (202–205–1802).

Confidential Business Information. Any submissions that contain confidential business information must also conform to the requirements of section 201.6 of the Commission's Rules of Practice and Procedure (19 CFR 201.6). Section 201.6 of the rules requires that the cover of the document and the individual pages be clearly marked as to whether they are the "confidential" or "non-confidential" version, and that the confidential business information is clearly identified by means of brackets. All written submissions, except for confidential business information, will be made available for inspection by interested parties.

In his request letter, the USTR stated that his office intends to make the Commission's report available to the public and asked that the Commission not include any confidential business information or national security information in the report. The Commission will not include any confidential business information in the report that it sends to the USTR or makes available to the public. However, all information, including confidential

business information, submitted in this investigation may be disclosed to and used: (i) By the Commission, its employees and Offices, and contract personnel (a) for developing or maintaining the records of this or a related proceeding, or (b) in internal investigations, audits, reviews, and evaluations relating to the programs, personnel, and operations of the Commission including under 5 U.S.C. Appendix 3; or (ii) by U.S. government employees and contract personnel for cybersecurity purposes. The Commission will not otherwise disclose any confidential business information in a manner that would reveal the operations of the firm supplying the information.

Summaries of Written Submissions: The Commission intends to publish summaries of the positions of interested persons. Persons wishing to have a summary of their position included in the report should include a summary with their written submission. The summary may not exceed 500 words, should be in MS Word format or a format that can be easily converted to MS Word, and should not include any confidential business information. The summary will be published as provided if it meets these requirements and is germane to the subject matter of the investigation. The Commission will identify the name of the organization furnishing the summary and will include a link to the Commission's Electronic Document Information System (EDIS) where the full written submission can be found.

By order of the Commission.

Issued: November 16, 2017.

Lisa R. Barton,

Secretary to the Commission.

[FR Doc. 2017–25237 Filed 11–21–17; 8:45 am]

BILLING CODE 7020–02–P

INTERNATIONAL TRADE COMMISSION

[Investigation Nos. 701–TA–570 and 731–TA–1346 (Final)]

Aluminum Foil From China; Scheduling of the Final Phase of Countervailing Duty and Antidumping Duty Investigations

AGENCY: United States International Trade Commission.

ACTION: Notice.

SUMMARY: The Commission hereby gives notice of the scheduling of the final phase of antidumping and countervailing duty investigation Nos. 701–TA–570 and 731–TA–1346 (Final)

pursuant to the Tariff Act of 1930 ("the Act") to determine whether an industry in the United States is materially injured or threatened with material injury, or the establishment of an industry in the United States is materially retarded, by reason of imports of aluminum foil from China, provided for in subheadings 7607.11.30, 7607.11.60, 7607.11.90, and 7607.19.60 of the Harmonized Tariff Schedule of the United States, preliminarily determined by the Department of Commerce to be subsidized and sold at less-than-fair-value.

DATES: November 2, 2017.

FOR FURTHER INFORMATION CONTACT: Justin Enck (202–205–3363), Office of Investigations, U.S. International Trade Commission, 500 E Street SW., Washington, DC 20436. Hearing-impaired persons can obtain information on this matter by contacting the Commission's TDD terminal on 202–205–1810. Persons with mobility impairments who will need special assistance in gaining access to the Commission should contact the Office of the Secretary at 202–205–2000. General information concerning the Commission may also be obtained by accessing its Internet server (<https://www.usitc.gov>). The public record for these investigations may be viewed on the Commission's electronic docket (EDIS) at <https://edis.usitc.gov>.

SUPPLEMENTARY INFORMATION:

Scope.—For purposes of these investigations, the Department of Commerce has defined the subject merchandise as “. . . aluminum foil having a thickness of 0.2 mm or less, in reels exceeding 25 pounds, regardless of width. Aluminum foil is made from an aluminum alloy that contains more than 92 percent aluminum. Aluminum foil may be made to ASTM specification ASTM B479, but can also be made to other specifications. Regardless of specification, however, all aluminum foil meeting the scope description is included in the scope.

Excluded from the scope of this investigation is aluminum foil that is backed with paper, paperboard, plastics, or similar backing materials on only one side of the aluminum foil, as well as etched capacitor foil and aluminum foil that is cut to shape.

Where the nominal and actual measurements vary, a product is within the scope if application of either the nominal or actual measurement would place it within the scope based on the definitions set forth above. The products under investigation are currently classifiable under Harmonized Tariff Schedule of the United States (HTSUS)

Appendix C

Calendar of Public Hearing

CALENDAR OF PUBLIC HEARING

Those listed below appeared as witnesses at the United States International Trade Commission's hearing:

Subject: U.S. Trade and Investment with Sub-Saharan Africa:
Recent Developments

Inv. No.: 332-564

Date and Time: January 23, 2018 - 9:30 a.m.

Sessions were held in connection with this investigation in the Main Hearing Room (Room 101), 500 E Street, S.W., Washington, DC.

EMBASSY WITNESSES:

Embassy of the Republic of Togo
Washington, DC

The Honorable Dédé Ahoéfa Ekoue, Minister, Advisor to the Togolese Head of State

Embassy of the Republic of Côte d'Ivoire
Washington, DC

His Excellency Daouda Diabate, Ambassador of the Republic of Côte d'Ivoire to the United States

The Honorable Kaladji Fadiga, Director General of International Trade, Ministry of Trade, Craft, and SME Promotion

Embassy of the Republic of Rwanda
Washington, DC

The Honorable Bonny P. Musefano, Commercial Attaché

Embassy of the Republic of South Africa
Washington, DC

His Excellency Mninwa J. Mahlangu, Ambassador of the Republic of South Africa to the United States

The Honorable Yoliswa Mvebe, Deputy Chief of Missions

Embassy of the Republic of Cameroon

Washington, DC

**His Excellency Henri Etoundi Essomba, Ambassador of the Republic of Cameroon
to the United States of America**

EMBASSY WITNESSES (continued):

**Embassy of the Republic of Kenya
Washington, DC**

The Honorable David K. Gacheru, Deputy Chief of Mission

**Embassy of the Republic of Mauritius
Washington, DC**

The Honorable A.Y. Lam, Deputy Chief of Mission

PANEL 1

ORGANIZATION AND WITNESS:

Atlantic Council Africa Center
Washington, DC

Aubrey Hruby, Senior Fellow

Hello Tractor
Washington, DC

Martha Haile, Co-Founder and Chief Operating Officer

African Coalition for Trade Inc.
Washington, DC

Paul Ryberg, President

Boston Agrex, Inc.
USA Poultry & Egg Export Council
Washington, DC

Lawrence Lieberman, President, Boston Agrex, Inc.

Kevin J. Brosch, Principal, BroschTrade, LLC

PANEL 1 (continued)

ORGANIZATION AND WITNESS:

Common Market of Eastern and Southern
Africa (“COMESA”)

Dennis Matanda, Lead Consultant for the Regional Strategy
on AGOA on behalf of the Secretary General of COMESA

Manchester Trade Limited, Inc.
Washington, DC

Stephen Lande, President

African Growth and Opportunity Act (AGOA) Civil Society Network
Washington, DC

Fred O. Oladeinde, Chairman

Corporate Council on Africa
Washington, DC

Florizelle Liser, President and Chief Executive Officer

-END-

Appendix D

Summary of the Views of Interested Parties

Views of Interested Parties

Interested parties had the opportunity to file written submissions to the Commission in the course of this investigation and to provide summaries of the positions expressed in the submissions for inclusion in this report. As of March 4, 2018, no written summaries had been submitted by interested parties. This appendix contains the names of interested parties who filed full written submissions during investigation but did not provide written summaries (table D.1). A copy of each written submission is available in the Commission's Electronic Docket Information System (EDIS).¹²²³ The Commission also held a public hearing in connection with this investigation on January 23, 2018. The full text of the transcript of the Commission's hearing is also available on EDIS.

¹²²³ Available online at <http://edis.usitc.gov>.

Table D.1 Information provided by interested parties

Organization	Hearing testimony	Written submission
Embassy of the Republic of Cameroon	•	
Embassy of the Republic of Côte d'Ivoire	•	
Embassy of the Republic of Equatorial Guinea		•
Embassy of the Republic of Kenya	•	
Embassy of the Republic of Mauritius	•	•
Embassy of the Republic of Madagascar		•
Embassy of the Republic of Mozambique		•
Embassy of the Republic of Rwanda	•	•
Embassy of the Republic of South Africa	•	•
Embassy of the Republic of Togo	•	•
Ministry of Trade and Promotion of Private Sector (Togo)		•
African Coalition for Trade Inc.	•	
African Growth and Opportunity Act	•	•
Civil Society Organization Network		•
American Apparel and Footwear Association	•	•
American Sugar Alliance		•
Atlantic Council Africa Center	•	
Boston Agrex, Inc.	•	
Common Market of Eastern and Southern Africa	•	
Corporate Council on Africa	•	
Esquel Mauritius Ltd		•
Footwear Distributors and retailers of America		•
Hello Tractor	•	•
Initiative for Global Development		•
International Development Group LLC		•
Manchester Trade Limited, Inc.	•	
National Pork Producers Council		•
South African Poultry Association		•
U.S. Wheat Associates		•

Source: USITC EDIS.

