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

Table of Contents .............................................................................................................. 1
Abbreviations and Acronyms .............................................................................................. 11
Executive Summary .............................................................................................................. 15

Highlights .............................................................................................................................. 15
Key Findings .......................................................................................................................... 16

Fastest-growing U.S. Exports of Goods to SSA ................................................................. 16
Factors Leading to Growth of U.S. Exports to SSA during 2010–16 ................................. 16
Factors Leading to Potential Growth of U.S. Exports to SSA ........................................... 18
Fastest-growing Country Markets for U.S. Exports to SSA ............................................... 20
Third-country Competitors for U.S. Exports ................................................................. 20
U.S. Exports of Services to SSA ....................................................................................... 21
Exports by U.S. Small and Medium-sized Enterprises ...................................................... 23
Fastest-growing U.S. Imports of Goods from SSA ............................................................. 23
Factors Leading to Growth of U.S. Imports from SSA during 2010–16 ......................... 24
Factors Leading to Potential Growth of U.S. Imports from SSA under AGOA ............ 25
Fastest-growing Country Sources for U.S. Imports from SSA under AGOA, 2010–16 .... 26
U.S. Services Imports from SSA ....................................................................................... 26
Potential Sectors and SSA Markets for U.S. FDI ............................................................... 27
Significant Factors Impacting U.S. FDI ............................................................................... 27
Major Third-country Investors ......................................................................................... 28
Country Profiles ................................................................................................................ 28
Selected AGOA Strategies ............................................................................................... 30
Recent Developments in SSA Regional Integration ......................................................... 30

Chapter 1 Introduction ....................................................................................................... 35

Purpose and Scope .............................................................................................................. 35
Approach and Sources of Information ............................................................................... 36
Organization of the Report ................................................................................................. 37

Chapter 2 U.S. Exports of Goods and Services to SSA .................................................. 39

Introduction ....................................................................................................................... 39
Key Findings ........................................................................................................................ 40
U.S. Goods Exports ............................................................................................................ 41

Fastest-growing U.S. Exports to SSA during 2010–16 ....................................................... 41
U.S. Goods Exports to SSA with Significant Growth Potential ......................................... 41
Top Growth Markets for U.S. Exports to SSA during 2010–16 ........................................ 42
Aircraft ................................................................................................................................. 44
Ships, Tugs, Pleasure Boats, and Floating Structures ....................................................... 48
Natural Gas and Components ........................................................................................... 53
Electric Motors, Generators, and Related Equipment ...................................................... 57
<table>
<thead>
<tr>
<th>Category</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pharmaceuticals</td>
<td>62</td>
</tr>
<tr>
<td>Prepared or Preserved Vegetables, Mushrooms, and Olives</td>
<td>67</td>
</tr>
<tr>
<td>Polyethylene Resins in Primary Forms</td>
<td>71</td>
</tr>
<tr>
<td>Sauces, Condiments, and Food Ingredients</td>
<td>75</td>
</tr>
<tr>
<td>Corn</td>
<td>79</td>
</tr>
<tr>
<td>Motor Vehicles and Parts</td>
<td>83</td>
</tr>
<tr>
<td>Ethyl Alcohol</td>
<td>89</td>
</tr>
<tr>
<td>Frozen Chicken Meat (Part of the Poultry Product Group)</td>
<td>92</td>
</tr>
<tr>
<td>Refined Petroleum Products</td>
<td>96</td>
</tr>
<tr>
<td>U.S. Exports of Services to SSA Countries</td>
<td>100</td>
</tr>
<tr>
<td>Overview</td>
<td>100</td>
</tr>
<tr>
<td>Air Transport Services</td>
<td>101</td>
</tr>
<tr>
<td>Education-related Travel Services</td>
<td>106</td>
</tr>
<tr>
<td>Financial Services</td>
<td>110</td>
</tr>
<tr>
<td>Insurance Services</td>
<td>113</td>
</tr>
<tr>
<td>Information and Communication Technology</td>
<td>116</td>
</tr>
<tr>
<td>U.S. Small and Medium-sized Enterprises’ Exports to SSA</td>
<td>123</td>
</tr>
<tr>
<td>Introduction</td>
<td>123</td>
</tr>
<tr>
<td>U.S. SME Goods Exports to SSA</td>
<td>123</td>
</tr>
<tr>
<td>U.S. SME Exports of Goods to SSA by Country</td>
<td>124</td>
</tr>
<tr>
<td>U.S. SME Exports of Goods to SSA by Product</td>
<td>124</td>
</tr>
<tr>
<td>The 2015 Downturn in U.S. SME Goods Exports</td>
<td>125</td>
</tr>
<tr>
<td>U.S. SME Services Exports to SSA</td>
<td>126</td>
</tr>
<tr>
<td>Challenges Faced by U.S. SMEs in Exporting to SSA</td>
<td>126</td>
</tr>
<tr>
<td>Chapter 3 U.S. Imports of Goods and Services from SSA, 2010–16</td>
<td>129</td>
</tr>
<tr>
<td>Introduction</td>
<td>129</td>
</tr>
<tr>
<td>Key Findings</td>
<td>130</td>
</tr>
<tr>
<td>U.S. Imports of Goods from SSA Countries, 2010–16</td>
<td>130</td>
</tr>
<tr>
<td>Fastest-growing U.S. Imports from SSA Countries</td>
<td>130</td>
</tr>
<tr>
<td>Top U.S. Import Markets in SSA, by Country</td>
<td>132</td>
</tr>
<tr>
<td>U.S. Imports of Goods under AGOA during 2010–16</td>
<td>133</td>
</tr>
<tr>
<td>U.S. Import Potential for Goods under AGOA</td>
<td>136</td>
</tr>
<tr>
<td>Cocoa Products</td>
<td>137</td>
</tr>
<tr>
<td>Apparel</td>
<td>141</td>
</tr>
<tr>
<td>Copper and Related Articles</td>
<td>146</td>
</tr>
<tr>
<td>Catalytic Converters</td>
<td>151</td>
</tr>
<tr>
<td>Edible Nuts</td>
<td>154</td>
</tr>
<tr>
<td>Unwrought Nickel (Not Alloyed)</td>
<td>159</td>
</tr>
<tr>
<td>Raw Cane Sugar</td>
<td>163</td>
</tr>
<tr>
<td>Footwear</td>
<td>167</td>
</tr>
<tr>
<td>U.S. Imports of Services from SSA Countries</td>
<td>171</td>
</tr>
</tbody>
</table>
# Table of Contents

Travel Services ............................................................................................................................................................................ 172

**Chapter 4 U.S.-SSA Bilateral Investment Trends** ................................................................................................................ 177

- Introduction ................................................................................................................................................................................ 177
- Key Findings ................................................................................................................................................................................. 177
- Overview of Investment in SSA .................................................................................................................................................. 178
- U.S. and SSA Bilateral Investment Trends ................................................................................................................................. 182
  - U.S. Outbound Investment in SSA ............................................................................................................................................ 182
  - U.S. Inbound Investment from SSA .......................................................................................................................................... 190
- Factors Impacting U.S. FDI in SSA ................................................................................................................................................ 191
  - Macroeconomic Factors ............................................................................................................................................................ 191
  - Institutional Factors ................................................................................................................................................................. 192
  - Infrastructure ............................................................................................................................................................................. 194
- Factors Impacting SSA FDI in the United States .......................................................................................................................... 195
  - Third-country Suppliers of FDI in SSA .................................................................................................................................. 195
    - European Union .................................................................................................................................................................... 196
    - China .................................................................................................................................................................................... 201
    - South Africa ......................................................................................................................................................................... 206

**Chapter 5 Country Profiles** .................................................................................................................................................... 209

- Key Findings ................................................................................................................................................................................ 209
- Cameroon .................................................................................................................................................................................... 212
  - Economic Overview ............................................................................................................................................................... 212
  - Trade in Goods ........................................................................................................................................................................... 213
  - Trade in Services ....................................................................................................................................................................... 215
  - Foreign Direct Investment (FDI) ............................................................................................................................................. 217
- Côte d’Ivoire .................................................................................................................................................................................... 218
  - Economic Overview ............................................................................................................................................................... 218
  - Trade in Goods ........................................................................................................................................................................... 219
  - Trade in Services ....................................................................................................................................................................... 221
  - Foreign Direct Investment ....................................................................................................................................................... 223
- Ethiopia ......................................................................................................................................................................................... 223
  - Economic Overview ............................................................................................................................................................... 223
  - Trade in Goods ........................................................................................................................................................................... 225
  - Trade in Services ....................................................................................................................................................................... 227
  - Foreign Direct Investment ....................................................................................................................................................... 229
- Kenya .......................................................................................................................................................................................... 229
  - Economic Overview ............................................................................................................................................................... 229
  - Trade in Goods ........................................................................................................................................................................... 231
  - Trade in Services ....................................................................................................................................................................... 232
  - Foreign Direct Investment ....................................................................................................................................................... 234
- Mauritius ........................................................................................................................................................................................ 235
Chapter 6 Selected AGOA Strategies and Recent Developments in SSA Regional Integration

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGOA Utilization Strategies</td>
<td>255</td>
</tr>
<tr>
<td>Summaries of National AGOA Strategies</td>
<td>256</td>
</tr>
<tr>
<td>Overview of Regional Integration in SSA</td>
<td>258</td>
</tr>
<tr>
<td>The Abuja Treaty, the AEC Roadmap, and the RECs</td>
<td>258</td>
</tr>
<tr>
<td>Measures of REC Progress</td>
<td>261</td>
</tr>
<tr>
<td>Intra-trade Performance of the RECs</td>
<td>262</td>
</tr>
<tr>
<td>Recent Developments in SSA Regional Integration</td>
<td>263</td>
</tr>
<tr>
<td>Tripartite Free Trade Area</td>
<td>263</td>
</tr>
<tr>
<td>The Continental Free Trade Area</td>
<td>264</td>
</tr>
<tr>
<td>REC Profiles</td>
<td>264</td>
</tr>
<tr>
<td>Other Relevant Regional Economic Blocs</td>
<td>274</td>
</tr>
<tr>
<td>Bibliography</td>
<td>277</td>
</tr>
<tr>
<td>Appendix A Request Letter</td>
<td>341</td>
</tr>
<tr>
<td>Appendix B Federal Register Notice</td>
<td>345</td>
</tr>
<tr>
<td>Appendix C Calendar of Public Hearing</td>
<td>349</td>
</tr>
<tr>
<td>Appendix D Summary of the Views of Interested Parties</td>
<td>355</td>
</tr>
<tr>
<td>Appendix E Overview of the AGOA Program</td>
<td>359</td>
</tr>
<tr>
<td>Appendix F Description of Gravity Modeling Methodology</td>
<td>363</td>
</tr>
<tr>
<td>Appendix G Data Tables</td>
<td>371</td>
</tr>
<tr>
<td>Appendix H Africa Regional Integration Index Dimensions and Indicators</td>
<td>381</td>
</tr>
<tr>
<td>Appendix I Additional Tables Corresponding to Figures in the Report</td>
<td>385</td>
</tr>
</tbody>
</table>
Boxes
Box 2.1 U.S. Exports of Motor Vehicle Parts ............................................................................. 85
Box 3.1 AGOA Imports of Aluminum Mill Products from South Africa ........................................ 135

Figures
Figure ES.1 Map of Regional Economic Communities and their overlapping memberships .......... 32
Figure 2.1 Air transport services: U.S. exports to Africa, 2010–16 .................................................. 103
Figure 2.2 Air transport services: Passenger traffic between the United States and SSA
by airline, 2017 ................................................................................................................................. 106
Figure 2.3 Education-related travel services: Number of international students from SSA enrolled
in the United States, by country, 2010/11–2016/17 .................................................................... 108
Figure 3.1 Refined copper production in SSA .................................................................................. 148
Figure 3.2 U.S. imports of catalytic converters from South Africa, million units, 2010–16 .......... 153
Figure 3.3 Refined nickel production in SSA countries, 2010–16 ................................................... 162
Figure 3.4 U.S. travel imports from and tourist arrivals to SSA, by country ........................................ 173
Figure 4.1 FDI inflows in SSA, 2000–16 ............................................................................................ 179
Figure 4.2 Greenfield FDI projects and M&A deals in SSA, by source, 2010–16 ......................... 181
Figure 4.3 U.S. greenfield FDI projects and M&A deals by destination, 2010–16 ......................... 184
Figure 4.4 U.S. M&A deals in SSA, by select top sectors, 2010–16 ............................................... 186
Figure 4.5 FDI positions in Africa, by source, 2015 ......................................................................... 196
Figure 4.6 EU greenfield investment in SSA, 2010–16 .................................................................... 198
Figure 4.7 EU greenfield projects in South Africa, by source, 2010–16 ........................................ 199
Figure 4.8 China M&A in SSA, by destination, 2010–16 ................................................................. 203
Figure 4.9 China greenfield Investment in SSA, by destination, 2010–16 ...................................... 204
Figure 4.10 South Africa M&A deals in SSA, 2010–16 ................................................................. 207
Figure 4.11 South Africa percentage share of greenfield FDI projects in SSA, by industry, 2010–16 ... 208
Figure 5.1 GDP composition, Cameroon, 2016 ........................................................................... 213
Figure 5.2 Cameroon’s exports of commercial services to the world, by industry, 2015 ............... 216
Figure 5.3 Cameroon’s imports of commercial services from the world, by industry, 2015 ............ 216
Figure 5.4 GDP composition, Côte d’Ivoire, 2016 ........................................................................ 219
Figure 5.5 Côte d’Ivoire’s exports of commercial services to the world, by industry, 2015 ............. 222
Figure 5.6 Côte d’Ivoire’s imports of commercial services from the world, by industry, 2015 ......... 222
Figure 5.7 GDP composition, Ethiopia, 2016 .................................................................................. 225
Figure 5.8 Ethiopia’s exports of commercial services to the world, by industry, 2015 .................... 228
Figure 5.9 Ethiopia’s imports of commercial services from the world, by industry, 2015 ............. 228
Figure 5.10 GDP composition, Kenya, 2016 .................................................................................. 230
Figure 5.11 Kenya’s exports of commercial services to the world, by industry, 2015 ...................... 233
Figure 5.12 Kenya’s imports of commercial services from the world, by industry, 2015 ............... 234
Figure 5.13 GDP composition, Mauritius, 2016 ............................................................................. 236
Figure 5.14 Mauritius’s exports of commercial services to the world, by industry, 2015 ............... 239
Figure 5.15 Mauritius’s imports of commercial services from the world, by industry, 2015 .......... 240
Figure 5.16 GDP composition, Nigeria, 2016 ............................................................................... 242
Figure 5.17 Nigeria’s exports of commercial services to the world, by industry, 2015 .................... 245
Figure 5.18 Nigeria’s imports of commercial services from the world, by industry, 2015 .............. 245
Figure 5.19 GDP composition, South Africa, 2016 ......................................................................... 248
Figure 5.20 South Africa’s exports of commercial services to the world, by industry, 2015 ............ 252
Figure 5.21 South Africa’s imports of commercial services from the world, by industry, 2015 ......... 253
Figure 6.1 Map of regional economic communities and their overlapping memberships ................ 260
U.S. Trade and Investment with Sub-Saharan Africa: Recent Developments

Figure F.1 Logistics Performance Index (LPI) of SSA countries vs. median LPI of ROW countries .......... 369
Figure F.2 Relationship between exporter fixed effects and infrastructure ............................................ 370
Figure F.3 Relationship between importer fixed effects and infrastructure ............................................ 370

Tables
Table ES.1 Fastest-growing U.S. exports to SSA countries, by digest sector, 2010–16 .............................. 16
Table ES.2 U.S. exports to SSA countries, by leading destination markets, 2010–16 .............................. 20
Table ES.3 Selected products with substantial third-party competition in SSA, major suppliers’ market share, 2016 (percent) ..................................................................................................................... 21
Table ES.4 Fastest-growing U.S. imports from SSA countries, by digest sector, 2010–16 ......................... 24
Table ES.5 U.S. imports for consumption under AGOA, by source markets, 2010–16 .............................. 26
Table ES.6 Overview of Cameroon, Côte d’Ivoire, Ethiopia, Kenya, Mauritius, Nigeria, and South Africa, 2016 ................................................................................................................................................. 29
Table ES.7 Countries that have completed national AGOA strategies in high-priority industries and products ............................................................................................................................................... 30
Table ES.8 Key integration components of RECs and other relevant economic blocs .............................. 33
Table 2.1 Fastest-growing U.S. exports to SSA countries, 2010–16 ........................................................... 41
Table 2.2 Approaches used to identify U.S. goods sectors with export potential to SSA ....................... 42
Table 2.3 U.S. exports to SSA countries, by leading destination markets, 2010–16 .............................. 43
Table 2.4 Aircraft: U.S. exports to SSA and to selected SSA countries, 2010–16 ............................... 45
Table 2.5 Aircraft: EU exports to selected SSA countries, 2010–16 ........................................................... 48
Table 2.6 Ships, tugs, pleasure boats, and floating structures: U.S. exports to SSA and to selected SSA countries, 2010–16 .............................................................................................................................. 49
Table 2.7 Natural gas and components: U.S. exports to SSA and to selected SSA countries, 2010–16 ...................................................................................................................................................... 53
Table 2.8 Electric motors, generators, and related equipment: U.S. exports to SSA and to selected SSA countries, 2010–16 ...................................................................................................................................................... 58
Table 2.9 Pharmaceuticals: U.S. exports to SSA and to selected SSA countries, 2010–16 ................. 63
Table 2.10 Formulated products (HS 3004): Shares of world exports in 2016 to SSA and selected SSA countries (percent) ................................................................................................................................................. 67
Table 2.11 Diagnostics reagents and CRMs (HS 3822): Shares of world exports in 2016 to SSA and selected SSA countries (percent) ................................................................................................................................................. 67
Table 2.12 Prepared or preserved vegetables: U.S. total exports to SSA and to selected SSA countries, 2010–16 ..................................................................................................................................... 68
Table 2.13 Polyethylene resins: U.S. exports to SSA and to selected SSA countries, 2010–16 ............... 71
Table 2.14 Sauces, condiments, and food ingredients: U.S. exports to SSA and to selected SSA countries, 2010–16 ...................................................................................................................................................... 76
Table 2.15 Corn: U.S. exports to SSA and selected SSA countries, 2010–16 ........................................ 80
Table 2.16 Motor vehicles: U.S. exports to SSA and selected SSA countries, 2010–16 ....................... 84
Table 2.17 Motor vehicles: U.S. market share and import ranking in selected SSA countries, 2016 ....... 88
Table 2.18 Ethyl alcohol: U.S. exports to SSA and selected SSA countries, 2010–16 ............................. 89
Table 2.19 Poultry: U.S. exports to SSA and selected SSA countries, 2010–16 ....................................... 93
Table 2.20 Refined petroleum products: U.S. exports to SSA and selected SSA countries, 2010–16 ....... 97
Table 2.21 Air transport services: U.S. exports to SSA and selected SSA countries, 2010–16 ............. 102
Table 2.22 Air transport services: Number of passengers transported by U.S. airlines to top five SSA countries and worldwide, 2010–16 ................................................................. 104
Table 2.23 Air transport services: Volume of freight transported by U.S. carriers to selected SSA countries and worldwide, 2010–16 (tons) ................................................................. 104
Table 2.24 Education-related travel services: U.S. exports to SSA and selected SSA countries, 2010–16 .................................................................................................................. 107
Table 2.25 Financial services: U.S. exports to Africa and selected SSA countries, 2010–16 .................. 110
Table 2.26 Insurance services: U.S. exports to Africa and selected SSA countries, 2010–16 .......... 113
Table 2.27 Telecommunications, computer, and information services: U.S. exports to Africa and selected SSA countries, 2010–16 ................................................................. 117
Table 2.28 U.S. SME goods exports to SSA, 2010–15 ................................................................. 124
Table 2.29 U.S. SME goods exports to SSA by country, 2010 and 2015 .............................................. 124
Table 2.30 U.S. SME goods exports to SSA by commodity, 2010 and 2015 ........................................ 125
Table 3.1 Fastest-growing U.S. imports from SSA countries, 2010–16 ................................................... 131
Table 3.2 U.S. imports from SSA countries, by leading source markets, 2010–16.............................. 132
Table 3.3 U.S. imports for consumption under AGOA, by product group, 2010–16 ......................... 134
Table 3.4 U.S. imports for consumption under AGOA, by leading source markets, 2010–16 ............ 136
Table 3.5 Sectors identified as having import potential under AGOA, by analytical approach .......... 137
Table 3.6 Cocoa products: U.S. imports from SSA and selected SSA countries, 2010–16 ................ 138
Table 3.7 Apparel: U.S. imports from SSA and selected SSA countries, 2010–16 ......................... 142
Table 3.8 Copper and related articles: U.S. imports from SSA and selected SSA countries, 2010–16 .................................................................................................................. 147
Table 3.9 Centrifuges and filtering and purifying equipment: U.S. imports from SSA and selected SSA countries, 2010–16 ................................................................. 151
Table 3.10 Edible nuts: U.S. imports from SSA and selected SSA countries, 2010–16 ..................... 155
Table 3.11 Estimated world cashew production, kernel basis (metric tons) ...................................... 157
Table 3.12 Estimated world macadamia production, kernel basis (metric tons) ............................. 157
Table 3.13 Certain base metals and chemical elements: U.S. imports from SSA and selected SSA countries, 2010–16 .................................................................................................. 160
Table 3.14 Sources of U.S. imports of unwrought nickel (not alloyed), by share of total U.S. import value (percent) ................................................................................................. 161
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 ................................................................. 164
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) .................. 166
Table 3.17 Footwear: U.S. imports from SSA and selected SSA countries, 2010–16 ......................... 167
Table 4.1 Global FDI positions in SSA countries, 2010–16 ............................................................... 180
Table 4.2 Global greenfield FDI projects in SSA, by industry, 2010–16 ............................................. 181
Table 4.3 U.S. FDI positions in SSA, total and selected countries, 2010–16 ........................................ 182
Table 4.4 U.S. FDI position in Africa, by industry, 2010–16 ............................................................... 185
Table 4.5 U.S. greenfield FDI projects in SSA, 2010–16 ................................................................. 185
Table 4.6 United States: FDI positions in SSA, mining sector, selected countries, 2010–16 ....... 187
Table 4.7 United States: FDI positions in SSA, manufacturing sector, selected countries, 2010–16 ...... 189
Table 4.8 FDI positions in the United States from Africa, 2010–16 .................................................. 190
Table 4.9 FDI positions in the United States from Africa, by sector, 2010–16 ........................................ 190
Table 4.10 Economic indicators for SSA, 2010–16 ............................................................................ 192
Table 4.11 Change in world governance indicators of SSA countries from 2010–16, number of countries (out of 49) ................................................................. 193
Table 4.12 EU outward FDI positions in SSA, top destinations, 2010–16 ........................................... 197
Table 4.13 Chinese outward FDI position in SSA, top destinations, 2010–15 .................................... 201
Table 4.14 South Africa outward FDI position in SSA and the world, 2010–16 ............................... 206
Table 4.15 South Africa number of greenfield projects in SSA, 2010–16 ........................................ 208
Table 5.1 Overview of Cameroon, Côte d’Ivoire, Ethiopia, Kenya, Mauritius, Nigeria, and South Africa, 2016 ................................................................. 210
Table 5.2 Major economic indicators, Cameroon, 2010–16 ............................................................ 212
Table 5.3 Leading U.S. goods exports to Cameroon, by USITC digest sector, 2010–16 .................... 214
Table 5.4 Leading U.S. goods imports from Cameroon, by USITC digest sector, 2010–16 ......... 215
Table 5.5 Major economic indicators, Côte d’Ivoire, 2010–16 ......................................................... 218
Table 5.6 Leading U.S. goods exports to Côte d’Ivoire, by USITC digest sector, 2010–16 ............ 220
Table 5.7 Leading U.S. goods imports from Côte d’Ivoire, by USITC digest sector, 2010–16 ......... 221
Table 5.8 Major economic indicators, Ethiopia, 2010–16 .............................................................. 224
Table 5.9 Leading U.S. goods exports to Ethiopia, by USITC digest sector, 2010–16 .................... 226
Table 5.10 Leading U.S. goods imports from Ethiopia, by USITC digest sector, 2010–16 .......... 227
Table 5.11 Major economic indicators, Kenya, 2010–16 ............................................................... 230
Table 5.12 Leading U.S. exports to Kenya, by USITC digest sector, 2010–16 ............................... 231
Table 5.13 Leading U.S. imports from Kenya, by USITC digest sector, 2010–16 ......................... 232
Table 5.14 Major economic indicators, Mauritius, 2010–16 ......................................................... 235
Table 5.15 Leading U.S. goods exports to Mauritius, by USITC digest sector, 2010–16 .......... 238
Table 5.16 Leading U.S. imports from Mauritius, by USITC digest sector, 2010–16 .................... 238
Table 5.17 Major economic indicators, Nigeria, 2010–16 ............................................................ 242
Table 5.18 Leading U.S. goods exports to Nigeria, by USITC digest sector, 2010–16 ............... 243
Table 5.19 Leading U.S. goods imports from Nigeria, by USITC digest sector, 2010–16 .......... 244
Table 5.20 Major economic indicators, South Africa, 2010–16 .................................................. 247
Table 5.21 Leading U.S. goods exports to South Africa, by USITC digest sector, 2010–16 ...... 250
Table 5.22 Leading U.S. goods imports from South Africa, by USITC digest sector, 2010–16 .... 251
Table 6.1 Countries that have completed national AGOA strategies in high-priority industries and products ........................................................................................................ 257
Table 6.2 The six stages of the AEC Roadmap, their components, REC status, and AU deadlines.... 261
Table 6.3 RECs average Africa Regional Integration Index scores, 2016 ......................................... 262
Table 6.4 Intra-REC total trade, by REC, 2010–16 ........................................................................ 263
Table 6.5 REC summary table: U.S. trade agreements in place and key integration components .. 266
Table D.1 Information provided by interested parties ..................................................................... 358
Table F.1 Sectors and SSA countries with the greatest gaps between predicted and actual U.S. exports .................................................................................. 368
Table F.2 Sectors and SSA countries with the greatest gaps between predicted and actual U.S. imports (AGOA-eligible digests only) ........................................................................ 368
Table G.1 Fastest-growing U.S. exports to SSA countries, by absolute change, 2010–17 ......... 373
Table G.2 Fastest-growing U.S. exports to SSA countries, in percentage change terms, 2010–17 .. 374
Table G.3 Fastest-growing U.S. imports from SSA countries, in absolute value terms, 2010–17 .... 375
Table G.4 Fastest-growing U.S. imports from SSA countries, in percentage change terms, 2010–17 .... 376
Table G.5 U.S. imports for consumption under AGOA, by leading growth product, in terms of absolute change, 2010–17 .......................................................... 377
Table G.6 U.S. imports for consumption under AGOA, by leading growth product, in percentage change terms, 2010–17 .......................................................... 378
Table G.7 U.S. exports to SSA countries, by leading destination countries, in compound annual growth rate, 2010–17 ......................................................... 379
Table G.8 U.S. imports from SSA countries, by leading source countries, in compound annual growth rate, 2010–17 ................................................................. 379
Table G.9 Intra-REC total trade (within group) as a share of trade with the world, by REC, 2010–16 (percent) .............................................................................................. 380
Table I.1 Air transport services: U.S. exports to Africa, 2010–16 ......................................................... 387
Table I.2 Education-related travel services: Number of international students enrolled in the United States, by country, 2010/11–2016/17 ........................................... 387
Table I.3 Refined copper production in SSA .................................................................................. 387
Table I.4 U.S. imports of catalytic converters from South Africa, million units, 2010–16 .......... 387
Table I.5 Refined nickel production in SSA countries, thousand metric tons, 2010–16 .......... 387
Table I.6 U.S. travel imports from and tourist arrivals to SSA, by country ..................................... 387
Table I.7 FDI inflows in SSA, 2000–16 (million $) ........................................................................... 388
Table I.8 Greenfield FDI projects and M&A deals in SSA, by source, 2010–16 ......................... 388
Table I.9 U.S. greenfield FDI projects and M&A deals by destination, 2010–16 ......................... 389
Table I.10 U.S. M&A deals in SSA, by select top sectors, 2010–16 .................................................. 389
Table I.11 FDI positions in Africa, by source, 2015 .......................................................... 389
Table I.12 EU greenfield investment in SSA, 2010–16 ................................................................. 389
Table I.13 EU greenfield projects in South Africa, by source, 2010–16 ........................................ 390
Table I.14 China M&A in SSA, by destination, 2010–16 .............................................................. 390
Table I.15 China greenfield Investment in SSA, by destination, 2010–16 ................................. 390
Table I.16 South Africa M&A deals in SSA, 2010–16 .............................................................. 390
Table I.17 South Africa greenfield FDI projects in SSA, by industry, 2010–16 ......................... 391
Table I.18 GDP composition, Cameroon, 2016 ........................................................................ 391
Table I.19 Cameroon’s exports of commercial services to the world, by industry, 2015 .......... 391
Table I.20 Cameroon’s imports of commercial services to the world, by industry, 2015 .......... 391
Table I.21 GDP composition, Côte d’Ivoire, 2016 ......................................................................... 392
Table I.22 Côte d’Ivoire’s exports of commercial services to the world, by industry, 2015 .......... 392
Table I.23 Côte d’Ivoire’s imports of commercial services to the world, by industry, 2015 .......... 392
Table I.24 GDP composition, Ethiopia, 2016 ............................................................................. 392
Table I.25 Ethiopia’s exports of commercial services to the world, by industry, 2015 ............. 393
Table I.26 Ethiopia’s imports of commercial services to the world, by industry, 2015 .......... 393
Table I.27 GDP composition, Kenya, 2016 ................................................................................. 393
Table I.28 Kenya’s exports of commercial services to the world, by industry, 2015 ............. 393
Table I.29 Kenya’s imports of commercial services to the world, by industry, 2015 ............. 393
Table I.30 GDP composition, Mauritius, 2016 ............................................................................ 394
Table I.31 Mauritius’ exports of commercial services to the world, by industry, 2015 ............ 394
Table I.32 Mauritius’ imports of commercial services to the world, by industry, 2015 ............ 394
Table I.33 GDP composition, Nigeria, 2016 ............................................................................... 394
Table I.34 Nigeria’s exports of commercial services to the world, by industry, 2015 .......... 395
Table I.35 Nigeria’s imports of commercial services to the world, by industry, 2015 .......... 395
Table I.36 GDP composition, South Africa, 2016 ......................................................................... 395
Table I.37 South Africa’s exports of commercial services to the world, by industry, 2015 .......... 395
Table I.38 South Africa’s imports of commercial services to the world, by industry, 2015 .......... 396
Table I.39 Logistics Performance Index (LPI) of SSA countries vs. median LPI of ROW countries .................................................................................. 397
## Abbreviations and Acronyms

