West Africa is Expanding its Maritime Ports to Accommodate Growing Container Trade

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Over the past decade, growth in the volume of West Africa's container trade has exceeded that of any other global region—doubling to almost 5 million twenty-foot equivalent units (TEUs).[1] This expansion, fueled by rising incomes in the region, is also contributing to increased congestion at its ports, further exacerbated by a lack of deep-water berths to handle more efficient, larger ships.[2] To address the problem, many ports are investing to improve the capacity of their port infrastructure as well as turning to a handful of foreign terminal operating companies (TOC) to improve their handling efficiency.

Container volumes are growing quickly across much of West Africa

A number of West African ports have experienced growing container volumes over the past decade. For example, volumes at the ports of San Pedro (Côte d'Ivoire) and Tin Can Island (Nigeria) increased by 20% or more each year since 2006 and Lomé (Togo), Tin Can Island, and Tema (Ghana) have recently approached the 1 million TEU mark (table 1).[3] However, a couple of the region's ports have not been as successful—volumes at Takoradi (Ghana) and Dakar (Senegal) declined over this timeframe.

Table 1: Container volume growth of selected ports in West Africa, TEU (2006 to most recent)

Port	Country	2006	2015	CAGR	Terminal Operating Companies
San Pedro	Côte d'Ivoire	49,800	286,516	22%	MSC (Switzerland)
Tin Can Island	Nigeria	210,002	891,638[a]	20%	Bolloré, CMHI (Hong Kong), local firms
Lomé	Togo	215,892	821,639[b]	14%	Bolloré (France)
Monrovia	Liberia	36,500	98,000	12%	APM Terminals (Denmark)
Cotonou	Benin	140,500	288,000	8%	Bolloré, APM Terminals
Conakry	Guinea	85,300	160,000[a]	8%	Bolloré
Tema	Ghana	425,408	893,841[b]	8%	Bolloré, APM Terminals, GPHA (Ghana)
Abidjan	Côte d'Ivoire	375,876	650,000	6%	Bolloré, APM Terminals -
Freetown	Sierra Leone	35,600	46,427	3%	Bolloré
Onne	Nigeria	86,290	98,516	2%	n/a
Apapa	Nigeria	356,000	402,545	1%	APM Terminals
Takoradi	Ghana	51,000	48,622[b]	0%	n/a
Dakar	Senegal	375,876	300,000	-2%	DP World

Source: Author's calculations from press releases and World Bank, 2015 ([a] 2014; [b] 2016). Terminal operators manage the port and process the ships and their cargo.

In recent years, West Africa's oil and mineral exports have increased incomes across West Africa, driving container volumes of consumer goods to some of the region's ports. As a result, Asia has surpassed Europe as West Africa's main trading partner; during 2005–14 there was a five-fold increase in the total capacity of containers from West Africa to Asia. To meet that demand, MSC, a Swiss terminal operator, initiated a weekly

[1] TEUs are an approximate measure of cargo capacity based on the size of a standard metal shipping container. West Africa main ports are located in Benin, Côte d'Ivoire, Ghana, Guinea, Liberia, Nigeria, Senegal, Sierra Leone, and Togo.
[2] With recent port expansions, 6,500 TEU ships serve the region, but this is still one-third the size of the largest ships, globally.
[3] While this is not an official benchmark, 1 million TEU is often considered a noteworthy threshold for African ports.

11-vessel service in 2015—the African Express—to consolidate all of its Asia-West Africa shipping through the new deep water port at Lomé (the capital city of Togo). In addition to Asian demand, regional population growth and an expanding West African middle class have contributed to the increasing volume of containers shipped through other ports in this region. However, there are short-term exceptions to this trend, as downturns in individual African countries' economies can reduce import demand for containers—not only did the African Express see a decrease in volumes at Lomé in the third quarter of 2016, but a recent electricity crisis in Ghana briefly reduced volumes in the port of Takoradi (Ghana).

Increasing congestion at West African ports has created need for port infrastructure improvements

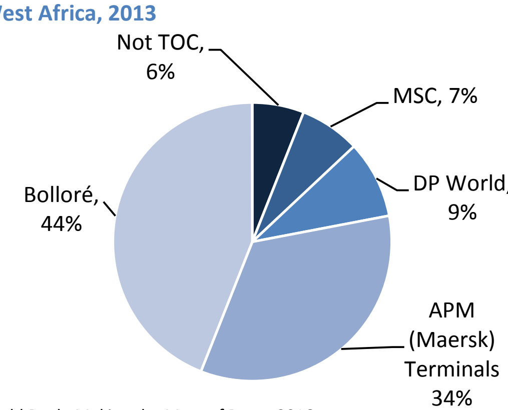
Rising container volumes have exacerbated congestion at some of West Africa's inefficient ports where infrastructure is approaching its capacity limit. Due to the resulting operational delays, the region has total dwell times—the total amount of time that cargo remains within a port—of 20 days, or five times the international standard, which significantly increases trade costs. Further, while Lomé completed the first deep water terminal in the region in 2015, other ports are currently too shallow and lack sufficient warehousing space and cranes to load and unload the higher number of containers transported by larger ships. Consequently, West Africa's current port infrastructure has been insufficient to meet the demands of international shipping companies, who increasingly prefer deep water terminals to better process larger, more efficient ships.[4]

In response to the better infrastructure in Lomé, several West African countries are constructing deeper ports.[5] Ghana will invest $1.5 billion to increase Tema's capacity to accommodate ships with a 19-meter depth below the water line, for fear of losing that trade to Togo or to Côte d'Ivoire. In addition, the port of Lekki (Nigeria) will handle ships that reach a depth of 16.5 meters, and the city of Abidjan's (Côte d'Ivoire) second port will accommodate ships with up to an 18-meter draft, once planned improvements have been completed.

Ports are outsourcing management to foreign firms to increase efficiency

To improve the performance of their terminal operations, West African governments have increasingly turned to two foreign firms, Bolloré (France) and APM terminals (Denmark), that now handle three-quarters of all containers passing through the region's ports (figure 1). A World Bank report notes that many of these ports have enjoyed high-productivity growth since these firms have taken control of port operations—for example, the port of Cotonou (handled by Bolloré and APM Terminals) increased its average productivity by 48.3% between 2016 and 2017. At the same time, the market concentration of these terminal operators has also resulted in higher operating costs, raising questions about a lack of competition from the World Bank. These investments continue into 2018, with a European port operator announcing plans for Dakar (Senegal) and Bolloré promising €400 million for a new container terminal in Abidjan (Côte d'Ivoire). Overall, investment in infrastructure and the participation of foreign operators has improved the region's capacity to handle increasing trade, but critical gaps remain.

Figure 1: Container shares of terminal operators in West Africa, 2013



World Bank, Making the Most of Ports, 2016

Sources: Rogers, "African Ports Revolution," Global Constructions Review, February 7, 2017'; World Bank, "Making the Most of Ports in West Africa," April 6, 2016; Porter, "MSC cascades 13,000 teu ships to Africa trades" June 23, 2016; CATRAM, "Market study on container terminals in West and Central Africa", 2013;Port Strategy, "Rekindling the Flame," December 16, 2017; Mooney "Congested West African Ports" December 10, 2017. For a full listing of sources please contact the author.

[4] In the year leading up to January 2014, the average ship size on the Asia-West Africa route grew by 38% to 4,178 TEU and the following year MSC announced it would introduce ships as large as 6,500 TEU to the region.

[5] The only deep water port in West Africa is operated by Lomé Container Terminal (Bolloré) at 16 meters.

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