Appendix E

Overview of the AGOA Program

Overview of the AGOA Program

The African Growth and Opportunity Act (AGOA), which offers preferences for U.S. imports of a variety of goods from sub-Saharan Africa (SSA), is an important factor shaping the United States' trade with SSA. In its letter requesting this report, the U.S. Trade Representative asked the Commission to summarize the AGOA strategies that have been developed by SSA countries. To provide some background for these discussions, this section gives an overview of the AGOA program itself.

AGOA was enacted by the U.S. Congress in 2000 to promote stable and sustainable economic growth and development in SSA. Under AGOA, Congress expressed support for “encouraging increased trade and investment between the United States and sub-Saharan Africa,” “reducing tariff and nontariff barriers and other obstacles to sub-Saharan African and United States trade,” and “expanding United States assistance to sub-Saharan Africa’s regional integration efforts,” among other goals.¹²²⁴ By providing unilateral preferential trade benefits to eligible beneficiary SSA countries, AGOA aims to promote political and economic reform in SSA, encourage regional economic integration, strengthen private sector development, and enhance commercial and political ties between the United States and SSA. In addition, AGOA is intended to facilitate the development of civil society, the rule of law, and political freedom in SSA countries.¹²²⁵ The AGOA legislation has been extended twice. On July 12, 2004, President Bush signed the AGOA Acceleration Act of 2004, extending the AGOA program from 2008 to 2015.¹²²⁶ On June 29, 2015, President Obama signed into law the Trade Preferences Extension Act of 2015 (TPEA), which extended AGOA for 10 years through September 30, 2025.¹²²⁷

AGOA expands on the U.S. Generalized System of Preferences (GSP) program by offering duty-free access to the U.S. market for all GSP-eligible products from designated SSA countries and for other qualifying products beyond those eligible under the GSP program.¹²²⁸ In addition, AGOA authorizes duty-free treatment for certain textile and apparel articles made in qualifying beneficiary countries in SSA.¹²²⁹ In 2017, approximately 5,250 tariff lines were designated as covering products eligible for duty-free treatment under AGOA.¹²³⁰

¹²²⁴ Trade and Development Act of 2000, 19 U.S.C. § 3701, Title I, sec. 103 (Pub. L. 106-200), 19 U.S.C. § 3702; USDOC, ITA, “Trade and Development Act of 2000,” n.d. (accessed February 7, 2018).

¹²²⁵ Ibid.

¹²²⁶ The AGOA Acceleration Act of 2004 also extends third country fabric provision for three years, from September 2004 until September 2007. ITA, “Summary of AGOA III,” n.d. (accessed March 15, 2018).

¹²²⁷ Trade Preferences Extension Act of 2015, 19 U.S.C. § 3721(g), sec. 103; U.S. Government Publishing Office, “Trade Preferences Extension Act of 2015,” n.d. (accessed February 7, 2018).

¹²²⁸ The eligibility criteria for GSP and AGOA designation overlap substantially, and countries must be GSP-eligible in order to receive AGOA’s trade benefits. USDOC, ITA, “AGOA: General Country Eligibility Provisions,” n.d. (accessed February 7, 2018). Countries are designated separately for the two programs (see HTS, general notes 4 and 16).

¹²²⁹ This benefit is also extended through September 30, 2025, by the Trade Preferences Extension Act of 2015.

¹²³⁰ This number, however, only includes tariff lines that (1) are not duty free under most-favored-nation (MFN) provisions, known in the United States as normal trade relations (NTR) provisions; (2) are marked “D”; and (3) are in chapters 01–97 in the HTS. AGOA beneficiaries receive additional eligibility on tariff lines in chapters 61 and 62 (apparel) if they meet the rule-of-origin requirements. The rules of origin place additional requirements on the fabric and upstream materials used. Those tariff lines are not marked “D” in the HTS but are potentially AGOA eligible, based on chapter 98 provisions. USITC, *Year in Trade 2016*, July 2017, 75; USITC, *HTS 2017*, January 2017, chapter 98, subchapter XIX.

In 2017, 38 SSA countries were eligible for AGOA benefits.¹²³¹ Of these 38 countries, 27 were eligible to use AGOA textile and apparel benefits for all or part of 2017.¹²³² Of the countries in the latter group, all but one (South Africa) were also eligible for additional textile and apparel benefits aimed at lesser-developed beneficiary countries for all or part of 2017.¹²³³ Notable among these extra benefits is the third-country fabric provision for lesser-developed beneficiary countries, which allows these countries to use non-U.S., non-AGOA fabrics in apparel exports under AGOA.¹²³⁴

¹²³¹ USTR, *2018 Trade Policy Agenda and 2017 Annual Report*, March 2018. The 38 SSA countries do not include The Gambia and Swaziland, which were re-designated as AGOA beneficiary countries, effective January 1, 2018. Proclamation No. 9687 (December 22, 2017).

¹²³² In 2017, the following 27 AGOA countries were eligible for textile and apparel benefits: Benin, Botswana, Burkina Faso, Cameroon, Cabo Verde, Chad, Côte d'Ivoire, Ethiopia, Ghana, Guinea, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Nigeria, Rwanda, Senegal, Sierra Leone, South Africa, Tanzania, Togo, Uganda, and Zambia. Togo has returned to this list only recently, as its AGOA textile and apparel benefits were reinstated on August 22, 2017. The list does not include Niger, Mali, and Swaziland. Niger's AGOA benefits were reinstated in October 2011; Mali's, in January 2014; and Swaziland's, on December 22, 2017. However, these three countries' textile and apparel benefits will not be reinstated until they reapply for their visa arrangement. OTEXA, https://otexa.trade.gov/AGOA_Trade_Preference.htm, "Preferences: Country Eligibility, Apparel Eligibility, and Textile Eligibility (Category 0 and Category 9)," n.d. (accessed April 20, 2018);

¹²³³ USDOC, ITA, "AGOA: General Country Eligibility Provisions," n.d. (accessed February 7, 2018).

¹²³⁴ USITC, *HTS 2017*, January 2017, chapter 98, subchapter XIX, U.S. note 2(a) through 2(e).

Appendix F

Description of Gravity Modeling Methodology

Introduction

The request letter from the U. S. Trade Representative asks the U.S. International Trade Commission (USITC or Commission) to identify non-crude petroleum sectors and sub-Saharan African (SSA) markets that present the greatest potential for (1) U.S. exports to SSA countries and (2) exports of goods under AGOA to the United States. This report uses several approaches to identify such sectors, one of which employs the gravity model. The gravity modeling methodology used in the report is described in this appendix.

The gravity model generates expected trade flows between the United States and SSA countries based on three factors: actual trade flow data, selected characteristics of exporters and importers used in the model, and certain characteristics of the bilateral relationship between these exporters and importers. For some sectors in some SSA countries, the actual value of trade is less than the expected value generated by the model, given worldwide trade patterns. In these cases, the information is passed to industry analysts, who incorporate non-quantitative information to assess the full extent of trade potential.

Note that the gravity model uses data for average trade flows from 2013–15 for 235 countries and 250 product groups. Therefore, it reflects not only trade flows between the United States and SSA countries, but also trade flows between SSA countries and their third-party trading partners.

Methodology

In the gravity model, trade is a function of three things: characteristics of the exporter, characteristics of the importer, and characteristics of the bilateral relationship between the exporter and importer. Characteristics of the exporter are those that affect the competitiveness of the exporter in international markets. These country-specific characteristics affect exports to all destinations. The competitiveness can be estimated by the gravity model using trade data, so it is not necessary to collect data on specific determinants of the competitiveness.

Characteristics of the importer are those that affect the demand for the product by the importer; these affect imports from all destinations. The level of demand can also be estimated by the gravity model using trade data, so again, it is not necessary to collect data on specific determinants of the demand for imports.

Characteristics of the bilateral relationship between the exporter and importer determine the size of trade impediments between the trading partners. Observable trade impediments are distance between trading partners, differences in language, lack of a shared border, lack of trade agreements, and others.

Here is an example of how the model works. Let's say a particular SSA country imports significant volumes in a sector from some European countries and China, while importing little from the United States, even after accounting for bilateral characteristics like distance, language, etc. At the same time, the U.S. exports high volumes in this sector to other countries, including some other SSA countries. Such a situation would be flagged by the model so that it can be further studied by industry analysts.

The main tool for the quantitative analysis in this study is the Commission's Gravity Modeling Environment (USITC GME). It combines database, econometric, and simulation tools that implement the latest gravity modeling techniques.

The standard gravity model can be expressed as

$$X_{ij} = \exp(M_i + S_j + \phi_{ij}) \quad (1)$$

where X_{ij} are trade flows from an exporting country i to an importing country j , M_i and S_j are fixed effects capturing exporter and importer characteristics, and ϕ_{ij} is a linear function of bilateral determinants of trade such as distance, common border, language, and preferential trade agreements (PTAs).¹²³⁵ The gravity model allows for third-country effects on trade between i and j through the incorporation of multilateral resistance terms in the empirical framework. Under this specification, these multilateral resistance terms are included using the two types of fixed effects.