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

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Term</th>
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<tbody>
<tr>
<td>GM</td>
<td>General Motors</td>
</tr>
<tr>
<td>GMSA</td>
<td>General Motors South Africa</td>
</tr>
<tr>
<td>GNI</td>
<td>gross national income</td>
</tr>
<tr>
<td>GPS</td>
<td>Global Positioning System</td>
</tr>
<tr>
<td>Groupe BSIC</td>
<td>Le groupe Banque Sahélo-Saharienne pour l’Investissement et le Commerce</td>
</tr>
<tr>
<td>GSP</td>
<td>Generalized System of Preferences</td>
</tr>
<tr>
<td>GTA</td>
<td>Global Trade Atlas</td>
</tr>
<tr>
<td>GW</td>
<td>gigawatt</td>
</tr>
<tr>
<td>HDPE</td>
<td>high-density polyethylene</td>
</tr>
<tr>
<td>HIP</td>
<td>Hawassa Industrial Park (Ethiopia)</td>
</tr>
<tr>
<td>HRI</td>
<td>hotel, restaurant, and institution</td>
</tr>
<tr>
<td>HS</td>
<td>Harmonized Commodity Description and Coding System (Harmonized System) (international codes for traded goods)</td>
</tr>
<tr>
<td>HTS</td>
<td>Harmonized Tariff Schedule of the United States</td>
</tr>
<tr>
<td>ICSG</td>
<td>International Copper Study Group</td>
</tr>
<tr>
<td>ICT</td>
<td>information and communications technology</td>
</tr>
<tr>
<td>IGAD</td>
<td>Intergovernmental Authority on Development (East Africa)</td>
</tr>
<tr>
<td>IIE</td>
<td>Institute for International Education (United States)</td>
</tr>
<tr>
<td>IoT</td>
<td>Internet of Things</td>
</tr>
<tr>
<td>IPA</td>
<td>International Platinum Group Metals Association</td>
</tr>
<tr>
<td>ISAAA</td>
<td>International Service for the Acquisition of Agri-biotech Applications</td>
</tr>
<tr>
<td>ITA</td>
<td>U.S. International Trade Administration</td>
</tr>
<tr>
<td>JETRO</td>
<td>Japan External Trade Organization</td>
</tr>
<tr>
<td>LDPE</td>
<td>low-density polyethylene</td>
</tr>
<tr>
<td>LLDPE</td>
<td>linear low-density polyethylene</td>
</tr>
<tr>
<td>LPG</td>
<td>liquefied petroleum gas</td>
</tr>
<tr>
<td>M&amp;A</td>
<td>mergers and acquisitions</td>
</tr>
<tr>
<td>MDPE</td>
<td>medium-density polyethylene</td>
</tr>
<tr>
<td>MFN</td>
<td>most-favored-nation</td>
</tr>
<tr>
<td>MIDP</td>
<td>Motor Industry Development Program</td>
</tr>
<tr>
<td>MIGA</td>
<td>Multilateral Investment Guarantee Agency (World Bank)</td>
</tr>
<tr>
<td>MINUSMA</td>
<td>United Nations Multidimensional Integrated Stabilization Mission in Mali</td>
</tr>
<tr>
<td>mt</td>
<td>metric tons</td>
</tr>
<tr>
<td>MVVA</td>
<td>manufacturing value added</td>
</tr>
<tr>
<td>MW</td>
<td>megawatt</td>
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<tr>
<td>NAACAM</td>
<td>National Association of Automotive Component and Allied Manufacturers (South Africa)</td>
</tr>
<tr>
<td>NAFTA</td>
<td>North American Free Trade Agreement</td>
</tr>
<tr>
<td>NAIDP</td>
<td>National Automotive Industry Development Plan (Nigeria)</td>
</tr>
<tr>
<td>NCD</td>
<td>non-communicable diseases</td>
</tr>
<tr>
<td>NERSA</td>
<td>National Energy Regulator of South Africa</td>
</tr>
<tr>
<td>NesoI, n/o</td>
<td>not elsewhere specified or included</td>
</tr>
<tr>
<td>NGLs</td>
<td>natural gas liquids</td>
</tr>
<tr>
<td>NTM</td>
<td>nontariff measure</td>
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<tr>
<td>OECD</td>
<td>Organisation for Economic Co-operation and Development</td>
</tr>
<tr>
<td>OICA</td>
<td>Organisation Internationale des Constructeurs d’Automobiles (International Organization of Motor Vehicle Manufacturers)</td>
</tr>
<tr>
<td>OPIC</td>
<td>Overseas Private Investment Corporation (U.S.)</td>
</tr>
<tr>
<td>OPT</td>
<td>Optional Training Program (U.S. Department of Labor)</td>
</tr>
<tr>
<td>PE</td>
<td>polyethylene</td>
</tr>
<tr>
<td>PGMs</td>
<td>platinum group metals</td>
</tr>
<tr>
<td>ppm</td>
<td>parts per million</td>
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<tr>
<td>Acronyms</td>
<td>Term</td>
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<tr>
<td>PPPs</td>
<td>private-public partnerships</td>
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<tr>
<td>REC</td>
<td>Regional Economic Community</td>
</tr>
<tr>
<td>ROC</td>
<td>Republic of the Congo</td>
</tr>
<tr>
<td>ROW</td>
<td>rest of the world</td>
</tr>
<tr>
<td>SAA</td>
<td>South African Airways</td>
</tr>
<tr>
<td>SACU</td>
<td>Southern African Customs Union</td>
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<tr>
<td>SADC</td>
<td>Southern African Development Community</td>
</tr>
<tr>
<td>SBA</td>
<td>U.S. Small Business Administration</td>
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<tr>
<td>SMEs</td>
<td>small and medium-sized enterprises</td>
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<tr>
<td>SSA</td>
<td>sub-Saharan Africa</td>
</tr>
<tr>
<td>TDM</td>
<td>Trade Data Monitor</td>
</tr>
<tr>
<td>TFTA</td>
<td>Tripartite Free Trade Area</td>
</tr>
<tr>
<td>TIDCA</td>
<td>trade, investment, and development cooperation agreement</td>
</tr>
<tr>
<td>TIFA</td>
<td>trade and investment framework agreement</td>
</tr>
<tr>
<td>TRQ</td>
<td>Tariff-rate quota</td>
</tr>
<tr>
<td>UAE</td>
<td>United Arab Emirates</td>
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<tr>
<td>UEMOA</td>
<td>West African Economic and Monetary Union</td>
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<tr>
<td>UK</td>
<td>United Kingdom</td>
</tr>
<tr>
<td>ULSD</td>
<td>ultra-low-sulfur diesel</td>
</tr>
<tr>
<td>UN</td>
<td>United Nations</td>
</tr>
<tr>
<td>UNCTAD</td>
<td>United Nations Conference on Trade and Development</td>
</tr>
<tr>
<td>UNECA</td>
<td>United Nations Economic Commission for Africa</td>
</tr>
<tr>
<td>UNIDO</td>
<td>United Nations Industrial Development Organization</td>
</tr>
<tr>
<td>UNSD</td>
<td>United Nations Statistics Division</td>
</tr>
<tr>
<td>UNWTO</td>
<td>United Nations World Tourism Organization</td>
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<tr>
<td>USAID</td>
<td>U.S. Agency for International Development</td>
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<td>USCIS</td>
<td>U.S. Citizenship and Immigration Services</td>
</tr>
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<td>USDA</td>
<td>U.S. Department of Agriculture</td>
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<tr>
<td>USDOC</td>
<td>U.S. Department of Commerce</td>
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<td>USDS</td>
<td>United States Department of State</td>
</tr>
<tr>
<td>USGC</td>
<td>U.S. Grains Council</td>
</tr>
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<td>USGS</td>
<td>U.S. Geological Survey</td>
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<td>USITC</td>
<td>U.S. International Trade Commission</td>
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<tr>
<td>USTR</td>
<td>U.S. Trade Representative</td>
</tr>
<tr>
<td>WAEMU</td>
<td>West African Economic and Monetary Union</td>
</tr>
<tr>
<td>WCO</td>
<td>World Customs Organization</td>
</tr>
<tr>
<td>WDI</td>
<td>World Development Indicators (World Bank)</td>
</tr>
<tr>
<td>WEF</td>
<td>World Economic Forum</td>
</tr>
<tr>
<td>WGI</td>
<td>World Governance Indicators (World Bank)</td>
</tr>
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<td>WTO</td>
<td>World Trade Organization</td>
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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

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<tbody>
<tr>
<td>Aircraft</td>
<td>1,188</td>
<td>2,099</td>
<td>3,739</td>
<td>1,764</td>
<td>576</td>
<td>6.8</td>
</tr>
<tr>
<td>Ships, tugs, pleasure boats and floating structures (primarily floating oil platforms)</td>
<td>94</td>
<td>132</td>
<td>248</td>
<td>255</td>
<td>161</td>
<td>18.0</td>
</tr>
<tr>
<td>Natural gas and components (propane and butane)</td>
<td>9</td>
<td>15</td>
<td>234</td>
<td>162</td>
<td>153</td>
<td>60.7</td>
</tr>
<tr>
<td>Electric motors, generators, and related equipment (primarily power generating equipment)</td>
<td>187</td>
<td>255</td>
<td>193</td>
<td>306</td>
<td>119</td>
<td>8.5</td>
</tr>
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<td>Pharmaceuticals</td>
<td>187</td>
<td>357</td>
<td>418</td>
<td>277</td>
<td>90</td>
<td>6.8</td>
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<tr>
<td>Certain motor vehicle parts</td>
<td>249</td>
<td>336</td>
<td>406</td>
<td>338</td>
<td>89</td>
<td>5.2</td>
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<tr>
<td>Prepared or preserved vegetables, mushrooms, and olives</td>
<td>69</td>
<td>96</td>
<td>95</td>
<td>132</td>
<td>63</td>
<td>11.4</td>
</tr>
<tr>
<td>Polyethylene resins in primary forms</td>
<td>104</td>
<td>125</td>
<td>108</td>
<td>152</td>
<td>48</td>
<td>6.5</td>
</tr>
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</table>

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

<table>
<thead>
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</thead>
<tbody>
<tr>
<td></td>
<td>Million $</td>
<td></td>
<td></td>
<td></td>
<td>Percent</td>
<td></td>
</tr>
<tr>
<td>Côte d’Ivoire</td>
<td>160</td>
<td>185</td>
<td>234</td>
<td>286</td>
<td>126</td>
<td>10.2</td>
</tr>
<tr>
<td>Namibia</td>
<td>93</td>
<td>151</td>
<td>283</td>
<td>174</td>
<td>81</td>
<td>11.0</td>
</tr>
<tr>
<td>Togo</td>
<td>156</td>
<td>368</td>
<td>1,018</td>
<td>227</td>
<td>71</td>
<td>6.5</td>
</tr>
<tr>
<td>Sudan</td>
<td>0</td>
<td>55</td>
<td>77</td>
<td>55</td>
<td>55</td>
<td>0.0</td>
</tr>
<tr>
<td>Cameroon</td>
<td>130</td>
<td>250</td>
<td>298</td>
<td>176</td>
<td>47</td>
<td>5.3</td>
</tr>
<tr>
<td>Mauritius</td>
<td>38</td>
<td>94</td>
<td>34</td>
<td>85</td>
<td>47</td>
<td>14.2</td>
</tr>
<tr>
<td>All other SSA</td>
<td>15,929</td>
<td>20,679</td>
<td>22,823</td>
<td>11,882</td>
<td>-4,047</td>
<td>-4.8</td>
</tr>
<tr>
<td>Total</td>
<td>16,505</td>
<td>21,782</td>
<td>24,767</td>
<td>12,886</td>
<td>-3,619</td>
<td>-4.0</td>
</tr>
</tbody>
</table>


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)

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


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](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

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<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Cocoa, chocolate, and confectionery</td>
<td>1,038</td>
<td>1,001</td>
<td>1,206</td>
<td>1,298</td>
<td>260</td>
<td>3.8</td>
</tr>
<tr>
<td>Apparel</td>
<td>795</td>
<td>871</td>
<td>1,028</td>
<td>1,036</td>
<td>241</td>
<td>4.5</td>
</tr>
<tr>
<td>Spices&lt;sup&gt;a&lt;/sup&gt;</td>
<td>38</td>
<td>55</td>
<td>87</td>
<td>241</td>
<td>203</td>
<td>36.0</td>
</tr>
<tr>
<td>Copper and related articles (primarily refined copper)</td>
<td>10</td>
<td>8</td>
<td>111</td>
<td>114</td>
<td>105</td>
<td>50.7</td>
</tr>
<tr>
<td>Centrifuges and filtering and purifying equipment (primarily catalytic converters)</td>
<td>205</td>
<td>224</td>
<td>273</td>
<td>291</td>
<td>86</td>
<td>6.0</td>
</tr>
<tr>
<td>Edible nuts</td>
<td>88</td>
<td>115</td>
<td>153</td>
<td>167</td>
<td>79</td>
<td>11.3</td>
</tr>
</tbody>
</table>


<sup>a</sup> 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

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Kenya</td>
<td>221</td>
<td>288</td>
<td>417</td>
<td>391</td>
<td>170</td>
<td>10.0</td>
</tr>
<tr>
<td>Madagascar</td>
<td>0</td>
<td>0</td>
<td>b</td>
<td>94</td>
<td>94</td>
<td>a</td>
</tr>
<tr>
<td>Mauritius</td>
<td>118</td>
<td>160</td>
<td>218</td>
<td>188</td>
<td>70</td>
<td>8.1</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>7</td>
<td>18</td>
<td>36</td>
<td>61</td>
<td>55</td>
<td>44.0</td>
</tr>
<tr>
<td>Tanzania</td>
<td>2</td>
<td>10</td>
<td>17</td>
<td>37</td>
<td>35</td>
<td>64.7</td>
</tr>
<tr>
<td>Ghana</td>
<td>2</td>
<td>17</td>
<td>57</td>
<td>30</td>
<td>28</td>
<td>56.1</td>
</tr>
<tr>
<td>Mauritania</td>
<td>26</td>
<td>0</td>
<td>0</td>
<td>48</td>
<td>21</td>
<td>10.4</td>
</tr>
<tr>
<td>Lesotho</td>
<td>280</td>
<td>301</td>
<td>289</td>
<td>295</td>
<td>15</td>
<td>0.9</td>
</tr>
<tr>
<td>Mozambique</td>
<td>b</td>
<td>b</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>a</td>
</tr>
<tr>
<td>Rwanda</td>
<td>b</td>
<td>b</td>
<td>1</td>
<td>b</td>
<td>1</td>
<td>a</td>
</tr>
<tr>
<td>All other SSA</td>
<td>38,024</td>
<td>31,744</td>
<td>10,839</td>
<td>8,304</td>
<td>-29,719</td>
<td>-22.4</td>
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<tr>
<td>Total</td>
<td>38,680</td>
<td>32,538</td>
<td>11,874</td>
<td>9,451</td>
<td>-29,229</td>
<td>-20.9</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Macroeconomics</th>
<th>Cameroon</th>
<th>Côte d’Ivoire</th>
<th>Ethiopia</th>
<th>Kenya</th>
<th>Mauritius</th>
<th>Nigeria</th>
<th>South Africa</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP ranking in SSA</td>
<td>9</td>
<td>8</td>
<td>5</td>
<td>4</td>
<td>24</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>GDP (billion $)</td>
<td>32.2</td>
<td>36.4</td>
<td>72.4</td>
<td>70.5</td>
<td>12.2</td>
<td>404.7</td>
<td>295.5</td>
</tr>
<tr>
<td>GDP per capita (S$)</td>
<td>1,374.5</td>
<td>1,535.0</td>
<td>706.8</td>
<td>1,455.4</td>
<td>9,630.9</td>
<td>2,175.7</td>
<td>5,274.5</td>
</tr>
<tr>
<td>GDP growth (%) (2015–16)</td>
<td>4.5</td>
<td>8.3</td>
<td>7.6</td>
<td>5.8</td>
<td>3.8</td>
<td>-1.6</td>
<td>0.3</td>
</tr>
</tbody>
</table>

| Trade (billion $) | \n|-----------------|----------|---------------|----------|-------|-----------|---------|--------------|
| With the world | 7.0      | 21.4\textsuperscript{b} | 20.8     | 19.5  | 6.6       | 68.1    | 151.8        |
| Goods          | 3.6      | 3.5           | 6.0      | 5.8   | 5.0       | 21.4    | 29.8         |
| Commercial services\textsuperscript{c} | 0.3      | 1.5           | 1.1      | 0.9   | 0.4       | 6.1     | 11.4         |
| With the United States | 0.3 | 1.5 | 1.1 | 0.9 | 0.4 | 6.1 | 11.4 |
| Private services\textsuperscript{d} | -0.1\textsuperscript{f} | 0.2 | \textsuperscript{e} | 0.4 | 7.0 | 3.8 | 5.1 |
| FDI (billion $) | \n|-----------------|----------|---------------|----------|-------|-----------|---------|--------------|
| With the world | 6.9      | 7.6           | 13.7     | 11.2  | 4.6       | 94.2    | 136.8        |
| Inward FDI stock | -0.1\textsuperscript{f} | 0.2 | \textsuperscript{e} | 0.4 | 7.0 | 3.8 | 5.1 |
| With the United States | -0.1\textsuperscript{f} | 0.2 | \textsuperscript{e} | 0.4 | 7.0 | 3.8 | 5.1 |


\textsuperscript{a} In current nominal terms.
\textsuperscript{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.
\textsuperscript{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.
\textsuperscript{d} Based on reported services trade statistics from the Bureau of Economic Analysis (BEA) under the U.S. Department of Commerce (USDOC).
\textsuperscript{e} Data not available.
\textsuperscript{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

<table>
<thead>
<tr>
<th>AGOA beneficiary country</th>
<th>Agricultural and food processing</th>
<th>Textile, apparel, footwear and leather products</th>
<th>Jewelry and other mining</th>
<th>Handicrafts</th>
<th>Other light manufacturinga</th>
</tr>
</thead>
<tbody>
<tr>
<td>Botswana</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
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<td>Burundi</td>
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<td>Ethiopia</td>
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<td></td>
<td></td>
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<tr>
<td>Ghana</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Kenya</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Lesotho</td>
<td>●</td>
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<td>Madagascar</td>
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<td>Malawi</td>
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</tr>
<tr>
<td>Mali</td>
<td>●</td>
<td>●</td>
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<tr>
<td>Mauritius</td>
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<td>Mozambique</td>
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<td>Senegal</td>
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<td>Tanzania</td>
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<tr>
<td>Togo</td>
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<tr>
<td>Zambia</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
</tbody>
</table>


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


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

<table>
<thead>
<tr>
<th>REC</th>
<th>Free trade area</th>
<th>Customs union</th>
<th>Currency or monetary union</th>
</tr>
</thead>
<tbody>
<tr>
<td>EAC</td>
<td>Yes</td>
<td>Yes</td>
<td>In progress</td>
</tr>
<tr>
<td>SADC</td>
<td>13 out of 15 members since 2015</td>
<td>In progress</td>
<td>No</td>
</tr>
<tr>
<td>ECOWAS</td>
<td>Yes</td>
<td>Yes</td>
<td>In progress</td>
</tr>
<tr>
<td>UMA</td>
<td>Incomplete</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>IGAD</td>
<td>Incomplete</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>ECCAS</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>COMESA</td>
<td>16 out of 19 members since 2016</td>
<td>In progress</td>
<td>No</td>
</tr>
</tbody>
</table>

**Other regional economic blocs highlighted in USTR’s report**

<table>
<thead>
<tr>
<th>REC</th>
<th>Free trade area</th>
<th>Customs union</th>
<th>Currency or monetary union</th>
</tr>
</thead>
<tbody>
<tr>
<td>SACU</td>
<td>Yes</td>
<td>Yes</td>
<td>Partial&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>WAEMU</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>CEMAC</td>
<td>Yes, with exceptions&lt;sup&gt;b&lt;/sup&gt;</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>


<sup>b</sup> 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-AGOA 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-AGOA 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. 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.

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.

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

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.

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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.
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

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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. 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.

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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). The factors driving this growth are laid out in the individual sector profiles.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Aircraft</td>
<td>1,188</td>
<td>2,099</td>
<td>3,739</td>
<td>1,764</td>
<td>576</td>
<td>6.8</td>
</tr>
<tr>
<td>Ships, tugs, pleasure boats, and floating structures (primarily floating oil platforms)</td>
<td>94</td>
<td>132</td>
<td>248</td>
<td>255</td>
<td>161</td>
<td>18.0</td>
</tr>
<tr>
<td>Natural gas and components (propane and butane)</td>
<td>9</td>
<td>15</td>
<td>234</td>
<td>162</td>
<td>153</td>
<td>60.7</td>
</tr>
<tr>
<td>Electric motors, generators, and related equipment (primarily power generating equipment)</td>
<td>187</td>
<td>255</td>
<td>193</td>
<td>306</td>
<td>119</td>
<td>8.5</td>
</tr>
<tr>
<td>Pharmaceuticals</td>
<td>187</td>
<td>357</td>
<td>418</td>
<td>277</td>
<td>90</td>
<td>6.8</td>
</tr>
<tr>
<td>Certain motor-vehicle parts</td>
<td>249</td>
<td>336</td>
<td>406</td>
<td>338</td>
<td>89</td>
<td>5.2</td>
</tr>
<tr>
<td>Prepared or preserved vegetables, mushrooms, and olives</td>
<td>69</td>
<td>96</td>
<td>95</td>
<td>132</td>
<td>63</td>
<td>11.4</td>
</tr>
<tr>
<td>Polyethylene resins in primary forms</td>
<td>104</td>
<td>125</td>
<td>108</td>
<td>152</td>
<td>48</td>
<td>6.5</td>
</tr>
<tr>
<td>All other</td>
<td>14,418</td>
<td>18,367</td>
<td>19,326</td>
<td>9,500</td>
<td>-4,918</td>
<td>-6.7</td>
</tr>
<tr>
<td>Total</td>
<td>16,505</td>
<td>21,782</td>
<td>24,767</td>
<td>12,886</td>
<td>-3,619</td>
<td>-4.0</td>
</tr>
</tbody>
</table>

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. 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. 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.

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>
<thead>
<tr>
<th>Product</th>
<th>Past trade growth</th>
<th>Gravity model</th>
<th>Literature and industry sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aircraft</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Ships, tugs, pleasure boats, and floating structures (primarily floating oil platforms)</td>
<td>●</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Natural gas and components (propane and butane)</td>
<td>●</td>
<td></td>
<td>●</td>
</tr>
<tr>
<td>Electric motors, generators, and related equipment (primarily power generating equipment)</td>
<td>●</td>
<td></td>
<td>●</td>
</tr>
<tr>
<td>Prepared and preserved vegetables</td>
<td>●</td>
<td></td>
<td>●</td>
</tr>
<tr>
<td>Pharmaceuticals</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Polyethylene resins in primary forms</td>
<td>●</td>
<td></td>
<td>●</td>
</tr>
<tr>
<td>Sauces, condiments, and food ingredients</td>
<td>●</td>
<td></td>
<td>●</td>
</tr>
<tr>
<td>Corn (subset of cereals)</td>
<td>●</td>
<td></td>
<td>●</td>
</tr>
<tr>
<td>Motor vehicles and parts&lt;sup&gt;a&lt;/sup&gt;</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Ethyl alcohol</td>
<td></td>
<td></td>
<td>●</td>
</tr>
<tr>
<td>Poultry</td>
<td></td>
<td></td>
<td>●</td>
</tr>
<tr>
<td>Refined petroleum products</td>
<td>●</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Compiled by the USITC.

<sup>a</sup> 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.
six markets to which U.S. goods exports increased the most, in absolute value terms,\textsuperscript{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

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Million $</td>
<td></td>
<td></td>
<td></td>
<td>Percent</td>
<td></td>
</tr>
<tr>
<td>Côte d’Ivoire</td>
<td>160</td>
<td>185</td>
<td>234</td>
<td>286</td>
<td>126</td>
<td>10.2</td>
</tr>
<tr>
<td>Namibia</td>
<td>93</td>
<td>151</td>
<td>283</td>
<td>174</td>
<td>81</td>
<td>11.0</td>
</tr>
<tr>
<td>Togo</td>
<td>156</td>
<td>368</td>
<td>1,018</td>
<td>227</td>
<td>71</td>
<td>6.5</td>
</tr>
<tr>
<td>Sudan</td>
<td>0</td>
<td>55</td>
<td>77</td>
<td>55</td>
<td>55</td>
<td>a</td>
</tr>
<tr>
<td>Cameroon</td>
<td>130</td>
<td>250</td>
<td>298</td>
<td>176</td>
<td>47</td>
<td>5.3</td>
</tr>
<tr>
<td>Mauritius</td>
<td>38</td>
<td>94</td>
<td>34</td>
<td>85</td>
<td>47</td>
<td>14.2</td>
</tr>
<tr>
<td>All other SSA</td>
<td>15,929</td>
<td>20,679</td>
<td>22,823</td>
<td>11,882</td>
<td>-4,047</td>
<td>-4.8</td>
</tr>
<tr>
<td>Total</td>
<td>16,505</td>
<td>21,782</td>
<td>24,767</td>
<td>12,886</td>
<td>-3,619</td>
<td>-4.0</td>
</tr>
</tbody>
</table>


\textsuperscript{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.\textsuperscript{18} The growth in U.S. exports of polyethylene resins is likely driven by rising demand for plastic goods in Côte d’Ivoire,\textsuperscript{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.\textsuperscript{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

\textsuperscript{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.


\textsuperscript{19} SelectUSA, “Côte d’Ivoire—Plastic Material and Resins,” June 10, 2016.

\textsuperscript{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

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

<table>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Aircraft</td>
<td>1,187.8</td>
<td>1,570.0</td>
<td>2,098.8</td>
<td>1,340.9</td>
<td>3,739.3</td>
<td>2,602.9</td>
<td>1,763.8</td>
<td>576.0</td>
<td>6.8</td>
</tr>
<tr>
<td>Civilian aircraft, engines, and parts</td>
<td>1,158.5</td>
<td>1,521.0</td>
<td>2,071.0</td>
<td>1,319.7</td>
<td>3,718.5</td>
<td>2,570.4</td>
<td>1,674.6</td>
<td>516.1</td>
<td>6.3</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>490.9</td>
<td>482.3</td>
<td>1,070.2</td>
<td>506.1</td>
<td>1,433.1</td>
<td>1,327.7</td>
<td>445.2</td>
<td>-45.7</td>
<td>-1.6</td>
</tr>
<tr>
<td>Angola</td>
<td>72.4</td>
<td>385.8</td>
<td>50.4</td>
<td>32.7</td>
<td>215.9</td>
<td>35.0</td>
<td>406.6</td>
<td>334.2</td>
<td>33.3</td>
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<tr>
<td>South Africa</td>
<td>268.0</td>
<td>228.1</td>
<td>462.4</td>
<td>231.9</td>
<td>236.1</td>
<td>336.1</td>
<td>325.8</td>
<td>57.8</td>
<td>3.3</td>
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<tr>
<td>Nigeria</td>
<td>132.6</td>
<td>164.9</td>
<td>136.1</td>
<td>127.9</td>
<td>109.8</td>
<td>121.6</td>
<td>97.1</td>
<td>-35.5</td>
<td>-5.1</td>
</tr>
<tr>
<td>Kenya</td>
<td>69.4</td>
<td>60.4</td>
<td>130.4</td>
<td>216.3</td>
<td>1,233.6</td>
<td>629.5</td>
<td>57.5</td>
<td>-11.9</td>
<td>-3.1</td>
</tr>
<tr>
<td>All other SSA</td>
<td>125.2</td>
<td>199.5</td>
<td>221.5</td>
<td>204.9</td>
<td>490.0</td>
<td>120.5</td>
<td>342.3</td>
<td>217.1</td>
<td>18.3</td>
</tr>
</tbody>
</table>


### 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

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27 See, for example, Boeing, “Orders and Deliveries” (accessed January 17, 2018).
32 Throughout this report EU refers to the 28-member European Union as of 2016.
to Europe, China, and South America.\textsuperscript{36} Nigeria’s Arik Air, the largest carrier in West Africa, operates a fleet primarily supplied by Boeing;\textsuperscript{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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{40} Comair placed orders for 16 Boeing planes and took delivery of 8 during 2010–16.\textsuperscript{41} South African Airways, the government-operated national carrier, primarily uses a fleet of EU-manufactured aircraft.\textsuperscript{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.\textsuperscript{43} Recent reports, however, indicate that SAA may lease, rather than purchase, the new aircraft due to ongoing financial difficulties.\textsuperscript{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.\textsuperscript{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

\textsuperscript{36} CAPA, “TAAG Partners with Emirates,” July 22, 2016.


\textsuperscript{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).


\textsuperscript{45} ITA, “Nigeria—Aerospace/Aviation/Avionics,” June 20, 2016.

46 | www.usitc.gov
hampered by poor infrastructure, such as the lack of airport infrastructure. 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.

Aside from the 2014 purchase of a new Boeing 737 to serve as the presidential jet, 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.

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. The use of older aircraft burdens some SSA fleets with higher fuel and maintenance costs, which are then passed on to consumers, suppressing demand. Low worldwide oil prices beginning in late 2014 hurt several economies in SSA 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. 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.

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. 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).

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

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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.”
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. 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. 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.

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

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. 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.

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. 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. 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. 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. 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. 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. OGI 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).
70 Ibid.
71 See appendix F for more information about the gravity model.
74 USDOC, ITA, “Republic of Congo—Petroleum Sector,” July 18, 2017; The Oil and Gas Year, “Republic of Congo Overview” (accessed March 5, 2018).
searching for profitable oil wells in the area.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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).\textsuperscript{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).\textsuperscript{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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{87} Considering that cruise ships cost

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\textsuperscript{77} ExxonMobil, “Angola” (accessed February 27, 2018).

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

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

\textsuperscript{80} Ibid.

\textsuperscript{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).

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

\textsuperscript{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).


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

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

\textsuperscript{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.\(^{97}\)


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


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

\(^{93}\) Ibid.

\(^{94}\) Ibid.


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

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</tr>
</thead>
<tbody>
<tr>
<td>Natural gas and components</td>
<td>9.4</td>
<td>27.7</td>
<td>15.4</td>
<td>30.9</td>
<td>234.3</td>
<td>213.5</td>
<td>162.3</td>
<td>152.9</td>
<td>60.7</td>
</tr>
<tr>
<td>Liquefied petroleum gas</td>
<td>7.9</td>
<td>25.0</td>
<td>0.0</td>
<td>28.6</td>
<td>230.4</td>
<td>199.6</td>
<td>149.5</td>
<td>141.6</td>
<td>63.2</td>
</tr>
<tr>
<td>Ghana</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>26.2</td>
<td>72.1</td>
<td>38.0</td>
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<td>65.0</td>
<td>a</td>
</tr>
<tr>
<td>South Africa</td>
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<td>0.0</td>
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<td>0.0</td>
<td>69.9</td>
<td>49.2</td>
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<td>a</td>
</tr>
<tr>
<td>Nigeria</td>
<td>7.9</td>
<td>9.8</td>
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<td>0.0</td>
<td>44.4</td>
<td>42.8</td>
<td>0.0</td>
<td>-7.9</td>
<td>-100.0</td>
</tr>
<tr>
<td>All other SSA</td>
<td>0.0</td>
<td>15.2</td>
<td>0.0</td>
<td>2.4</td>
<td>44.0</td>
<td>69.6</td>
<td>49.4</td>
<td>49.4</td>
<td>320.3</td>
</tr>
</tbody>
</table>


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

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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).
contribute to indoor air pollution and deforestation.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{105} Accordingly, rising U.S. exports to Ghana and Nigeria reflect demand growth in the broader area.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{109} In other cases, such as Ghana, SSA petroleum refineries meet some of the regional demand for LPG, and imports make up the shortfall.\textsuperscript{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

\begin{footnotes}
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214 million barrels to 427 million barrels over the same period.\textsuperscript{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.\textsuperscript{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. \textsuperscript{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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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

\textsuperscript{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.

\textsuperscript{112} EIA, Petroleum and Other Liquids database, “Exports” (accessed January 2, 2018).

\textsuperscript{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).

\textsuperscript{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.


pipeline. Running the plant entirely on LPG should roughly double Ghana’s total LPG consumption.\textsuperscript{118} The project broke ground in April 2017 and is expected to be fully operational by the end of 2018.\textsuperscript{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,\textsuperscript{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).\textsuperscript{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.\textsuperscript{122} The EU is a net importer of LPG, although some individual EU countries, as well as Norway (not an EU member), export LPG.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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

\textsuperscript{118} Industry representative, telephone interview by USITC staff, December 15, 2017.
\textsuperscript{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).
\textsuperscript{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.
\textsuperscript{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.
\textsuperscript{126} IHS Markit, Global Trade Atlas database (HS 2711.13; accessed November 20, 2017).
the United States. 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.

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. 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 8502.39 and large alternating current (AC) generators in HS 8501.64; the largest exports in 2016 were to Angola, Cameroon, Ghana, and South Africa. 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.

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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

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<td>9.3</td>
<td>13.0</td>
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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. Public policies are changing within the region, including increasing support for renewable energy. Finally, international programs (such as the UN Program Sustainable Energy for All and the U.S. Power Africa program), export

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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.


\[^{136}\] 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).


\[^{138}\] 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.


microturbines (small turbines for on-site power generation), has supplied customers in SSA, including Nigeria and South Africa.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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),\textsuperscript{151} where they have had only a small market presence (as discussed below), is unclear.


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

\textsuperscript{147} Bloomberg New Energy Finance, BNEF database (accessed February 5, 2018).

\textsuperscript{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.

\textsuperscript{149} Castellano et al., *Brighter Africa*, February 2015, 4, 21.

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

**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).\(^\text{152}\) 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).\(^\text{153}\)

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.\(^\text{154}\)

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.\(^\text{155}\) 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.\(^\text{156}\) Siemens and Vestas were the two largest suppliers to SSA, based on projects completed during 2010–17.\(^\text{157}\) 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.\(^\text{158}\) 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.\(^\text{159}\)

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).


\(^{158}\) 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.

only 1 percent of exports to SSA in 2016. 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). In addition, the electric grid in SSA generally operates at the same frequency (50 hertz) as the grid in Europe.

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

<table>
<thead>
<tr>
<th></th>
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<td>413.3</td>
<td>418.3</td>
<td>276.6</td>
<td>90.1</td>
<td>6.8</td>
<td></td>
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<tr>
<td>Formulated products</td>
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<td>83.1</td>
<td>104.2</td>
<td>124.9</td>
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<td>134.1</td>
<td>125.9</td>
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<td>94.3</td>
<td>89.7</td>
<td>116.1</td>
<td>107.1</td>
<td>60.1</td>
<td>14.7</td>
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<td>6.8</td>
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<td>Sudan</td>
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<td>0.9</td>
<td>2.1</td>
<td>1.6</td>
<td>2.2</td>
<td>2.2</td>
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<td></td>
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<tr>
<td>All other SSA</td>
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<td>20.1</td>
<td>26.4</td>
<td>26.5</td>
<td>12.7</td>
<td>9.9</td>
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<td>-3.2</td>
</tr>
<tr>
<td>Diagnostic reagents/certified reference materials</td>
<td>31.5</td>
<td>27.0</td>
<td>41.8</td>
<td>48.2</td>
<td>58.8</td>
<td>42.6</td>
<td>70.4</td>
<td>38.9</td>
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<td>14.4</td>
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<td>25.9</td>
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<td>23.6</td>
<td>39.4</td>
<td>27.0</td>
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<tr>
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<td>5.9</td>
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<td>1.4</td>
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<td>13.0</td>
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<td>16.3</td>
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<td>1.1</td>
</tr>
<tr>
<td>Vaccines, human and veterinary</td>
<td>61.7</td>
<td>116.5</td>
<td>182.2</td>
<td>199.6</td>
<td>199.6</td>
<td>139.2</td>
<td>44.7</td>
<td>-17.0</td>
<td>-5.2</td>
</tr>
<tr>
<td>South Africa</td>
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<td>10.2</td>
<td>14.0</td>
<td>12.1</td>
<td>10.0</td>
<td>14.9</td>
<td>20.9</td>
<td>4.3</td>
<td>3.9</td>
</tr>
<tr>
<td>All other SSA</td>
<td>45.1</td>
<td>106.3</td>
<td>168.1</td>
<td>187.5</td>
<td>189.6</td>
<td>124.3</td>
<td>23.8</td>
<td>-21.3</td>
<td>-10.1</td>
</tr>
<tr>
<td>All other pharmaceuticals</td>
<td>30.1</td>
<td>24.1</td>
<td>28.4</td>
<td>40.5</td>
<td>36.4</td>
<td>37.3</td>
<td>35.6</td>
<td>5.5</td>
<td>2.8</td>
</tr>
</tbody>
</table>

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.

* 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.\(^{165}\)

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\(^{163}\) 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. 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.

Moreover, many SSA countries, including South Africa, Kenya, and Nigeria, have been consuming more generic pharmaceuticals in recent years. 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). 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. These factors likely have helped boost SSA consumption of pharmaceuticals, including generics (and perhaps higher-value pharmaceutical exports) from the United States.

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

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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.


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.\textsuperscript{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).\textsuperscript{173} More recently, it was reported in 2017 that Nigeria specified healthcare spending levels in its annual budget, thereby increasing national demand for pharmaceuticals.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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

\textsuperscript{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.


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


\textsuperscript{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.\textsuperscript{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,\textsuperscript{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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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).\textsuperscript{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.\textsuperscript{186}


\textsuperscript{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.

