FOREIGN INFRASTRUCTURE SERVICE FIRMS IN SUB-SAHARAN AFRICA

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Sub-Saharan Africa (SSA) suffers from poor road, maritime, and electricity infrastructure. These infrastructure problems increase SSA's production costs, economic distance, and business uncertainty, hurting its export competitiveness.¹ To develop its infrastructure, SSA must have adequate access to architecture, engineering, and construction (AEC) services.² As many local SSA firms likely lack the capacity to carry out large infrastructure projects,³ and given projections of sustained demand for improved infrastructure in SSA,⁴ U.S. and other foreign firms have a potentially critical role to play in designing, financing, building, and operating major infrastructure projects in the region.

Foreign architecture, engineering, and construction firms have a limited but growing role in SSA

Figure 1 shows that many foreign AEC parent companies have African subsidiaries, including those from Europe (Italy, Spain, France, and the UK), Australia, the United States, and India.⁵ Subsidiaries of U.S. companies are found in many African countries, including South Africa (19 subsidiaries), Mauritius (8), Nigeria (7), and Mozambique (6) (figure 2).



While a number of foreign AEC firms maintain a commercial presence in Africa (see figure 1), our knowledge of the scope and scale of their subsidiaries' activities is incomplete. Available information suggests that the extent of this commercial presence in Southern Africa remains small by international standards.⁶ The top 225 international

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¹ USITC, *Sub-Saharan Africa*, chapter 1, 2-1.

² OECD, "STRI: Construction, Architecture, and Engineering Services," May 14, 2012, 10. Greater access to electricity, communications, and other services have been linked to higher productivity of firms in SSA; Dihel, Fernandes, and Mattoo, "Towards a Regional Integration of Professional Services in Southern Africa," 2010, 1; Arnold, Mattoo, and Narcisco, "Services Inputs and Firm Productivity in Sub-Saharan Africa," 2008.

³ On local capacity in engineering services, see Dihel, Fernandes, and Mattoo, "Towards a Regional Integration of Professional Services in Southern Africa," 2010, 4.

⁴ ENR, "The Top 250 International Contractors," August 26/September 2, 2013, 8.

⁵ Parent companies are classified as NAICS 23 (construction) or NAICS 5413 (architecture and engineering). Of the 13 such U.S. companies with African subsidiaries, five are classified as construction and eight as architecture and engineering companies. The list in Figure 1 refers to subsidiaries in Africa as a whole and generally most data and discussion for the paper are only available for the entire continent, with the exception of Figure 2 and SSA-specific examples found in the final section.

⁶ Dihel, Fernandes, and Mattoo, "Towards a Regional Integration of Professional Services in Southern Africa," 2010, 4; see also OECD and World Bank, "Engineering Services Trade," n.d., 12 (accessed June 12, 2014) on the relatively small share accounted for by Southern Africa in the overall construction and engineering market in the Middle East and Africa.

architecture and engineering firms and the top 250 international construction firms (by revenue) generate a very low share of their international revenue in Africa. In 2012, for example, Africa accounted for only 7 percent of revenues for the former group and 11 percent of revenues for the latter group.⁷ The African earnings of U.S.-based firms are likely quite limited, as only three U.S.-based firms (KBR, Fluor Corp., and AECOM Technology Corp.) rank among the top 10 design firms in terms of African revenue, and no U.S.-based contractor ranks among the top 10 revenue earners in Africa.⁸

However, as the demand for infrastructure in developing markets has outpaced that in developed markets in recent years, foreign AEC firms appear to be seeking out more market opportunities in Africa. From 2008 through 2011, revenue for the top international construction companies declined in Europe and the United States, while growing by 14 percent in Africa (figure 3). Similarly, during 2008–11, revenue for the top international architecture and engineering firms grew modestly in the United States, Middle East, and Europe, while growing 33 percent in Africa. Overall, such firms' international revenue grew more rapidly than revenue from domestic markets.



Interestingly, U.S. firms command a far larger share of the African market in architecture and engineering than they do in construction. In 2012, U.S. and European firms accounted for the highest share of revenue generated by the top international architecture and engineering firms in Africa, at 27 and 31 percent, respectively; in the same year, European and Chinese companies accounted for the highest share of revenue generated by the top international construction companies in the region, at 32 and 45 percent, respectively, while U.S. companies accounted for 5 percent (figure 4). Recent growth of Chinese contractors work in overseas markets has been driven by African markets, and particularly Nigeria.⁹

As an example of foreign firms' participation in SSA infrastructure projects, in 2013 the U.S. firm AECOM was chosen to manage construction, engineering, and procurement for 15 different projects in South Africa, including the construction of port buildings and new rail infrastructure.¹⁰ Several foreign firms—including Dutch firms Boskalis and Van Oord Dredging and Marine Contractors, the Japanese firm Toyo Construction, and China Road and Bridge Construction Corp.—are contributing to port expansion at Mombasa, Kenya.¹¹ Two other Chinese firms—China Aero-technology Engineering International Corp. and Anhui Civil Engineering Group— will build a new terminal at the Jomo Kenyatta International Airport in Nairobi, Kenya, designed by UK firm Pascall+Watson.¹²

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⁷ ENR, "The Top 250 International Contractors," August 26/September 2, 2013, 8; ENR, "The Top 225 International Design Firms," July 29/August 5, 2013, 4.

⁸ ENR, "Top Contractors Sourcebooks," 2009–12, and "Top Design Firms Sourcebooks," 2009–12.

⁹ ENR, "The Top 250 International Contractors," August 26/September 2, 2013, 7.

¹⁰ Shem Oiere, "European, U.S. Firms Still Dominate Africa Infrastructure Market," ENR.com, December 18, 2013.

¹¹ Shem Oiere, "African Ports Undergo Major Expansions," ENR.com, February 11, 2013.

¹² Shem Oiere, "\$650-Million Airport Project in Kenya Breaks Ground," ENR.com, January 6, 2014.