The bilateral determinant of trade, ϕ_{ij} , is given by

$$\phi_{ij} = \log(DIST_{ij}) + BORDER_{ij} + LANGUAGE_{ij} + PTA_{ij} + COLONY_{ij} + GSP_{ij} + AGOA_{ij} \quad (2)$$

where DIST is distance in kilometers, BORDER is an indicator of a shared border, LANGUAGE measures whether the two countries share a commonly spoken language, PTA is an indicator of membership in a common preferential trade agreement, COLONY is an indicator of historical colonial association, GSP is an indicator of Generalized System of Preferences (GSP) eligibility, and AGOA is an indicator of African Growth and Opportunity Act (AGOA) eligibility.¹²³⁶

J.M.C. Santos Silva and Silvana Tenreyro show that ordinary least squares (OLS) estimation of (1) leads to inconsistent estimates if there is heteroscedasticity present in the trade data.¹²³⁷ They propose a Poisson Pseudo Maximum Likelihood (PPML) estimator, which, being a special case of the Generalized Linear Model (GLM) framework, assumes that the variance is proportional to the mean. The only condition required for PPML to be consistent is the correct specification of the conditional mean. The PPML also gives the same weight to each observation in the estimation and so is desirable when there is not much available information on the nature of heteroscedasticity in the trade data. Santos Silva and Tenreyro provide simulation evidence that the PPML is well behaved in a wide range of situations and can deal with certain types of measurement error in the dependent variable. Being a nonlinear estimator, the PPML is also able to handle zero trade flows in the estimation, which is a common feature of trade data. Given these attractive properties, equation (1) is estimated using the PPML estimator.

¹²³⁵ Anderson and Van Wincoop, "Gravity with Gravitas: A Solution to the Border Puzzle," 2003; Head and Mayer, "Gravity Equations: Workhorse, Toolkit, and Cookbook," 2014; Piermartini and Yotov, "Estimating Trade Policy Effects with Structural Gravity," 2016.

¹²³⁶ There are two indicators of colonial association, reflecting whether the importer was a colony of the exporter or vice versa. GSP programs include those outside the United States that are recognized by the WTO. The AGOA indicator is equal to zero if the importing country j is not the United States.

¹²³⁷ Santos Silva and Tenreyro, "The Log of Gravity," 2006. Heteroscedasticity occurs when the variance of the error terms differs across observations.

Data Sources

To perform the gravity analysis, this study uses bilateral trade data at the industry level from the United Nations (UN) Comtrade database. Trade values are averaged across 2013–15 to increase data availability and improve data quality.¹²³⁸ As noted earlier, trade data cover 235 countries and territories. Industries are classified according to the USITC digest system, which contains 250 sectors. In addition, this study uses the USITC Dynamic Gravity dataset, which contains information on distance, language, trade agreements, colonial ties, and other gravity variables.¹²³⁹

Results

The results of gravity modeling analysis tell us if two countries trade more than expected, less than expected, or in line with expectations, given the model specification. We do not report the estimated gaps between predicted and actual trade because they are sensitive to model specification.¹²⁴⁰ Rankings of the gaps, on the other hand, are robust to model specification. Table 1 presents the five digest sectors with the greatest gaps between expected and actual U.S. exports to SSA countries. For each digest sector, the table shows the three SSA countries with the largest gaps between expected and actual U.S. exports. Table 2 presents the digest sectors with the largest gaps between expected and actual U.S. imports from SSA countries. Only sectors with goods eligible for AGOA preferences are listed.¹²⁴¹

¹²³⁸ Note that the gravity model (1) looks at one “year” to check if there are gaps between model-predicted and actual trade. The model is not designed to look at trends (i.e., dynamics). While it is possible to use only the data from the latest available year, which is 2015, averaging the data for 2013–15 improves the quality and quantity of trade data. Note that trade values are also averaged between those reported by the exporter and those reported by the importer, when both are available.

¹²³⁹ Gurevich and Herman, “The Dynamic Gravity Dataset: 1948–2016,” 2018.

¹²⁴⁰ Note that in order to estimate a potential increase in trade due to some policy change, one would need to simulate a model in which trade and prices are determined by the model. Such counterfactual analysis was not performed in this study. See Egger, “An Econometric View on the Estimation of Gravity Models and the Calculation of Trade Potentials,” 2002, and Söderling, “Is the Middle East and North Africa Region Achieving Its Trade Potential?” 2005.

¹²⁴¹ The 4 AGOA-eligible sectors are in the top 11 sectors (AGOA-eligible and non-AGOA-eligible) with the greatest gaps between predicted and actual U.S. imports from SSA countries. Among AGOA-eligible countries listed in table F.2, Madagascar regained its AGOA eligibility in June 2014, and Guinea-Bissau regained its AGOA eligibility on January 1, 2015. USITC, *The Year in Trade 2015*, 2016, 83; USITC, *The Year in Trade 2014*, 2015, 76.

Table F.1 Sectors and SSA countries with the greatest gaps between predicted and actual U.S. exports

Digest	Digest title	SSA markets with the greatest gaps
EP005	Refined petroleum products	South Africa Tanzania Kenya
AG030	Cereals	South Africa Senegal Côte d'Ivoire
CH019	Pharmaceuticals	Nigeria South Africa Kenya
TE009	Motor vehicles	Angola Kenya Ethiopia
TE013	Aircraft	Nigeria Sudan Niger

Table F.2 Sectors and SSA countries with the greatest gaps between predicted and actual U.S. imports (AGOA-eligible digests only)

Digest	Digest title	SSA exporters with the greatest gaps
TX005	Apparel	South Africa Madagascar Mauritius
AG037	Cocoa, chocolate, and confectionery	Ghana Nigeria Cameroon
MM041	Certain base metals and chemical elements	Botswana Zambia Nigeria
AG020	Edible nuts	Guinea-Bissau Côte d'Ivoire Ghana

Effects of Trade Infrastructure on Exports and Imports

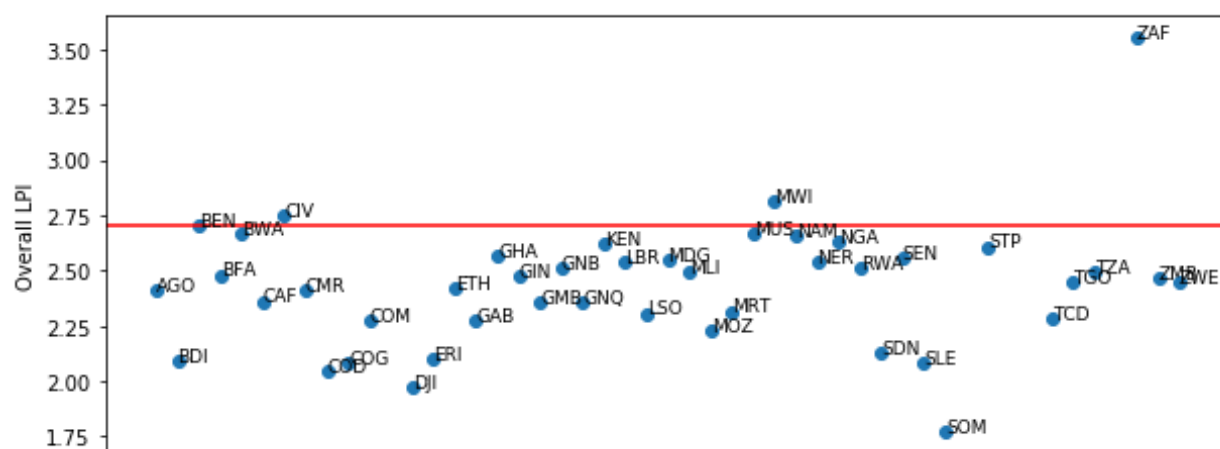
The estimated exporter and importer fixed effects (M and S) in (1) are tightly linked to the multilateral resistance terms in the theoretical gravity framework.¹²⁴² Thus, we can use these estimates as indexes of aggregate trade costs facing the exporters and importers for a given country. These fixed effects can be used to understand why some countries trade less than others even when they have similar bilateral trade characteristics, like distance and colonial status. Our goal in this section is to examine if the quality of trade infrastructure helps determine importer and exporter fixed effects in the gravity model, and thus can help explain the overall levels of exports and imports in the SSA region. Note that trade infrastructure affects trade with all trading partners, not just the United States.

¹²⁴² Piermartini and Yotov, “Estimating Trade Policy Effects with Structural Gravity,” 2016.

We use the World Bank’s Logistics Performance Index (LPI) as our broad measure of a country’s level of trade infrastructure. The LPI is a summary indicator of logistics sector performance that is based on six key components: efficiency of customs and border clearance, quality of transport and trade infrastructure, ease of arranging international shipments, logistics quality and competence, ability to track and trace shipments, and timeliness. Figure F.1 shows the average LPI scores for the individual SSA countries during the study period, along with the median LPI score of about 2.75 for all countries.¹²⁴³ Not surprisingly, almost all the SSA countries are below the median LPI score. The one exception is South Africa, which has more advanced infrastructure than the rest of the SSA countries. These low LPI scores can significantly constrain the ability of SSA countries to trade with other countries.

We next investigate if LPI scores are a determinant of a country’s estimated importer and exporter fixed effects in the gravity model. With this goal in mind, we run a simple linear regression in which the dependent variable is the country’s exporter and importer fixed effects, while the explanatory variable is the LPI scores. (Note that the estimated fixed effects are averaged across all 250 digests.) As seen from figures F.2 and F.3, there is a strong and positive relationship between the fixed effects and the quality of a country’s infrastructure. In general, countries with high LPI scores also have higher estimated fixed effects in the gravity model and larger trade flows. This positive relationship persists even when we include geographical characteristics—such as a country being landlocked, or an island—as additional determinants of a country’s estimated fixed effects in the linear regression. Overall, these results suggest that improving infrastructure is one significant way for SSA countries to increase their exports and imports and compete with other developing nations.

Figure F.1 Logistics Performance Index (LPI) of SSA countries vs. median LPI of all countries



Note: See [appendix table I.39](#) for a tabular presentation of the data in this figure.