\textsuperscript{183} Holt et al., \textit{Insights into Pharmaceuticals and Medical Products}, April 2015, 5; Berman, “India Looks to Increase Generic Drug Exports to Africa,” December 8, 2015.

\textsuperscript{184} Lo, “Nurturing an African Pharma Boom,” July 25, 2016; \textit{African Business Magazine}, “Pharmaceuticals: India’s Generics Flow into Africa,” January 19, 2012; \textit{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.


\textsuperscript{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.\textsuperscript{187}

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

<table>
<thead>
<tr>
<th></th>
<th>EU</th>
<th>India</th>
<th>China</th>
<th>United States</th>
<th>All other</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSA</td>
<td>45</td>
<td>33</td>
<td>6</td>
<td>2</td>
<td>14</td>
</tr>
<tr>
<td>Nigeria</td>
<td>18</td>
<td>46</td>
<td>23</td>
<td>0.4</td>
<td>13</td>
</tr>
<tr>
<td>Kenya</td>
<td>21</td>
<td>60</td>
<td>3</td>
<td>1</td>
<td>15</td>
</tr>
<tr>
<td>South Africa</td>
<td>51</td>
<td>24</td>
<td>1</td>
<td>9</td>
<td>15</td>
</tr>
</tbody>
</table>

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)

<table>
<thead>
<tr>
<th></th>
<th>EU</th>
<th>India</th>
<th>China</th>
<th>United States</th>
<th>All other</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSA</td>
<td>56</td>
<td>1</td>
<td>1</td>
<td>13</td>
<td>29</td>
</tr>
<tr>
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<td>1</td>
<td>1</td>
<td>16</td>
<td>51</td>
</tr>
<tr>
<td>Kenya</td>
<td>52</td>
<td>4</td>
<td>1</td>
<td>24</td>
<td>19</td>
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<td>South Africa</td>
<td>74</td>
<td>a</td>
<td>1</td>
<td>23</td>
<td>3</td>
</tr>
</tbody>
</table>

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.\textsuperscript{188}

\textsuperscript{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.

\textsuperscript{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

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Prepared or preserved vegetables</td>
<td>68.7</td>
<td>105.7</td>
<td>96.1</td>
<td>117.0</td>
<td>95.2</td>
<td>102.7</td>
<td>131.5</td>
<td>62.8</td>
<td>11.4</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>15.2</td>
<td>19.9</td>
<td>13.5</td>
<td>9.5</td>
<td>6.8</td>
<td>19.7</td>
<td>36.1</td>
<td>20.9</td>
<td>15.4</td>
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<tr>
<td>Sudan</td>
<td>0.0</td>
<td>14.3</td>
<td>5.7</td>
<td>7.6</td>
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<td>14.6</td>
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<td>14.6 a</td>
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</tr>
<tr>
<td>South Africa</td>
<td>7.2</td>
<td>4.6</td>
<td>5.4</td>
<td>10.8</td>
<td>9.3</td>
<td>8.6</td>
<td>10.1</td>
<td>2.9</td>
<td>5.6</td>
</tr>
<tr>
<td>Nigeria</td>
<td>1.8</td>
<td>3.5</td>
<td>3.9</td>
<td>14.1</td>
<td>23.3</td>
<td>12.0</td>
<td>9.6</td>
<td>7.8</td>
<td>31.9</td>
</tr>
<tr>
<td>Djibouti</td>
<td>6.7</td>
<td>8.2</td>
<td>7.1</td>
<td>13.8</td>
<td>8.4</td>
<td>11.7</td>
<td>9.0</td>
<td>2.3</td>
<td>5</td>
</tr>
<tr>
<td>All other SSA</td>
<td>37.7</td>
<td>55.2</td>
<td>60.5</td>
<td>61.3</td>
<td>42.0</td>
<td>36.2</td>
<td>52.1</td>
<td>14.5</td>
<td>5.6</td>
</tr>
</tbody>
</table>


* 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

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\(^{190}\) 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.


\(^{192}\) 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.\textsuperscript{193}

Some U.S. pulse exports to SSA are through U.S. food aid programs.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{199} The plants closed, in part, because of the difficulty of sourcing tomatoes for processing,\textsuperscript{200} Locally, poor roads and lack of storage facilities make it difficult to get tomatoes to processing facilities before they spoil.\textsuperscript{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.\textsuperscript{202} Additionally, foreign currency shortages have limited the ability of processing plants to import machinery, spare parts, and raw materials.\textsuperscript{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.\textsuperscript{204}

\textsuperscript{193} Ibid.
\textsuperscript{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).
\textsuperscript{195} USITC gravity model results.
\textsuperscript{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.
\textsuperscript{197} Industry expert, telephone interview by USITC staff, January 12, 2018.
\textsuperscript{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.
\textsuperscript{200} Ibid.
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. 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.

**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. 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. Ghana 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. Exports to South Africa in this category are mostly tomato paste and dried beans. 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. 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.

**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).

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. 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.
210 Ibid.
211 Ibid.
212 Ibid.
213 Ibid. These are for USITC digest sector AG019.
U.S. tomato paste competes with Chinese tomato paste in Nigeria and Ghana.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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

<table>
<thead>
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<tbody>
<tr>
<td>Polyethylene resins</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Million $</td>
<td>Percent</td>
</tr>
<tr>
<td>Nigeria</td>
<td>104.0</td>
<td>107.9</td>
<td>124.9</td>
<td>144.5</td>
<td>108.5</td>
<td>125.2</td>
<td>151.9</td>
<td>47.9</td>
<td>6.5</td>
</tr>
<tr>
<td>South Africa</td>
<td>33.9</td>
<td>33.1</td>
<td>36.2</td>
<td>42.0</td>
<td>23.1</td>
<td>22.9</td>
<td>31.9</td>
<td>-2.0</td>
<td>-1.0</td>
</tr>
<tr>
<td>Côte d’Ivoire</td>
<td>11.1</td>
<td>3.9</td>
<td>12.7</td>
<td>8.6</td>
<td>10.4</td>
<td>16.6</td>
<td>17.3</td>
<td>6.1</td>
<td>7.7</td>
</tr>
<tr>
<td>All other SSA</td>
<td>24.1</td>
<td>23.0</td>
<td>34.4</td>
<td>30.2</td>
<td>18.1</td>
<td>38.9</td>
<td>54.0</td>
<td>29.9</td>
<td>14.4</td>
</tr>
</tbody>
</table>

Source: USITC DataWeb/USDOC (HTS subheading 3901; accessed December 12, 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). Some sources estimate African annual PE consumption to be over one million metric tons per year, most of which must be supplied by imports.

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. 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. 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.

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. This producer’s capacity remained unchanged from 2013–16 and is not expected to change in the next five years. 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. 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). 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. South Africa consumed about 565,000 tons of PE in 2014, and imports met about 35 percent of this demand. 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.

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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).
228 Ibid.
Chapter 2: U.S. Exports of Goods and Services to SSA

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. Demand for plastic goods in Côte d’Ivoire has increased substantially in recent years in tandem with growth in the country’s agriculture sector. 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.

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. 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. 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. This demand in Africa is driven by food and consumer-item packaging. 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. 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.

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231 Ibid.
234 Ibid.
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. 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. These incremental bans were not considered effective enough, and finally in 2017 all plastic bags, regardless of thickness, were banned. 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.

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, 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. Products such as HDPE pipes were critical for sewage and water networks, and LLDPE can be used to build water storage tanks to collect rainwater. 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. The government cut spending, which affected numerous related projects. At present, the International Monetary Fund...
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

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


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

\(^{254}\) Ibid.


\(^{256}\) 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

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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sauces, condiments, and soups</td>
<td>35.1</td>
<td>43.4</td>
<td>49.8</td>
<td>57.9</td>
<td>65.1</td>
<td>65.0</td>
<td>63.2</td>
<td>28.1</td>
<td>10.3</td>
</tr>
<tr>
<td>Mayonnaise</td>
<td>29.8</td>
<td>36.3</td>
<td>42.3</td>
<td>48.7</td>
<td>55.6</td>
<td>54.7</td>
<td>53.1</td>
<td>23.3</td>
<td>10.1</td>
</tr>
<tr>
<td>Sierra Leone</td>
<td>1.4</td>
<td>2.5</td>
<td>4.9</td>
<td>4.3</td>
<td>7.3</td>
<td>11.4</td>
<td>11.1</td>
<td>9.6</td>
<td>40.5</td>
</tr>
<tr>
<td>Gambia</td>
<td>4.5</td>
<td>7.4</td>
<td>6.8</td>
<td>12.7</td>
<td>12.2</td>
<td>10.4</td>
<td>10.8</td>
<td>6.3</td>
<td>15.6</td>
</tr>
<tr>
<td>Nigeria</td>
<td>8.5</td>
<td>5.9</td>
<td>9.4</td>
<td>8.6</td>
<td>14.1</td>
<td>14.4</td>
<td>10.4</td>
<td>1.9</td>
<td>3.4</td>
</tr>
<tr>
<td>All other SSA</td>
<td>15.4</td>
<td>20.4</td>
<td>21.3</td>
<td>23.1</td>
<td>22.0</td>
<td>18.4</td>
<td>20.8</td>
<td>5.5</td>
<td>5.2</td>
</tr>
<tr>
<td>Infant formulas, malt extracts, and other edible preparations</td>
<td>99.9</td>
<td>109.4</td>
<td>97.9</td>
<td>115.8</td>
<td>118.1</td>
<td>125.9</td>
<td>115.5</td>
<td>15.6</td>
<td>2.4</td>
</tr>
<tr>
<td>Miscellaneous food preparations</td>
<td>38.9</td>
<td>49.8</td>
<td>48.3</td>
<td>53.4</td>
<td>68.8</td>
<td>70.3</td>
<td>72.0</td>
<td>33.1</td>
<td>10.8</td>
</tr>
<tr>
<td>Nigeria</td>
<td>4.9</td>
<td>10.4</td>
<td>10.3</td>
<td>14.1</td>
<td>17.4</td>
<td>14.5</td>
<td>13.4</td>
<td>8.5</td>
<td>18.4</td>
</tr>
<tr>
<td>Ghana</td>
<td>0.6</td>
<td>1.1</td>
<td>1.5</td>
<td>1.1</td>
<td>2.3</td>
<td>4.0</td>
<td>4.3</td>
<td>3.7</td>
<td>38.2</td>
</tr>
<tr>
<td>All other SSA</td>
<td>33.4</td>
<td>38.3</td>
<td>36.5</td>
<td>38.2</td>
<td>49.1</td>
<td>51.8</td>
<td>54.3</td>
<td>20.9</td>
<td>8.4</td>
</tr>
</tbody>
</table>


**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. 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. 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

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259 Ibid.
barriers, and the relatively small size of each individual market, according to the U.S. Department of Agriculture.\textsuperscript{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.\textsuperscript{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.\textsuperscript{262} Similarly, the South African grocery chain ShopRite opened six new stores in Nigeria in 2013 and 2014.\textsuperscript{263} In Sierra Leone, the country’s largest supermarket opened in 2016.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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.

\textsuperscript{262} A.T. Kearney, \textit{Retail in Africa: Still the Next Big Thing}, 2015.
\textsuperscript{266} Searcey and Richtel, “Obesity Was Rising as Ghana Embraced,” October 2, 2017.
\textsuperscript{267} Farole and Winkler, \textit{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, 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. 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.

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. In Nigeria, the figure is 2 percent. 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. 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. 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. Consistent with this trend, Togo, Côte d’Ivoire and Cameroon have been developing the capability to increase their manufactured food product exports under AGOA.

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.

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

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</thead>
<tbody>
<tr>
<td>Corn, other than for planting</td>
<td>2,555</td>
<td>1,064</td>
<td>1,694</td>
<td>3,690</td>
<td>7,980</td>
<td>5,637</td>
<td>85,185</td>
<td>82,630</td>
<td>79.4</td>
</tr>
<tr>
<td>South Africa</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>32,691</td>
<td>32,476</td>
<td>131.0</td>
</tr>
<tr>
<td>Nigeria</td>
<td>215</td>
<td>0</td>
<td>261</td>
<td>268</td>
<td>838</td>
<td>1,004</td>
<td>32,691</td>
<td>25,951</td>
<td>153.1</td>
</tr>
<tr>
<td>Senegal</td>
<td>99</td>
<td>183</td>
<td>61</td>
<td>3,145</td>
<td>7,000</td>
<td>25</td>
<td>26,050</td>
<td>25,951</td>
<td>a CAGR not provided because the 2010 value was zero.</td>
</tr>
<tr>
<td>All other SSA</td>
<td>2,241</td>
<td>881</td>
<td>1,373</td>
<td>276</td>
<td>143</td>
<td>4,607</td>
<td>18,146</td>
<td>15,906</td>
<td>42.1</td>
</tr>
</tbody>
</table>


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).
282 USDA, FAS, South Africa Grain and Feed Update, March 15, 2017, 11.
283 FAO, FAOSTAT database (Production—Livestock Primary, accessed December 7, 2017).
greater use of modern feed rations, and Tanzania eliminated a high value-added tax on animal feed sales.\textsuperscript{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.\textsuperscript{286} These GE corn traits (“events”) were approved in late 2016.\textsuperscript{287} Before 2016, corn exported to South Africa mostly originated in Argentina for yellow corn and in Mexico for white corn.\textsuperscript{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.\textsuperscript{289} Per capita consumption of poultry meat in Nigeria in 2014 was 1.73 kg, well below the 37.57 kg in South Africa\textsuperscript{290} and 50.0 kg in the United States.\textsuperscript{291} As domestic Nigerian poultry production expands and modernizes to meet local demand, the country will require greater quantities of imported corn for feed.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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

\begin{footnotes}
\item[288] Ibid.
\item[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.
\item[291] FAO, FAOSTAT database (Food Supply—Livestock and Fish Primary Equivalent, accessed November 30, 2017).
\item[292] Industry expert, interview by USITC staff, Washington, DC, November 29, 2017.
\item[294] Industry expert, interview by USITC staff, Washington, DC, November 29, 2017.
\end{footnotes}
feed or food. 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. 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. 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, 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. Annual per capita consumption of poultry meat in Senegal in 2013 (the latest data available) was only 4.62 kg. Senegalese poultry farmers are working to modernize production practices and incorporate feed rations to increase productivity. 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).

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

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.
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.
SSA and South American corn exporters because of their shipping advantage. 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. 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. 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. 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.

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. 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).

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

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

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</thead>
<tbody>
<tr>
<td>Motor vehicles</td>
<td>1,763.9</td>
<td>2,445.6</td>
<td>2,593.5</td>
<td>2,554.6</td>
<td>2,329.9</td>
<td>1,398.6</td>
<td>834.6</td>
<td>-929.3</td>
<td>-11.7</td>
</tr>
<tr>
<td>Nigeria</td>
<td>715.9</td>
<td>973.1</td>
<td>1,122.4</td>
<td>1,164.9</td>
<td>927.1</td>
<td>390.5</td>
<td>238.6</td>
<td>-477.3</td>
<td>-16.7</td>
</tr>
<tr>
<td>Ghana</td>
<td>105.8</td>
<td>218.8</td>
<td>212.6</td>
<td>229.6</td>
<td>136.9</td>
<td>135.2</td>
<td>150.3</td>
<td>44.5</td>
<td>6.0</td>
</tr>
<tr>
<td>South Africa</td>
<td>322.2</td>
<td>423.8</td>
<td>476.1</td>
<td>437.6</td>
<td>435.2</td>
<td>234.3</td>
<td>148.8</td>
<td>-173.5</td>
<td>-12.1</td>
</tr>
<tr>
<td>Benin</td>
<td>346.3</td>
<td>460.5</td>
<td>408.7</td>
<td>421.8</td>
<td>540.1</td>
<td>435.2</td>
<td>112.2</td>
<td>-234.2</td>
<td>-17.1</td>
</tr>
<tr>
<td>Angola</td>
<td>51.3</td>
<td>50.3</td>
<td>75.5</td>
<td>50.6</td>
<td>62.1</td>
<td>23.7</td>
<td>6.8</td>
<td>-44.6</td>
<td>-28.6</td>
</tr>
<tr>
<td>Kenya</td>
<td>4.7</td>
<td>12.6</td>
<td>6.1</td>
<td>7.5</td>
<td>3.1</td>
<td>3.1</td>
<td>3.9</td>
<td>-0.8</td>
<td>-3.1</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>2.1</td>
<td>0.6</td>
<td>1.6</td>
<td>1.8</td>
<td>1.1</td>
<td>3.1</td>
<td>3.0</td>
<td>0.9</td>
<td>6.2</td>
</tr>
<tr>
<td>All other SSA</td>
<td>215.6</td>
<td>305.8</td>
<td>290.5</td>
<td>240.9</td>
<td>224.2</td>
<td>173.6</td>
<td>171.2</td>
<td>-44.4</td>
<td>-3.8</td>
</tr>
</tbody>
</table>

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. 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. This dominance of used vehicles over new is due to limited disposable incomes in SSA and high costs for new vehicles. The same top four export markets account for 81 percent of U.S. used vehicle exports to the region.


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

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


314 USITC DataWeb/USDOC (accessed December 8, 2017).
Chapter 2: U.S. Exports of Goods and Services to SSA

**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.


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. 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

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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.\footnote{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.\footnote{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.\footnote{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.\footnote{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.\footnote{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.\footnote{321} It is estimated that due to these restrictions, only 18,000 vehicles are brought into Ethiopia each year.\footnote{322} As a result, Ethiopia has the lowest motorization rate of any country globally, with only two cars per thousand inhabitants as of 2015.\footnote{323} Another limiting factor is a lack of access to foreign exchange, which reduces Ethiopians’ ability to easily purchase imports.\footnote{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.\footnote{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

\footnote{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.
\footnote{317} Compiled from official trade statistics of the U.S. Department of Commerce, accessible via the USITC DataWeb (accessed December 8, 2017).
\footnote{318} Ibid.
\footnote{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.
\footnote{320} USITC DataWeb/USDOC (accessed December 14, 2017).
\footnote{322} Deloitte, “Navigating the African Automotive Sector,” April 2016, 12.
\footnote{323} Ibid., 11; OICA, “Vehicles in Use” (accessed January 10, 2018).
\footnote{325} PwC, “Africa’s Next Automotive Hub,” 2015.
to be depressed by vehicle production in the importing country.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{332} That year domestic production by Ghana’s own Kantanka Group entered the market.\textsuperscript{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.\textsuperscript{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.\textsuperscript{335} Yet some observers predict that they will be able to afford one (even if second-hand) by 2023.\textsuperscript{336} Moreover, some projections estimate that sales of new vehicles in Nigeria could reach 10 million per year by 2030.\textsuperscript{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

\textsuperscript{326} Coffin et al., “Examining Barriers to Trade in Used Vehicles,” August 2016.
\textsuperscript{327} PwC, “Africa’s Next Automotive Hub,” 2015.
\textsuperscript{328} IHS Markit, Global Trade Atlas database (accessed December 29, 2017).
\textsuperscript{330} Ibid.
\textsuperscript{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.
\textsuperscript{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.
\textsuperscript{333} Daftari, “First Ever ‘Made in Ghana’ Cars,” January 28, 2016; Coffin et al., “Examining Barriers to Trade in Used Vehicles,” August 2016.
\textsuperscript{334} Daftari, “First Ever ‘Made in Ghana’ Cars,” January 28, 2016.
\textsuperscript{335} Iwuoha, “Automobiles—Lucrative Opportunities You Can Exploit,” June 29, 2013.
\textsuperscript{336} Ibid.
\textsuperscript{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>
<thead>
<tr>
<th>Country</th>
<th>Side of the road driven on</th>
<th>U.S. market share (%)</th>
<th>U.S. ranking as a source of imports</th>
<th>Other top sources of imports (market share (%))</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nigeria</td>
<td>right</td>
<td>44.1</td>
<td>1</td>
<td>Germany (12.5), China (9.3), Japan (7.7)</td>
</tr>
<tr>
<td>Ghana</td>
<td>right</td>
<td>27.5</td>
<td>1</td>
<td>China (7.5), South Korea (7.0), UAE (6.8)</td>
</tr>
<tr>
<td>Benin</td>
<td>right</td>
<td>21.8</td>
<td>2</td>
<td>Belgium (28.2), France (13.3), Germany (6.8)</td>
</tr>
<tr>
<td>South Africa</td>
<td>left</td>
<td>7.3</td>
<td>4</td>
<td>Germany (28.2), Japan (14.7), India (13.5)</td>
</tr>
<tr>
<td>Angola a</td>
<td>right</td>
<td>4.2</td>
<td>6</td>
<td>Russia (21.7), UAE (16.0), Lithuania (9.7)</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>right</td>
<td>0.9</td>
<td>10</td>
<td>Japan (53.4), China (15.2), Spain (8.0)</td>
</tr>
<tr>
<td>Kenya b</td>
<td>left</td>
<td>0.9</td>
<td>10</td>
<td>Japan (52.7), Germany (11.1), United Kingdom (10.6)</td>
</tr>
<tr>
<td>Tanzania</td>
<td>left</td>
<td>0.6</td>
<td>10</td>
<td>Japan (45.5), China (19.0), South Africa (11.0)</td>
</tr>
<tr>
<td>Namibia</td>
<td>left</td>
<td>0.1</td>
<td>7</td>
<td>South Africa (94.8), Japan (2.3), Botswana (0.9)</td>
</tr>
</tbody>
</table>

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

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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**

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Ethyl alcohol</td>
<td>20.1</td>
<td>66.4</td>
<td>40.0</td>
<td>10.7</td>
<td>36.7</td>
<td>11.1</td>
<td>34.4</td>
<td>14.3</td>
<td>9.4</td>
</tr>
<tr>
<td>Nigeria</td>
<td>19.0</td>
<td>65.3</td>
<td>36.5</td>
<td>10.6</td>
<td>36.6</td>
<td>10.9</td>
<td>34.3</td>
<td>15.3</td>
<td>10.3</td>
</tr>
<tr>
<td>Ghana</td>
<td>0.0</td>
<td>0.0</td>
<td>3.4</td>
<td>a</td>
<td>a</td>
<td>0.1</td>
<td>a</td>
<td>a</td>
<td>b</td>
</tr>
<tr>
<td>South Africa</td>
<td>1.2</td>
<td>1.0</td>
<td>0.1</td>
<td>a</td>
<td>0.1</td>
<td>a</td>
<td>0.0</td>
<td>-1.2</td>
<td>-100.0</td>
</tr>
<tr>
<td>All other SSA</td>
<td>0.0</td>
<td>0.1</td>
<td>a</td>
<td>a</td>
<td>a</td>
<td>a</td>
<td>a</td>
<td>a</td>
<td>b</td>
</tr>
</tbody>
</table>


* Value is less than $50,000.
* CAGR not provided because the 2010 value was zero.

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

U.S. ethanol exports are price competitive. 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. There is consistent fuel ethanol use in Ethiopia and Zimbabwe. If mandates were enforced, local SSA production capacity would likely be insufficient to meet fuel ethanol demand (see below). 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. These target ethanol content rates range from 2 to 20 percent, with the most common rates 5 and 10 percent. Governments of some SSA countries use biofuel inclusion mandates as part of their efforts to meet Paris Agreement obligations for greenhouse gas reductions.

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). The

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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.
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).
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. Also, in SSA it is unpopular politically to use foods as feedstock to produce ethanol.

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. Most non-beverage ethanol exports to Ghana and Uganda originate in India, while Angola sources mostly from South Africa, Brazil, and India. 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.

Growth of U.S exports of fuel ethanol to SSA requires infrastructure for ethanol and blending with fossil fuels. 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. 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.

**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).

In exporting undenatured ethyl alcohol to SSA, the United States faces competition from India, South Africa, Brazil, Canada, and the EU. In exporting denatured ethyl alcohol to SSA, the United States faces competition from the EU and Brazil. 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. Brazilian ethanol could become even less price competitive in the

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352 Ibid.
353 Ibid.
354 USITC gravity model results.
356 Ibid.
357 U.S. government official, telephone interview by USITC staff, January 19, 2018.
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).
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.\textsuperscript{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.\textsuperscript{365} If Brazil’s production growth is unable to keep pace with consumption targets, then exportable supplies will likely shrink.\textsuperscript{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.\textsuperscript{367} From 2010 to 2014, U.S. exports of poultry products grew by $269 million at a CAGR of 18.7 percent.\textsuperscript{368} In 2015, however, U.S. outbreaks of avian influenza triggered import bans by some SSA countries.\textsuperscript{369} This factor, combined with a general decrease in SSA demand due to the commodity price drop in the oil and gas sector,\textsuperscript{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.\textsuperscript{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 offal\textsuperscript{372} 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.

\textsuperscript{364} U.S. government official, telephone interview with USITC staff, January 19, 2018.
\textsuperscript{366} U.S. government official, telephone interview by USITC staff, January 19, 2018.
\textsuperscript{367} IHS Markit, Global Trade Atlas database (accessed December 1, 2017).
\textsuperscript{368} USITC DataWeb/USDOC (November 29, 2017).
\textsuperscript{370} AEO, “Trade Policies and Regional Integration in Africa,” 2017, 77, 80.
\textsuperscript{371} IHS Markit, Global Trade Atlas database (accessed March 8, 2018).
\textsuperscript{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.
# Poultry: U.S. exports to SSA and selected SSA countries, 2010–16

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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Poultry</td>
<td>273.9</td>
<td>400.0</td>
<td>487.3</td>
<td>503.8</td>
<td>543.0</td>
<td>303.9</td>
<td>282.2</td>
<td>8.3</td>
<td>0.5</td>
</tr>
<tr>
<td>Frozen chicken cuts and offal</td>
<td>244.0</td>
<td>343.5</td>
<td>458.4</td>
<td>463.8</td>
<td>510.0</td>
<td>283.5</td>
<td>273.9</td>
<td>37.0</td>
<td>1.9</td>
</tr>
<tr>
<td>Angola</td>
<td>129.5</td>
<td>162.9</td>
<td>214.0</td>
<td>231.3</td>
<td>259.2</td>
<td>109.4</td>
<td>85.3</td>
<td>-44.3</td>
<td>-6.7</td>
</tr>
<tr>
<td>Ghana</td>
<td>16.8</td>
<td>28.8</td>
<td>61.9</td>
<td>75.7</td>
<td>67.9</td>
<td>40.6</td>
<td>41.7</td>
<td>24.8</td>
<td>16.3</td>
</tr>
<tr>
<td>The Republic of the Congo</td>
<td>36.5</td>
<td>34.9</td>
<td>47.7</td>
<td>32.9</td>
<td>37.6</td>
<td>30.0</td>
<td>38.0</td>
<td>1.5</td>
<td>0.7</td>
</tr>
<tr>
<td>South Africa</td>
<td>9.8</td>
<td>19.3</td>
<td>23.5</td>
<td>13.9</td>
<td>13.6</td>
<td>0.1</td>
<td>24.9</td>
<td>15.1</td>
<td>16.9</td>
</tr>
<tr>
<td>Democratic Republic of the Congo</td>
<td>21.9</td>
<td>29.8</td>
<td>31.3</td>
<td>27.6</td>
<td>36.6</td>
<td>19.8</td>
<td>17.2</td>
<td>-4.7</td>
<td>-3.9</td>
</tr>
<tr>
<td>Benin</td>
<td>0.7</td>
<td>0.8</td>
<td>2.6</td>
<td>5.1</td>
<td>13.6</td>
<td>8.1</td>
<td>4.5</td>
<td>3.8</td>
<td>35.6</td>
</tr>
<tr>
<td>All other SSA</td>
<td>45.5</td>
<td>95.8</td>
<td>139.2</td>
<td>152.9</td>
<td>149.4</td>
<td>116.1</td>
<td>103.9</td>
<td>58.4</td>
<td>14.7</td>
</tr>
</tbody>
</table>

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. Higher discretionary income has changed eating habits in SSA; consumers are consuming more protein and fast food, including fried chicken. The United States is well positioned to meet growing consumer demand for poultry in SSA with an abundant supply of chicken parts for export. 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. Fast food chains in Africa are expected to increase sales by $3.7 billion dollars during 2013–19.

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.

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


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.\footnote{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.\footnote{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).\footnote{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).\footnote{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).\footnote{382} South African demand for imported frozen chicken cuts is forecast to remain high because South African poultry producers face high feed costs.\footnote{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.\footnote{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.\footnote{385} As of 2017, U.S. exporters have increased their share of South African total imports in response to the relatively new TRQ.

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

\footnote{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.


\footnote{381} USDA, ERS, “South Africa Resumes Imports of U.S. Chicken,” March 6, 2017.


\footnote{383} USITC DataWeb/USDOC (accessed December 7, 2017).

\footnote{384} USDA, ERS, “South Africa Resumes Imports of U.S. Chicken,” March 6, 2017

\footnote{385} International Trade Centre, Export Potential Map, 2016.
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” approach 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


\(^{387}\) U.S. industry representatives, telephone interview by USITC staff, December 20, 2017.


\(^{389}\) 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.


\(^{391}\) IHS Markit, Global Trade Atlas database (accessed December 1, 2017).

\(^{392}\) European Commission, “Countries and Regions” (accessed March 26, 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.\textsuperscript{394} Additionally, in 2017, Brazil faced a meat quality scandal\textsuperscript{395} that resulted in a suspension of South African imports of meat from Brazil that lasted about a month.\textsuperscript{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.\textsuperscript{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),\textsuperscript{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.\textsuperscript{399}


\textsuperscript{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.


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

\textsuperscript{398} Reuters, “Tiny Togo Thinks Big,” June 11, 2015.

\textsuperscript{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

<table>
<thead>
<tr>
<th></th>
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<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Million $</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Percent</td>
<td>Percent</td>
</tr>
<tr>
<td>Refined Petroleum Products</td>
<td>1,400.3</td>
<td>1,749.4</td>
<td>1,886.2</td>
<td>3,452.4</td>
<td>3,696.1</td>
<td>1,277.2</td>
<td>687.2</td>
<td>-713.0</td>
<td>-11.2</td>
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<tr>
<td>Togo</td>
<td>32.0</td>
<td>108.2</td>
<td>264.3</td>
<td>898.1</td>
<td>921.9</td>
<td>236.7</td>
<td>170.8</td>
<td>138.8</td>
<td>32.2</td>
</tr>
<tr>
<td>Nigeria</td>
<td>654.3</td>
<td>652.4</td>
<td>915.4</td>
<td>2,046.1</td>
<td>2,121.3</td>
<td>640.0</td>
<td>153.5</td>
<td>-500.9</td>
<td>-21.5</td>
</tr>
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<td>South Africa</td>
<td>230.3</td>
<td>340.6</td>
<td>189.3</td>
<td>195.0</td>
<td>157.2</td>
<td>158.8</td>
<td>149.7</td>
<td>-80.6</td>
<td>-6.9</td>
</tr>
<tr>
<td>Kenya</td>
<td>0.7</td>
<td>3.5</td>
<td>3.4</td>
<td>0.5</td>
<td>1.1</td>
<td>1.0</td>
<td>4.9</td>
<td>4.2</td>
<td>39.0</td>
</tr>
<tr>
<td>Tanzania</td>
<td>0.2</td>
<td>0.2</td>
<td>0.1</td>
<td>0.2</td>
<td>0.9</td>
<td>0.1</td>
<td>3.2</td>
<td>3.0</td>
<td>60.0</td>
</tr>
<tr>
<td>All other SSA</td>
<td>482.8</td>
<td>644.5</td>
<td>513.6</td>
<td>312.5</td>
<td>493.6</td>
<td>240.5</td>
<td>205.3</td>
<td>-277.5</td>
<td>-13.3</td>
</tr>
</tbody>
</table>

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. 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. 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).
participate, allowing a small number of marketers to secure most of the tenders. In particular, the Gulf Africa Petroleum Corporation (Gapco) won tenders adding up to nearly 40 percent of the Kenyan market in 2015. 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.

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. 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. 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.

Similarly, South Africa imported only about 3 percent of its refined petroleum products from the United States from 2013 to 2015. However, these U.S. exports mostly represent more specialized refined products (such as lubricants and petroleum coke) rather than gasoline and diesel. 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. 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.

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. 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 specifications.

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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.


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).


Chapter 2: U.S. Exports of Goods and Services to SSA

regulations. 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.  

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. 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. 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). 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.

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

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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

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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).
of North Africa. 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.

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) totaled $14.3 billion in 2015, the
latest year for which such data are available. 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.

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. These data indicate that world
exports of commercial services to SSA countries fluctuated during 2010–15, posting an overall CAGR
of 0.9 percent and totaling about $107.3 billion in 2015. Nigeria received the largest share of such
exports (17.4 percent), followed by Angola (15.5 percent) and South Africa (14.1 percent).

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

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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,
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
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,
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.
(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**

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</tr>
</thead>
<tbody>
<tr>
<td>Africa</td>
<td>891</td>
<td>1,011</td>
<td>1,055</td>
<td>1,129</td>
<td>1,285</td>
<td>1,270</td>
<td>1,207</td>
<td>5.2</td>
</tr>
<tr>
<td>Nigeria</td>
<td>a</td>
<td>a</td>
<td>a</td>
<td>383</td>
<td>370</td>
<td>353</td>
<td>311</td>
<td>-6.7 b</td>
</tr>
<tr>
<td>South Africa</td>
<td>329</td>
<td>370</td>
<td>337</td>
<td>360</td>
<td>407</td>
<td>403</td>
<td>376</td>
<td>2.3</td>
</tr>
</tbody>
</table>


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).

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433 For a full list of airport services exported, see BEA 9 survey, 4, [https://www.bea.gov/surveys/pdf/Be9final.pdf](https://www.bea.gov/surveys/pdf/Be9final.pdf).

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

<table>
<thead>
<tr>
<th>Country</th>
<th>2010</th>
<th>2016</th>
<th>Compound annual growth rate (CAGR) 2010–16</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Number of passengers</td>
<td>Percent</td>
<td></td>
</tr>
<tr>
<td>South Africa</td>
<td>92,646</td>
<td>91,513</td>
<td>-0.2</td>
</tr>
<tr>
<td>Senegal</td>
<td>15,344</td>
<td>15,127</td>
<td>-0.2</td>
</tr>
<tr>
<td>Nigeria</td>
<td>70,878</td>
<td>68,811</td>
<td>-0.5</td>
</tr>
<tr>
<td>Angola</td>
<td>10,729</td>
<td>9,344</td>
<td>-2.3</td>
</tr>
<tr>
<td>Ghana</td>
<td>68,693</td>
<td>39,326</td>
<td>-8.9</td>
</tr>
<tr>
<td>Worldwide total</td>
<td>89,197,727</td>
<td>104,604,967</td>
<td>2.7</td>
</tr>
</tbody>
</table>


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, 2010–16a (tons)

<table>
<thead>
<tr>
<th>Country</th>
<th>2010</th>
<th>2016</th>
<th>Compound annual growth rate (CAGR) 2010–16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Angola</td>
<td>1,885.6</td>
<td>2,087.9</td>
<td>1.7</td>
</tr>
<tr>
<td>Cabo Verde</td>
<td>66.4</td>
<td>100.6</td>
<td>7.2</td>
</tr>
<tr>
<td>Congo, Democratic Republic of the</td>
<td>29.0</td>
<td>b</td>
<td>b</td>
</tr>
<tr>
<td>Djibouti</td>
<td>20.2</td>
<td>41.1</td>
<td>12.6</td>
</tr>
<tr>
<td>Equatorial Guinea</td>
<td>17.1</td>
<td>24.7</td>
<td>-43.4</td>
</tr>
<tr>
<td>Ghana</td>
<td>749.0</td>
<td>109.0</td>
<td>b</td>
</tr>
<tr>
<td>Kenya</td>
<td>2.1</td>
<td>b</td>
<td>b</td>
</tr>
<tr>
<td>Niger</td>
<td>57.9</td>
<td>190.0</td>
<td>b</td>
</tr>
<tr>
<td>Nigeria</td>
<td>1,940.0</td>
<td>335.9</td>
<td>-25.3</td>
</tr>
<tr>
<td>Senegal</td>
<td>94.7</td>
<td>145.3</td>
<td>7.4</td>
</tr>
<tr>
<td>South Africa</td>
<td>4,147.3</td>
<td>2,693.1</td>
<td>-6.9</td>
</tr>
<tr>
<td>Tanzania</td>
<td>132.4</td>
<td>b</td>
<td>b</td>
</tr>
<tr>
<td>Uganda</td>
<td>35.7</td>
<td>b</td>
<td>b</td>
</tr>
<tr>
<td>Worldwide total</td>
<td>4,041,093</td>
<td>4,113,177</td>
<td>0.3</td>
</tr>
</tbody>
</table>


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. 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.

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. Further, airlines in Côte d’Ivoire and in Rwanda have expressed an interest in offering direct flights to the United States, 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.

**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. 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).

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439 Millan and Mane, “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.
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). 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

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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.

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

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</thead>
<tbody>
<tr>
<td>Africa</td>
<td>1,100</td>
<td>1,135</td>
<td>1,145</td>
<td>1,210</td>
<td>1,296</td>
<td>1,451</td>
<td>1,581</td>
<td>6.2</td>
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<td>Nigeria</td>
<td>a</td>
<td>a</td>
<td>a</td>
<td>231</td>
<td>262</td>
<td>326</td>
<td>378</td>
<td>17.8&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>South Africa</td>
<td>53</td>
<td>54</td>
<td>57</td>
<td>64</td>
<td>65</td>
<td>71</td>
<td>73</td>
<td>5.5</td>
</tr>
</tbody>
</table>


<sup>a</sup> Data not available.

<sup>b</sup> 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.

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). 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. Overall, students from SSA accounted for 3.5 percent of all international students studying in the United States in 2016–17.

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<sup>443</sup> 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.


<sup>445</sup> 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.
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, 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. 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. 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.

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

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448 Nigeria is the only SSA country with disaggregated data on international students’ field of study. IIE, “International Students by Field of Study,” 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. 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.

**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). 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.

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. The United States saw enrollment from 90 countries decline from 2015–16 to 2016–17. 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.

**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. 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. The growing market share of these and other

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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.


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.


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

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. 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.

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). In 2015, SSA imported at least $1.7 billion in financial services from the world. 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

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</thead>
<tbody>
<tr>
<td>Million $</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Africa</td>
<td>930</td>
<td>1,077</td>
<td>1,051</td>
<td>850</td>
<td>988</td>
<td>1,045</td>
<td>1,026</td>
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<tr>
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<td>a</td>
<td>a</td>
<td>a</td>
<td>78</td>
<td>90</td>
<td>145</td>
<td>146</td>
</tr>
<tr>
<td>South Africa</td>
<td>276</td>
<td>363</td>
<td>320</td>
<td>288</td>
<td>329</td>
<td>337</td>
<td>332</td>
</tr>
</tbody>
</table>


Data not available.

Values for Nigeria are for 2013–16.

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The BEA combines affiliate sales of financial services and insurance services in a single category.\textsuperscript{463} In 2015, the United States sold $1.9 billion in financial and insurance services through affiliates in Africa.\textsuperscript{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,\textsuperscript{465} and Nigeria asked Goldman Sachs and Stanbic IBTC Bank to help issue a “diaspora bond” targeted at Nigerians living abroad.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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

\textsuperscript{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.


\textsuperscript{465} Hale and Moore, “Strong Demand for Ivory Coast Bond,” July 16, 2014.

\textsuperscript{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.


\textsuperscript{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.\textsuperscript{469} In Kenya, Tanzania, and Uganda, international lenders have ended correspondent banking relationships because of concerns about money laundering and other concerns.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{476}


\textsuperscript{473} Forden, “Mobile Money in Kenya,” June 2015.


\textsuperscript{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. 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. 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).

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</thead>
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<td>37</td>
<td>45</td>
<td>48</td>
<td>43</td>
<td>-1.5</td>
</tr>
</tbody>
</table>


\(^a\) 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. 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. 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.
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. 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. 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.

### 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. 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.

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. 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. 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. 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. 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

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486 Swiss Re, Insuring the Frontier Markets, 2016, 8.
487 Ibid., 10.

114 | www.usitc.gov
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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{492} Increasing the availability of political risk insurance and credit risk insurance may facilitate trade and investment in SSA.\textsuperscript{493} Additionally, technology will increasingly allow consumers to buy insurance, pay premiums, and submit claims with mobile phones.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{499}

\textsuperscript{490} Swiss Re, \textit{Insuring the Frontier Markets}, 2016, 8.
\textsuperscript{491} Ibid.
\textsuperscript{492} United Nations Secretary General, “Trends in Private Sector Climate Finance,” October 9, 2015.
\textsuperscript{493} USITC, hearing transcript, January 23, 2018, 171 (testimony of Dennis Matanda, Manchester Trade Limited).
\textsuperscript{494} Swiss Re, \textit{Insuring the Frontier Markets}, 2016, 10.
\textsuperscript{496} Swiss Re, \textit{Insuring the Frontier Markets}, 2016, 9.
\textsuperscript{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).\textsuperscript{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.\textsuperscript{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.\textsuperscript{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).\textsuperscript{503}

\textsuperscript{502} The BEA captures ICT services in a dedicated category referred to as telecommunications, computer, and information services.
\textsuperscript{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

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<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
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<td>247</td>
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<tr>
<td>and information</td>
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<td>55</td>
<td>57</td>
<td>64</td>
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</tr>
</tbody>
</table>


Note: Sum of numbers may not equal totals due to rounding.

<sup>a</sup> Values for Nigeria are for 2013–16.

<sup>b</sup> Data not available.

In 2014, the WTO<sup>504</sup> 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).<sup>505</sup> 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.<sup>506</sup> 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

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<sup>504</sup> 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.


<sup>506</sup> Kalebaila, The Internet of Things in Africa, October 4, 2017.
text messaging services aimed at consumers. In 2016, there were an estimated 753 million mobile cellular subscriptions in SSA, resulting in an SSA mobile penetration rate of roughly 74 percent. 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.

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, 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. 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.

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 cables 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. 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

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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.
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.
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.
towns to a submarine cable landing station. 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.

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. 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. 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. 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. 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.

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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. 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. Most such data centers are built to high standards of reliability (Tier III) and offer a variety of services including colocation, hosting, 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. 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). 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.

**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

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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.
527 Ibid., 1.
528 Ibid., 16–27.
Chapter 2: U.S. Exports of Goods and Services to SSA

rand vis-à-vis the U.S. dollar, and tightening budgets among enterprise customers. 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). 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.

In South Africa, there are also growing opportunities for U.S. firms in the big data 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 particularly, 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.

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. 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.

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. 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). Sophisticated radar

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529 Ibid., 28.
530 Ibid., 1.
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.
534 Ibid., 6.
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.
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.

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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

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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.
### 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

<table>
<thead>
<tr>
<th>Country</th>
<th>2010</th>
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<tr>
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<td>Share of total (percent)</td>
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<td>Kenya</td>
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<td>Other</td>
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<td>30.7</td>
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</table>

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

<table>
<thead>
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<th>Commodity</th>
<th>2010</th>
<th>Share of total (percent)</th>
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<td></td>
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<td>Million $</td>
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</tr>
<tr>
<td>Total SSA</td>
<td>6,831</td>
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<td>5,795</td>
<td>100.0</td>
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<td>Machinery manufacturing</td>
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</tr>
<tr>
<td>Transportation equipment manufacturing</td>
<td>720</td>
<td>10.5</td>
<td>833</td>
<td>14.4</td>
</tr>
<tr>
<td>Chemical manufacturing</td>
<td>461</td>
<td>6.8</td>
<td>477</td>
<td>8.2</td>
</tr>
<tr>
<td>Computer and electronic product manufacturing</td>
<td>313</td>
<td>4.6</td>
<td>341</td>
<td>5.9</td>
</tr>
<tr>
<td>Food manufacturing</td>
<td>280</td>
<td>4.1</td>
<td>410</td>
<td>7.1</td>
</tr>
<tr>
<td>Other</td>
<td>3,936</td>
<td>57.6</td>
<td>2,922</td>
<td>50.4</td>
</tr>
</tbody>
</table>

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). 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. 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).

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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.

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. 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. 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.

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.

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. 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. 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

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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.
553 USITC, Small and Medium-Sized Enterprises: Characteristics and Performance, November 2010.
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. 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. 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. 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).

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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.

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.\(^{562}\)

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\(^{560}\) 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

<table>
<thead>
<tr>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cocoa, chocolate, and confectionery</td>
<td>1,038</td>
<td>1,001</td>
<td>1,206</td>
<td>1,298</td>
<td>260</td>
<td>3.8</td>
</tr>
<tr>
<td>Apparel</td>
<td>795</td>
<td>871</td>
<td>1,028</td>
<td>1,036</td>
<td>241</td>
<td>4.5</td>
</tr>
<tr>
<td>Spices</td>
<td>38</td>
<td>55</td>
<td>87</td>
<td>241</td>
<td>203</td>
<td>36.0</td>
</tr>
<tr>
<td>Copper and related articles (primarily refined copper)</td>
<td>10</td>
<td>8</td>
<td>111</td>
<td>114</td>
<td>105</td>
<td>50.7</td>
</tr>
<tr>
<td>Centrifuges and filtering and purifying equipment(^a)</td>
<td>205</td>
<td>224</td>
<td>273</td>
<td>291</td>
<td>86</td>
<td>6.0</td>
</tr>
<tr>
<td>Edible nuts</td>
<td>88</td>
<td>115</td>
<td>153</td>
<td>167</td>
<td>79</td>
<td>11.3</td>
</tr>
<tr>
<td>Coffee and tea</td>
<td>206</td>
<td>254</td>
<td>263</td>
<td>264</td>
<td>58</td>
<td>4.2</td>
</tr>
<tr>
<td>Works of art and miscellaneous manufactured goods</td>
<td>66</td>
<td>63</td>
<td>96</td>
<td>116</td>
<td>50</td>
<td>9.8</td>
</tr>
<tr>
<td>Steel mill products</td>
<td>114</td>
<td>108</td>
<td>169</td>
<td>153</td>
<td>39</td>
<td>5.0</td>
</tr>
<tr>
<td>Silverware and related articles of precious metal</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>39</td>
<td>39</td>
<td>c CAGR not provided because the 2010 value was zero</td>
</tr>
<tr>
<td>Miscellaneous chemicals and specialties</td>
<td>58</td>
<td>94</td>
<td>86</td>
<td>91</td>
<td>33</td>
<td>7.8</td>
</tr>
<tr>
<td>Canned fish</td>
<td>8</td>
<td>30</td>
<td>44</td>
<td>41</td>
<td>33</td>
<td>31.2</td>
</tr>
<tr>
<td>Internal combustion piston engines, other than for aircraft</td>
<td>54</td>
<td>95</td>
<td>97</td>
<td>83</td>
<td>29</td>
<td>7.3</td>
</tr>
<tr>
<td>Pharmaceuticals</td>
<td>20</td>
<td>30</td>
<td>29</td>
<td>47</td>
<td>27</td>
<td>15.5</td>
</tr>
<tr>
<td>Certain base metals and chemical elements(^b)</td>
<td>108</td>
<td>104</td>
<td>189</td>
<td>133</td>
<td>25</td>
<td>3.5</td>
</tr>
<tr>
<td>All other, excluding crude petroleum</td>
<td>11,617</td>
<td>12,355</td>
<td>11,514</td>
<td>8,380</td>
<td>-3,237</td>
<td>-5.3</td>
</tr>
<tr>
<td>Subtotal, non-crude petroleum</td>
<td>14,425</td>
<td>15,408</td>
<td>15,345</td>
<td>12,494</td>
<td>-1,931</td>
<td>-2.4</td>
</tr>
<tr>
<td>Crude petroleum</td>
<td>50,398</td>
<td>33,903</td>
<td>11,047</td>
<td>7,248</td>
<td>-43,149</td>
<td>-27.6</td>
</tr>
<tr>
<td>Total</td>
<td>64,822</td>
<td>49,310</td>
<td>26,392</td>
<td>19,743</td>
<td>-45,080</td>
<td>-18.0</td>
</tr>
</tbody>
</table>

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.

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>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Madagascar</td>
<td>107</td>
<td>109</td>
<td>215</td>
<td>443</td>
<td>336</td>
<td>26.7</td>
</tr>
<tr>
<td>Botswana</td>
<td>167</td>
<td>220</td>
<td>317</td>
<td>433</td>
<td>266</td>
<td>17.2</td>
</tr>
<tr>
<td>Kenya</td>
<td>295</td>
<td>376</td>
<td>527</td>
<td>512</td>
<td>217</td>
<td>9.6</td>
</tr>
<tr>
<td>Mauritius</td>
<td>194</td>
<td>258</td>
<td>399</td>
<td>333</td>
<td>139</td>
<td>9.4</td>
</tr>
<tr>
<td>Tanzania</td>
<td>42</td>
<td>113</td>
<td>82</td>
<td>145</td>
<td>103</td>
<td>23.1</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>111</td>
<td>124</td>
<td>162</td>
<td>209</td>
<td>98</td>
<td>11.1</td>
</tr>
<tr>
<td>Senegal</td>
<td>4</td>
<td>14</td>
<td>23</td>
<td>52</td>
<td>48</td>
<td>55.9</td>
</tr>
<tr>
<td>Ghana</td>
<td>270</td>
<td>284</td>
<td>263</td>
<td>312</td>
<td>42</td>
<td>2.5</td>
</tr>
<tr>
<td>Mozambique</td>
<td>63</td>
<td>36</td>
<td>94</td>
<td>104</td>
<td>41</td>
<td>8.8</td>
</tr>
<tr>
<td>Zambia</td>
<td>29</td>
<td>61</td>
<td>55</td>
<td>46</td>
<td>16</td>
<td>7.7</td>
</tr>
<tr>
<td>All other SSA</td>
<td>63,540</td>
<td>47,716</td>
<td>24,253</td>
<td>17,152</td>
<td>-46,388</td>
<td>-19.6</td>
</tr>
<tr>
<td>Total</td>
<td>64,822</td>
<td>49,310</td>
<td>26,392</td>
<td>19,743</td>
<td>-45,080</td>
<td>-18.0</td>
</tr>
</tbody>
</table>

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. 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. 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.

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.

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564 A secondary factor for Madagascar was an increase in shipments of nickel, as described in the unwrought nickel section below.
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.
U.S. Trade and Investment with Sub-Saharan Africa: Recent Developments

### Table 3.3 U.S. imports for consumption under AGOA, by product group, 2010–16

<table>
<thead>
<tr>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Apparel</td>
<td>727</td>
<td>815</td>
<td>990</td>
<td>1,008</td>
<td>281</td>
<td>5.6</td>
</tr>
<tr>
<td>Edible nuts</td>
<td>44</td>
<td>64</td>
<td>78</td>
<td>92</td>
<td>48</td>
<td>13.0</td>
</tr>
<tr>
<td>Aluminum mill products</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>25</td>
<td>25</td>
<td>a</td>
</tr>
<tr>
<td>Footwear</td>
<td>b</td>
<td>7</td>
<td>20</td>
<td>24</td>
<td>23</td>
<td>94.0</td>
</tr>
<tr>
<td>Certain base metals and chemical elements</td>
<td>4</td>
<td>24</td>
<td>25</td>
<td>12</td>
<td>8</td>
<td>19.7</td>
</tr>
<tr>
<td>Sugar and other sweeteners</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>8</td>
<td>8</td>
<td>a</td>
</tr>
<tr>
<td>Citrus fruit</td>
<td>49</td>
<td>50</td>
<td>56</td>
<td>56</td>
<td>8</td>
<td>2.4</td>
</tr>
<tr>
<td>Precious jewelry and related articles</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>7</td>
<td>7</td>
<td>a</td>
</tr>
<tr>
<td>Miscellaneous chemicals and specialties</td>
<td>40</td>
<td>54</td>
<td>46</td>
<td>47</td>
<td>7</td>
<td>2.5</td>
</tr>
<tr>
<td>Pharmaceuticals</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>5</td>
<td>a</td>
</tr>
<tr>
<td>Cut flowers</td>
<td>2</td>
<td>2</td>
<td>5</td>
<td>6</td>
<td>4</td>
<td>20.6</td>
</tr>
<tr>
<td>Prepared or preserved fruit</td>
<td>1</td>
<td>0</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>27.0</td>
</tr>
<tr>
<td>Hides, skins, and leather</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>4</td>
<td>3</td>
<td>26.2</td>
</tr>
<tr>
<td>Wine and certain other fermented beverages</td>
<td>30</td>
<td>45</td>
<td>35</td>
<td>32</td>
<td>3</td>
<td>1.4</td>
</tr>
<tr>
<td>Essential oils and other flavoring materials</td>
<td>4</td>
<td>0</td>
<td>1</td>
<td>6</td>
<td>2</td>
<td>8.7</td>
</tr>
<tr>
<td>All other, excluding crude petroleum</td>
<td>2,418</td>
<td>3,571</td>
<td>2,692</td>
<td>1,905</td>
<td>-513</td>
<td>-3.9</td>
</tr>
<tr>
<td>Subtotal, non-crude petroleum</td>
<td>3,320</td>
<td>4,633</td>
<td>3,956</td>
<td>3,241</td>
<td>-78</td>
<td>-0.4</td>
</tr>
<tr>
<td>Crude petroleum</td>
<td>35,360</td>
<td>27,905</td>
<td>7,919</td>
<td>6,210</td>
<td>-29,151</td>
<td>-25.2</td>
</tr>
<tr>
<td>Total</td>
<td>38,680</td>
<td>32,538</td>
<td>11,874</td>
<td>9,451</td>
<td>-29,229</td>
<td>-20.9</td>
</tr>
</tbody>
</table>

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.


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).  

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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

<table>
<thead>
<tr>
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<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Million $</td>
<td></td>
<td></td>
<td></td>
<td>Percent</td>
<td></td>
</tr>
<tr>
<td>Kenya</td>
<td>221</td>
<td>288</td>
<td>417</td>
<td>391</td>
<td>170</td>
<td>10.0</td>
</tr>
<tr>
<td>Madagascar</td>
<td>0</td>
<td>0</td>
<td>b</td>
<td>94</td>
<td>94</td>
<td>a</td>
</tr>
<tr>
<td>Mauritius</td>
<td>118</td>
<td>160</td>
<td>218</td>
<td>188</td>
<td>70</td>
<td>8.1</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>7</td>
<td>18</td>
<td>36</td>
<td>61</td>
<td>55</td>
<td>44.0</td>
</tr>
<tr>
<td>Tanzania</td>
<td>2</td>
<td>10</td>
<td>17</td>
<td>37</td>
<td>35</td>
<td>64.7</td>
</tr>
<tr>
<td>Ghana</td>
<td>2</td>
<td>17</td>
<td>57</td>
<td>30</td>
<td>28</td>
<td>56.1</td>
</tr>
<tr>
<td>Mauritania</td>
<td>26</td>
<td>0</td>
<td>0</td>
<td>48</td>
<td>21</td>
<td>10.4</td>
</tr>
<tr>
<td>Lesotho</td>
<td>280</td>
<td>301</td>
<td>289</td>
<td>295</td>
<td>15</td>
<td>0.9</td>
</tr>
<tr>
<td>Mozambique</td>
<td>b</td>
<td>b</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>a</td>
</tr>
<tr>
<td>Rwanda</td>
<td>b</td>
<td>b</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>a</td>
</tr>
<tr>
<td>All other SSA</td>
<td>38,024</td>
<td>31,744</td>
<td>10,839</td>
<td>8,304</td>
<td>-29,719</td>
<td>-22.4</td>
</tr>
<tr>
<td>Total</td>
<td>38,680</td>
<td>32,538</td>
<td>11,874</td>
<td>9,451</td>
<td>-29,229</td>
<td>-20.9</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Product</th>
<th>Trade growth</th>
<th>Gravity model</th>
<th>Literature and industry sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cocoa, chocolate, and confectionery</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Apparel</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Edible nuts</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Copper and related articles</td>
<td></td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Raw cane sugar</td>
<td></td>
<td></td>
<td>●</td>
</tr>
<tr>
<td>Footwear</td>
<td></td>
<td></td>
<td>●</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cocoa products</td>
<td>1,037.6</td>
<td>1,272.2</td>
<td>1,000.7</td>
<td>1,045.8</td>
<td>1,205.7</td>
<td>1,162.7</td>
<td>1,297.6</td>
<td>259.9</td>
<td>3.8</td>
</tr>
<tr>
<td>Cocoa beans</td>
<td>728.2</td>
<td>1,052.4</td>
<td>756.1</td>
<td>839.3</td>
<td>959.8</td>
<td>984.0</td>
<td>1,031.2</td>
<td>303.0</td>
<td>6.0</td>
</tr>
<tr>
<td>Côte d’Ivoire</td>
<td>594.0</td>
<td>741.2</td>
<td>577.1</td>
<td>660.6</td>
<td>752.3</td>
<td>772.7</td>
<td>833.9</td>
<td>240.0</td>
<td>5.8</td>
</tr>
<tr>
<td>Ghana</td>
<td>95.6</td>
<td>220.9</td>
<td>124.5</td>
<td>148.7</td>
<td>157.5</td>
<td>198.6</td>
<td>181.3</td>
<td>85.7</td>
<td>11.2</td>
</tr>
<tr>
<td>All other SSA</td>
<td>38.6</td>
<td>90.3</td>
<td>54.4</td>
<td>30.0</td>
<td>50.0</td>
<td>12.6</td>
<td>16.0</td>
<td>-22.6</td>
<td>-13.7</td>
</tr>
</tbody>
</table>

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. 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. This global increase was largely SSA-driven: Côte d’Ivoire had a record harvest of cocoa beans in MY 2016/17, and Ghana’s production of cocoa beans that year was the largest in the past six years, due to good growing conditions. 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

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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

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 Nestle 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).
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. 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. 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.

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.

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.

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.
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.

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586 Imports of preparations containing 65 percent or more sugar do not benefit from AGOA provisions.
Table 3.7 Apparel: U.S. imports from SSA and selected SSA countries, 2010–16

<table>
<thead>
<tr>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Apparel</td>
<td>795.2</td>
<td>908.6</td>
<td>870.5</td>
<td>943.7</td>
<td>1,028.5</td>
<td>1,022.1</td>
<td>1,036.2</td>
<td>241.1</td>
<td>4.5</td>
</tr>
<tr>
<td>Kenya</td>
<td>201.8</td>
<td>261.0</td>
<td>254.5</td>
<td>308.8</td>
<td>379.2</td>
<td>368.6</td>
<td>340.7</td>
<td>138.9</td>
<td>9.1</td>
</tr>
<tr>
<td>Lesotho</td>
<td>280.8</td>
<td>315.3</td>
<td>300.9</td>
<td>321.3</td>
<td>290.3</td>
<td>299.7</td>
<td>295.7</td>
<td>14.9</td>
<td>0.9</td>
</tr>
<tr>
<td>Mauritius</td>
<td>123.0</td>
<td>159.3</td>
<td>164.9</td>
<td>193.0</td>
<td>224.1</td>
<td>216.8</td>
<td>197.4</td>
<td>74.4</td>
<td>8.2</td>
</tr>
<tr>
<td>Madagascar</td>
<td>55.4</td>
<td>40.3</td>
<td>43.3</td>
<td>21.8</td>
<td>20.5</td>
<td>51.5</td>
<td>104.6</td>
<td>49.2</td>
<td>11.2</td>
</tr>
<tr>
<td>Tanzania</td>
<td>6.6</td>
<td>10.0</td>
<td>11.3</td>
<td>12.5</td>
<td>20.7</td>
<td>37.0</td>
<td>30.4</td>
<td>33.3</td>
<td></td>
</tr>
<tr>
<td>Ethiopia</td>
<td>1.9</td>
<td>5.3</td>
<td>7.5</td>
<td>10.4</td>
<td>17.5</td>
<td>27.3</td>
<td>37.0</td>
<td>35.1</td>
<td>63.8</td>
</tr>
<tr>
<td>All other SSA</td>
<td>125.7</td>
<td>117.3</td>
<td>88.1</td>
<td>75.9</td>
<td>81.0</td>
<td>37.5</td>
<td>23.9</td>
<td>-101.8</td>
<td>-24.2</td>
</tr>
</tbody>
</table>

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 million) and men’s cotton shirts (valued at $106.3 million). Most U.S. apparel imports from SSA countries qualified for duty-free entry under AGOA. 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. In 2017, 27 of the 38 countries that were eligible for AGOA benefits were also eligible for apparel benefits providing significant duty relief for U.S. apparel imports from SSA countries. 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

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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).
Chapter 3: U.S. Imports of Goods and Services from SSA, 2010–16

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.
599 USITC DataWeb/USDOC (accessed December 1, 2017).
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.
607 AGOA.info, “President Obama Removes Swaziland,” June 27, 2014.

U.S. International Trade Commission | 143
enabling members to generate demand for local production of upstream inputs. Because apparel production lead times are generally 6 to 9 months, 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. 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. 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.

### 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.

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. The transport of goods between SSA countries is hindered by corruption and

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609 Herman, written testimony to the USITC, January 29, 2018, 1.
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).
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. 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. 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. 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.

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. These investments were supported by the Export Processing Zones developed by the Kenyan government and resulted in Kenyan factories increasing their overall efficiency. 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.

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. 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. Mauritius, on the other hand, still has strong business ties with the EU market and has higher labor costs than other SSA countries; therefore, the United States is less likely to see increased apparel imports from Mauritius.

Lesotho 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. 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. Further, there are many Chinese and

617 Ibid.
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.
622 Ibid.
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.
Taiwanese garment producers in Lesotho that have experience producing for the United States.\textsuperscript{630} Though Swaziland lost its AGOA eligibility in 2015, it regained its eligibility in 2017,\textsuperscript{631} and now both Lesotho and Swaziland are eligible for AGOA benefits.\textsuperscript{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.\textsuperscript{633} PVH, a U.S. apparel company, expanded production into Ethiopia’s newly completed Hawassa Industrial Park (HIP) in July 2016.\textsuperscript{634} HIP reached full capacity upon opening and houses 18 global textile and apparel companies.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{639}

## Copper and Related Articles

The products in this group include a variety of intermediate and finished copper articles.\textsuperscript{640} However, almost all of the copper and related articles imported into the United States from SSA were refined

\textsuperscript{630} Ibid., 246.
\textsuperscript{631} Ryberg, written testimony to the USITC, January 23, 2018, 3.
\textsuperscript{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.
\textsuperscript{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.
\textsuperscript{635} Scarano, “Trybus Group to Open Garment Production Facility,” August 15, 2017.
\textsuperscript{636} Ibid.
\textsuperscript{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.
\textsuperscript{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).
\textsuperscript{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. 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. Despite the increase, these imports never accounted for more than 3 percent of total U.S. refined copper imports during 2010–16. 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.

**Table 3.8 Copper and related articles: U.S. imports from SSA and selected SSA countries, 2010–16**

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</tr>
</thead>
<tbody>
<tr>
<td>Copper and related articles</td>
<td>9.7</td>
<td>9.2</td>
<td>7.9</td>
<td>108.7</td>
<td>111.2</td>
<td>179.1</td>
<td>114.3</td>
<td>104.6</td>
<td>50.9</td>
</tr>
<tr>
<td>Refined copper</td>
<td>0.0</td>
<td>1.9</td>
<td>0.0</td>
<td>97.7</td>
<td>99.8</td>
<td>126.9</td>
<td>105.1</td>
<td>105.1</td>
<td>a</td>
</tr>
<tr>
<td>Democratic Republic of the Congo</td>
<td>0.0</td>
<td>1.9</td>
<td>0.0</td>
<td>49.8</td>
<td>96.5</td>
<td>126.5</td>
<td>100.5</td>
<td>100.5</td>
<td>a</td>
</tr>
<tr>
<td>Republic of the Congo</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>40.9</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>2.1</td>
<td>2.1</td>
</tr>
<tr>
<td>Zambia</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>3.9</td>
<td>3.2</td>
<td>0.3</td>
<td>1.7</td>
<td>1.7</td>
<td>a</td>
</tr>
<tr>
<td>All other SSA</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>3.1</td>
<td>0.1</td>
<td>0.2</td>
<td>0.8</td>
<td>0.8</td>
<td>a</td>
</tr>
</tbody>
</table>

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). Almost all refined copper production in SSA is produced for export due to minimal demand for refined copper in the region.

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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.
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. 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. In 2001, the DRC produced no refined copper, and in 2008 its output was only 58,000 mt. Two foreign-owned mines—Tenke Fungurume (Tenke) and Mutanda—started production in 2009 and

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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.


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, respectively, and were the main drivers of the production growth in the DRC. In 2016, Tenke produced 216,000 mt of refined copper and Mutanda produced 213,000 mt. 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.

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. 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. 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. As discussed above, over this same period copper production in the DRC increased significantly.

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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.
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. The extent of the potential for growth in U.S. imports from SSA depends on demand factors, supply factors, and prices.

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. 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. 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, which is 7 percent of total 2016 global refined copper production of 23.3 million mt.

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. In addition, there were no reported plans to significantly increase SSA production of other copper products to diversify exports. 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. 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.

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658 Industry representative, telephone interview by USITC staff, March 12, 2018.
663 International Copper Study Group, Statistical Database (accessed December 6, 2017).
664 Industry representative, telephone interview by USITC staff, December 19, 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. They use platinum group metals (PGMs)—such as platinum, palladium, and rhodium—to facilitate chemical reactions that convert exhaust gases into less harmful forms.

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. 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). U.S. imports of catalytic converters are duty-free under NTR.

### Table 3.9 Centrifuges and filtering and purifying equipment: U.S. imports from SSA and selected SSA countries, 2010–16

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<tbody>
<tr>
<td>Centrifuges and filtering and purifying equipment</td>
<td>205.2</td>
<td>218.7</td>
<td>223.6</td>
<td>231.8</td>
<td>272.9</td>
<td>332.5</td>
<td>291.4</td>
<td>86.2</td>
<td>6.0</td>
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<tr>
<td>Catalytic converters</td>
<td>196.5</td>
<td>209.9</td>
<td>215.4</td>
<td>220.3</td>
<td>266.5</td>
<td>321.6</td>
<td>263.6</td>
<td>67.1</td>
<td>5.0</td>
</tr>
<tr>
<td>South Africa</td>
<td>196.5</td>
<td>209.9</td>
<td>215.4</td>
<td>220.3</td>
<td>266.5</td>
<td>321.4</td>
<td>263.3</td>
<td>66.8</td>
<td>5.0</td>
</tr>
<tr>
<td>All other SSA</td>
<td>0</td>
<td>a</td>
<td>0</td>
<td>0</td>
<td>a</td>
<td>0.2</td>
<td>0.2</td>
<td>0.2</td>
<td>b</td>
</tr>
</tbody>
</table>

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.

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667 USITC DataWeb/USDOC (accessed December 8, 2017).
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. CCIG, “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).


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. 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.

Potential for U.S. Imports

GM’s contract with GMSA and Tenneco extends to 2022, and thus South Africa is expected to continue to ship catalytic converters to the United States. However, total U.S. production of cars, sport-utility vehicles, and trucks in 2018 and 2019 is expected to remain below 2016 levels, 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 United States.