¹²⁴³ The three-letter country codes in figure F.1 stand for the following countries: AGO: Angola, BEN: Benin, BWA: Botswana, BFA: Burkina Faso, BDI: Burundi, CMR: Cameroon, CAF: Central African Republic, TCD: Chad, COM: Comoros, COG: Republic of the Congo, CIV: Cote d’Ivoire, COD: Democratic Republic of the Congo, DJI: Djibouti, GNQ: Equatorial Guinea, ERI: Eritrea, ETH: Ethiopia (excludes Eritrea), GAB: Gabon, GMB: The Gambia, GHA: Ghana, GIN: Guinea, GNB: Guinea-Bissau, KEN: Kenya, LSO: Lesotho, LBR: Liberia, MDG: Madagascar, MWI: Malawi, MLI: Mali, MRT: Mauritania, MUS: Mauritius, MOZ: Mozambique, NAM: Namibia, NER: Niger, NGA: Nigeria, RWA: Rwanda, STP: Sao Tome and Principe, SEN: Senegal, SLE: Sierra Leone, SOM: Somalia, ZAF: South Africa, SDN: Sudan, TZA: Tanzania, TGO: Togo, ZMB: Zambia, ZWE: Zimbabwe.

Figure F.2 Relationship between exporter fixed effects and infrastructure

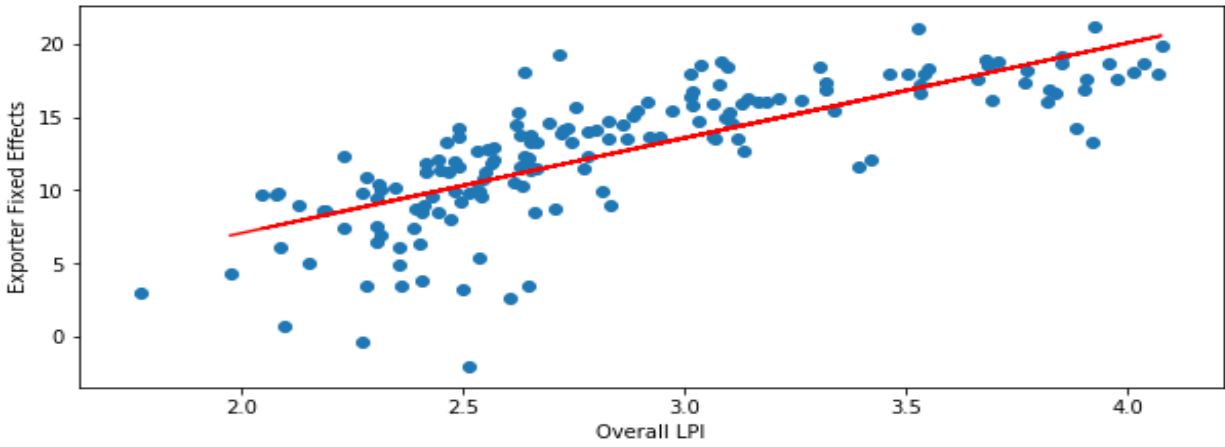
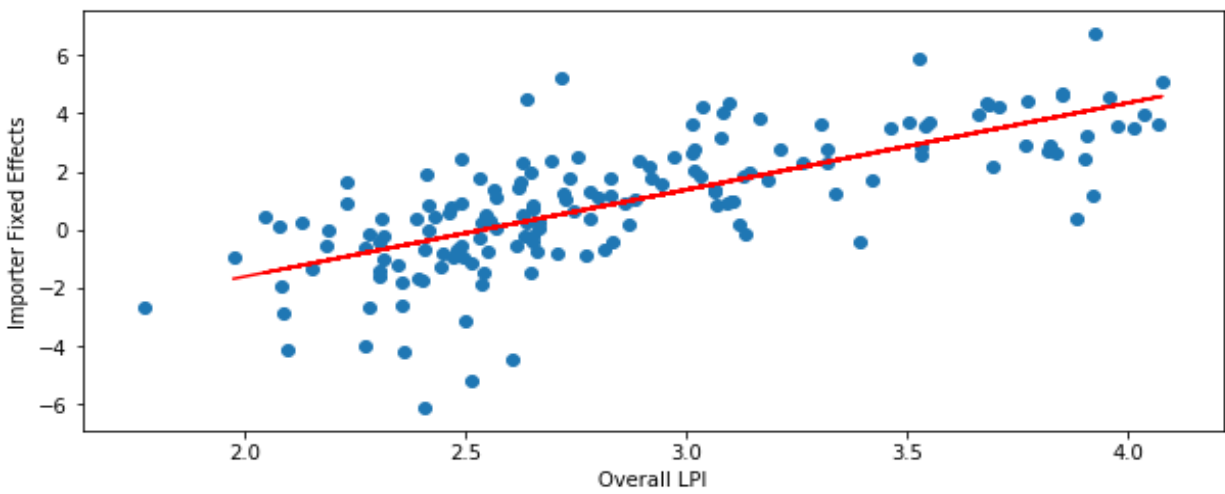


Figure F.3 Relationship between importer fixed effects and infrastructure



Appendix G

Data Tables

Table G.1 Fastest-growing U.S. exports to SSA countries, by absolute change, 2010–17

Product	2010	2011	2012	2013	2014	2015	2016	2017	Absolute change	Compound annual growth rate
									2010–17	2010–17
Million \$										Percent
Aircraft	1,187.8	1,570.0	2,098.8	1,340.9	3,739.3	2,602.9	1,763.8	1,496.2	308.4	3.4
Natural gas and components	9.4	27.7	15.4	30.9	234.3	213.5	162.3	251.1	241.7	59.9
Rail locomotive and rolling stock	74.3	105.1	190.6	145.1	259.6	279.8	98.5	290.6	216.3	21.5
Certain motor-vehicle parts	249.2	306.2	336.2	387.0	406.2	420.2	338.0	438.0	188.8	8.4
Poultry	273.9	400.0	487.3	503.8	543.0	303.9	282.2	430.5	156.6	6.7
Pharmaceuticals	186.5	250.7	356.5	413.3	418.3	353.3	276.6	270.1	83.6	5.4
Nonautomotive insulated electrical wire and related products	115.3	49.3	45.0	67.1	75.1	82.1	106.8	193.2	77.9	7.7
Crude petroleum	0.0	0.0	0.0	0.0	0.0	0.0	40.1	69.2	69.2	^a
Natural and synthetic gemstones	70.3	98.6	93.4	149.8	192.1	156.3	113.1	134.7	64.4	9.7
Polyvinyl chloride resins in primary forms	114.6	165.1	143.2	157.7	152.8	152.1	134.0	168.2	53.6	5.6
Infant formulas, malt extracts, and other edible preparations	99.9	109.4	97.9	115.8	118.1	125.9	115.5	143.5	43.5	5.3
Chlor-alkali chemicals	27.7	36.4	38.0	32.0	29.2	34.3	38.7	70.5	42.8	14.3
Fresh or frozen fish	5.2	30.1	12.5	28.7	9.8	21.5	6.0	47.6	42.4	37.2
Internal combustion piston engines, other than for aircraft	171.0	223.8	208.4	170.7	186.9	199.9	146.9	211.3	40.3	3.1
Prepared or preserved vegetables, mushrooms, and olives	68.7	105.7	96.1	117.0	95.2	102.7	131.5	95.3	26.6	4.8
All other	13,851.6	16,970.0	17,562.7	19,559.0	18,307.0	12,356.5	9,131.9	9,285.7	-4,565.9	-5.6
Total	16,505.5	20,448.1	21,782.1	23,218.7	24,767.0	17,404.8	12,886.1	13,595.7	-2,909.8	-2.7

Source: USITC DataWeb/USDOC (accessed February 12, 2018).

Note: ^a = compound annual growth rate (CAGR) not provided because the value of 2010 was zero.

Table G.2 Fastest-growing U.S. exports to SSA countries, in percentage change terms, 2010–17

Product	2010	2011	2012	2013	2014	2015	2016	2017	Absolute change	Compound annual growth rate
									2010–17	2010–17
Million \$									Percent	
Natural gas and components	9.4	27.7	15.4	30.9	234.3	213.5	162.3	251.1	241.7	59.9
Ferroalloys	0.0	0.0	0.1	0.2	0.3	0.1	0.0	0.2	0.1	40.1
Fresh or frozen fish	5.2	30.1	12.5	28.7	9.8	21.5	6.0	47.6	42.4	37.2
Natural tanning and dyeing materials	0.2	0.4	0.6	0.9	0.8	1.4	1.7	1.8	1.6	37.0
Citrus fruit	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	32.4
Tropical fruit	0.0	0.0	0.2	0.0	0.0	0.1	0.0	0.1	0.0	28.0
Primary iron products	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	27.8
Rail locomotive and rolling stock	74.3	105.1	190.6	145.1	259.6	279.8	98.5	290.6	216.3	21.5
Live plants	0.2	2.6	0.7	1.0	0.8	0.4	0.6	0.9	0.6	20.2
Chlor-alkali chemicals	27.7	36.4	38.0	32.0	29.2	34.3	38.7	70.5	42.8	14.3
Zinc and related articles	0.3	0.9	0.9	0.5	1.1	0.8	1.3	0.7	0.4	13.1
Electrical capacitors and resistors	3.6	8.0	9.4	7.3	7.9	9.1	8.3	8.4	4.8	12.7
Seeds	19.5	22.6	29.8	41.8	33.5	30.7	36.0	41.2	21.7	11.3
Glass containers	0.4	0.2	0.3	0.3	0.8	0.7	0.8	0.9	0.5	11.2
Furskins	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.7
All other	16,364.5	20,214.0	21,483.5	22,929.9	24,188.7	16,812.4	12,531.8	12,881.6	-3,483.0	-3.4
Total	16,505.5	20,448.1	21,782.1	23,218.7	24,767.0	17,404.8	12,886.1	13,595.7	-2,909.8	-2.7

Source: USITC DataWeb/USDOC (accessed February 12, 2018).