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.
682 The gravity analysis finds that imports of catalytic converters from South Africa have slightly exceeded expectations in recent years.
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

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<thead>
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</tr>
</thead>
<tbody>
<tr>
<td>Edible nuts</td>
<td>87.7</td>
<td>93.7</td>
<td>114.8</td>
<td>127.7</td>
<td>153.0</td>
<td>166.9</td>
<td>186.3</td>
<td>79.2</td>
<td>11.3</td>
</tr>
<tr>
<td>Shelled cashew nuts</td>
<td>23.9</td>
<td>26.0</td>
<td>34.7</td>
<td>52.1</td>
<td>50.9</td>
<td>58.7</td>
<td>61.3</td>
<td>37.4</td>
<td>17.0</td>
</tr>
<tr>
<td>Côte d’Ivoire</td>
<td>3.4</td>
<td>5.0</td>
<td>11.9</td>
<td>17.1</td>
<td>18.8</td>
<td>24.3</td>
<td>16.7</td>
<td>13.3</td>
<td>30.6</td>
</tr>
<tr>
<td>Ghana</td>
<td>0.5</td>
<td>1.7</td>
<td>2.7</td>
<td>5.8</td>
<td>6.6</td>
<td>4.7</td>
<td>7.5</td>
<td>7.0</td>
<td>56.5</td>
</tr>
<tr>
<td>Mozambique</td>
<td>9.1</td>
<td>8.5</td>
<td>11.2</td>
<td>14.0</td>
<td>11.5</td>
<td>16.9</td>
<td>18.9</td>
<td>9.8</td>
<td>13.0</td>
</tr>
<tr>
<td>All other SSA</td>
<td>10.9</td>
<td>10.9</td>
<td>8.8</td>
<td>15.2</td>
<td>14.0</td>
<td>12.8</td>
<td>18.2</td>
<td>7.2</td>
<td>8.8</td>
</tr>
<tr>
<td>Shelled macadamia nuts</td>
<td>45.2</td>
<td>57.6</td>
<td>65.9</td>
<td>63.1</td>
<td>87.1</td>
<td>110.1</td>
<td>88.9</td>
<td>43.7</td>
<td>11.9</td>
</tr>
<tr>
<td>Kenya</td>
<td>16.5</td>
<td>25.6</td>
<td>30.0</td>
<td>25.8</td>
<td>37.5</td>
<td>42.9</td>
<td>38.6</td>
<td>22.1</td>
<td>15.2</td>
</tr>
<tr>
<td>South Africa</td>
<td>22.6</td>
<td>26.6</td>
<td>31.5</td>
<td>33.6</td>
<td>42.8</td>
<td>56.1</td>
<td>43.2</td>
<td>20.6</td>
<td>11.4</td>
</tr>
<tr>
<td>All other SSA</td>
<td>6.1</td>
<td>5.3</td>
<td>4.4</td>
<td>3.6</td>
<td>6.9</td>
<td>11.1</td>
<td>7.1</td>
<td>1.0</td>
<td>2.6</td>
</tr>
</tbody>
</table>

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).

\(^{685}\) 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.
Table 3.11 Estimated world cashew production, kernel basis (metric tons)

<table>
<thead>
<tr>
<th>Country</th>
<th>2010/11</th>
<th>2015/16</th>
<th>2016/17</th>
<th>2017/18</th>
</tr>
</thead>
<tbody>
<tr>
<td>India</td>
<td>150,000</td>
<td>172,700</td>
<td>159,600</td>
<td>185,600</td>
</tr>
<tr>
<td>Côte d’Ivoire</td>
<td>75,000</td>
<td>162,222</td>
<td>167,500</td>
<td>162,800</td>
</tr>
<tr>
<td>Vietnam</td>
<td>71,429</td>
<td>113,000</td>
<td>93,000</td>
<td>71,430</td>
</tr>
<tr>
<td>Mozambique</td>
<td>15,500</td>
<td>19,433</td>
<td>24,400</td>
<td>26,800</td>
</tr>
<tr>
<td>Ghana</td>
<td>7,500</td>
<td>14,444</td>
<td>16,500</td>
<td>18,800</td>
</tr>
<tr>
<td>Other</td>
<td>149,650</td>
<td>242,757</td>
<td>290,000</td>
<td>323,400</td>
</tr>
<tr>
<td>World total</td>
<td>469,079</td>
<td>724,556</td>
<td>751,000</td>
<td>788,830</td>
</tr>
</tbody>
</table>


Table 3.12 Estimated world macadamia production, kernel basis (metric tons)

<table>
<thead>
<tr>
<th>Country</th>
<th>2010/11</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>10,455</td>
<td>13,500</td>
<td>15,600</td>
<td>14,080</td>
</tr>
<tr>
<td>South Africa</td>
<td>7,172</td>
<td>12,900</td>
<td>10,640</td>
<td>11,760</td>
</tr>
<tr>
<td>Kenya</td>
<td>2,619</td>
<td>8,846</td>
<td>7,372</td>
<td>7,040</td>
</tr>
<tr>
<td>USA</td>
<td>4,000</td>
<td>3,600</td>
<td>4,300</td>
<td>4,700</td>
</tr>
<tr>
<td>Other</td>
<td>4,497</td>
<td>7,836</td>
<td>11,901</td>
<td>13,253</td>
</tr>
<tr>
<td>World total</td>
<td>28,743</td>
<td>46,682</td>
<td>49,813</td>
<td>50,833</td>
</tr>
</tbody>
</table>


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

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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.

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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.
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.

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\(^{699}\) 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.


\(^{702}\) 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

<table>
<thead>
<tr>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Certain base metals and chemical elements</td>
<td>107.5</td>
<td>120.6</td>
<td>103.7</td>
<td>145.9</td>
<td>188.7</td>
<td>183.5</td>
<td>132.6</td>
<td>25.0</td>
<td>3.5</td>
</tr>
<tr>
<td>Nickel, not alloyed, unwrought</td>
<td>25.6</td>
<td>23.1</td>
<td>12.1</td>
<td>53.4</td>
<td>93.0</td>
<td>101.0</td>
<td>48.5</td>
<td>23.0</td>
<td>11.3</td>
</tr>
<tr>
<td>Madagascar</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>49.4</td>
<td>72.0</td>
<td>91.5</td>
<td>29.6</td>
<td>29.6</td>
<td>a</td>
</tr>
<tr>
<td>South Africa</td>
<td>9.5</td>
<td>15.3</td>
<td>4.6</td>
<td>4.0</td>
<td>21.0</td>
<td>9.5</td>
<td>18.9</td>
<td>9.4</td>
<td>12.2</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>16.1</td>
<td>7.8</td>
<td>7.5</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>-16.1</td>
<td>-100.0</td>
</tr>
<tr>
<td>All other SSA</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

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. 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.

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. 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. 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.

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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. The decrease in Russian production, possibly owing to declining nickel prices, coincided with the decline in Russia’s exports to the United States. 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. 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)

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2016</th>
<th>Change in share of U.S. imports, 2010–16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>14</td>
<td>2</td>
<td>-12</td>
</tr>
<tr>
<td>Canada</td>
<td>16</td>
<td>57</td>
<td>41</td>
</tr>
<tr>
<td>Norway</td>
<td>22</td>
<td>12</td>
<td>-10</td>
</tr>
<tr>
<td>Russia</td>
<td>29</td>
<td>9</td>
<td>-20</td>
</tr>
<tr>
<td>SSA</td>
<td>1</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Rest of the World</td>
<td>17</td>
<td>15</td>
<td>-2</td>
</tr>
</tbody>
</table>

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. 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 lateritic 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. In 2016, Ambatovy produced 33,306 mt of refined nickel, and the company expects to increase production in the

---

709 Ibid.
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).
near future.\textsuperscript{714} The refinery produces class I nickel that can be used in lithium-ion batteries and alloy steels.\textsuperscript{715}

\textbf{Figure 3.3} Refined nickel production in SSA countries, 2010–16

![Refined nickel production in SSA countries, 2010–16](image)

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.

\section*{Potential for U.S. Imports\textsuperscript{716}}

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).\textsuperscript{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.

\begin{footnotesize}
\textsuperscript{714} Ibid.
\textsuperscript{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.
\end{footnotesize}
In addition, as noted earlier, Ambatovy produces class I finished nickel, 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. 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. 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.

**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. 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. 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.

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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.


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.


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 (USCBP) 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. USCBP, *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

<table>
<thead>
<tr>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Raw cane sugar</td>
<td>Million $</td>
<td>Million $</td>
<td>Million $</td>
<td>Million $</td>
<td>Million $</td>
<td>Million $</td>
<td>Million $</td>
<td>Million $</td>
</tr>
<tr>
<td>Malawi</td>
<td>3.9</td>
<td>3.6</td>
<td>4.8</td>
<td>3.1</td>
<td>2.4</td>
<td>8.6</td>
<td>10.7</td>
<td>6.8</td>
</tr>
<tr>
<td>Mauritius</td>
<td>6.6</td>
<td>9.1</td>
<td>10.2</td>
<td>6.1</td>
<td>1.9</td>
<td>4.6</td>
<td>7.1</td>
<td>0.5</td>
</tr>
<tr>
<td>Mozambique</td>
<td>24.5</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>7.9</td>
<td>8.0</td>
<td>5.3</td>
<td>-19.2</td>
</tr>
<tr>
<td>South Africa</td>
<td>25.2</td>
<td>12.0</td>
<td>39.5</td>
<td>0.0</td>
<td>25.3</td>
<td>2.8</td>
<td>12.8</td>
<td>-12.3</td>
</tr>
<tr>
<td>Swaziland</td>
<td>18.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>18.1</td>
<td>13.8</td>
<td>10.3</td>
<td>-7.7</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>14.6</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>13.7</td>
<td>7.3</td>
<td>9.1</td>
<td>-5.5</td>
</tr>
<tr>
<td>All other SSA</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
</tbody>
</table>


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. 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.

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. 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. These policy changes are expected to

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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).


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.  

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.  

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.  

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. 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.

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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.
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)

<table>
<thead>
<tr>
<th></th>
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<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>US raw TRQ entries from SSA</td>
<td>115,042</td>
<td>49,388</td>
<td>51,449</td>
<td>37,908</td>
<td>75,355</td>
<td>92,889</td>
<td>98,004</td>
<td>90,493</td>
</tr>
<tr>
<td>Original allocation</td>
<td>119,593</td>
<td>119,593</td>
<td>119,593</td>
<td>119,593</td>
<td>119,593</td>
<td>119,593</td>
<td>119,593</td>
<td>119,593</td>
</tr>
<tr>
<td>Final allocation</td>
<td>148,522</td>
<td>122,876</td>
<td>132,458</td>
<td>114,081</td>
<td>83,444</td>
<td>107,324</td>
<td>110,647</td>
<td>131,223</td>
</tr>
<tr>
<td>Change from original allocation</td>
<td>28,929</td>
<td>3,283</td>
<td>12,865</td>
<td>(5,512)</td>
<td>(36,149)</td>
<td>(12,269)</td>
<td>(8,946)</td>
<td>11,630</td>
</tr>
<tr>
<td>Unfilled from original</td>
<td>4,551</td>
<td>70,205</td>
<td>68,144</td>
<td>81,685</td>
<td>44,238</td>
<td>26,704</td>
<td>21,589</td>
<td>29,100</td>
</tr>
<tr>
<td>Unfilled from final allocation</td>
<td>33,480</td>
<td>73,488</td>
<td>81,009</td>
<td>76,173</td>
<td>8,089</td>
<td>14,435</td>
<td>12,643</td>
<td>40,730</td>
</tr>
<tr>
<td>EPA and EBA shipments to EU</td>
<td>612,942</td>
<td>607,302</td>
<td>560,380</td>
<td>782,278</td>
<td>889,057</td>
<td>917,211</td>
<td>539,602</td>
<td>460,204</td>
</tr>
</tbody>
</table>

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. 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. 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. In addition, U.S. import unit values are high enough to attract increased exports from these SSA countries.

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

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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

<table>
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<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Footwear</td>
<td>1.5</td>
<td>2.5</td>
<td>9.3</td>
<td>21.3</td>
<td>21.6</td>
<td>22.0</td>
<td>25.1</td>
<td>23.6</td>
<td>59.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethiopia</td>
<td>0.5</td>
<td>0.7</td>
<td>7.1</td>
<td>19.4</td>
<td>19.2</td>
<td>19.2</td>
<td>23.3</td>
<td>22.8</td>
<td>89.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>South Africa</td>
<td>0.6</td>
<td>1.0</td>
<td>1.3</td>
<td>1.2</td>
<td>1.1</td>
<td>0.9</td>
<td>0.8</td>
<td>0.2</td>
<td>5.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kenya</td>
<td>0.1</td>
<td>0.2</td>
<td>0.2</td>
<td>0.1</td>
<td>0.2</td>
<td>0.3</td>
<td>0.1</td>
<td>a</td>
<td>6.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All other SSA</td>
<td>0.3</td>
<td>0.6</td>
<td>0.7</td>
<td>0.6</td>
<td>1.1</td>
<td>1.6</td>
<td>0.9</td>
<td>0.5</td>
<td>18.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Footwear under HTS 6403.99.90</td>
<td>0.6</td>
<td>1.2</td>
<td>3.6</td>
<td>8.0</td>
<td>14.2</td>
<td>14.0</td>
<td>18.9</td>
<td>18.2</td>
<td>75.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethiopia</td>
<td>0.3</td>
<td>0.5</td>
<td>2.4</td>
<td>7.2</td>
<td>13.4</td>
<td>13.1</td>
<td>18.4</td>
<td>18.1</td>
<td>98.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>South Africa</td>
<td>0.3</td>
<td>0.4</td>
<td>1.0</td>
<td>0.7</td>
<td>0.7</td>
<td>0.3</td>
<td>0.4</td>
<td>0.1</td>
<td>2.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uganda</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>a</td>
<td>0.1</td>
<td>0.1</td>
<td>a</td>
<td>b</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rest of SSA</td>
<td>a</td>
<td>0.3</td>
<td>0.2</td>
<td>0.1</td>
<td>0.1</td>
<td>0.6</td>
<td>0.1</td>
<td>a</td>
<td>5.3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


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

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; a large supply of livestock that has supported the development of a strong leather and tanning industry and 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. In an effort to diversify their global sourcing, U.S., Chinese, and European footwear firms have increased their imports from Ethiopia. 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.” 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. 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. 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. Huajian has long-term plans to make Ethiopia a global manufacturing hub for footwear sold in the African, European, and U.S. markets.

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,

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740 U.S. industry representative, interview by USITC staff, Washington DC, February 6, 2018.
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.
partly because of Ethiopia’s low labor costs and partly because of business partners who had begun manufacturing footwear there.\textsuperscript{745} Caleres has continued to increase its imports from Ethiopia and has expanded the types of casual leather footwear it is sourcing from Ethiopia.\textsuperscript{746}

In recent years, Ethiopia’s footwear manufacturing sector has started to focus on improving its quality and productivity.\textsuperscript{747} It has benefited from investments by firms in Italy and Japan in its manufacturing operations, as well as foreign technical expertise and training.\textsuperscript{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).\textsuperscript{749} In addition, the manufacturing productivity of SSA footwear producers lags behind that of Asian suppliers,\textsuperscript{750} and freight costs to and from the region are high, as transportation infrastructure in SSA remains limited and outdated.\textsuperscript{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,\textsuperscript{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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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

\textsuperscript{745} Jenkins, “Executive Forecast,” July 19, 2016.


\textsuperscript{747} Young, “Made in Ethiopia: Fashion’s Next Sourcing Hub?” October 17, 2017.


\textsuperscript{749} U.S. industry representative, email message to USITC staff, February 2, 2018; Zizhu, “Inside the Chinese Factory in Ethiopia,” January 30, 2017.


\textsuperscript{751} U.S. industry representative, email message to USITC staff, February 2, 2018; Zizhu, “Inside the Chinese Factory in Ethiopia,” January 30, 2017.

\textsuperscript{752} U.S. industry representative, email message to USITC staff, February 2, 2018.

\textsuperscript{753} Young, “Made in Ethiopia: Fashion’s Next Sourcing Hub?” October 17, 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

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761 Ibid.
Chapter 3: U.S. Imports of Goods and Services from SSA, 2010–16

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

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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.
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).
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).\textsuperscript{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.\textsuperscript{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).\textsuperscript{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.\textsuperscript{779} The United States has historically been the largest source of extra-regional tourists in Ethiopia, Ghana, and Rwanda,\textsuperscript{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.\textsuperscript{781}

\textsuperscript{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.
\textsuperscript{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.
\textsuperscript{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; 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). 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


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 imports 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).

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782 The latest year for which data on tourist arrivals by country are available is 2015. UNWTO, Yearbook of Tourism Statistics, 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. 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.

Despite these efforts, U.S. imports of travel services from Africa are small compared to U.S. imports from other regions, 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. Flights from the United States to SSA cost 50 percent more than flights to comparable overseas destinations such as Asia, while safari tours in SSA are 38 percent more expensive than similar tours in Asia and Latin America, chiefly due to costlier accommodations. 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, 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. 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. 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

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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.
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.
791 Ibid., 45–46.
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, the official cost of a tourist visa can be as high as $100 in Tanzania and $180 in Nigeria.

**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. 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, and to take advantage of the increase in business travelers related to expanding FDI in SSA. 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. 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.

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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

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\(^{800}\) 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. 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) 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.

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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).
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). 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. 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.”
Table 4.1 Global FDI positions in SSA countries, 2010–16

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<td>Dem. Rep. of the Congo</td>
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Source: USDOC, BEA, Balance of Payments and Direct Investment Position Data (accessed December 4, 2017); USITC Calculations.

Official government data on both FDI positions and inflows in SSA by source, destination, and industry are scarce. In the absence of official data, this chapter relies on commercial databases that provide data on individual greenfield FDI projects and on cross-border mergers and acquisitions (M&As). 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. 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) and the United States (13 percent) (figure 4.2).

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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.
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>
<thead>
<tr>
<th>Industry</th>
<th>Number of projects</th>
<th>% share of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial services</td>
<td>776</td>
<td>18</td>
</tr>
<tr>
<td>Business services</td>
<td>458</td>
<td>11</td>
</tr>
<tr>
<td>Communications</td>
<td>452</td>
<td>11</td>
</tr>
<tr>
<td>Software and information technology (IT) services</td>
<td>279</td>
<td>6</td>
</tr>
<tr>
<td>Food and beverage</td>
<td>255</td>
<td>6</td>
</tr>
<tr>
<td>Transportation</td>
<td>175</td>
<td>4</td>
</tr>
<tr>
<td>Industrial machinery, equipment and tools</td>
<td>166</td>
<td>4</td>
</tr>
<tr>
<td>Metals</td>
<td>158</td>
<td>4</td>
</tr>
<tr>
<td>Coal, oil, and natural gas</td>
<td>158</td>
<td>4</td>
</tr>
<tr>
<td>Alternative/renewable energy</td>
<td>143</td>
<td>3</td>
</tr>
<tr>
<td>Textiles</td>
<td>130</td>
<td>3</td>
</tr>
<tr>
<td>Chemicals</td>
<td>127</td>
<td>3</td>
</tr>
<tr>
<td>Others</td>
<td>1,026</td>
<td>24</td>
</tr>
</tbody>
</table>

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. 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

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total SSA</td>
<td>33,238</td>
<td>b</td>
<td>b</td>
<td>28,974</td>
<td>-4,264</td>
<td>-12.8</td>
</tr>
<tr>
<td>Mauritius</td>
<td>7,885</td>
<td>6,369</td>
<td>6,734</td>
<td>6,962</td>
<td>-923</td>
<td>-11.7</td>
</tr>
<tr>
<td>South Africa</td>
<td>6,017</td>
<td>5,471</td>
<td>5,921</td>
<td>5,061</td>
<td>-956</td>
<td>-15.9</td>
</tr>
<tr>
<td>Nigeria</td>
<td>5,058</td>
<td>5,369</td>
<td>4,405</td>
<td>3,819</td>
<td>-1,239</td>
<td>-24.5</td>
</tr>
<tr>
<td>Ghana</td>
<td>2,874</td>
<td>3,567</td>
<td>d</td>
<td>2,944</td>
<td>70</td>
<td>2.4</td>
</tr>
<tr>
<td>Liberia</td>
<td>851</td>
<td>1,019</td>
<td>911</td>
<td>1,041</td>
<td>190</td>
<td>22.3</td>
</tr>
<tr>
<td>Equatorial Guinea</td>
<td>1,978</td>
<td>3,107</td>
<td>4,343</td>
<td>704</td>
<td>-1,274</td>
<td>-64.4</td>
</tr>
<tr>
<td>Kenya</td>
<td>308</td>
<td>285</td>
<td>387</td>
<td>369</td>
<td>61</td>
<td>19.8</td>
</tr>
<tr>
<td>Mozambique</td>
<td>121</td>
<td>619</td>
<td>d</td>
<td>354</td>
<td>233</td>
<td>192.6</td>
</tr>
<tr>
<td>Congo-Rep.</td>
<td>214</td>
<td>d</td>
<td>-54</td>
<td>202</td>
<td>-12</td>
<td>-5.6</td>
</tr>
<tr>
<td>Côte d’Ivoire</td>
<td>-1</td>
<td>-40</td>
<td>134</td>
<td>185</td>
<td>186</td>
<td>c</td>
</tr>
</tbody>
</table>

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). 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.


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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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),\textsuperscript{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).

\textsuperscript{814} The purpose of double taxation treaties is to mitigate taxation by two jurisdictions on one financial transaction or asset.
\textsuperscript{815} Seetanah, “Inward FDI in Mauritius,” April 30, 2013.
\textsuperscript{817} USDOC, BEA, Balance of Payments and Direct Investment Position Data (accessed December 4, 2017).
\textsuperscript{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.
\textsuperscript{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.
Official data on U.S. FDI positions in SSA by industry are limited. However, the BEA publishes data on U.S. FDI positions in the whole of Africa, by industry. 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).

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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

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>All industries</td>
<td>54,816</td>
<td>55,849</td>
<td>66,403</td>
<td>57,465</td>
<td>2,649</td>
<td>4.8</td>
</tr>
<tr>
<td>Mining</td>
<td>30,243</td>
<td>33,538</td>
<td>42,873</td>
<td>34,717</td>
<td>4,474</td>
<td>14.8</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>4,112</td>
<td>3,925</td>
<td>4,509</td>
<td>4,054</td>
<td>-58</td>
<td>-1.4</td>
</tr>
<tr>
<td>Wholesale trade</td>
<td>1,273</td>
<td>1,754</td>
<td>2,139</td>
<td>1,895</td>
<td>622</td>
<td>48.9</td>
</tr>
<tr>
<td>Informationa</td>
<td>183</td>
<td>171</td>
<td>227</td>
<td>926</td>
<td>743</td>
<td>406.0</td>
</tr>
<tr>
<td>Depository institutions</td>
<td>2,345</td>
<td>2,479</td>
<td>c</td>
<td>c</td>
<td>b</td>
<td>b</td>
</tr>
<tr>
<td>Finance and insurance</td>
<td>8,124</td>
<td>5,141</td>
<td>3,318</td>
<td>3,243</td>
<td>-4,881</td>
<td>-60.1</td>
</tr>
<tr>
<td>Professional, scientific, and technical services</td>
<td>649</td>
<td>760</td>
<td>1,234</td>
<td>1,451</td>
<td>802</td>
<td>123.6</td>
</tr>
<tr>
<td>Holding companies</td>
<td>6,270</td>
<td>6,701</td>
<td>7,533</td>
<td>6,958</td>
<td>688</td>
<td>11.0</td>
</tr>
<tr>
<td>Other industries</td>
<td>1,618</td>
<td>1,380</td>
<td>c</td>
<td>c</td>
<td>b</td>
<td>b</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Industry</th>
<th>Number of Projects</th>
<th>% share of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Software and information technology (IT) services</td>
<td>97</td>
<td>18</td>
</tr>
<tr>
<td>Business services</td>
<td>92</td>
<td>17</td>
</tr>
<tr>
<td>Communications</td>
<td>41</td>
<td>8</td>
</tr>
<tr>
<td>Consumer products</td>
<td>37</td>
<td>7</td>
</tr>
<tr>
<td>Financial services</td>
<td>37</td>
<td>7</td>
</tr>
<tr>
<td>Food and tobacco</td>
<td>28</td>
<td>5</td>
</tr>
<tr>
<td>Alternative/renewable energy</td>
<td>26</td>
<td>5</td>
</tr>
<tr>
<td>Industrial machinery, equipment and tools</td>
<td>23</td>
<td>4</td>
</tr>
<tr>
<td>Transportation</td>
<td>21</td>
<td>4</td>
</tr>
<tr>
<td>Coal, oil, natural gas</td>
<td>19</td>
<td>3</td>
</tr>
<tr>
<td>All others</td>
<td>124</td>
<td>23</td>
</tr>
</tbody>
</table>

Source: Financial Times, fDiMarkets database.

Similarily, 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**

![Pie chart showing distribution of M&A deals by sector](image)

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

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822 U.S. FDI positions by major sector are not available for SSA as a region.
### 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. acquisitions\(^{824}\) 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

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\(^{824}\) Percentage is for the primary sector, which includes agriculture.


\(^{826}\) 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

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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.


832 Ibid.


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

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>South Africa</td>
<td>2,465</td>
<td>2,348</td>
<td>2,733</td>
<td>2,605</td>
<td>140</td>
<td>5.7</td>
</tr>
<tr>
<td>Nigeria</td>
<td>b</td>
<td>173</td>
<td>161</td>
<td>120</td>
<td>a</td>
<td>a</td>
</tr>
<tr>
<td>Kenya</td>
<td>80</td>
<td>50</td>
<td>52</td>
<td>52</td>
<td>-28</td>
<td>-35.0</td>
</tr>
<tr>
<td>Zambia</td>
<td>d</td>
<td>b</td>
<td>27</td>
<td>35</td>
<td>a</td>
<td>a</td>
</tr>
<tr>
<td>Mauritius</td>
<td>91</td>
<td>17</td>
<td>16</td>
<td>14</td>
<td>-77</td>
<td>-84.6</td>
</tr>
<tr>
<td>Senegal</td>
<td>b</td>
<td>11</td>
<td>12</td>
<td>12</td>
<td>a</td>
<td>a</td>
</tr>
</tbody>
</table>


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.


\(^{840}\) 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

<table>
<thead>
<tr>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa</td>
<td>2,265</td>
<td>3,761</td>
<td>1,691</td>
<td>4,394</td>
<td>2,129</td>
<td>94.0</td>
</tr>
<tr>
<td>South Africa</td>
<td>699</td>
<td>755</td>
<td>329</td>
<td>3,114</td>
<td>2,415</td>
<td>345.5</td>
</tr>
<tr>
<td>Other</td>
<td>1,566</td>
<td>3,005</td>
<td>1,362</td>
<td>1,280</td>
<td>-286</td>
<td>-18.3</td>
</tr>
</tbody>
</table>


**Table 4.9** FDI positions in the United States from Africa, by sector, 2010–16

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2016</th>
<th>Absolute change 2010–16</th>
<th>% change 2010–16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real estate</td>
<td>149</td>
<td>520</td>
<td>371</td>
<td>249.0</td>
</tr>
<tr>
<td>Total manufacturing</td>
<td>196</td>
<td>2,320</td>
<td>2,124</td>
<td>1,083.7</td>
</tr>
<tr>
<td>Other industries</td>
<td>1,433</td>
<td>1,137</td>
<td>-296</td>
<td>-20.7</td>
</tr>
</tbody>
</table>


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.

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$^{845}$ 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. 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. 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. 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).

---

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.\textsuperscript{850}

### Institutional Factors

The quality of domestic institutions has been acknowledged as a significant determinant of foreign investment in SSA.\textsuperscript{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.\textsuperscript{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.\textsuperscript{853} The WGI consists of six composite indicators of governance: Control of Corruption, Government Effectiveness, Regulatory Quality, Rule of Law, Political Stability, and

\begin{table}[h]
\centering
\begin{tabular}{|l|c|c|c|c|c|c|}
\hline
\hline
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 \\
\hline
\end{tabular}
\caption{Economic indicators for SSA, 2010–16}
\end{table}

\textsuperscript{850} Based on data from the World Bank, World Development Indicators database (accessed December 15, 2017).

\textsuperscript{851} For example, Luiz and Charalambous, “Factors Influencing Foreign Direct Investment,” 2009; Bartels, Napolitano, and Tissi, “FDI in Sub-Saharan Africa,” 2014.


\textsuperscript{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,\textsuperscript{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.\textsuperscript{855}

\begin{table}[h!]
\centering
\begin{tabular}{lcc}
\hline
\textbf{Indicator} & \textbf{Increased performance} & \textbf{Decreased performance} \\
\hline
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 \\
\hline
\end{tabular}
\caption{Change in world governance indicators of SSA countries from 2010–16, number of countries (out of 49)}
\end{table}

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.\textsuperscript{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.\textsuperscript{857} Risk insurance—taken out by investors to protect assets in the event political

\textsuperscript{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 \url{www.govindicators.org}.


\textsuperscript{856} The World Bank’s ease of doing business (DB) Index ranks business costs from least burdensome (lower score) to most burdensome (higher score).

\textsuperscript{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.\(^\text{858}\)

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.\(^\text{859}\) Research suggests that BITs may increase foreign investment to the host country, in part because of these protections.\(^\text{860}\) 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.\(^\text{861}\) 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).\(^\text{862}\) 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.\(^\text{863}\)

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\(^{858}\) OPIC, “MIGA and OPIC Team Up,” June 9, 2014.


\(^{862}\) The World Bank’s Logistics Performance Index ranks countries from most developed (lower score) to least developed (higher score).

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, 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). 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.  

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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.  
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).

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\(^{867}\) 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

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</thead>
<tbody>
<tr>
<td>Africa</td>
<td>294,407</td>
<td>284,484</td>
<td>375,588</td>
<td>321,997</td>
<td>27,590</td>
<td>9.4</td>
</tr>
<tr>
<td>South Africa</td>
<td>100,025</td>
<td>71,895</td>
<td>79,835</td>
<td>78,795</td>
<td>-21,230</td>
<td>-21.2</td>
</tr>
<tr>
<td>Nigeria</td>
<td>37635</td>
<td>34389</td>
<td>44551</td>
<td>38,420</td>
<td>27,409</td>
<td>248.9</td>
</tr>
<tr>
<td>Angola</td>
<td>11,011</td>
<td>14,217</td>
<td>53,867</td>
<td>38,420</td>
<td>27,409</td>
<td>248.9</td>
</tr>
<tr>
<td>Mauritius</td>
<td>3,820</td>
<td>10,993</td>
<td>27,219</td>
<td>20,644</td>
<td>16,824</td>
<td>440.4</td>
</tr>
</tbody>
</table>


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. The remainder of this section will focus on EU investment by destination country.

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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.
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. 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. 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.

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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

![Graph showing EU greenfield projects in South Africa, by source, 2010–16 with the UK having the highest number of projects, followed by Germany and France.](image)

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

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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. 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.

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.

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). The large FDI outflows from Portugal to Angola likely owed much to the fact that Angola is Portugal’s former colony. 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. Greenfield projects from the UK into Angola were more diversified, focusing mainly on the oil and gas and the business services sectors.

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875 Ibid.
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).
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). 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). 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

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</tr>
</thead>
<tbody>
<tr>
<td>Total SSA*</td>
<td>11,678</td>
<td>14,618</td>
<td>19,799</td>
<td>23,952</td>
<td>29,003</td>
<td>31,217</td>
<td>19,539</td>
<td>167.3</td>
</tr>
<tr>
<td>South Africa</td>
<td>4,153</td>
<td>4,060</td>
<td>4,775</td>
<td>4,400</td>
<td>5,954</td>
<td>4,723</td>
<td>570</td>
<td>13.7</td>
</tr>
<tr>
<td>DRC</td>
<td>631</td>
<td>709</td>
<td>970</td>
<td>1,092</td>
<td>2,169</td>
<td>3,239</td>
<td>2,608</td>
<td>413.4</td>
</tr>
<tr>
<td>Nigeria</td>
<td>1,211</td>
<td>1,416</td>
<td>1,950</td>
<td>2,146</td>
<td>2,323</td>
<td>2,377</td>
<td>1,166</td>
<td>96.3</td>
</tr>
<tr>
<td>Zambia</td>
<td>944</td>
<td>1,200</td>
<td>1,998</td>
<td>2,164</td>
<td>2,272</td>
<td>2,338</td>
<td>1,394</td>
<td>147.7</td>
</tr>
<tr>
<td>Sudan</td>
<td>613</td>
<td>1,526</td>
<td>1,237</td>
<td>1,507</td>
<td>1,747</td>
<td>1,809</td>
<td>1,196</td>
<td>195.0</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>135</td>
<td>576</td>
<td>875</td>
<td>1,521</td>
<td>1,696</td>
<td>1,799</td>
<td>1,664</td>
<td>1,237.1</td>
</tr>
<tr>
<td>Ghana</td>
<td>202</td>
<td>270</td>
<td>505</td>
<td>835</td>
<td>1,057</td>
<td>1,274</td>
<td>1,072</td>
<td>530.9</td>
</tr>
<tr>
<td>Angola</td>
<td>352</td>
<td>401</td>
<td>1,245</td>
<td>1,635</td>
<td>1,214</td>
<td>1,268</td>
<td>916</td>
<td>260.5</td>
</tr>
<tr>
<td>Tanzania</td>
<td>308</td>
<td>407</td>
<td>541</td>
<td>716</td>
<td>885</td>
<td>1,139</td>
<td>831</td>
<td>270.4</td>
</tr>
<tr>
<td>Kenya</td>
<td>222</td>
<td>309</td>
<td>403</td>
<td>636</td>
<td>854</td>
<td>1,099</td>
<td>877</td>
<td>396.0</td>
</tr>
</tbody>
</table>


*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).

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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 Duferro) 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–

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885 Ibid.
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), 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). 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

![Pie chart showing the distribution of Chinese M&A in SSA](chart)


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.

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888 These included the Hebei Iron and Steel Group, the Shandong Qixing Iron Tower Company, and the Hebei Zhongbo Platinum Corporation.

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**

![Pie chart showing greenfield investment by destination in SSA, with South Africa at 32%, Ethiopia at 10%, and other regions at varying percentages.](image)


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. 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.

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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. 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. 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.

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. 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. 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.

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

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893 Ibid.
896 Ibid.
for China’s accumulating foreign-exchange reserves and to acquire natural resources (e.g., oil, iron, and copper) that were deemed essential to sustaining China’s economic development.

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. 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.

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, 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).

| Table 4.14 South Africa outward FDI position in SSA and the world, 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               |

Note: UNCTAD data on South Africa’s outward FDI stock to SSA only include 2001–12.

* Data not available.

* Absolute change and percentage change for 2010–16 are not provided because the 2016 value was not available.

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897 Higher-yielding investments than, for example, U.S. treasury securities, in which China has traditionally invested.
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. 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). 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

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).