Table G.3 Fastest-growing U.S. imports from SSA countries, in absolute value terms, 2010–17

Product	2010	2011	2012	2013	2014	2015	2016	2017	Absolute	Compound
									change	annual
	Million \$								2010–17	growth
										rate
										2010–17
										Percent
Spices	38.2	38.4	54.8	60.7	86.6	133.2	241.4	434.3	396.1	41.5
Natural and synthetic gemstones	1,554.8	1,737.7	1,354.4	1,458.8	1,829.0	1,184.7	1,481.8	1,855.8	301.0	2.6
Apparel	795.2	908.6	870.5	943.7	1,028.5	1,022.1	1,036.2	1,057.1	261.9	4.2
Steel mill products	114.3	148.8	108.0	93.3	169.0	140.5	153.3	278.7	164.5	13.6
Cocoa, chocolate, and confectionery	1,037.6	1,272.2	1,000.7	1,045.8	1,205.7	1,162.7	1,297.6	1,179.4	141.8	1.8
Coffee and tea	205.9	282.9	253.6	228.4	263.0	297.8	263.6	345.6	139.7	7.7
Edible nuts	87.7	93.7	114.8	127.7	153.0	186.3	166.9	211.0	123.3	13.4
Certain base metals and chemical elements	107.6	120.6	103.7	145.9	188.7	183.5	132.6	189.7	82.2	8.4
Unwrought aluminum	107.8	107.2	113.3	136.5	155.9	76.3	71.5	187.4	79.6	8.2
Certain ores, concentrates, ash, and residues	526.5	651.1	809.6	865.0	721.0	567.7	484.1	605.0	78.5	2.0
Copper and related articles	9.7	9.2	7.9	108.7	111.2	179.1	114.3	75.7	65.9	34.0
Miscellaneous chemicals and specialties	58.1	83.1	93.5	100.5	85.8	79.8	91.2	115.8	57.7	10.4
Works of art and miscellaneous manufactured goods	66.0	44.3	62.5	80.3	96.4	116.5	115.9	122.3	56.2	9.2
Ferroalloys	627.1	705.3	665.9	552.8	821.5	467.7	346.0	680.2	53.1	1.2
Internal combustion piston engines, other than for aircraft	54.1	114.3	94.9	69.1	97.3	96.8	82.8	89.1	35.0	7.4
All other	59,431.8	67,797.0	43,602.5	32,987.8	19,379.0	12,404.4	13,663.4	17,105.1	-42,326.7	-16.3
Total	64,822.4	74,114.4	49,310.5	39,005.0	26,391.6	18,299.1	19,742.6	24,532.2	-40,290.2	-13.0

Source: USITC DataWeb/USDOC (accessed February 12, 2018).

Table G.4 Fastest-growing U.S. imports from SSA countries, in percentage change terms, 2010–17

Product	2010	2011	2012	2013	2014	2015	2016	2017	Absolute change	Compound annual growth rate
									2010–17	2010–17
Million \$										Percent
Polypropylene resins in primary forms	0.0	1.2	2.4	1.2	4.2	3.3	9.5	10.9	10.9	213.9
Polyethylene resins in primary forms	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4	176.6
Silverware and related articles of precious metal	0.2	6.0	1.0	7.2	0.4	12.0	39.0	29.8	29.6	107.7
Apparel fasteners	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	69.2
Moldings, millwork, and joinery	0.2	0.1	0.2	3.4	9.1	8.3	6.7	6.6	6.4	68.8
Footwear	1.5	2.5	9.3	21.3	21.6	22.0	25.1	31.4	29.9	54.4
Construction castings and other cast-iron articles	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	53.6
Metal forming machine tools	0.2	0.1	0.4	2.1	0.4	0.3	0.5	2.6	2.4	49.1
Prefabricated buildings	0.1	0.0	0.0	0.0	0.0	0.0	0.1	1.4	1.3	47.4
Cereals	0.2	0.1	0.2	0.6	3.3	2.6	1.9	2.0	1.8	43.2
Fertilizers	1.8	2.0	1.5	3.8	1.4	5.9	9.7	20.7	18.9	41.6
Spices	38.2	38.4	54.8	60.7	86.6	133.2	241.4	434.3	396.1	41.5
Wrapping, packaging, and can-sealing machinery	0.2	1.7	3.3	0.6	2.1	0.7	5.5	1.7	1.5	36.8
Nonalcoholic beverages, excluding fruit and vegetable juices	0.4	0.4	0.3	0.5	0.3	0.5	1.3	3.5	3.0	34.3
Copper and related articles	9.7	9.2	7.9	108.7	111.2	179.1	114.3	75.7	65.9	34.0
All other	64,769.7	74,052.8	49,229.2	38,794.9	26,151.0	17,931.0	19,287.6	23,910.0	-40,859.8	-13.3
Total	64,822.4	74,114.4	49,310.5	39,005.0	26,391.6	18,299.1	19,742.6	24,532.2	-40,290.2	-13.0

Source: USITC DataWeb/USDOC (accessed February 12, 2018).

Table G.5 U.S. imports for consumption under AGOA, by leading growth product, in terms of absolute change, 2010–17

Product	2010	2011	2012	2013	2014	2015	2016	2017	Absolute change	Compound annual growth rate
									2010–17	2010–17
Million \$										Percent
Apparel	726.9	855.0	814.6	907.5	990.0	991.1	1,007.9	1,028.3	301.3	5.1
Aluminum mill products	0.0	0.0	0.0	0.0	0.0	0.0	24.7	93.0	93.0	^a
Edible nuts	44.2	53.6	64.5	58.0	78.1	110.7	92.0	119.6	75.4	15.3
Footwear	0.4	0.8	7.3	19.8	19.7	20.1	23.7	30.5	30.0	82.9
Ferroalloys	141.9	204.5	197.4	180.0	186.1	89.7	58.8	171.4	29.5	2.7
Sugar and other sweeteners	0.0	0.0	0.1	0.1	0.1	0.2	7.9	21.8	21.8	^a
Miscellaneous chemicals and specialties	40.5	47.5	54.4	60.7	46.0	41.8	47.0	62.0	21.5	6.3
Precious jewelry and related articles	0.0	0.0	0.0	0.0	0.0	0.0	7.1	16.3	16.3	^a
Wine and certain other fermented beverages	29.8	30.7	45.1	51.9	35.0	35.9	32.4	45.1	15.3	6.1
Citrus fruit	48.8	43.9	49.7	61.6	56.1	60.3	56.4	58.4	9.6	2.6
Certain base metals and chemical elements	4.2	8.0	23.7	22.7	25.1	18.6	12.4	13.6	9.4	18.2
Pharmaceuticals	0.0	0.0	0.0	0.0	0.0	0.0	4.7	8.4	8.4	^a
Hides, skins, and leather	1.1	1.0	1.5	1.1	2.4	1.4	4.4	8.7	7.6	34.7
Canned fish	0.4	2.3	1.1	0.3	0.7	0.8	0.7	6.1	5.7	47.9
Prepared or preserved vegetables, mushrooms, and olives	3.5	4.4	3.3	4.2	5.5	5.9	5.3	8.7	5.1	13.6
All other	37,638.0	50,826.0	31,275.7	23,486.0	10,429.2	6,607.9	8,065.5	10,820.3	-26,817.8	-16.3
Total	38,679.8	52,077.8	32,538.4	24,853.9	11,874.1	7,984.2	9,450.6	12,511.9	-26,167.9	-14.9

Source: USITC DataWeb/USDOC (accessed February 12, 2018).

Note: ^a = compound annual growth rate (CAGR) not provided because the value of 2010 was zero.

Table G.6 U.S. imports for consumption under AGOA, by leading growth product, in percentage change terms, 2010–17

Product	2010	2011	2012	2013	2014	2015	2016	2017	Absolute	Compound
									growth	annual
									2010–17	growth
										rate
									2010–17	2010–17
										Percent
Million \$										
Miscellaneous plastic products	0.0	0.0	0.0	0.0	0.0	0.0	0.9	2.0	2.0	185.5
Miscellaneous textile products	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.1	109.1
Cork and rattan	0.0	0.1	0.0	0.1	0.1	0.2	0.3	0.5	0.5	90.6
Footwear	0.4	0.8	7.3	19.8	19.7	20.1	23.7	30.5	30.0	82.9
Fabrics	0.0	0.3	0.2	0.5	0.5	0.6	0.3	0.3	0.3	67.1
Milled grains, malts, and starches	0.0	0.0	0.0	0.1	0.2	0.4	0.4	0.5	0.5	50.7
Spices	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5	0.5	49.5
Canned fish	0.4	2.3	1.1	0.3	0.7	0.8	0.7	6.1	5.7	47.9
Natural and synthetic gemstones	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	36.2
Cereals	0.1	0.0	0.1	0.5	2.2	1.9	0.7	1.2	1.1	35.8
Hides, skins, and leather	1.1	1.0	1.5	1.1	2.4	1.4	4.4	8.7	7.6	34.7
Mechanical power transmission equipment	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.2	0.2	32.1
Synthetic organic pigments	0.0	0.1	0.1	0.2	0.3	0.0	0.0	0.0	0.0	28.9
Other fresh fruit	0.4	0.1	0.2	0.2	0.3	0.4	1.1	2.2	1.8	27.4
Tropical fruit	0.5	0.5	0.5	0.6	0.4	0.7	0.8	2.6	2.1	26.7
All other	38,676.7	52,072.5	32,527.3	24,830.6	11,847.4	7,957.5	9,417.0	12,456.4	-26,220.3	-14.9
Total	38,679.8	52,077.8	32,538.4	24,853.9	11,874.1	7,984.2	9,450.6	12,511.9	-26,167.9	-14.9

Source: USITC DataWeb/USDOC (accessed February 12, 2018).

Table G.7 U.S. exports to SSA countries, by leading destination countries, in compound annual growth rate, 2010–17

Country	2010	2011	2012	2013	2014	2015	2016	2017	Absolute	Compound
									change	annual
									2010–17	growth
									2010–17	rate
	Million \$									Percent
Somalia	1.2	5.4	16.4	15.2	34.2	43.7	35.6	68.5	67.3	77.5
Togo	156.0	206.8	367.7	1,001.2	1,017.9	309.6	227.4	481.8	325.8	17.5
Lesotho	0.6	12.9	16.1	0.4	2.3	0.5	2.6	1.7	1.0	15.1
Eritrea	2.0	3.9	5.5	13.1	5.1	3.3	2.9	4.8	2.8	13.4
Rwanda	27.8	118.7	29.4	24.0	20.0	11.8	73.4	65.6	37.8	13.1
São Tomé and Príncipe	1.3	5.9	0.8	1.9	1.0	0.8	1.9	3.0	1.7	12.7
Botswana	25.6	22.7	27.4	42.7	26.6	21.7	23.6	52.6	27.0	10.8
Côte d'Ivoire	160.1	129.1	185.0	164.0	234.5	261.0	286.2	324.6	164.4	10.6
Mali	36.3	52.1	58.3	47.9	37.5	70.3	69.8	60.4	24.1	7.5
Mauritius	38.3	44.6	94.1	40.4	34.0	55.2	84.9	60.8	22.5	6.8
All other	16,056.2	19,846.0	20,981.4	21,868.0	23,353.8	16,626.7	12,077.7	12,472.0	-3,584.2	-3.5
Total	16,505.5	20,448.1	21,782.1	23,218.7	24,767.0	17,404.8	12,886.1	13,595.7	-2,909.8	-2.7

Source: USITC DataWeb/USDOC (accessed February 12, 2018).

Table G.8 U.S. imports from SSA countries, by leading source countries, in compound annual growth rate, 2010–17

Country	2010	2011	2012	2013	2014	2015	2016	2017	Absolute	Compound
									change	annual
									2010–17	growth
									2010–17	rate
	Million \$									Percent
Benin	0.3	2.0	2.5	3.1	4.5	4.4	5.1	17.6	17.4	82.1
Senegal	3.6	4.4	13.6	14.7	23.2	67.2	52.1	68.9	65.3	52.3
Somalia	0.1	1.0	0.9	1.2	0.5	0.8	1.0	1.0	0.8	34.1
Madagascar	107.3	85.3	108.8	161.4	214.6	318.3	443.0	739.4	632.1	31.7
Botswana	166.9	290.5	220.0	276.9	317.3	210.4	433.1	770.2	603.2	24.4
Comoros	1.7	1.8	2.0	2.8	2.1	1.2	2.7	5.1	3.4	17.2
Tanzania	41.7	57.2	112.8	67.6	82.2	95.9	145.1	114.6	72.9	15.5
Ghana	269.8	772.9	284.4	356.8	263.5	287.2	312.3	730.9	461.1	15.3
Burundi	3.3	9.5	4.8	4.3	4.3	8.4	6.6	9.0	5.6	15.2
Eritrea	0.1	0.1	0.2	0.1	0.1	0.1	0.4	0.3	0.2	15.1
All other	64,227.5	72,889.7	48,560.6	38,116.1	25,479.3	17,305.2	18,341.4	22,075.2	-42,152.3	-14.1
Total	64,822.4	74,114.4	49,310.5	39,005.0	26,391.6	18,299.1	19,742.6	24,532.2	-40,290.2	-13.0

Source: USITC DataWeb/USDOC (accessed February 12, 2018).

Table G.9 Intra-REC total trade (within group) as a share of trade with the world, by REC, 2010–16 (percent)

REC	2010	2011	2012	2013	2014	2015	2016
SADC	19.1	17.7	19.2	19.2	19.3	21.3	21.1
EAC	11.4	10.7	11.8	10.6	11.1	11.5	10.9
ECOWAS	8.1	7.9	8.5	10.0	8.6	8.9	10.0
CEN-SAD	6.1	6.0	6.1	6.9	6.3	6.5	7.2
COMESA	6.8	7.3	6.6	7.5	7.2	7.6	6.9
IGAD	6.5	7.1	6.8	6.8	6.4	6.7	6.2
UMA	2.6	2.7	2.9	3.5	3.6	3.2	3.1
ECCAS	3.0	3.5	2.8	3.0	2.0	2.7	2.6

Source: UNCTAD STAT, “Merchandise: Intra-trade and Extra-trade of Country Groups by Product, Annual, 1995–2016” (accessed January 8, 2018).

Note: REC = Regional Economic Community; “total trade” is total merchandise trade (exports plus imports).

Appendix H

Africa Regional Integration Index

Dimensions and Indicators

In this report, *U.S. Trade in Goods and Services and Investment with Sub-Saharan Africa: Recent Developments*, chapter 6 focuses on selected national AGOA strategies and recent developments in SSA regional integration. The chapter includes a discussion on ways to better track the progress of Africa's Regional Economic Communities (RECs).

One approach mentioned in the chapter is the Africa Regional Integration Index (ARII), launched in 2016 by the African Union Commission (AUC). The ARII is composed of 16 indicators across five dimensions. The dimensions are trade integration (4 indicators), regional infrastructure (4), productive integration (3), free movement of people (3), and financial and macroeconomic integration (2). This appendix gives further descriptions of the five dimensions of the ARII and the 16 measures of progress it offers for the RECs.

Trade Integration

Level of customs duties on imports. This indicator measures the weighted average of tariffs actually applied as a percentage of the total of intra-regional imports for all the products identified, using the international Harmonized System of tariff classification at the 6-digit (moderately specific) level (HS-6).

Share of intra-regional goods exports (% GDP). This indicator measures the value of intra-regional goods exports as a percentage of the country's GDP. The indicator, expressed in relation to GDP, can be calculated per year per country.

Share of intra-regional goods imports (% GDP). This indicator measures the value of intra-regional imports as a percentage of GDP. It can be calculated per year per country and is expressed in relation to GDP.

Share of total intra-regional goods trade (% total intra-REC trade). This indicator is defined as the country's intra-regional trade as a proportion of the total intra-regional trade of the REC.

Regional Infrastructure

Infrastructure Development Index. This indicator is based on four main categories: transport; electricity; information and communications technology (ICT); and water and sanitation. These categories are divided into nine indicators having a direct or indirect impact on productivity or economic growth.

Proportion of intra-regional flights. This indicator measures the number of intra-regional flights arriving or departing as a percentage of the total international flights (arrivals and departures) of the country.

Total regional electricity trade (net) per capita. This indicator measures the annual volume of regional electricity imports minus the annual volume of regional electricity exports, as an absolute value.

Average cost of roaming. This indicator is defined as the average cost of mobile communications, using the main operators in the country, from the country to other countries of the REC, per minute, in U.S. dollars.

Productive Integration

Share of intra-regional intermediate goods exports (% intra-regional exports). This indicator is defined as the percentage of intra-regional exports of intermediate (semifinished) goods compared to the total of intra-regional goods exports.

Share of intra-regional intermediate goods imports (% intra-regional imports). This indicator is defined as a percentage of intra-regional imports of intermediate (semi-finished) goods compared to total intra-regional goods imports.

Merchandise Trade Complementarity Index. This indicator measures the total in absolute value of the difference between the share of imports and the share of exports compared to other member states of a REC.

Free Movement of People

Ratification (or not) of REC protocol on free movement of persons. This qualitative indicator measures whether or not the country has ratified the protocol on the free movement of people in the REC of which it is a member. Ratification: Yes = 1; No = 0.

Proportion of REC countries whose nationals do not require a visa for entry. The number of other member countries whose citizens do not require a visa, as a percentage of the total number minus one of member countries of the REC.

Proportion of REC member countries whose nationals are issued a visa on arrival. This indicator measures the number of other countries whose nationals may obtain a visa at the country's airport, as a percentage of the total number minus one of member countries.

Financial and Macroeconomic Integration

Regional convertibility of national currencies. This indicator measures the number of countries of the region with which the country shares a common currency or with which its currency is convertible.

Inflation rate differential, based on the Harmonized Consumer Price Index (HPCI). This indicator is defined as the inflation rate differential, which is the difference between the inflation rate of the country and the annual regional average, on the basis of the HPCI.

Source: AUC, *Methodology for Calculating the Africa Regional Integration Index Report*, 2016.