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903 Merger and acquisition (M&A) deals are sorted based on unique deals within each year.
### Table 4.15 South Africa number of greenfield projects in SSA, 2010–16

<table>
<thead>
<tr>
<th>Country</th>
<th>2010</th>
<th>2012</th>
<th>2014</th>
<th>2016</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nigeria</td>
<td>7</td>
<td>11</td>
<td>4</td>
<td>3</td>
<td>48</td>
</tr>
<tr>
<td>Ghana</td>
<td>2</td>
<td>8</td>
<td>6</td>
<td>4</td>
<td>40</td>
</tr>
<tr>
<td>Zambia</td>
<td>2</td>
<td>6</td>
<td>5</td>
<td>2</td>
<td>38</td>
</tr>
<tr>
<td>Kenya</td>
<td>3</td>
<td>5</td>
<td>5</td>
<td>3</td>
<td>29</td>
</tr>
<tr>
<td>Namibia</td>
<td>2</td>
<td>5</td>
<td>4</td>
<td>2</td>
<td>29</td>
</tr>
<tr>
<td>Mozambique</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>24</td>
</tr>
<tr>
<td>Angola</td>
<td>2</td>
<td>7</td>
<td>2</td>
<td>0</td>
<td>21</td>
</tr>
<tr>
<td>Tanzania</td>
<td>3</td>
<td>7</td>
<td>1</td>
<td>1</td>
<td>18</td>
</tr>
<tr>
<td>Botswana</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>2</td>
<td>14</td>
</tr>
<tr>
<td>All other</td>
<td>12</td>
<td>23</td>
<td>26</td>
<td>9</td>
<td>113</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>35</td>
<td>79</td>
<td>57</td>
<td>28</td>
<td>374</td>
</tr>
</tbody>
</table>


### Figure 4.11 South Africa percentage share of greenfield FDI projects in SSA, by industry, 2010–16

- **Financial Services**: 21%
- **Communications**: 15%
- **Business Services**: 13%
- **Software & IT services**: 5%
- **Real Estate**: 5%
- **Food & Tobacco**: 10%
- **Transportation**: 5%
- **Consumer Products**: 4%
- **All Other**: 22%


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

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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.
Table 5.1 Overview of Cameroon, Côte d’Ivoire, Ethiopia, Kenya, Mauritius, Nigeria, and South Africa, 2016

<table>
<thead>
<tr>
<th>Macroeconomic indicators</th>
<th>Cameroon</th>
<th>Côte d’Ivoire</th>
<th>Ethiopia</th>
<th>Kenya</th>
<th>Mauritius</th>
<th>Nigeria</th>
<th>South Africa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income category\textsuperscript{a}</td>
<td>LM</td>
<td>LM</td>
<td>L</td>
<td>LM</td>
<td>UM</td>
<td>LM</td>
<td>UM</td>
</tr>
<tr>
<td>GDP\textsuperscript{b} (billion $)</td>
<td>32.2</td>
<td>36.4</td>
<td>72.4</td>
<td>70.5</td>
<td>12.2</td>
<td>404.7</td>
<td>295.5</td>
</tr>
<tr>
<td>GDP per capita\textsuperscript{c} ($</td>
<td>1,374.5</td>
<td>1,535.0</td>
<td>706.8</td>
<td>1,455.4</td>
<td>9,630.9</td>
<td>2,175.7</td>
<td>5,274.5</td>
</tr>
<tr>
<td>GDP growth (%)</td>
<td>4.5</td>
<td>8.3</td>
<td>7.6</td>
<td>5.8</td>
<td>3.8</td>
<td>-1.6</td>
<td>0.3</td>
</tr>
<tr>
<td>Trade (billion $)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>With the world</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Goods</td>
<td>7.0</td>
<td>21.4\textsuperscript{c}</td>
<td>20.8</td>
<td>19.5</td>
<td>6.6</td>
<td>68.1</td>
<td>151.8</td>
</tr>
<tr>
<td>Commercial services\textsuperscript{d}</td>
<td>3.6</td>
<td>3.5</td>
<td>6.0</td>
<td>5.8</td>
<td>5.0</td>
<td>21.4</td>
<td>29.8</td>
</tr>
<tr>
<td>With the United States</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Goods</td>
<td>0.3</td>
<td>1.5</td>
<td>1.1</td>
<td>0.9</td>
<td>0.4</td>
<td>6.1</td>
<td>11.4</td>
</tr>
<tr>
<td>Private services\textsuperscript{e}</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FDI (billion $)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>With the world</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inward FDI stock</td>
<td>6.9</td>
<td>7.6</td>
<td>13.7</td>
<td>11.2</td>
<td>4.6</td>
<td>94.2</td>
<td>136.8</td>
</tr>
<tr>
<td>Outward FDI stock</td>
<td>-0.4\textsuperscript{f}</td>
<td>0.1</td>
<td></td>
<td>0.7</td>
<td>0.9</td>
<td>13.0</td>
<td>172.8</td>
</tr>
<tr>
<td>With the United States</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inward FDI stock</td>
<td>-0.1\textsuperscript{f}</td>
<td>0.2</td>
<td></td>
<td>0.4</td>
<td>7.0</td>
<td>3.8</td>
<td>5.1</td>
</tr>
<tr>
<td>Outward FDI stock</td>
<td>0.0</td>
<td>(*)</td>
<td>(*)</td>
<td></td>
<td>0.3</td>
<td>0.1</td>
<td>3.1</td>
</tr>
<tr>
<td>AGOA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Basic AGOA utilization rate\textsuperscript{g} (%)</td>
<td>18.4</td>
<td>0.1</td>
<td>86.2</td>
<td>96.8</td>
<td>74.2</td>
<td>88.8</td>
<td>62.4</td>
</tr>
<tr>
<td>Total AGOA utilization rate\textsuperscript{h} (%)</td>
<td>40.1</td>
<td>81.9</td>
<td>96.0</td>
<td>98.0</td>
<td>79.2</td>
<td>88.9</td>
<td>95.3</td>
</tr>
<tr>
<td>National AGOA strategy</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>


Note: (*) indicates a non-zero value between -$1,000,000 and +$1,000,000.\textsuperscript{8}

\textsuperscript{a} L = low income; LM = lower middle income; UM = upper middle income. Source: World Bank, “World Bank Analytical Classifications.”

\textsuperscript{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.

\textsuperscript{c} Based on data from 2015, the most recent year for which data are available on Côte d'Ivoire’s goods trade.

\textsuperscript{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.

\textsuperscript{e} Based on reported services trade statistics from the Bureau of Economic Analysis (BEA) under the U.S. Department of Commerce (USDOC).

\textsuperscript{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.

\textsuperscript{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).
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.

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. 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. 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.

All of the seven countries profiled in this chapter are eligible for trade preferential treatment under the African Growth and Opportunity Act (AGOA). However, the degree to which the countries have taken advantage of these trade preferential benefits—as shown by their AGOA utilization rates—varies. 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.

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.

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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.
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>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP (2010 constant billion $)</td>
<td>26.1</td>
<td>28.5</td>
<td>31.8</td>
<td>35.1</td>
</tr>
<tr>
<td>GDP growth (annual %)</td>
<td>3.4</td>
<td>4.5</td>
<td>5.9</td>
<td>4.5</td>
</tr>
<tr>
<td>GDP per capita (2010 constant $)</td>
<td>1,309.1</td>
<td>1,350.0</td>
<td>1,428.2</td>
<td>1,495.4</td>
</tr>
<tr>
<td>Current account balance (% of GDP)</td>
<td>-3.3</td>
<td>-3.3</td>
<td>-4.0</td>
<td>a</td>
</tr>
<tr>
<td>Inflation, consumer prices (annual %)</td>
<td>1.3</td>
<td>2.9</td>
<td>1.9</td>
<td>a</td>
</tr>
<tr>
<td>Population (millions)</td>
<td>20.0</td>
<td>21.1</td>
<td>22.2</td>
<td>23.4</td>
</tr>
<tr>
<td>Internet users (per 100 people)</td>
<td>4.3</td>
<td>7.5</td>
<td>16.2</td>
<td>25.0</td>
</tr>
</tbody>
</table>


* 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

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\(^{918}\) World Bank, World Development Indicators database (accessed December 14, 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](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) 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.  

**Figure 5.1 GDP composition, Cameroon, 2016**

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) 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.

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.

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926 Including 28 EU member countries.
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.\footnote{USITC DataWeb/USDOC (accessed November 7, 2017).} Cameroon has been an AGOA beneficiary country since 2000. It is also eligible for additional trade benefits under the AGOA textile and apparel provisions.\footnote{USDOC, ITA, “General Country Eligibility Provisions,” https://www.trade.gov/agoa/eligibility/ (accessed November 23, 2017).}

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).\footnote{USITC DataWeb/USDOC (accessed November 7, 2017).}

\begin{table}[h]
\centering
\begin{tabular}{lcccc}
\hline
\hline
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 \\
\hline
\end{tabular}
\caption{Leading U.S. goods exports to Cameroon, by USITC digest sector, 2010–16}
\end{table}

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).\footnote{USITC DataWeb/USDOC (accessed November 7, 2017).} 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).\footnote{For more information on U.S. imports of cocoa products, see chapter 3.} 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

\footnote{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

<table>
<thead>
<tr>
<th>Leading U.S. imports from Cameroon</th>
<th>2010</th>
<th>2016</th>
<th>Absolute change 2010–16</th>
<th>% change 2010–16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petroleum products</td>
<td>126.2</td>
<td>67.2</td>
<td>-59.0</td>
<td>-46.7</td>
</tr>
<tr>
<td>Lumber</td>
<td>12.8</td>
<td>23.6</td>
<td>10.8</td>
<td>84.2</td>
</tr>
<tr>
<td>Cocoa, chocolate, and confectionery</td>
<td>30.9</td>
<td>20.4</td>
<td>-10.5</td>
<td>-34.1</td>
</tr>
<tr>
<td>Natural rubber</td>
<td>20.4</td>
<td>8.1</td>
<td>-12.3</td>
<td>-60.2</td>
</tr>
<tr>
<td>Works of art and miscellaneous manufactured goods</td>
<td>1.1</td>
<td>5.6</td>
<td>4.5</td>
<td>411.6</td>
</tr>
<tr>
<td>All other</td>
<td>104.4</td>
<td>17.9</td>
<td>-86.5</td>
<td>-82.9</td>
</tr>
<tr>
<td>Total</td>
<td>295.9</td>
<td>142.9</td>
<td>-153.0</td>
<td>-51.7</td>
</tr>
</tbody>
</table>

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.
938 Ibid.
Figure 5.2 Cameroon’s exports of commercial services to the world, by industry, 2015

- **Transport**: 32%
- **Travel**: 31%
- **Other business services**: 18%
- **Telecommunications, computer, and information services**: 7%
- **All other**: 12%

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

- **Transport**: 42%
- **Travel**: 27%
- **Other business services**: 17%
- **Insurance and pension**: 6%
- **All other**: 8%

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 stock\(^943\) 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.\(^945\)

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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.


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.\footnote{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.}

\section*{Côte d’Ivoire}

\subsection*{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.\footnote{World Bank, “Gross Domestic Product 2016” (accessed December 18, 2017); UNSD, National Accounts Main Aggregates Database (accessed December 18, 2017); CIA, \textit{World Factbook}, “Côte d’Ivoire,” \url{https://www.cia.gov/library/publications/the-world-factbook/geos/iv.html} (accessed December 14, 2017).} 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.\footnote{World Bank, World Development Indicators database (accessed December 14, 2017).} Côte d’Ivoire is classified by the World Bank as a lower-middle-income country,\footnote{World Bank, “World Bank Analytical Classifications” and World Development Indicators database (accessed December 18, 2017).} with a per capita GDP estimated at $1,552.8 in 2016 (table 5.5).\footnote{World Bank, World Development Indicators database (accessed December 14, 2017).}

\begin{table}[h]
\centering
\begin{tabular}{|l|c|c|c|c|}
\hline
\textbf{Economic indicators} & \textbf{2010} & \textbf{2012} & \textbf{2014} & \textbf{2016} \\
\hline
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 & \footnote{Data not available.} \\
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 \\
\hline
\end{tabular}
\caption{Major economic indicators, Côte d’Ivoire, 2010–16}
\end{table}

\footnote{Source: World Bank, World Development Indicators database (accessed January 3, 2018).}

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).\footnote{UNSD, National Accounts Main Aggregates Database (accessed December 18, 2017).} 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.\footnote{CIA, \textit{World Factbook}, “Côte d’Ivoire” (accessed December 14, 2017).}
Trade in Goods

Côte d’Ivoire’s two-way goods trade with the world totaled $21.4 billion in 2015. 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.

Côte d’Ivoire belongs to the Economic Community of West African States (ECOWAS), a 15-member economic community promoting regional economic integration. 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. Côte d’Ivoire and the EU signed a free trade agreement in 2008, which entered into force in 2016.

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953 The latest year of trade data available for Côte d’Ivoire at Global Trade Atlas database is 2015.
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

<table>
<thead>
<tr>
<th>Leading U.S. exports to Côte d’Ivoire</th>
<th>2010</th>
<th>2016</th>
<th>Absolute change 2010–16</th>
<th>% change 2010–16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aircraft</td>
<td>1.6</td>
<td>55.2</td>
<td>53.6</td>
<td>3,422.5</td>
</tr>
<tr>
<td>Petroleum products</td>
<td>1.6</td>
<td>38.4</td>
<td>36.8</td>
<td>2,375.0</td>
</tr>
<tr>
<td>Polyvinyl chloride resins in primary forms</td>
<td>15.7</td>
<td>23.1</td>
<td>7.4</td>
<td>46.8</td>
</tr>
<tr>
<td>Polyethylene resins in primary forms</td>
<td>11.1</td>
<td>17.3</td>
<td>6.2</td>
<td>54.9</td>
</tr>
<tr>
<td>Cereals</td>
<td>0.3</td>
<td>13.3</td>
<td>13</td>
<td>4,409.9</td>
</tr>
<tr>
<td>All other</td>
<td>129.8</td>
<td>139.0</td>
<td>9.2</td>
<td>7.1</td>
</tr>
<tr>
<td>Total</td>
<td>160.1</td>
<td>286.2</td>
<td>126.1</td>
<td>78.7</td>
</tr>
</tbody>
</table>

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

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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

<table>
<thead>
<tr>
<th>Leading U.S. imports from Côte d’Ivoire</th>
<th>2010</th>
<th>2016</th>
<th>Absolute change 2010–16</th>
<th>% change 2010–16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cocoa, chocolate, and confectionery</td>
<td>770.2</td>
<td>1,035.3</td>
<td>265.1</td>
<td>34.4</td>
</tr>
<tr>
<td>Natural rubber</td>
<td>78.5</td>
<td>68.2</td>
<td>-10.3</td>
<td>-13.1</td>
</tr>
<tr>
<td>Edible nuts</td>
<td>12.0</td>
<td>20.3</td>
<td>8.3</td>
<td>69.0</td>
</tr>
<tr>
<td>Works of art and miscellaneous manufactured goods</td>
<td>2.0</td>
<td>15.7</td>
<td>13.7</td>
<td>690.5</td>
</tr>
<tr>
<td>Petroleum products</td>
<td>61.5</td>
<td>11.4</td>
<td>-50.1</td>
<td>-81.5</td>
</tr>
<tr>
<td>All other</td>
<td>250.7</td>
<td>10.7</td>
<td>-240.0</td>
<td>-95.7</td>
</tr>
<tr>
<td>Total</td>
<td>1,174.9</td>
<td>1,161.6</td>
<td>-13.3</td>
<td>-1.1</td>
</tr>
</tbody>
</table>

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

967 Ibid.
Figure 5.5 Côte d’Ivoire’s exports of commercial services to the world, by industry, 2015


Figure 5.6 Côte d’Ivoire’s imports of commercial services from the world, by industry, 2015

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. Furthermore, Côte d’Ivoire accounted for only 6,709—or 0.06 percent—of the nonimmigrant visas issued by the United States in 2016, 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. 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.

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. About 96.8 percent of U.S. FDI stock in Côte d’Ivoire was in the mining sector. 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.

**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. With an average annual growth rate of 10.2 percent in 2010–16, Ethiopia has one of the

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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.
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.\textsuperscript{976} In 2016, its GDP growth rate slowed down slightly to 7.6 percent.\textsuperscript{977} Ethiopia is categorized by the World Bank as a low-income country;\textsuperscript{978} its GDP per capita was estimated at $511.2 in 2016 (table 5.8).\textsuperscript{979}

<table>
<thead>
<tr>
<th>Table 5.8</th>
<th>Major economic indicators, Ethiopia, 2010–16</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP (2010 constant billion $)</td>
<td>29.9</td>
</tr>
<tr>
<td>GDP growth (annual %)</td>
<td>12.6</td>
</tr>
<tr>
<td>GDP per capita (2010 constant $)</td>
<td>341.3</td>
</tr>
<tr>
<td>Current account balance (% of GDP)</td>
<td>-1.4</td>
</tr>
<tr>
<td>Inflation, consumer prices (annual %)</td>
<td>8.1</td>
</tr>
<tr>
<td>Population (millions)</td>
<td>87.7</td>
</tr>
<tr>
<td>Internet users (per 100 people)</td>
<td>0.8</td>
</tr>
</tbody>
</table>


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).\textsuperscript{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.\textsuperscript{981}

\textsuperscript{976} CIA, \textit{World Factbook}, “Ethiopia” (accessed December 18, 2017).
\textsuperscript{977} World Bank, \textit{World Development Indicators} database (accessed January 3, 2018).
\textsuperscript{979} World Bank, \textit{World Development Indicators} database (accessed January 3, 2018); UNSD, National Accounts Main Aggregates Database (accessed January 19, 2018).
\textsuperscript{980} UNSD, National Accounts Main Aggregates Database (accessed January 19, 2018).
\textsuperscript{981} UNIDO, INDSTAT (accessed December 19, 2017).
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. 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.

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.

Note: See appendix table I.24 for a tabular presentation of the data in this figure.

Ethiopia has been an AGOA beneficiary country since 2000. It is also eligible for additional trade benefit under the AGOA textile and apparel provisions. 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.

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).

<table>
<thead>
<tr>
<th>Leading U.S. exports to Ethiopia</th>
<th>2010</th>
<th>2016</th>
<th>Absolute change 2010–16</th>
<th>% change 2010–16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aircraft</td>
<td>491.2</td>
<td>449.6</td>
<td>-41.6</td>
<td>-8.5</td>
</tr>
<tr>
<td>Cereals</td>
<td>119.1</td>
<td>94.6</td>
<td>-24.5</td>
<td>-20.6</td>
</tr>
<tr>
<td>Prepared or preserved vegetables, mushrooms, and olives</td>
<td>15.2</td>
<td>36.1</td>
<td>20.9</td>
<td>136.8</td>
</tr>
<tr>
<td>Computers, peripherals, and parts</td>
<td>3.9</td>
<td>12.6</td>
<td>8.7</td>
<td>225.6</td>
</tr>
<tr>
<td>Farm and garden machinery and equipment</td>
<td>5.6</td>
<td>12.5</td>
<td>6.9</td>
<td>124.2</td>
</tr>
<tr>
<td>All other</td>
<td>90.8</td>
<td>127.1</td>
<td>36.3</td>
<td>40.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>725.7</td>
<td>732.5</td>
<td>6.8</td>
<td>0.9</td>
</tr>
</tbody>
</table>

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).

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; 6402.19.91).

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).  

Table 5.10 Leading U.S. goods imports from Ethiopia, by USITC digest sector, 2010–16

<table>
<thead>
<tr>
<th>Leading U.S. imports from Ethiopia</th>
<th>2010</th>
<th>2016</th>
<th>Absolute change 2010–16</th>
<th>% change 2010–16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coffee and tea</td>
<td>70.8</td>
<td>98.4</td>
<td>27.6</td>
<td>38.9</td>
</tr>
<tr>
<td>Apparel</td>
<td>6.6</td>
<td>37.0</td>
<td>30.4</td>
<td>460.8</td>
</tr>
<tr>
<td>Oilseeds</td>
<td>25.8</td>
<td>31.3</td>
<td>5.5</td>
<td>21.2</td>
</tr>
<tr>
<td>Footwear</td>
<td>0.5</td>
<td>23.3</td>
<td>22.8</td>
<td>4,464.5</td>
</tr>
<tr>
<td>Natural and synthetic gemstones</td>
<td>0.3</td>
<td>3.9</td>
<td>3.6</td>
<td>1,340.9</td>
</tr>
<tr>
<td>All other</td>
<td>7.3</td>
<td>15.5</td>
<td>8.2</td>
<td>112.6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>111.3</td>
<td>209.2</td>
<td>97.9</td>
<td>88.0</td>
</tr>
</tbody>
</table>


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.  

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 Ibid.
Figure 5.8 Ethiopia’s exports of commercial services to the world, by industry, 2015

Note: See appendix table I.25 for a tabular presentation of the data in this figure.

Transport 79%
Travel 14%
All other 7%

Figure 5.9 Ethiopia’s imports of commercial services from the world, by industry, 2015

Note: See appendix table I.26 for a tabular presentation of the data in this figure.

Transport 54%
Travel 11%
All other 35%
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. Furthermore, Ethiopia accounted for only 20,390—or about 0.2 percent—of the nonimmigrant visas issued by the United States in 2016, 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. Based on the most recently available bilateral FDI statistics for 2012, China was by far the largest source of Ethiopia’s inward FDI stock. The United States held an inward FDI position of $1 million from Ethiopia in 2016, unchanged from its 2010 level. 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. As the economic, financial, and transport hub of East Africa, Kenya has maintained steady economic growth in recent years. In 2016, the country’s GDP growth rate was 5.8 percent (table 5.11). Kenya is categorized by the World Bank as a lower-middle-income country, with its GDP per capita estimated at $1,143.

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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.
999 World Bank, World Development Indicators database (accessed January 3, 2018).
Table 5.11 Major economic indicators, Kenya, 2010–16

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP (2010 constant billion $)</td>
<td>40.0</td>
<td>44.4</td>
<td>49.5</td>
<td>55.4</td>
</tr>
<tr>
<td>GDP growth (annual percent)</td>
<td>8.4</td>
<td>4.6</td>
<td>5.4</td>
<td>5.8</td>
</tr>
<tr>
<td>GDP per capita (2010 constant $)</td>
<td>967.3</td>
<td>1,016.8</td>
<td>1,075.6</td>
<td>1,143.1</td>
</tr>
<tr>
<td>Current account balance (percent of GDP)</td>
<td>-5.9</td>
<td>-8.4</td>
<td>-10.4</td>
<td>-5.2</td>
</tr>
<tr>
<td>Inflation, consumer prices (annual percent)</td>
<td>4.0</td>
<td>9.4</td>
<td>6.9</td>
<td>6.3</td>
</tr>
<tr>
<td>Population (millions)</td>
<td>41.4</td>
<td>43.6</td>
<td>46.0</td>
<td>48.5</td>
</tr>
<tr>
<td>Internet users (per 100 people)</td>
<td>7.2</td>
<td>10.5</td>
<td>16.5</td>
<td>26.0</td>
</tr>
</tbody>
</table>


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).\textsuperscript{1002} Agriculture remains the backbone of the Kenyan economy, though tourism is another important sector with rapid growth.\textsuperscript{1003} Within manufacturing, the top sectors in terms of value added were food and beverages, textiles, and printing and publishing.\textsuperscript{1004}

Figure 5.10 GDP composition, Kenya, 2016


Note: See appendix table I.27 for a tabular presentation of the data in this figure.

\textsuperscript{1002} UNSD, National Accounts Main Aggregates Database (accessed January 19, 2018).
\textsuperscript{1003} CIA, World Factbook, “Kenya” (accessed January 5, 2018); World Bank, World Development Indicators database (accessed January 3, 2018).
\textsuperscript{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.\textsuperscript{1005} Kenya is a member of COMESA and the East African Community (EAC).\textsuperscript{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.\textsuperscript{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.\textsuperscript{1008} Kenya is one of 14 SSA countries that has developed a national AGOA strategy,\textsuperscript{1009} which listed five key sectors to focus on: textiles and apparel, coffee, nuts, cut flowers, and home and fashion accessories.\textsuperscript{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).\textsuperscript{1011}

<table>
<thead>
<tr>
<th>Leading U.S. exports to Kenya</th>
<th>2010</th>
<th>2016</th>
<th>Absolute change 2010–16</th>
<th>% change 2010–16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aircraft</td>
<td>74.4</td>
<td>93.6</td>
<td>19.2</td>
<td>25.8</td>
</tr>
<tr>
<td>Cereals</td>
<td>19.3</td>
<td>29.9</td>
<td>10.6</td>
<td>54.7</td>
</tr>
<tr>
<td>Telecommunications equipment</td>
<td>5.2</td>
<td>26.5</td>
<td>21.3</td>
<td>411.3</td>
</tr>
<tr>
<td>Pharmaceuticals</td>
<td>6.7</td>
<td>16.2</td>
<td>9.5</td>
<td>141.1</td>
</tr>
<tr>
<td>Polyvinyl chloride resins in primary forms</td>
<td>5.9</td>
<td>13.5</td>
<td>7.6</td>
<td>127.7</td>
</tr>
<tr>
<td>All other</td>
<td>245.6</td>
<td>199.8</td>
<td>-45.8</td>
<td>-18.6</td>
</tr>
<tr>
<td>Total</td>
<td>357.2</td>
<td>379.5</td>
<td>22.3</td>
<td>6.3</td>
</tr>
</tbody>
</table>

Note: Because of rounding, figures may not add up to totals shown.

\textsuperscript{1005} IHS Markit, Global Trade Atlas database (accessed December 7, 2017).
\textsuperscript{1006} WTO, RTA-IS, “Kenya” (accessed January 11, 2018). See the Ethiopia entry, and chapter 6, for more information on COMESA.
\textsuperscript{1007} USITC DataWeb/USDOC (accessed November 7, 2017).
\textsuperscript{1009} AGOA.info, “National AGOA Strategies” (accessed January 19, 2018). For more information on national AGOA strategies, see chapter 6.
\textsuperscript{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).  

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).

**Table 5.13 Leading U.S. imports from Kenya, by USITC digest sector, 2010–16**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Apparel</td>
<td>201.8</td>
<td>340.7</td>
<td>138.9</td>
<td>68.8</td>
</tr>
<tr>
<td>Coffee and tea</td>
<td>50.8</td>
<td>65.2</td>
<td>14.4</td>
<td>28.4</td>
</tr>
<tr>
<td>Edible nuts</td>
<td>20.3</td>
<td>42.8</td>
<td>22.5</td>
<td>111.0</td>
</tr>
<tr>
<td>Certain ores, concentrates, ash, and residues</td>
<td>0.0</td>
<td>25.1</td>
<td>25.1</td>
<td>a</td>
</tr>
<tr>
<td>Animal or vegetable fats and oils</td>
<td>0.4</td>
<td>5.0</td>
<td>4.6</td>
<td>1246.9</td>
</tr>
<tr>
<td>All other</td>
<td>21.6</td>
<td>33.5</td>
<td>11.9</td>
<td>55.0</td>
</tr>
<tr>
<td>Total</td>
<td>294.9</td>
<td>512.3</td>
<td>217.4</td>
<td>73.7</td>
</tr>
</tbody>
</table>


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). 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.
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.\textsuperscript{1016} Kenya’s imports of both transport services and other business services increased in most years during the period.\textsuperscript{1017}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure5_11.png}
\caption{Kenya’s exports of commercial services to the world, by industry, 2015}
\end{figure}

\textsuperscript{1016} The WTO does not publish discrete data on Kenyan imports of business services for 2015.
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.\textsuperscript{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,\textsuperscript{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.\textsuperscript{1020} Based on the most currently available bilateral FDI statistics for 2012, the

\textsuperscript{1018} Bureau van Dijk, Orbis database of companies (accessed January 9, 2018).
\textsuperscript{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.
United Kingdom (UK) was the largest source of Kenya’s inward FDI stock, followed by China, France, South Africa, and the United States.\footnote{1021}

The United States held an outward FDI position of $369 million in Kenya in 2016, a modest increase from $308 million in 2010.\footnote{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.\footnote{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.\footnote{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.\footnote{1025} Mauritius has had stable economic growth in recent years. From 2010 to 2016, the country’s GDP growth rate averaged 3.8 percent.\footnote{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.\footnote{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).\footnote{1028}

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP (2010 constant billion $)</td>
<td>10.0</td>
<td>10.8</td>
<td>11.6</td>
<td>12.4</td>
</tr>
<tr>
<td>GDP growth (annual %)</td>
<td>4.4</td>
<td>3.5</td>
<td>3.7</td>
<td>3.8</td>
</tr>
<tr>
<td>GDP per capita (2010 constant $)</td>
<td>8,000.4</td>
<td>8,580.1</td>
<td>9,163.6</td>
<td>9,822.0</td>
</tr>
<tr>
<td>Current account balance (% of GDP)</td>
<td>-10.1</td>
<td>-7.1</td>
<td>-5.6</td>
<td>-4.4</td>
</tr>
<tr>
<td>Inflation, consumer prices (annual %)</td>
<td>2.9</td>
<td>3.9</td>
<td>3.2</td>
<td>1.0</td>
</tr>
<tr>
<td>Population (million)</td>
<td>1.3</td>
<td>1.3</td>
<td>1.3</td>
<td>1.3</td>
</tr>
<tr>
<td>Internet users (per 100 people)</td>
<td>28.3</td>
<td>35.4</td>
<td>44.8</td>
<td>53.2</td>
</tr>
</tbody>
</table>


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

\footnote{1021} UNCTAD, Bilateral FDI Statistics, “Kenya, Table 3. FDI Stock in the Host Economy, by Geographical Origin” (accessed February 14, 2018).
\footnote{1024} World Bank, World Development Indicators database (accessed January 3, 2018).
\footnote{1026} UNSD, National Accounts Main Aggregates Database (accessed January 12, 2018).
\footnote{1028} World Bank, World Development Indicators database (accessed January 3, 2018).
(2.8 percent) (figure 5.13).\textsuperscript{1029} Within manufacturing, the top three sectors by value added were food and beverages; apparel and fur; and textiles.\textsuperscript{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.\textsuperscript{1031}

\textbf{Figure 5.13 GDP composition, Mauritius, 2016}

![GDP composition, Mauritius, 2016](image)


Note: See appendix table I.30 for a tabular presentation of the data in this figure.

\textsuperscript{1029} UNSD, National Accounts Main Aggregates Database (accessed January 5, 2018).
\textsuperscript{1030} UNIDO, INDSTAT (accessed December 29, 2017).
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

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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.
Table 5.15 Leading U.S. goods exports to Mauritius, by USITC digest sector, 2010–16

<table>
<thead>
<tr>
<th>Leading U.S. exports to Mauritius</th>
<th>2010</th>
<th>2016</th>
<th>Absolute change 2010–16</th>
<th>% change 2010–16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aircraft</td>
<td>1.7</td>
<td>35.9</td>
<td>34.2</td>
<td>2,046.5</td>
</tr>
<tr>
<td>Natural gas and components</td>
<td>0.0</td>
<td>18.8</td>
<td>18.8</td>
<td>a</td>
</tr>
<tr>
<td>Medical goods</td>
<td>1.4</td>
<td>2.5</td>
<td>1.1</td>
<td>81.2</td>
</tr>
<tr>
<td>Computers, peripherals, and parts</td>
<td>0.8</td>
<td>2.2</td>
<td>1.4</td>
<td>167.9</td>
</tr>
<tr>
<td>Nonautomotive insulated electrical wire and related products</td>
<td>0.03</td>
<td>1.8</td>
<td>1.77</td>
<td>5,156.0</td>
</tr>
<tr>
<td>All other</td>
<td>34.3</td>
<td>23.6</td>
<td>-10.7</td>
<td>-31.2</td>
</tr>
<tr>
<td>Total</td>
<td>38.3</td>
<td>84.9</td>
<td>46.6</td>
<td>121.9</td>
</tr>
</tbody>
</table>

Note: Because of rounding, figures may not add up to totals shown.

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

<table>
<thead>
<tr>
<th>Leading U.S. imports from Mauritius</th>
<th>2010</th>
<th>2016</th>
<th>Absolute change 2010–16</th>
<th>% change 2010–16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apparel</td>
<td>123.0</td>
<td>197.4</td>
<td>74.4</td>
<td>60.5</td>
</tr>
<tr>
<td>Natural and synthetic gemstones</td>
<td>32.2</td>
<td>58.6</td>
<td>26.4</td>
<td>81.9</td>
</tr>
<tr>
<td>Canned fish</td>
<td>7.0</td>
<td>40.2</td>
<td>33.2</td>
<td>476.9</td>
</tr>
<tr>
<td>Certain miscellaneous animals and meats</td>
<td>11.7</td>
<td>10.2</td>
<td>-1.5</td>
<td>-12.9</td>
</tr>
<tr>
<td>Sugar and other sweeteners</td>
<td>6.8</td>
<td>7.2</td>
<td>0.4</td>
<td>6.5</td>
</tr>
<tr>
<td>All other</td>
<td>13.5</td>
<td>19.6</td>
<td>6.1</td>
<td>44.9</td>
</tr>
<tr>
<td>Total</td>
<td>194.2</td>
<td>333.2</td>
<td>139.0</td>
<td>71.6</td>
</tr>
</tbody>
</table>

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 million 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**


Note: See appendix table I.31 for a tabular presentation of the data in this figure.


\(^{1043}\) Ibid.
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. 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, 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

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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 Mauritan 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. 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.

The United States held an outward FDI position of $7.0 billion in Mauritius in 2016, down from $7.9 million 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.