Appendix I

Additional Tables Corresponding to Figures in the Report

Table I.1 Air transport services: U.S. exports to Africa, 2010–16

Year	Passenger	Freight	Port
2010	523	199	169
2011	643	213	155
2012	708	224	123
2013	748	232	149
2014	896	233	156
2015	909	209	152
2016	854	202	151

Source: USDOC, BEA, U.S. Trade in Services, October 24, 2017.

Note: Corresponds to [figure 2.1](#).

Table I.2 Education-related travel services: Number of international students from SSA enrolled in the United States, by country, 2010/11–2016/17

Place of origin	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Nigeria	7,148	7,028	7,316	7,921	9,494	10,674	11,710
Kenya	4,666	3,898	3,516	3,201	3,072	3,019	3,189
Ghana	2,900	2,769	2,863	2,914	3,099	3,049	3,111
South Africa	1,669	1,610	1,816	1,716	1,838	1,813	1,911
Ethiopia	1,392	1,334	1,463	1,516	1,472	1,517	1,847

Source: IIE, “International Students by Place of Origin, 2015/16 & 2016/17,” 2017; IIE, “International Students by Place of Origin, 2014/2015 and 2013/2014,” 2015; IIE, “International Students by Place of Origin, 2012/2013 and 2011/2012,” 2013; IIE, “International Students by Place of Origin, 2010/2011 and 2009/2010,” 2011.

Note: Data are published for academic years, not calendar years. Corresponds to [figure 2.3](#).

Table I.3 Refined copper production in SSA

Country	2010	2011	2012	2013	2014	2015	2016
Democratic Republic of Congo	258	356	448	632	787	793	728
Zambia	527	516	530	568	499	496	426
South Africa	76	80	60	65	70	71	69
Namibia	0	0	0	0	0	11	16
Zimbabwe	5	4	5	5	5	5	5

Source: International Copper Study Group, Statistical Database (accessed December 6, 2017).

Note: Corresponds to [figure 3.1](#).

Table I.4 U.S. imports of catalytic converters from South Africa, million units, 2010–16

	2010	2011	2012	2013	2014	2015	2016
Catalytic converter imports	1,321,944	1,256,576	1,144,449	1,167,732	1,413,335	1,755,240	1,776,412

Source: USITC DataWeb/USDOC (HTS number 8421.39.4000; accessed December 5, 2017).

Note: Corresponds to [figure 3.2](#).

Table I.5 Refined nickel production in SSA countries, thousand metric tons, 2010–16

Country	2010	2011	2012	2013	2014	2015	2016
Madagascar	0	0	6	25	37	47	42
South Africa	34	36	33	32	35	35	35
Zimbabwe	4	4	2	3	2	0	0

Source: World Bureau of Metal Statistics.

Note: Includes production of electrolytic nickel, nickel pellets, briquettes, steel-making powder, the nickel content of nickel salts, chemical-grade nickel oxide, ferronickel, nickel oxide sinter, and utility nickel. Corresponds to [figure 3.3](#).

Table I.6 U.S. travel imports from and tourist arrivals to SSA, by country

Country	U.S. arrivals (2015, thousands)	U.S. imports (2016, million \$)
South Africa	338	812
Nigeria	303	174
Kenya	249	*
Ethiopia	139	*
Ghana*	136	*
Mauritius	79	*
Tanzania	66	*
Botswana	47	*
Rwanda	28	*
Senegal	20	*

Source: USDOC, BEA, "Interactive data, International Transactions, Services, & IIP, International Services, table 2.3," October 24, 2017; UNWTO, "Yearbook of Tourism Statistics," 2017; Ghana Tourism Authority, "Tourism Information on Ghana," n.d. (accessed November 7, 2017).

Note: Data on U.S. imports of travel services are available only for Nigeria and South Africa. The most recent data on tourist arrivals are for 2015. Corresponds to [figure 3.4](#).

Table I.7 FDI inflows in SSA, 2000–16 (million \$)

Year	FDI Inflows to SSA
2000	8,088.9
2001	16,104.5
2002	16,448.1
2003	22,648.5
2004	16,204.4
2005	27,660.7
2006	23,891.5
2007	39,840.6
2008	52,271.5
2009	48,931.2
2010	47,405.1
2011	60,204.3
2012	64,214.2
2013	63,493.9
2014	60,460.2
2015	50,171.4
2016	45,948.2

Source: UNCTAD, UNCTADStat database (accessed January 8, 2018).

Note: Corresponds to [figure 4.1](#).

Table I.8 Greenfield FDI projects and M&A deals in SSA, by source, 2010–16

Source	Share (%)
European Union	33
Sub-Saharan Africa	22
United States	13
India	5
China	3
Canada	3
UAE	3
All other	18

Source: Financial Times, fDiMarkets database; Bureau van Dijk, Zephyr database.

Note: UAE = United Arab Emirates. Corresponds to [figure 4.2](#).

Table I.9 U.S. greenfield FDI projects and M&A deals by destination, 2010–16

Destination	Share (%)
South Africa	46
Kenya	12
Nigeria	9
Ghana	5
Mauritius	4
Tanzania	2
Ethiopia	2
All other	20

Source: Financial Times, fDiMarkets database; Bureau van Dijk, Zephyr database.

Note: M&A = mergers and acquisitions. Corresponds to [figure 4.3](#).

Table I.10 U.S. M&A deals in SSA, by select top sectors, 2010–16

Sector	Share (%)
Other services	39
Wholesale & retail trade	11
Metals & metal products	8
Machinery & equipment	5
Food & beverage	5
Construction	4
Post & telecom	4
Primary Sector	4
Education, Health	3
All other	17

Source: Bureau van Dijk, Zephyr database; USITC calculations.

Note: Primary sector products include agriculture, fishing, animal husbandry, and mining, among other raw materials. M&A = mergers and acquisitions. Corresponds to [figure 4.4](#).

Table I.11 FDI positions in Africa, by source, 2015

Source	Billion \$
South Africa	22.0
China	34.7
United States	59.3
EU	343.7

Source: USDOC, BEA, Balance of Payments and Direct Investment Position Data (accessed December 4, 2017); UNCTAD, World Investment Report 2017; Eurostat database; China National Statistical Bureau.

Note: FDI = foreign direct investment. Corresponds to [figure 4.5](#).

Table I.12 EU greenfield investment in SSA, 2010–16

Sector	Share (%)
Financial services	17
Business services	13
Communications	9
Industrial machinery	6
Software/IT services	6
Transportation	5
Alternative energy	4
Textiles	4
Coal, oil and natural gas	4
All other	32

Source: Financial Times, fDiMarkets database. Note: Corresponds to [figure 4.6](#).

Table I.13 EU greenfield projects in South Africa, by source, 2010–16

Source	Projects
UK	200
Germany	78
France	57
Italy	42
Spain	35
Netherlands	30
Ireland	20
Denmark	18
Sweden	14
Other EU countries	35

Source: Financial Times, fDiMarkets database.

Note: Corresponds to [figure 4.7](#).

Table I.14 China M&A in SSA, by destination, 2010–16

Destination	Share (%)
South Africa	29
Ethiopia	16
Ghana	7
Kenya	7
Mauritius	6
Mozambique	6
Sierra Leone	6
All other	23

Source: Bureau van Dijk, Zephyr database.

Note: M&A = mergers and acquisitions. Corresponds to [figure 4.8](#).

Table I.15 China greenfield Investment in SSA, by destination, 2010–16

Destination	Share (%)
South Africa	32
Ethiopia	10
Kenya	9
Nigeria	7
Ghana	7
Congo (DRC)	4
Zambia	4
All other	27

Source: Financial Times, fDiMarkets database.

Note: Corresponds to [figure 4.9](#).

Table I.16 South Africa M&A deals in SSA, 2010–16

Destination country	Deals
Mauritius	40
Kenya	37
Nigeria	26
Botswana	24
Zimbabwe	23
Namibia	18
All other	98

Source: Bureau van Dijk, Zephyr M&A database (accessed January 30, 2018).

Note: M&A = mergers and acquisitions. Corresponds to [figure 4.10](#).

Table I.17 South Africa greenfield FDI projects in SSA, by industry, 2010–16

Industry sector	Projects
Financial services	80
Communications	57
Business services	50
Food and tobacco	37
Software and IT services	20
Real estate	17
Transportation	17
Consumer products	15
All other	81

Source: Financial Times, fDiMarkets database (accessed January 30, 2018).

Note: Corresponds to [figure 4.11](#).

Table I.18 GDP composition, Cameroon, 2016

Sector	Share (%)
Agriculture, hunting, forestry, fishing	16.7
Mining and utilities	5.3
Manufacturing	15.9
Construction	5.3
Wholesale, retail trade, restaurants and hotels	21.1
Transport, storage, and communication	8.5
Other services activities	27.1

Source: UNSD, National Accounts Main Aggregates Database, <https://unstats.un.org/unsd/snaama/resCountry.asp> (accessed January 19, 2018).

Note: Corresponds to [figure 5.1](#).

Table I.19 Cameroon's exports of commercial services to the world, by industry, 2015

Sector	Share (%)
Telecommunication, computer, and information services	6.7
Other business services	18.2
Travel	31.2
Transport	32.3
All other	11.6

Source: WTO, Statistics Database, Time Series on International Trade, "Trade in Commercial Services, 2005–Onward (BPM6)" (accessed November 7, 2017).

Note: Corresponds to [figure 5.2](#).

Table I.20 Cameroon's imports of commercial services to the world, by industry, 2015

Sector	Share (%)
Insurance and pension	5.8
Other business services	17.1
Travel	26.5
Transport	42.3
All other	8.3

Source: WTO, Statistics Database, Time Series on International Trade, "Trade in Commercial Services, 2005–Onward (BPM6)" (accessed November 7, 2017).

Note: Corresponds to [figure 5.3](#).

Table I.21 GDP composition, Côte d'Ivoire, 2016

Sector	Share (%)
Agriculture, hunting, forestry, fishing	20.8
Mining and utilities	8.9
Manufacturing	17.4
Construction	6.6
Wholesale, retail trade, restaurants and hotels	11.6
Transport, storage, and communication	8.9
Other services activities	25.8

Source: UNSD, National Accounts Main Aggregates Database, <https://unstats.un.org/unsd/snaama/resCountry.asp> (accessed January 19, 2018).

Note: Corresponds to [figure 5.4](#).

Table I.22 Côte d'Ivoire's exports of commercial services to the world, by industry, 2015

Sector	Share (%)
Telecommunication, computer, and information services	12.5
Other business services	25.7
Travel	24.7
Transport	25.8
All other	11.3

Source: WTO, Statistics Database, Time Series on International Trade, "Trade in Commercial Services, 2005–Onward (BPM6)" (accessed November 7, 2017).

Note: Corresponds to [figure 5.5](#).

Table I.23 Côte d'Ivoire's imports of commercial services to the world, by industry, 2015

Sector	Share (%)
Manufacturing services on physical inputs owned by others	5.1
Other business services	10.2
Travel	12.6
Transport	64.7
All other	7.5

Source: WTO, Statistics Database, Time Series on International Trade, "Trade in Commercial Services, 2005–Onward (BPM6)" (accessed November 7, 2017).

Note: Corresponds to [figure 5.6](#).

Table I.24 GDP composition, Ethiopia, 2016

Sector	Share (%)
Agriculture, hunting, forestry, fishing	36.8
Mining and utilities	1.0
Manufacturing	4.3
Construction	15.7
Wholesale, retail trade, restaurants and hotels	18.9
Transport, storage, and communication	4.6
Other services activities	18.7

Source: UNSD, National Accounts Main Aggregates Database, <https://unstats.un.org/unsd/snaama/resCountry.asp> (accessed January 19, 2018).

Note: Corresponds to [figure 5.7](#).

Table I.25 Ethiopia's exports of commercial services to the world, by industry, 2015

Sector	Share (%)
Travel	14.1
Transport	79.1
All other	6.8

Source: WTO, Statistics Database, Time Series on International Trade, "Trade in Commercial Services, 2005–Onward (BPM6)" (accessed November 7, 2017).

Note: Corresponds to [figure 5.8](#).

Table I.26 Ethiopia's imports of commercial services to the world, by industry, 2015

Sector	Share (%)
Travel	11.0
Transport	54.3
All other	34.7

Source: WTO, Statistics Database, Time Series on International Trade, "Trade in Commercial Services, 2005–Onward (BPM6)" (accessed November 7, 2017).

Note: Corresponds to [figure 5.9](#).

Table I.27 GDP composition, Kenya, 2016

Sector	Share (%)
Agriculture, hunting, forestry, fishing	34.5
Mining and utilities	3.4
Manufacturing	9.7
Construction	5.3
Wholesale, retail trade, restaurants and hotels	8.5
Transport, storage, and communication	9.4
Other services activities	29.2

Source: UNSD, National Accounts Main Aggregates Database, <https://unstats.un.org/unsd/snaama/resCountry.asp> (accessed January 19, 2018).

Note: Corresponds to [figure 5.10](#).

Table I.28 Kenya's exports of commercial services to the world, by industry, 2015

Sector	Share (%)
Travel	20.1
Transport	54.4
All other	25.4

Source: WTO, Statistics Database, Time Series on International Trade, "Trade in Commercial Services, 2005–Onward (BPM6)" (accessed November 7, 2017).

Note: Corresponds to [figure 5.11](#).

Table I.29 Kenya's imports of commercial services to the world, by industry, 2015

Sector	Share (%)
Travel	56.2
Transport	7.6
All other	36.1

Source: WTO, Statistics Database, Time Series on International Trade, "Trade in Commercial Services, 2005–Onward (BPM6)" (accessed November 7, 2017).

Note: Corresponds to [figure 5.12](#).

Table I.30 GDP composition, Mauritius, 2016

Sector	Share (%)
Agriculture, hunting, forestry, fishing	3.5
Mining and utilities	2.8
Manufacturing	13.9
Construction	4.2
Wholesale, retail trade, restaurants and hotels	18.9
Transport, storage, and communication	10.4
Other services activities	46.3

Source: UNSD, National Accounts Main Aggregates Database, <https://unstats.un.org/unsd/snaama/resCountry.asp> (accessed January 19, 2018).

Note: Corresponds to [figure 5.13](#).

Table I.31 Mauritius' exports of commercial services to the world, by industry, 2015

Sector	Share (%)
Travel	51.1
Other business services	25.0
Transport	12.2
Telecommunications, computer, and information services	5.5
All other	6.1

Source: WTO, Statistics Database, Time Series on International Trade, "Trade in Commercial Services, 2005–Onward (BPM6)" (accessed November 7, 2017).

Note: Corresponds to [figure 5.14](#).

Table I.32 Mauritius' imports of commercial services to the world, by industry, 2015

Sector	Share (%)
Other business services	32.4
Transport	27.3
Travel	25.3
Insurance and pension services	3.9
All other	11.1

Source: WTO, Statistics Database, Time Series on International Trade, "Trade in Commercial Services, 2005–Onward (BPM6)" (accessed November 7, 2017).

Note: Corresponds to [figure 5.15](#).

Table I.33 GDP composition, Nigeria, 2016

Sector	Share (%)
Agriculture, hunting, forestry, fishing	21.2
Mining and utilities	6.0
Manufacturing	8.8
Construction	3.6
Wholesale, retail trade, restaurants and hotels	21.3
Transport, storage, and communication	12.9
Other services activities	26.3

Source: UNSD, National Accounts Main Aggregates Database, <https://unstats.un.org/unsd/snaama/resCountry.asp> (accessed January 19, 2018).

Note: Corresponds to [figure 5.16](#).

Table I.34 Nigeria's exports of commercial services to the world, by industry, 2015

Sector	Share (%)
Transport	67.6
Travel	15.1
Financial services	9.5
Other business services	3.3
All other	4.5

Source: WTO, Statistics Database, Time Series on International Trade, "Trade in Commercial Services, 2005–Onward (BPM6)" (accessed November 7, 2017).

Note: Corresponds to [figure 5.17](#).

Table I.35 Nigeria's imports of commercial services to the world, by industry, 2015

Sector	Share (%)
Transport	42.5
Travel	30.7
Other business services	10.7
Financial services	6.1
All other	10.1

Source: WTO, Statistics Database, Time Series on International Trade, "Trade in Commercial Services, 2005–Onward (BPM6)" (accessed November 7, 2017).

Note: Corresponds to [figure 5.18](#).

Table I.36 GDP composition, South Africa, 2016

Sector	Share (%)
Agriculture, hunting, forestry, fishing	2.4
Mining and utilities	11.6
Manufacturing	13.3
Construction	4.0
Wholesale, retail trade, restaurants and hotels	15.2
Transport, storage, and communication	10.0
Other services activities	43.4

Source: UNSD, National Accounts Main Aggregates Database, <https://unstats.un.org/unsd/snaama/resCountry.asp> (accessed January 19, 2018).

Note: Corresponds to [figure 5.19](#).

Table I.37 South Africa's exports of commercial services to the world, by industry, 2015

Sector	Share (%)
Other business services	13.5
Travel	56.3
Transport	16.8
All other	13.4

Source: WTO, Statistics Database, Time Series on International Trade, "Trade in Commercial Services, 2005–Onward (BPM6)" (accessed November 7, 2017).

Note: Corresponds to [figure 5.20](#).

Table I.38 South Africa's imports of commercial services to the world, by industry, 2015

Sector	Share (%)
Charges for the use of intellectual property n.i.e.	11.3
Other business services	14.8
Travel	19.8
Transport	42.7
All other	11.4

Source: WTO, Statistics Database, Time Series on International Trade, "Trade in Commercial Services, 2005–Onward (BPM6)" (accessed November 7, 2017).

Note: N.i.e = not included elsewhere. Corresponds to [figure 5.21](#).

Table I.39 Logistics Performance Index (LPI) of SSA countries vs. median LPI of ROW countries

Country	Overall LPI
AGO	2.4
BDI	2.1
BEN	2.7
BFA	2.5
BWA	2.7
CAF	2.4
CIV	2.7
CMR	2.4
COD	2.0
COG	2.1
COM	2.3
DJI	2.0
ERI	2.1
ETH	2.4
GAB	2.3
GHA	2.6
GIN	2.5
GMB	2.4
GNB	2.5
GNQ	2.4
KEN	2.6
LBR	2.5
LSO	2.3
MDG	2.6
MLI	2.5
MOZ	2.2
MRT	2.3
MUS	2.7
MWI	2.8
NAM	2.7
NER	2.5
NGA	2.6
RWA	2.5
SDN	2.1
SEN	2.6
SLE	2.1
SOM	1.8
STP	2.6
TCD	2.3
TGO	2.4
TZA	2.5
ZAF	3.6
ZMB	2.5
ZWE	2.4
World median	2.7

Note: Corresponds to [figure F.1](#).