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. Nigeria holds the largest natural gas reserves in Africa and is the continent’s largest oil exporter. Its economy relies heavily on oil as its main source of revenue. 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). 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. Nigeria is categorized by the World Bank as a lower-middle-income country, with GDP per capita estimated at $2,455.9 in 2016.
Table 5.17 Major economic indicators, Nigeria, 2010–16

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP (2010 constant billion $)</td>
<td>369.1</td>
<td>403.7</td>
<td>452.3</td>
<td>456.8</td>
</tr>
<tr>
<td>GDP growth (annual %)</td>
<td>7.8</td>
<td>4.3</td>
<td>6.3</td>
<td>-1.5</td>
</tr>
<tr>
<td>GDP per capita (2010 constant $)</td>
<td>2,327.3</td>
<td>2,412.9</td>
<td>2,563.1</td>
<td>2,455.9</td>
</tr>
<tr>
<td>Current account balance (% of GDP)</td>
<td>3.6</td>
<td>3.8</td>
<td>0.2</td>
<td>0.7</td>
</tr>
<tr>
<td>Inflation, consumer prices (annual %)</td>
<td>13.7</td>
<td>12.2</td>
<td>8.1</td>
<td>15.7</td>
</tr>
<tr>
<td>Population (million)</td>
<td>158.6</td>
<td>167.3</td>
<td>176.5</td>
<td>186.0</td>
</tr>
<tr>
<td>Internet users (per 100 people)</td>
<td>11.5</td>
<td>16.1</td>
<td>21.0</td>
<td>25.7</td>
</tr>
</tbody>
</table>


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).\footnote{1056}

Figure 5.16 GDP composition, Nigeria, 2016


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

\footnote{1056} UNSD, National Accounts Main Aggregates Database (accessed January 19, 2018).
Nigeria’s goods trade with the world.\textsuperscript{1057} Nigeria is a member of the Economic Community of West African States (ECOWAS).\textsuperscript{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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{1061} The eighth U.S.-Nigeria TIFA Council meeting was held in 2014.\textsuperscript{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).\textsuperscript{1063} 

<table>
<thead>
<tr>
<th>Leading U.S. exports to Nigeria</th>
<th>2010</th>
<th>2016</th>
<th>Absolute change 2010–16</th>
<th>% change 2010–16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cereals</td>
<td>832.4</td>
<td>292.2</td>
<td>-540.2</td>
<td>-64.9</td>
</tr>
<tr>
<td>Motor vehicles</td>
<td>715.9</td>
<td>238.6</td>
<td>-477.3</td>
<td>-66.7</td>
</tr>
<tr>
<td>Petroleum products</td>
<td>654.3</td>
<td>153.5</td>
<td>-500.8</td>
<td>-76.5</td>
</tr>
<tr>
<td>Aircraft</td>
<td>134.1</td>
<td>102.2</td>
<td>-31.9</td>
<td>-23.8</td>
</tr>
<tr>
<td>Aircraft engines and gas turbines</td>
<td>70.1</td>
<td>64.0</td>
<td>-6.1</td>
<td>-8.7</td>
</tr>
<tr>
<td>All other</td>
<td>1,613.5</td>
<td>1,019.7</td>
<td>-593.8</td>
<td>-36.8</td>
</tr>
<tr>
<td>Total</td>
<td>4,020.3</td>
<td>1,870.1</td>
<td>-2,150.2</td>
<td>-53.5</td>
</tr>
</tbody>
</table>

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

\textsuperscript{1057} IHS Markit, Global Trade Atlas database (accessed December 7, 2017).
\textsuperscript{1058} WTO, RTA-IS, “Nigeria” (accessed January 19, 2018). For more information about ECOWAS, see chapter 6.
\textsuperscript{1059} USITC DataWeb/USDOC (accessed November 7, 2017).
\textsuperscript{1062} USTR, “United States and Nigeria Hold 8th Trade and Investment,” March 2014.
\textsuperscript{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).\textsuperscript{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).\textsuperscript{1065}

<table>
<thead>
<tr>
<th>Leading U.S. goods imports from Nigeria</th>
<th>2010</th>
<th>2016</th>
<th>Absolute change 2010–16</th>
<th>% change 2010–16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crude petroleum</td>
<td>29,069.2</td>
<td>3,646.0</td>
<td>-25,423.2</td>
<td>-87.5</td>
</tr>
<tr>
<td>Petroleum products</td>
<td>1,152.5</td>
<td>386.9</td>
<td>-765.6</td>
<td>-66.4</td>
</tr>
<tr>
<td>Works of art and miscellaneous manufactured goods</td>
<td>3.0</td>
<td>9.4</td>
<td>6.4</td>
<td>210.0</td>
</tr>
<tr>
<td>Fertilizers</td>
<td>0.0</td>
<td>6.7</td>
<td>6.7</td>
<td>a</td>
</tr>
<tr>
<td>Animal feeds</td>
<td>6.8</td>
<td>6.5</td>
<td>-0.3</td>
<td>-4.2</td>
</tr>
<tr>
<td>All other</td>
<td>272.4</td>
<td>39.9</td>
<td>-232.5</td>
<td>-85.3</td>
</tr>
<tr>
<td>Total</td>
<td>30,503.9</td>
<td>4,095.4</td>
<td>-26,408.5</td>
<td>-86.6</td>
</tr>
</tbody>
</table>

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.\textsuperscript{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.\textsuperscript{1067}

\textsuperscript{1064} Ibid.
\textsuperscript{1067} Ibid.
Figure 5.17 Nigeria’s exports of commercial services to the world, by industry, 2015

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

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).  

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). 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.

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. 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.

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. Also in 2016, the United States had an inward FDI position of $53 million.

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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).
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.\footnote{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).} 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).\footnote{USDOC, BEA, International Transactions Account database, “U.S. Direct Investment Position Abroad on a Historical-cost Basis” (accessed November 20, 2017).}

## South Africa

### Economic Overview

In 2016, South Africa was the world’s 38th-largest economy with a GDP of $419.5 billion.\footnote{World Bank, World Development Indicators database (accessed January 3, 2018).} Since 2012, South Africa has been the second-largest economy in the SSA region, after Nigeria.\footnote{Ibid.} 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 Africa\footnote{CIA, World Factbook, “South Africa,” https://www.cia.gov/library/publications/the-world-factbook/geos/sf.html (accessed November 27, 2017).} and one of the best-regulated stock markets globally.\footnote{WEF, The Global Competitiveness Report 2016–2017, September 28, 2016.} However, its economic growth has slowed in recent years, slowing to only 0.3 percent in 2016,\footnote{World Bank, World Development Indicators database (accessed January 3, 2018).} partly due to structural constraints such as skills shortages, declining global competitiveness, and frequent strikes.\footnote{CIA, World Factbook, “South Africa” (accessed November 27, 2017).} South Africa is classified as an upper-middle-income country,\footnote{World Bank, “World Bank Analytical Classifications” and World Development Indicators database (accessed December 18, 2017).} with GDP per capita estimated at $7,503.3 (table 5.20).

### Table 5.20 Major economic indicators, South Africa, 2010–16

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP (2010 constant billion $)</td>
<td>375.3</td>
<td>396.2</td>
<td>413.0</td>
<td>419.5</td>
</tr>
<tr>
<td>GDP growth (annual %)</td>
<td>3.0</td>
<td>2.2</td>
<td>1.7</td>
<td>0.3</td>
</tr>
<tr>
<td>GDP per capita (2010 constant $)</td>
<td>7,361.8</td>
<td>7,545.8</td>
<td>7,626.9</td>
<td>7,503.3</td>
</tr>
<tr>
<td>Current account balance (% of GDP)</td>
<td>-1.5</td>
<td>-5.1</td>
<td>-5.3</td>
<td>-3.2</td>
</tr>
<tr>
<td>Inflation, consumer prices (annual %)</td>
<td>4.3</td>
<td>5.7</td>
<td>6.1</td>
<td>6.3</td>
</tr>
<tr>
<td>Population (million)</td>
<td>51.0</td>
<td>52.5</td>
<td>54.1</td>
<td>55.9</td>
</tr>
<tr>
<td>Internet users (per 100 people)</td>
<td>24.0</td>
<td>41.0</td>
<td>49.0</td>
<td>54.0</td>
</tr>
</tbody>
</table>


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.\footnote{UNSD, National Accounts Main Aggregates Database (accessed January 19, 2018).} Within manufacturing, the top three sectors...
by value added were food and beverages, petroleum-related products, and furniture and other manufacturing.\textsuperscript{1084}

**Figure 5.19 GDP composition, South Africa, 2016**

Note: See \textit{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.\textsuperscript{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).\textsuperscript{1086} South Africa also belongs to the Southern African Development Community (SADC).

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\textsuperscript{1084} UNIDO, INDSTAT database (accessed November 21, 2017).
\textsuperscript{1085} IHS Markit, Global Trade Atlas database (accessed December 7, 2017).
**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).\(^{1091}\)

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\(^{1087}\) USITC DataWeb/USDOC (accessed November 7, 2017).


\(^{1091}\) USITC DataWeb/USDOC (accessed November 7, 2017).
### Table 5.21 Leading U.S. goods exports to South Africa, by USITC digest sector, 2010–16

<table>
<thead>
<tr>
<th>Leading U.S. exports to South Africa</th>
<th>2010</th>
<th>2016</th>
<th>Absolute change 2010–16</th>
<th>% change 2010–16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aircraft</td>
<td>286.3</td>
<td>334.0</td>
<td>47.7</td>
<td>16.7</td>
</tr>
<tr>
<td>Certain motor-vehicle parts</td>
<td>110.2</td>
<td>198.8</td>
<td>88.6</td>
<td>80.4</td>
</tr>
<tr>
<td>Pharmaceuticals</td>
<td>94.2</td>
<td>194.6</td>
<td>100.4</td>
<td>106.5</td>
</tr>
<tr>
<td>Construction and mining equipment</td>
<td>467.8</td>
<td>192.5</td>
<td>-275.3</td>
<td>-58.9</td>
</tr>
<tr>
<td>Medical goods</td>
<td>164.1</td>
<td>179.8</td>
<td>15.7</td>
<td>9.6</td>
</tr>
<tr>
<td>All other</td>
<td>4,250.1</td>
<td>3,309.7</td>
<td>-940.4</td>
<td>-22.1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>5,372.7</td>
<td>4,409.4</td>
<td>-963.3</td>
<td>-17.9</td>
</tr>
</tbody>
</table>

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. 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

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manufacturing industry is heavily reliant on imports of active pharmaceutical ingredients (APIs); it sources 95 percent of its APIs from abroad.\(^\text{1096}\)

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).\(^\text{1097}\) 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.\(^\text{1098}\)

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).\(^\text{1099}\)

<table>
<thead>
<tr>
<th>Leading U.S. imports from South Africa</th>
<th>2010</th>
<th>2016</th>
<th>Absolute change 2010–16</th>
<th>% change 2010–16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motor vehicles</td>
<td>1,543.2</td>
<td>1,512.0</td>
<td>-31.2</td>
<td>-2.0</td>
</tr>
<tr>
<td>Precious metals and non-numismatic coins</td>
<td>2,214.1</td>
<td>1,488.6</td>
<td>-725.5</td>
<td>-32.8</td>
</tr>
<tr>
<td>Natural and synthetic gemstones</td>
<td>1,143.6</td>
<td>565.4</td>
<td>-578.2</td>
<td>-50.6</td>
</tr>
<tr>
<td>Ferroalloys</td>
<td>602.1</td>
<td>339.8</td>
<td>-262.3</td>
<td>-43.6</td>
</tr>
<tr>
<td>Centrifuges, filtering, purifying equipment</td>
<td>205.1</td>
<td>290.8</td>
<td>85.7</td>
<td>41.8</td>
</tr>
<tr>
<td>All other</td>
<td>2,428.8</td>
<td>2,466.0</td>
<td>37.2</td>
<td>1.5</td>
</tr>
<tr>
<td>Total</td>
<td>8,137.0</td>
<td>6,662.6</td>
<td>-1,474.4</td>
<td>-18.1</td>
</tr>
</tbody>
</table>

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.

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\(^{1097}\) 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).
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

![Figure 5.20](image)

Note: See appendix table I.37 for a tabular presentation of the data in this figure.


\(^{1101}\) Ibid.
Figure 5.21 South Africa’s imports of commercial services from the world, by industry, 2015

Transport 43%

Travel 20%

Other business services 15%

Charges for the use of intellectual property n.i.e. 11%

All other 11%


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

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.  

**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. 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).

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. 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).

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.

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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.
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. 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.

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. 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.” Of the 38 AGOA-eligible SSA countries, 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.

**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

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1115 Ibid., 13, 17, 21.
Chapter 6: Selected AGOA Strategies and Recent Development in SSA Regional Integration

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>
<thead>
<tr>
<th>AGOA beneficiary country</th>
<th>Agricultural and food processing</th>
<th>Textile, apparel, footwear and leather products</th>
<th>Jewelry and mining</th>
<th>Handicrafts</th>
<th>Other light manufacturing</th>
</tr>
</thead>
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<tr>
<td>Botswana</td>
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<td>Burundi</td>
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<td>Ethiopia</td>
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<td>Ghana</td>
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<td>Kenya</td>
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<td>Lesotho</td>
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<td>Madagascar</td>
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<td>Malawi</td>
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<td>Mali</td>
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<tr>
<td>Mauritius</td>
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<tr>
<td>Mozambique</td>
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<tr>
<td>Rwanda</td>
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<td>Senegal</td>
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<tr>
<td>Tanzania</td>
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<tr>
<td>Togo</td>
<td>•</td>
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<tr>
<td>Zambia</td>
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</tbody>
</table>


Overview of Regional Integration in SSA

African governments view regional integration 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.”

The SSA region is composed of 49 economies of varying sizes, each with its own tariffs and customs procedures. 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. 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. 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. Fifty-one AU members signed the Abuja treaty in 1991, and it entered into force in 1994. 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.
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: Unitig 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.
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), 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). The RECs also feature overlapping memberships, both among the RECs themselves and with other African regional economic blocs (figure 6.1).

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. The RECs agreed to monitor the progressive negotiation of integration components, largely based on the AEC roadmap. 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.

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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).

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

<table>
<thead>
<tr>
<th>Stage and integration component</th>
<th>REC status</th>
<th>AU deadline</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Creation of regional blocs</td>
<td>Complete</td>
<td>1999</td>
</tr>
<tr>
<td>II. Gradual reduction in tariffs—establishment of preferential trade areas</td>
<td>5 complete—EAC, ECCAS, ECOWAS, COMESA, and SADC</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3 RECs past deadline—UMA, IGAD, and CEN-SAD</td>
<td></td>
</tr>
<tr>
<td>III. Free trade areas /customs unions—free trade areas feature no tariffs and no quotas, and customs unions include a common external tariff</td>
<td>2 complete or nearing completion—EAC and ECOWAS (waiting on Cabo Verde to implement common external tariff)</td>
<td>2007</td>
</tr>
<tr>
<td></td>
<td>3 progressing (free trade area complete)—COMESA, ECCAS, and SADC</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3 incomplete—UMA, CEN-SAD, and IGAD</td>
<td></td>
</tr>
<tr>
<td>IV. Continental African customs union</td>
<td>Incomplete</td>
<td>2019</td>
</tr>
<tr>
<td>V. African Common Market—including free factor movement (e.g., labor mobility)</td>
<td>Incomplete</td>
<td>2023</td>
</tr>
<tr>
<td>VI. Monetary and economic union—including harmonized economic policies and a single currency</td>
<td>Incomplete</td>
<td>2028</td>
</tr>
</tbody>
</table>


To better track the progress of the RECs, in 2016 the AU Commission\(^{1137}\) launched the Africa Regional Integration Index (ARIII), 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 ARIII 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.

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\(^{1137}\) The AU Commission collaborated on the ARIII with the African Development Bank (AfDB) and the United Nations’ Economic Commission on Africa (UNECA).

\(^{1138}\) Further descriptions for the five dimensions of the ARIII appear in appendix H.
Table 6.3 RECs’ average Africa Regional Integration Index scores, 2016

<table>
<thead>
<tr>
<th>REC</th>
<th>Overall ARII average score</th>
<th>Trade integration</th>
<th>Regional infrastructure</th>
<th>Productive integration</th>
<th>Free movement of people</th>
<th>Financial and macroeconomic integration</th>
</tr>
</thead>
<tbody>
<tr>
<td>EAC</td>
<td>0.540</td>
<td>0.780</td>
<td>0.496</td>
<td>0.553</td>
<td>0.715</td>
<td>0.156</td>
</tr>
<tr>
<td>SADC</td>
<td>0.531</td>
<td>0.508</td>
<td>0.502</td>
<td>0.350</td>
<td>0.530</td>
<td>0.397</td>
</tr>
<tr>
<td>ECOWAS</td>
<td>0.509</td>
<td>0.442</td>
<td>0.426</td>
<td>0.265</td>
<td>0.800</td>
<td>0.611</td>
</tr>
<tr>
<td>UMA</td>
<td>0.459</td>
<td>0.631</td>
<td>0.491</td>
<td>0.481</td>
<td>0.493</td>
<td>0.199</td>
</tr>
<tr>
<td>IGAD</td>
<td>0.457</td>
<td>0.505</td>
<td>0.630</td>
<td>0.434</td>
<td>0.454</td>
<td>0.221</td>
</tr>
<tr>
<td>ECCAS</td>
<td>0.454</td>
<td>0.526</td>
<td>0.451</td>
<td>0.293</td>
<td>0.400</td>
<td>0.599</td>
</tr>
<tr>
<td>COMESA</td>
<td>0.415</td>
<td>0.572</td>
<td>0.439</td>
<td>0.452</td>
<td>0.268</td>
<td>0.343</td>
</tr>
<tr>
<td>CEN-SAD</td>
<td>0.395</td>
<td>0.353</td>
<td>0.251</td>
<td>0.247</td>
<td>0.479</td>
<td>0.524</td>
</tr>
<tr>
<td>Eight-REC average</td>
<td>0.470</td>
<td>0.540</td>
<td>0.461</td>
<td>0.384</td>
<td>0.517</td>
<td>0.381</td>
</tr>
</tbody>
</table>


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. This is in line with a decline in commodity prices (particularly for crude oil, gold, copper, and iron ore). 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.

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. 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.

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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.\(^\text{1144}\) As of January 2018, 22 out of 27 members of the three RECs have signed the agreement.\(^\text{1145}\) 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.\(^\text{1146}\)

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).\(^\text{1147}\) The Tripartite Free Trade Area members have missed the June 2016 and October 2017 deadlines for phase I. However,


\(^{1145}\) 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.


South Africa (July 2017) recently signed the agreement; its signature was expected to build momentum for further negotiations.²¹⁴³

**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 2015²¹⁴⁹ with the aim of resolving the problem of overlapping REC memberships and accelerating regional integration in the region.²¹⁵⁰ 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.²¹⁵¹ The CFTA would create a continental customs union, and eliminate duties on 90 percent of trade in goods among the members.²¹⁵²

Recently AU members met in Kigali, Rwanda, during March 17–21, 2018, for an Extraordinary Summit on the African Continental Free Trade Area.²¹⁵³ Representatives from 44 of the 55 CFTA countries signed the CFTA consolidated text on March 21, 2018.²¹⁵⁴ Some of the fastest-growing economies in SSA—Ghana, Ethiopia, and Côte d'Ivoire—have signed.²¹⁵⁵ However, the two largest economies, Nigeria and South Africa, were not fully ready to give their approval.²¹⁵⁶ 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.²¹⁵⁷ 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.²¹⁵⁸ Another summit is expected to take place in Mauritania in July 2018.²¹⁵⁹ After signing the agreement, member countries of the CFTA must ratify it before full implementation of the agreement is possible.²¹⁶⁰

**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

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²¹⁶⁰ The specific number of members required to ratify has not been decided yet. Al Jazeera, “African Continental Free Trade Area,” March 20, 2018.

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).\textsuperscript{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.\textsuperscript{1162} EAC and ECOWAS have both made some progress towards monetary union,\textsuperscript{1163} while SACU, WAEMU, and CEMAC feature longstanding currency and monetary unions that are linked to former colonial powers.\textsuperscript{1164}

\textsuperscript{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).
\textsuperscript{1162} SACU, “About SACU” (accessed February 2018).
<table>
<thead>
<tr>
<th>REC</th>
<th>TIFA or TIDCA in place with the United States</th>
<th>Key integration components</th>
<th>Currency or monetary union</th>
</tr>
</thead>
<tbody>
<tr>
<td>East African Community (EAC)</td>
<td>TIFA since 2008</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Southern African Development Community</td>
<td>No</td>
<td>13 out of 15 members since 2015</td>
<td>In progress</td>
</tr>
<tr>
<td>Community (SADC)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Economic Community of Western African</td>
<td>TIFA since 2014</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>States (ECOWAS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arab Maghreb Union (UMA)</td>
<td>No</td>
<td>Incomplete</td>
<td>No</td>
</tr>
<tr>
<td>Intergovernmental Authority on Development (IGAD)</td>
<td>No</td>
<td>Incomplete</td>
<td>No</td>
</tr>
<tr>
<td>Economic Community of Central African</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>States (ECCAS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Common Market for Eastern and Southern</td>
<td>TIFA since 2001</td>
<td>16 out of 19 members since 2016</td>
<td>In progress</td>
</tr>
<tr>
<td>Africa (COMESA)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community of Sahel-Saharan States (CEN-SAD)</td>
<td>No</td>
<td>Incomplete</td>
<td>No</td>
</tr>
<tr>
<td>Other Relevant Regional Economic Blocs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Southern African Customs Union (SACU)</td>
<td>TIDCA since 2008</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>West African Economic and Monetary Union (WAEMU)</td>
<td>TIFA since 2002</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Central African Economic and Monetary Community (CEMAC)</td>
<td>No</td>
<td>Yes</td>
<td>Yes, with exceptions&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
</tbody>
</table>


Note: TIDCA = trade, investment, and development cooperation agreement; TIFA = trade and investment framework agreement.


<sup>b</sup> 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)\textsuperscript{1165}

<table>
<thead>
<tr>
<th>REC members</th>
<th>• (6 members) Burundi, Kenya, Rwanda, South Sudan, Tanzania, and Uganda</th>
</tr>
</thead>
<tbody>
<tr>
<td>Progress</td>
<td>• AEC roadmap: stage III, complete</td>
</tr>
<tr>
<td></td>
<td>• ARII score: 0.54—most integrated REC</td>
</tr>
<tr>
<td>REC trade relationship with the United States</td>
<td>• TiFA in place since 2008</td>
</tr>
<tr>
<td></td>
<td>• U.S. Trade Africa Initiative for trade facilitation established in 2013</td>
</tr>
</tbody>
</table>

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.\textsuperscript{1166} Later in 2010, all EAC members had fully ratified the EAC Common Market Protocol.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{1170} Also, Kenya, Rwanda, and Uganda have waived work permits for professionals who are citizens of these three countries.\textsuperscript{1171} However, some members, Tanzania in particular, have been reluctant to follow through with the EAC Common Market Protocol commitments.\textsuperscript{1172}

\begin{footnotesize}
\textsuperscript{1165} EAC, “About the EAC” (accessed January 26, 2018).
\textsuperscript{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).
\textsuperscript{1167} EAC, “About the EAC: Brief History: Milestones” (accessed July 9, 2015).
\textsuperscript{1169} Ibid, 87.
\end{footnotesize}
More recently, the EAC and the United States entered a trade facilitation partnership via the Trade Africa initiative starting in 2013. The REC also gained a new member when South Sudan 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.

**The Southern African Development Community (SADC)**

SADC is the second most integrated REC, based on the ARII overall scores. Thirteen out of the 15 SADC members had implemented the free trade area by 2015. Those remaining outside the free trade area include two SADC members with large economies—Angola and the Democratic Republic of the Congo. 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. 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. Note that five members of SADC are also part of SACU.

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1174 South Sudan gained independence from Sudan on July 9, 2011. GOSS, “New Map of the Republic of South Sudan” (accessed March 20, 2018).
1176 SADC, “Member States,” April 9, 2015.
Economic Community of West African States (ECOWAS) ¹¹⁸²

**REC members**
- (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**
- AEC roadmap: stage III, near completion
- ARII score: 0.509 (third most integrated REC)

**REC trade relationship with the United States**
- 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

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¹¹⁸² ECOWAS, “Member States” (accessed January 26, 2018).
¹¹⁸³ AUC, Africa Regional Integration Index Report, 2016, 15.
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.

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\(^{1192}\) 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).

Inter-Governmental Authority on Development (IGAD)\textsuperscript{1196}

<table>
<thead>
<tr>
<th>REC members</th>
<th>• (8 members) Djibouti, Eritrea, Ethiopia, Kenya, Somalia, South Sudan, Sudan, and Uganda</th>
</tr>
</thead>
</table>
| Progress                     | • AEC roadmap: stage II  
• ARII Score: 0.457 (below-average performer)                                              |
| REC trade relationship with the United States | • 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.\textsuperscript{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.\textsuperscript{1198} IGAD had planned to launch a free trade area in 2012, but this deadline reportedly lapsed due to geopolitical issues.\textsuperscript{1199}

Economic Community of Central African States (ECCAS)

<table>
<thead>
<tr>
<th>REC members</th>
<th>• (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</th>
</tr>
</thead>
</table>
| Progress                     | • AEC roadmap: stage III  
• ARII score: 0.454 (below-average performer)                                                                                                                                                    |
| REC trade relationship with the United States | • No formal trade agreements in place                                                                                                                                                    |

\textsuperscript{1196} IGAD, “About Us” (accessed January 26, 2018).
\textsuperscript{1198} IGAD, “About CEWARN” (accessed January 26, 2018).
\textsuperscript{1199} Dersso, “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. 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). ECCAS members also faced difficulty in setting up a CET. 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). 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.

**Common Market for Eastern and Southern Africa (COMESA)**

- **REC members**
  - (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**
  - AEC roadmap: stage III
  - ARII score: 0.415 (below-average performer)

- **REC trade relationship with the United States**
  - 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. The COMESA free trade area went into effect in 2000. 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. COMESA launched its customs union initiative in 2009, but has missed...
some deadlines in this area. 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.

**Community of Sahel-Saharan States (CEN-SAD)**

- (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**
  - AEC roadmap: stage II
  - ARII score: 0.395 (below-average performer)
- **REC trade relationship with the United States**
  - 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. 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, 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. 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. 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.
Other Relevant Regional Economic Blocs

Southern African Customs Union (SACU)

- **Bloc members**
  - (5 members) Botswana, Lesotho, Namibia, South Africa, and Swaziland

- **Bloc trade relationship with the United States**
  - 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). 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. 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.

West African Economic and Monetary Union (WAEMU)

- **Bloc members**
  - (8 members) Benin, Burkina Faso, Côte d’Ivoire, Guinea-Bissau, Mali, Niger, Senegal, and Togo

- **Bloc trade relationship with the United States**
  - 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.

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WAEMU is also served by an established monetary union, which predates the formation of the WAEMU.\(^\text{1220}\) WAEMU has a TIFA with the United States as well.\(^\text{1221}\)

**Economic and Monetary Community of Central Africa (CEMAC)**

| Bloc members | • (6 members) Cameroon, Central African Republic, Chad, Republic of the Congo, Equatorial Guinea, and Gabon |
|Bloc trade relationship with the United States | • No formal trade agreements in place |

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 (COPIL-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).\(^\text{1222}\)

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\(^{1222}\) AU, “Troisième Réunion du Comité de Pilotage de la Rationalisation [Third meeting of the steering committee for the restructuring], April 24, 2015.


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Appendix A
Request Letter
The Honorable Rhonda K. Schmidtlein  
Chairman  
U.S. International Trade Commission  
500 E Street, S.W.  
Washington, DC 20436

Dear Chairman Schmidtlein:

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,

[Signature]

Ambassador Robert E. Lighthizer
United States Trade Representative
Appendix B

Federal Register Notice
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 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.
   e. 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. on January 11, 2018, and all post-hearing briefs and statements addressed 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.


Lisa R. Barton,
Secretary to the Commission.


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

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<tr>
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<th>Hearing testimony</th>
<th>Written submission</th>
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<td>U.S. Wheat Associates</td>
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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. 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. 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. 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.

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. In addition, AGOA authorizes duty-free treatment for certain textile and apparel articles made in qualifying beneficiary countries in SSA. In 2017, approximately 5,250 tariff lines were designated as covering products eligible for duty-free treatment under AGOA.

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1225 Ibid.
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.\textsuperscript{1231} Of these 38 countries, 27 were eligible to use AGOA textile and apparel benefits for all or part of 2017.\textsuperscript{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.\textsuperscript{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.\textsuperscript{1234}

\begin{footnotesize}
\begin{enumerate}
\item\textsuperscript{1231} USTR, \textit{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).
\item\textsuperscript{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);
\item\textsuperscript{1234} USITC, \textit{HTS 2017}, January 2017, chapter 98, subchapter XIX, U.S. note 2(a) through 2(e).
\end{enumerate}
\end{footnotesize}
Appendix F
Description of Gravity Modeling Methodology
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

\[ X_{ij} = \exp\left( M_i + S_j + \phi_{ij} \right) \] (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 \( \phi_{ij} \) 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, \( \phi_{ij} \), is given by

\[ \phi_{ij} = \log\left( \text{DIST}_{ij} \right) + \text{BORDER}_{ij} + \text{LANGUAGE}_{ij} + \text{PTA}_{ij} + \text{COLONY}_{ij} + \text{GSP}_{ij} + \text{AGOA}_{ij} \] (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.


\(^{1236}\) 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

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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.


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.

### Table F.1 Sectors and SSA countries with the greatest gaps between predicted and actual U.S. exports

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<thead>
<tr>
<th>Digest</th>
<th>Digest title</th>
<th>SSA markets with the greatest gaps</th>
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<tbody>
<tr>
<td>EP005</td>
<td>Refined petroleum products</td>
<td>South Africa, Tanzania, Kenya</td>
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<tr>
<td>AG030</td>
<td>Cereals</td>
<td>South Africa, Senegal, Côte d'Ivoire</td>
</tr>
<tr>
<td>CH019</td>
<td>Pharmaceuticals</td>
<td>Nigeria, South Africa, Kenya</td>
</tr>
<tr>
<td>TE009</td>
<td>Motor vehicles</td>
<td>Angola, Kenya, Ethiopia</td>
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<tr>
<td>TE013</td>
<td>Aircraft</td>
<td>Nigeria, Sudan, Niger</td>
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</table>

### Table F.2 Sectors and SSA countries with the greatest gaps between predicted and actual U.S. imports (AGOA-eligible digests only)

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</thead>
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<tr>
<td>TX005</td>
<td>Apparel</td>
<td>South Africa, Madagascar, Mauritius</td>
</tr>
<tr>
<td>AG037</td>
<td>Cocoa, chocolate, and confectionery</td>
<td>Ghana, Nigeria, Cameroon</td>
</tr>
<tr>
<td>MM041</td>
<td>Certain base metals and chemical elements</td>
<td>Botswana, Zambia, Nigeria</td>
</tr>
<tr>
<td>AG020</td>
<td>Edible nuts</td>
<td>Guinea-Bissau, Côte d'Ivoire</td>
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</table>

### 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.

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.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

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<td>Aircraft</td>
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<td>Natural gas and components</td>
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<td>24,767.0</td>
<td>17,404.8</td>
<td>12,886.1</td>
<td>13,595.7</td>
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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

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<td>Percent</td>
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<td>0.0</td>
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<td>105.1</td>
<td>190.6</td>
<td>145.1</td>
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<td>279.8</td>
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<td>290.6</td>
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<td>Percent</td>
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<td>21,782.1</td>
<td>23,218.7</td>
<td>24,767.0</td>
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### Table G.4 Fastest-growing U.S. imports from SSA countries, in percentage change terms, 2010–17

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<td>21.6</td>
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<td>29.9</td>
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<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
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<td>Metal forming machine tools</td>
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<td>Prefabricated buildings</td>
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<td>241.4</td>
<td>434.3</td>
<td>396.1</td>
<td>41.5</td>
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<td>Wrapping, packaging, and can-sealing machinery</td>
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<td>0.6</td>
<td>2.1</td>
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<td>5.5</td>
<td>1.7</td>
<td>1.5</td>
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<tr>
<td>Nonalcoholic beverages, excluding fruit and vegetable juices</td>
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<td>0.4</td>
<td>0.3</td>
<td>0.5</td>
<td>0.3</td>
<td>0.5</td>
<td>1.3</td>
<td>3.5</td>
<td>3.0</td>
<td>34.3</td>
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<td>9.2</td>
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<td>108.7</td>
<td>111.2</td>
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<td>114.3</td>
<td>75.7</td>
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<td>34.0</td>
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<td>All other</td>
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<td>74,052.8</td>
<td>49,229.2</td>
<td>38,794.9</td>
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<td>24,532.2</td>
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Table G.5 U.S. imports for consumption under AGOA, by leading growth product, in terms of absolute change, 2010–17

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<td>7.3</td>
<td>19.8</td>
<td>19.7</td>
<td>20.1</td>
<td>23.7</td>
<td>30.5</td>
<td>30.0</td>
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<td>Ferroalloys</td>
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<td>58.8</td>
<td>171.4</td>
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<td>Sugar and other sweeteners</td>
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<td>0.1</td>
<td>0.1</td>
<td>0.2</td>
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<td>21.8</td>
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<td>Miscellaneous chemicals and specialties</td>
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<td>41.8</td>
<td>47.0</td>
<td>62.0</td>
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<td>63.0</td>
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<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>7.1</td>
<td>16.3</td>
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</tr>
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<td>Wine and certain other fermented beverages</td>
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<td>30.7</td>
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<td>51.9</td>
<td>35.0</td>
<td>35.9</td>
<td>32.4</td>
<td>45.1</td>
<td>15.3</td>
<td>61.0</td>
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<td>Citrus fruit</td>
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<td>49.7</td>
<td>61.6</td>
<td>56.1</td>
<td>60.3</td>
<td>56.4</td>
<td>58.4</td>
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<td>4.7</td>
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<tr>
<td>Hides, skins, and leather</td>
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<td>1.0</td>
<td>1.5</td>
<td>1.1</td>
<td>2.4</td>
<td>1.4</td>
<td>4.4</td>
<td>8.7</td>
<td>7.6</td>
<td>34.7</td>
</tr>
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<td>Canned fish</td>
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<td>1.1</td>
<td>0.3</td>
<td>0.7</td>
<td>0.8</td>
<td>0.7</td>
<td>6.1</td>
<td>5.7</td>
<td>47.9</td>
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<tr>
<td>Prepared or preserved vegetables, mushrooms, and olives</td>
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<td>4.4</td>
<td>3.3</td>
<td>4.2</td>
<td>5.5</td>
<td>5.9</td>
<td>5.3</td>
<td>8.7</td>
<td>5.1</td>
<td>13.6</td>
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<td>All other</td>
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<td>6,607.9</td>
<td>8,065.5</td>
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<tr>
<td>Total</td>
<td>38,679.8</td>
<td>52,077.8</td>
<td>32,538.4</td>
<td>24,853.9</td>
<td>11,874.1</td>
<td>7,984.2</td>
<td>9,450.6</td>
<td>12,511.9</td>
<td>-26,167.9</td>
<td>-14.9</td>
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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

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<td>Cork and rattan</td>
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<td>7.3</td>
<td>19.8</td>
<td>19.7</td>
<td>20.1</td>
<td>23.7</td>
<td>30.5</td>
<td>30.0</td>
<td>82.9</td>
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<tr>
<td>Footwear</td>
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<td>0.3</td>
<td>0.2</td>
<td>0.5</td>
<td>0.5</td>
<td>0.6</td>
<td>0.3</td>
<td>0.3</td>
<td>0.3</td>
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<td>0.8</td>
<td>0.7</td>
<td>6.1</td>
<td>5.7</td>
<td>47.9</td>
</tr>
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<td>Milled grains, malts, and starches</td>
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<td>0.2</td>
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<td>0.4</td>
<td>0.5</td>
<td>0.5</td>
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<tr>
<td>Spices</td>
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<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.1</td>
<td>0.5</td>
<td>0.5</td>
<td>49.5</td>
</tr>
<tr>
<td>Canned fish</td>
<td>0.4</td>
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<td>1.1</td>
<td>0.3</td>
<td>0.7</td>
<td>0.8</td>
<td>0.7</td>
<td>6.1</td>
<td>5.7</td>
<td>47.9</td>
</tr>
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<td>Natural and synthetic gemstones</td>
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<td>0.0</td>
<td>0.5</td>
<td>0.1</td>
<td>36.2</td>
</tr>
<tr>
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<td>0.5</td>
<td>2.2</td>
<td>1.9</td>
<td>0.7</td>
<td>1.2</td>
<td>1.1</td>
<td>35.8</td>
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<tr>
<td>Hides, skins, and leather</td>
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<td>1.0</td>
<td>1.5</td>
<td>1.1</td>
<td>2.4</td>
<td>1.4</td>
<td>4.4</td>
<td>8.7</td>
<td>7.6</td>
<td>34.7</td>
</tr>
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<td>0.2</td>
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<td>0.2</td>
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<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
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<td>0.3</td>
<td>0.4</td>
<td>1.1</td>
<td>2.2</td>
<td>1.8</td>
<td>27.4</td>
</tr>
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<td>Tropical fruit</td>
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<td>0.5</td>
<td>0.6</td>
<td>0.4</td>
<td>0.7</td>
<td>0.8</td>
<td>2.6</td>
<td>2.1</td>
<td>26.7</td>
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<td>24,830.6</td>
<td>11,847.4</td>
<td>7,957.5</td>
<td>9,417.0</td>
<td>12,456.4</td>
<td>-26,220.3</td>
<td>-14.9</td>
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<td>38,679.8</td>
<td>52,077.8</td>
<td>32,538.4</td>
<td>24,853.9</td>
<td>11,874.1</td>
<td>7,984.2</td>
<td>9,450.6</td>
<td>12,511.9</td>
<td>-26,167.9</td>
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### Table G.7 U.S. exports to SSA countries, by leading destination countries, in compound annual growth rate, 2010–17

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<td>Million $</td>
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<td></td>
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<td></td>
<td>Percent</td>
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<td>35.6</td>
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<td>1.7</td>
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<td>2.9</td>
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<td>13.4</td>
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<td>11.8</td>
<td>73.4</td>
<td>65.6</td>
<td>37.8</td>
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<td>69.8</td>
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<td>94.1</td>
<td>40.4</td>
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<td>55.2</td>
<td>84.9</td>
<td>60.8</td>
<td>22.5</td>
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<tr>
<td>All other</td>
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<td>21,868.0</td>
<td>23,353.8</td>
<td>16,626.7</td>
<td>12,077.7</td>
<td>12,472.0</td>
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<td>21,782.1</td>
<td>23,218.7</td>
<td>24,767.0</td>
<td>17,404.8</td>
<td>12,886.1</td>
<td>13,595.7</td>
<td>-2,909.8</td>
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</tbody>
</table>


### Table G.8 U.S. imports from SSA countries, by leading source countries, in compound annual growth rate, 2010–17

<table>
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<th></th>
<th></th>
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<th></th>
<th></th>
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<tbody>
<tr>
<td></td>
<td>Million $</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Percent</td>
</tr>
<tr>
<td>Benin</td>
<td>0.3</td>
<td>2.0</td>
<td>2.5</td>
<td>3.1</td>
<td>4.5</td>
<td>4.4</td>
<td>5.1</td>
<td>17.6</td>
<td>17.4</td>
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<tr>
<td>Senegal</td>
<td>3.6</td>
<td>4.4</td>
<td>13.6</td>
<td>14.7</td>
<td>23.2</td>
<td>67.2</td>
<td>52.1</td>
<td>68.9</td>
<td>65.3</td>
</tr>
<tr>
<td>Somalia</td>
<td>0.1</td>
<td>1.0</td>
<td>0.9</td>
<td>1.2</td>
<td>0.5</td>
<td>0.8</td>
<td>1.0</td>
<td>1.0</td>
<td>0.8</td>
</tr>
<tr>
<td>Madagascar</td>
<td>107.3</td>
<td>85.3</td>
<td>108.8</td>
<td>161.4</td>
<td>214.6</td>
<td>318.3</td>
<td>443.0</td>
<td>739.4</td>
<td>632.1</td>
</tr>
<tr>
<td>Botswana</td>
<td>166.9</td>
<td>290.5</td>
<td>220.0</td>
<td>276.9</td>
<td>317.3</td>
<td>210.4</td>
<td>433.1</td>
<td>770.2</td>
<td>603.2</td>
</tr>
<tr>
<td>Comoros</td>
<td>1.7</td>
<td>1.8</td>
<td>2.0</td>
<td>2.8</td>
<td>2.1</td>
<td>1.2</td>
<td>2.7</td>
<td>5.1</td>
<td>3.4</td>
</tr>
<tr>
<td>Tanzania</td>
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<td>57.2</td>
<td>112.8</td>
<td>67.6</td>
<td>82.2</td>
<td>95.9</td>
<td>145.1</td>
<td>114.6</td>
<td>72.9</td>
</tr>
<tr>
<td>Ghana</td>
<td>269.8</td>
<td>772.9</td>
<td>284.4</td>
<td>356.8</td>
<td>263.5</td>
<td>287.2</td>
<td>312.3</td>
<td>730.9</td>
<td>461.1</td>
</tr>
<tr>
<td>Burundi</td>
<td>3.3</td>
<td>9.5</td>
<td>4.8</td>
<td>4.3</td>
<td>4.3</td>
<td>8.4</td>
<td>6.6</td>
<td>9.0</td>
<td>5.6</td>
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<td>Eritrea</td>
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<td>0.1</td>
<td>0.2</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.4</td>
<td>0.3</td>
<td>0.2</td>
</tr>
<tr>
<td>All other</td>
<td>64,227.5</td>
<td>72,889.7</td>
<td>48,560.6</td>
<td>38,116.1</td>
<td>25,479.3</td>
<td>17,305.2</td>
<td>18,341.4</td>
<td>22,075.2</td>
<td>-42,152.3</td>
</tr>
<tr>
<td>Total</td>
<td>64,822.4</td>
<td>74,114.4</td>
<td>49,310.5</td>
<td>39,005.0</td>
<td>26,391.6</td>
<td>18,299.1</td>
<td>19,742.6</td>
<td>24,532.2</td>
<td>-40,290.2</td>
</tr>
</tbody>
</table>

Table G.9 Intra-REC total trade (within group) as a share of trade with the world, by REC, 2010–16 (percent)

<table>
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<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>SADC</td>
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<td>19.2</td>
<td>19.3</td>
<td>21.3</td>
<td>21.1</td>
</tr>
<tr>
<td>EAC</td>
<td>11.4</td>
<td>10.7</td>
<td>11.8</td>
<td>10.6</td>
<td>11.1</td>
<td>11.5</td>
<td>10.9</td>
</tr>
<tr>
<td>ECOWAS</td>
<td>8.1</td>
<td>7.9</td>
<td>8.5</td>
<td>10.0</td>
<td>8.6</td>
<td>8.9</td>
<td>10.0</td>
</tr>
<tr>
<td>CEN-SAD</td>
<td>6.1</td>
<td>6.0</td>
<td>6.1</td>
<td>6.9</td>
<td>6.3</td>
<td>6.5</td>
<td>7.2</td>
</tr>
<tr>
<td>COMESA</td>
<td>6.8</td>
<td>7.3</td>
<td>6.6</td>
<td>7.5</td>
<td>7.2</td>
<td>7.6</td>
<td>6.9</td>
</tr>
<tr>
<td>IGAD</td>
<td>6.5</td>
<td>7.1</td>
<td>6.8</td>
<td>6.8</td>
<td>6.4</td>
<td>6.7</td>
<td>6.2</td>
</tr>
<tr>
<td>UMA</td>
<td>2.6</td>
<td>2.7</td>
<td>2.9</td>
<td>3.5</td>
<td>3.6</td>
<td>3.2</td>
<td>3.1</td>
</tr>
<tr>
<td>ECCAS</td>
<td>3.0</td>
<td>3.5</td>
<td>2.8</td>
<td>3.0</td>
<td>2.0</td>
<td>2.7</td>
<td>2.6</td>
</tr>
</tbody>
</table>


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

<table>
<thead>
<tr>
<th>Year</th>
<th>Passenger</th>
<th>Freight</th>
<th>Port</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>523</td>
<td>199</td>
<td>169</td>
</tr>
<tr>
<td>2011</td>
<td>643</td>
<td>213</td>
<td>155</td>
</tr>
<tr>
<td>2012</td>
<td>708</td>
<td>224</td>
<td>123</td>
</tr>
<tr>
<td>2013</td>
<td>748</td>
<td>232</td>
<td>149</td>
</tr>
<tr>
<td>2014</td>
<td>896</td>
<td>233</td>
<td>156</td>
</tr>
<tr>
<td>2015</td>
<td>909</td>
<td>209</td>
<td>152</td>
</tr>
<tr>
<td>2016</td>
<td>854</td>
<td>202</td>
<td>151</td>
</tr>
</tbody>
</table>

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

<table>
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<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Nigeria</td>
<td>7,148</td>
<td>7,028</td>
<td>7,316</td>
<td>7,921</td>
<td>9,494</td>
<td>10,674</td>
<td>11,710</td>
</tr>
<tr>
<td>Kenya</td>
<td>4,666</td>
<td>3,898</td>
<td>3,516</td>
<td>3,201</td>
<td>3,072</td>
<td>3,019</td>
<td>3,189</td>
</tr>
<tr>
<td>Ghana</td>
<td>2,900</td>
<td>2,769</td>
<td>2,863</td>
<td>2,914</td>
<td>3,099</td>
<td>3,049</td>
<td>3,111</td>
</tr>
<tr>
<td>South Africa</td>
<td>1,669</td>
<td>1,610</td>
<td>1,816</td>
<td>1,716</td>
<td>1,838</td>
<td>1,813</td>
<td>1,911</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>1,392</td>
<td>1,334</td>
<td>1,463</td>
<td>1,516</td>
<td>1,472</td>
<td>1,517</td>
<td>1,847</td>
</tr>
</tbody>
</table>

Note: Data are published for academic years, not calendar years. Corresponds to figure 2.3.

### Table I.3 Refined copper production in SSA

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Democratic Republic of Congo</td>
<td>258</td>
<td>356</td>
<td>448</td>
<td>632</td>
<td>787</td>
<td>793</td>
<td>728</td>
</tr>
<tr>
<td>Zambia</td>
<td>527</td>
<td>516</td>
<td>530</td>
<td>568</td>
<td>499</td>
<td>496</td>
<td>426</td>
</tr>
<tr>
<td>South Africa</td>
<td>76</td>
<td>80</td>
<td>60</td>
<td>65</td>
<td>70</td>
<td>71</td>
<td>69</td>
</tr>
<tr>
<td>Namibia</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>11</td>
<td>16</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>5</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
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</tbody>
</table>

Note: Corresponds to figure 3.1.

### Table I.4 U.S. imports of catalytic converters from South Africa, million units, 2010–16

<table>
<thead>
<tr>
<th>Year</th>
<th>Catalytic converter imports</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>1,321,944</td>
</tr>
<tr>
<td>2011</td>
<td>1,256,576</td>
</tr>
<tr>
<td>2012</td>
<td>1,144,449</td>
</tr>
<tr>
<td>2013</td>
<td>1,167,732</td>
</tr>
<tr>
<td>2014</td>
<td>1,413,335</td>
</tr>
<tr>
<td>2015</td>
<td>1,755,240</td>
</tr>
<tr>
<td>2016</td>
<td>1,776,412</td>
</tr>
</tbody>
</table>

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

<table>
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<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Madagascar</td>
<td>0</td>
<td>0</td>
<td>6</td>
<td>25</td>
<td>37</td>
<td>47</td>
<td>42</td>
</tr>
<tr>
<td>South Africa</td>
<td>34</td>
<td>36</td>
<td>33</td>
<td>32</td>
<td>35</td>
<td>35</td>
<td>35</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>South Africa</td>
<td>338</td>
<td>812</td>
</tr>
<tr>
<td>Nigeria</td>
<td>303</td>
<td>174</td>
</tr>
<tr>
<td>Kenya</td>
<td>249</td>
<td>*</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>139</td>
<td>*</td>
</tr>
<tr>
<td>Ghana*</td>
<td>136</td>
<td>*</td>
</tr>
<tr>
<td>Mauritius</td>
<td>79</td>
<td>*</td>
</tr>
<tr>
<td>Tanzania</td>
<td>66</td>
<td>*</td>
</tr>
<tr>
<td>Botswana</td>
<td>47</td>
<td>*</td>
</tr>
<tr>
<td>Rwanda</td>
<td>28</td>
<td>*</td>
</tr>
<tr>
<td>Senegal</td>
<td>20</td>
<td>*</td>
</tr>
</tbody>
</table>


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 $)

<table>
<thead>
<tr>
<th>Year</th>
<th>FDI Inflows to SSA</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>8,088.9</td>
</tr>
<tr>
<td>2001</td>
<td>16,104.5</td>
</tr>
<tr>
<td>2002</td>
<td>16,448.1</td>
</tr>
<tr>
<td>2003</td>
<td>22,648.5</td>
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<tr>
<td>2004</td>
<td>16,204.4</td>
</tr>
<tr>
<td>2005</td>
<td>27,660.7</td>
</tr>
<tr>
<td>2006</td>
<td>23,891.5</td>
</tr>
<tr>
<td>2007</td>
<td>39,840.6</td>
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<tr>
<td>2008</td>
<td>52,271.5</td>
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<tr>
<td>2009</td>
<td>48,931.2</td>
</tr>
<tr>
<td>2010</td>
<td>47,405.1</td>
</tr>
<tr>
<td>2011</td>
<td>60,204.3</td>
</tr>
<tr>
<td>2012</td>
<td>64,214.2</td>
</tr>
<tr>
<td>2013</td>
<td>63,493.9</td>
</tr>
<tr>
<td>2014</td>
<td>60,460.2</td>
</tr>
<tr>
<td>2015</td>
<td>50,171.4</td>
</tr>
<tr>
<td>2016</td>
<td>45,948.2</td>
</tr>
</tbody>
</table>


Note: Corresponds to figure 4.1.

### Table I.8 Greenfield FDI projects and M&A deals in SSA, by source, 2010–16

<table>
<thead>
<tr>
<th>Source</th>
<th>Share (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>European Union</td>
<td>33</td>
</tr>
<tr>
<td>Sub-Saharan Africa</td>
<td>22</td>
</tr>
<tr>
<td>United States</td>
<td>13</td>
</tr>
<tr>
<td>India</td>
<td>5</td>
</tr>
<tr>
<td>China</td>
<td>3</td>
</tr>
<tr>
<td>Canada</td>
<td>3</td>
</tr>
<tr>
<td>UAE</td>
<td>3</td>
</tr>
<tr>
<td>All other</td>
<td>18</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Destination</th>
<th>Share (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Africa</td>
<td>46</td>
</tr>
<tr>
<td>Kenya</td>
<td>12</td>
</tr>
<tr>
<td>Nigeria</td>
<td>9</td>
</tr>
<tr>
<td>Ghana</td>
<td>5</td>
</tr>
<tr>
<td>Mauritius</td>
<td>4</td>
</tr>
<tr>
<td>Tanzania</td>
<td>2</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>2</td>
</tr>
<tr>
<td>All other</td>
<td>20</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Sector</th>
<th>Share (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other services</td>
<td>39</td>
</tr>
<tr>
<td>Wholesale &amp; retail trade</td>
<td>11</td>
</tr>
<tr>
<td>Metals &amp; metal products</td>
<td>8</td>
</tr>
<tr>
<td>Machinery &amp; equipment</td>
<td>5</td>
</tr>
<tr>
<td>Food &amp; beverage</td>
<td>5</td>
</tr>
<tr>
<td>Construction</td>
<td>4</td>
</tr>
<tr>
<td>Post &amp; telecom</td>
<td>4</td>
</tr>
<tr>
<td>Primary Sector</td>
<td>4</td>
</tr>
<tr>
<td>Education, Health</td>
<td>3</td>
</tr>
<tr>
<td>All other</td>
<td>17</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Source</th>
<th>Billion $</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Africa</td>
<td>22.0</td>
</tr>
<tr>
<td>China</td>
<td>34.7</td>
</tr>
<tr>
<td>United States</td>
<td>59.3</td>
</tr>
<tr>
<td>EU</td>
<td>343.7</td>
</tr>
</tbody>
</table>

Note: FDI = foreign direct investment. Corresponds to figure 4.5.

### Table I.12 EU greenfield investment in SSA, 2010–16

<table>
<thead>
<tr>
<th>Sector</th>
<th>Share (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial services</td>
<td>17</td>
</tr>
<tr>
<td>Business services</td>
<td>13</td>
</tr>
<tr>
<td>Communications</td>
<td>9</td>
</tr>
<tr>
<td>Industrial machinery</td>
<td>6</td>
</tr>
<tr>
<td>Software/IT services</td>
<td>6</td>
</tr>
<tr>
<td>Transportation</td>
<td>5</td>
</tr>
<tr>
<td>Alternative energy</td>
<td>4</td>
</tr>
<tr>
<td>Textiles</td>
<td>4</td>
</tr>
<tr>
<td>Coal, oil and natural gas</td>
<td>4</td>
</tr>
<tr>
<td>All other</td>
<td>32</td>
</tr>
</tbody>
</table>

Source: Financial Times, fDiMarkets database. Note: Corresponds to figure 4.6.
### Table I.13 EU greenfield projects in South Africa, by source, 2010–16

<table>
<thead>
<tr>
<th>Source</th>
<th>Projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>UK</td>
<td>200</td>
</tr>
<tr>
<td>Germany</td>
<td>78</td>
</tr>
<tr>
<td>France</td>
<td>57</td>
</tr>
<tr>
<td>Italy</td>
<td>42</td>
</tr>
<tr>
<td>Spain</td>
<td>35</td>
</tr>
<tr>
<td>Netherlands</td>
<td>30</td>
</tr>
<tr>
<td>Ireland</td>
<td>20</td>
</tr>
<tr>
<td>Denmark</td>
<td>18</td>
</tr>
<tr>
<td>Sweden</td>
<td>14</td>
</tr>
<tr>
<td>Other EU countries</td>
<td>35</td>
</tr>
</tbody>
</table>

Source: Financial Times, fDiMarkets database.
Note: Corresponds to figure 4.7.

### Table I.14 China M&A in SSA, by destination, 2010–16

<table>
<thead>
<tr>
<th>Destination</th>
<th>Share (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Africa</td>
<td>29</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>16</td>
</tr>
<tr>
<td>Ghana</td>
<td>7</td>
</tr>
<tr>
<td>Kenya</td>
<td>7</td>
</tr>
<tr>
<td>Mauritius</td>
<td>6</td>
</tr>
<tr>
<td>Mozambique</td>
<td>6</td>
</tr>
<tr>
<td>Sierra Leone</td>
<td>6</td>
</tr>
<tr>
<td>All other</td>
<td>23</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Destination</th>
<th>Share (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Africa</td>
<td>32</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>10</td>
</tr>
<tr>
<td>Kenya</td>
<td>9</td>
</tr>
<tr>
<td>Nigeria</td>
<td>7</td>
</tr>
<tr>
<td>Ghana</td>
<td>7</td>
</tr>
<tr>
<td>Congo (DRC)</td>
<td>4</td>
</tr>
<tr>
<td>Zambia</td>
<td>4</td>
</tr>
<tr>
<td>All other</td>
<td>27</td>
</tr>
</tbody>
</table>

Source: Financial Times, fDiMarkets database.
Note: Corresponds to figure 4.9.

### Table I.16 South Africa M&A deals in SSA, 2010–16

<table>
<thead>
<tr>
<th>Destination country</th>
<th>Deals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mauritius</td>
<td>40</td>
</tr>
<tr>
<td>Kenya</td>
<td>37</td>
</tr>
<tr>
<td>Nigeria</td>
<td>26</td>
</tr>
<tr>
<td>Botswana</td>
<td>24</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>23</td>
</tr>
<tr>
<td>Namibia</td>
<td>18</td>
</tr>
<tr>
<td>All other</td>
<td>98</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Industry sector</th>
<th>Projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial services</td>
<td>80</td>
</tr>
<tr>
<td>Communications</td>
<td>57</td>
</tr>
<tr>
<td>Business services</td>
<td>50</td>
</tr>
<tr>
<td>Food and tobacco</td>
<td>37</td>
</tr>
<tr>
<td>Software and IT services</td>
<td>20</td>
</tr>
<tr>
<td>Real estate</td>
<td>17</td>
</tr>
<tr>
<td>Transportation</td>
<td>17</td>
</tr>
<tr>
<td>Consumer products</td>
<td>15</td>
</tr>
<tr>
<td>All other</td>
<td>81</td>
</tr>
</tbody>
</table>

Note: Corresponds to figure 4.11.

### Table I.18 GDP composition, Cameroon, 2016

<table>
<thead>
<tr>
<th>Sector</th>
<th>Share (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture, hunting, forestry, fishing</td>
<td>16.7</td>
</tr>
<tr>
<td>Mining and utilities</td>
<td>5.3</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>15.9</td>
</tr>
<tr>
<td>Construction</td>
<td>5.3</td>
</tr>
<tr>
<td>Wholesale, retail trade, restaurants and hotels</td>
<td>21.1</td>
</tr>
<tr>
<td>Transport, storage, and communication</td>
<td>8.5</td>
</tr>
<tr>
<td>Other services activities</td>
<td>27.1</td>
</tr>
</tbody>
</table>

Note: Corresponds to figure 5.1.

### Table I.19 Cameroon’s exports of commercial services to the world, by industry, 2015

<table>
<thead>
<tr>
<th>Sector</th>
<th>Share (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telecommunication, computer, and information services</td>
<td>6.7</td>
</tr>
<tr>
<td>Other business services</td>
<td>18.2</td>
</tr>
<tr>
<td>Travel</td>
<td>31.2</td>
</tr>
<tr>
<td>Transport</td>
<td>32.3</td>
</tr>
<tr>
<td>All other</td>
<td>11.6</td>
</tr>
</tbody>
</table>

Note: Corresponds to figure 5.2.

### Table I.20 Cameroon’s imports of commercial services to the world, by industry, 2015

<table>
<thead>
<tr>
<th>Sector</th>
<th>Share (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insurance and pension</td>
<td>5.8</td>
</tr>
<tr>
<td>Other business services</td>
<td>17.1</td>
</tr>
<tr>
<td>Travel</td>
<td>26.5</td>
</tr>
<tr>
<td>Transport</td>
<td>42.3</td>
</tr>
<tr>
<td>All other</td>
<td>8.3</td>
</tr>
</tbody>
</table>

Note: Corresponds to figure 5.3.
### Table I.21 GDP composition, Côte d’Ivoire, 2016

<table>
<thead>
<tr>
<th>Sector</th>
<th>Share (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture, hunting, forestry, fishing</td>
<td>20.8</td>
</tr>
<tr>
<td>Mining and utilities</td>
<td>8.9</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>17.4</td>
</tr>
<tr>
<td>Construction</td>
<td>6.6</td>
</tr>
<tr>
<td>Wholesale, retail trade, restaurants and hotels</td>
<td>11.6</td>
</tr>
<tr>
<td>Transport, storage, and communication</td>
<td>8.9</td>
</tr>
<tr>
<td>Other services activities</td>
<td>25.8</td>
</tr>
</tbody>
</table>


Note: Corresponds to figure 5.4.

### Table I.22 Côte d’Ivoire’s exports of commercial services to the world, by industry, 2015

<table>
<thead>
<tr>
<th>Sector</th>
<th>Share (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telecommunication, computer, and information services</td>
<td>12.5</td>
</tr>
<tr>
<td>Other business services</td>
<td>25.7</td>
</tr>
<tr>
<td>Travel</td>
<td>24.7</td>
</tr>
<tr>
<td>Transport</td>
<td>25.8</td>
</tr>
<tr>
<td>All other</td>
<td>11.3</td>
</tr>
</tbody>
</table>


Note: Corresponds to figure 5.5.

### Table I.23 Côte d’Ivoire’s imports of commercial services to the world, by industry, 2015

<table>
<thead>
<tr>
<th>Sector</th>
<th>Share (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing services on physical inputs owned by others</td>
<td>5.1</td>
</tr>
<tr>
<td>Other business services</td>
<td>10.2</td>
</tr>
<tr>
<td>Travel</td>
<td>12.6</td>
</tr>
<tr>
<td>Transport</td>
<td>64.7</td>
</tr>
<tr>
<td>All other</td>
<td>7.5</td>
</tr>
</tbody>
</table>


Note: Corresponds to figure 5.6.

### Table I.24 GDP composition, Ethiopia, 2016

<table>
<thead>
<tr>
<th>Sector</th>
<th>Share (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture, hunting, forestry, fishing</td>
<td>36.8</td>
</tr>
<tr>
<td>Mining and utilities</td>
<td>1.0</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>4.3</td>
</tr>
<tr>
<td>Construction</td>
<td>15.7</td>
</tr>
<tr>
<td>Wholesale, retail trade, restaurants and hotels</td>
<td>18.9</td>
</tr>
<tr>
<td>Transport, storage, and communication</td>
<td>4.6</td>
</tr>
<tr>
<td>Other services activities</td>
<td>18.7</td>
</tr>
</tbody>
</table>


Note: Corresponds to figure 5.7.
### Table I.25 Ethiopia’s exports of commercial services to the world, by industry, 2015

<table>
<thead>
<tr>
<th>Sector</th>
<th>Share (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Travel</td>
<td>14.1</td>
</tr>
<tr>
<td>Transport</td>
<td>79.1</td>
</tr>
<tr>
<td>All other</td>
<td>6.8</td>
</tr>
</tbody>
</table>

Note: Corresponds to figure 5.8.

### Table I.26 Ethiopia’s imports of commercial services to the world, by industry, 2015

<table>
<thead>
<tr>
<th>Sector</th>
<th>Share (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Travel</td>
<td>11.0</td>
</tr>
<tr>
<td>Transport</td>
<td>54.3</td>
</tr>
<tr>
<td>All other</td>
<td>34.7</td>
</tr>
</tbody>
</table>

Note: Corresponds to figure 5.9.

### Table I.27 GDP composition, Kenya, 2016

<table>
<thead>
<tr>
<th>Sector</th>
<th>Share (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture, hunting, forestry, fishing</td>
<td>34.5</td>
</tr>
<tr>
<td>Mining and utilities</td>
<td>3.4</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>9.7</td>
</tr>
<tr>
<td>Construction</td>
<td>5.3</td>
</tr>
<tr>
<td>Wholesale, retail, restaurants and hotels</td>
<td>8.5</td>
</tr>
<tr>
<td>Transport, storage, and communication</td>
<td>9.4</td>
</tr>
<tr>
<td>Other services activities</td>
<td>29.2</td>
</tr>
</tbody>
</table>

Note: Corresponds to figure 5.10.

### Table I.28 Kenya’s exports of commercial services to the world, by industry, 2015

<table>
<thead>
<tr>
<th>Sector</th>
<th>Share (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Travel</td>
<td>20.1</td>
</tr>
<tr>
<td>Transport</td>
<td>54.4</td>
</tr>
<tr>
<td>All other</td>
<td>25.4</td>
</tr>
</tbody>
</table>

Note: Corresponds to figure 5.11.

### Table I.29 Kenya’s imports of commercial services to the world, by industry, 2015

<table>
<thead>
<tr>
<th>Sector</th>
<th>Share (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Travel</td>
<td>56.2</td>
</tr>
<tr>
<td>Transport</td>
<td>7.6</td>
</tr>
<tr>
<td>All other</td>
<td>36.1</td>
</tr>
</tbody>
</table>

Note: Corresponds to figure 5.12.
### Table I.30 GDP composition, Mauritius, 2016

<table>
<thead>
<tr>
<th>Sector</th>
<th>Share (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture, hunting, forestry, fishing</td>
<td>3.5</td>
</tr>
<tr>
<td>Mining and utilities</td>
<td>2.8</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>13.9</td>
</tr>
<tr>
<td>Construction</td>
<td>4.2</td>
</tr>
<tr>
<td>Wholesale, retail trade, restaurants and hotels</td>
<td>18.9</td>
</tr>
<tr>
<td>Transport, storage, and communication</td>
<td>10.4</td>
</tr>
<tr>
<td>Other services activities</td>
<td>46.3</td>
</tr>
</tbody>
</table>


Note: Corresponds to figure 5.13.

### Table I.31 Mauritius' exports of commercial services to the world, by industry, 2015

<table>
<thead>
<tr>
<th>Sector</th>
<th>Share (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Travel</td>
<td>51.1</td>
</tr>
<tr>
<td>Other business services</td>
<td>25.0</td>
</tr>
<tr>
<td>Transport</td>
<td>12.2</td>
</tr>
<tr>
<td>Telecommunications, computer, and information services</td>
<td>5.5</td>
</tr>
<tr>
<td>All other</td>
<td>6.1</td>
</tr>
</tbody>
</table>


Note: Corresponds to figure 5.14.

### Table I.32 Mauritius' imports of commercial services to the world, by industry, 2015

<table>
<thead>
<tr>
<th>Sector</th>
<th>Share (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other business services</td>
<td>32.4</td>
</tr>
<tr>
<td>Transport</td>
<td>27.3</td>
</tr>
<tr>
<td>Travel</td>
<td>25.3</td>
</tr>
<tr>
<td>Insurance and pension services</td>
<td>3.9</td>
</tr>
<tr>
<td>All other</td>
<td>11.1</td>
</tr>
</tbody>
</table>


Note: Corresponds to figure 5.15.

### Table I.33 GDP composition, Nigeria, 2016

<table>
<thead>
<tr>
<th>Sector</th>
<th>Share (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture, hunting, forestry, fishing</td>
<td>21.2</td>
</tr>
<tr>
<td>Mining and utilities</td>
<td>6.0</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>8.8</td>
</tr>
<tr>
<td>Construction</td>
<td>3.6</td>
</tr>
<tr>
<td>Wholesale, retail trade, restaurants and hotels</td>
<td>21.3</td>
</tr>
<tr>
<td>Transport, storage, and communication</td>
<td>12.9</td>
</tr>
<tr>
<td>Other services activities</td>
<td>26.3</td>
</tr>
</tbody>
</table>


Note: Corresponds to figure 5.16.
### Table I.34 Nigeria’s exports of commercial services to the world, by industry, 2015

<table>
<thead>
<tr>
<th>Sector</th>
<th>Share (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transport</td>
<td>67.6</td>
</tr>
<tr>
<td>Travel</td>
<td>15.1</td>
</tr>
<tr>
<td>Financial services</td>
<td>9.5</td>
</tr>
<tr>
<td>Other business services</td>
<td>3.3</td>
</tr>
<tr>
<td>All other</td>
<td>4.5</td>
</tr>
</tbody>
</table>

Note: Corresponds to figure 5.17.

### Table I.35 Nigeria’s imports of commercial services to the world, by industry, 2015

<table>
<thead>
<tr>
<th>Sector</th>
<th>Share (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transport</td>
<td>42.5</td>
</tr>
<tr>
<td>Travel</td>
<td>30.7</td>
</tr>
<tr>
<td>Other business services</td>
<td>10.7</td>
</tr>
<tr>
<td>Financial services</td>
<td>6.1</td>
</tr>
<tr>
<td>All other</td>
<td>10.1</td>
</tr>
</tbody>
</table>

Note: Corresponds to figure 5.18.

### Table I.36 GDP composition, South Africa, 2016

<table>
<thead>
<tr>
<th>Sector</th>
<th>Share (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture, hunting, forestry, fishing</td>
<td>2.4</td>
</tr>
<tr>
<td>Mining and utilities</td>
<td>11.6</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>13.3</td>
</tr>
<tr>
<td>Construction</td>
<td>4.0</td>
</tr>
<tr>
<td>Wholesale, retail trade, restaurants and hotels</td>
<td>15.2</td>
</tr>
<tr>
<td>Transport, storage, and communication</td>
<td>10.0</td>
</tr>
<tr>
<td>Other services activities</td>
<td>43.4</td>
</tr>
</tbody>
</table>

Note: Corresponds to figure 5.19.

### Table I.37 South Africa’s exports of commercial services to the world, by industry, 2015

<table>
<thead>
<tr>
<th>Sector</th>
<th>Share (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other business services</td>
<td>13.5</td>
</tr>
<tr>
<td>Travel</td>
<td>56.3</td>
</tr>
<tr>
<td>Transport</td>
<td>16.8</td>
</tr>
<tr>
<td>All other</td>
<td>13.4</td>
</tr>
</tbody>
</table>

Note: Corresponds to figure 5.20.
### Table I.38 South Africa’s imports of commercial services to the world, by industry, 2015

<table>
<thead>
<tr>
<th>Sector</th>
<th>Share (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charges for the use of intellectual property n.i.e.</td>
<td>11.3</td>
</tr>
<tr>
<td>Other business services</td>
<td>14.8</td>
</tr>
<tr>
<td>Travel</td>
<td>19.8</td>
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<td>Transport</td>
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<tr>
<td>All other</td>
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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

<table>
<thead>
<tr>
<th>Country</th>
<th>Overall LPI</th>
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Note: Corresponds to figure F.1.