



The Potential Impact of Brazil's Transportation Efficiencies on World Cotton Trade

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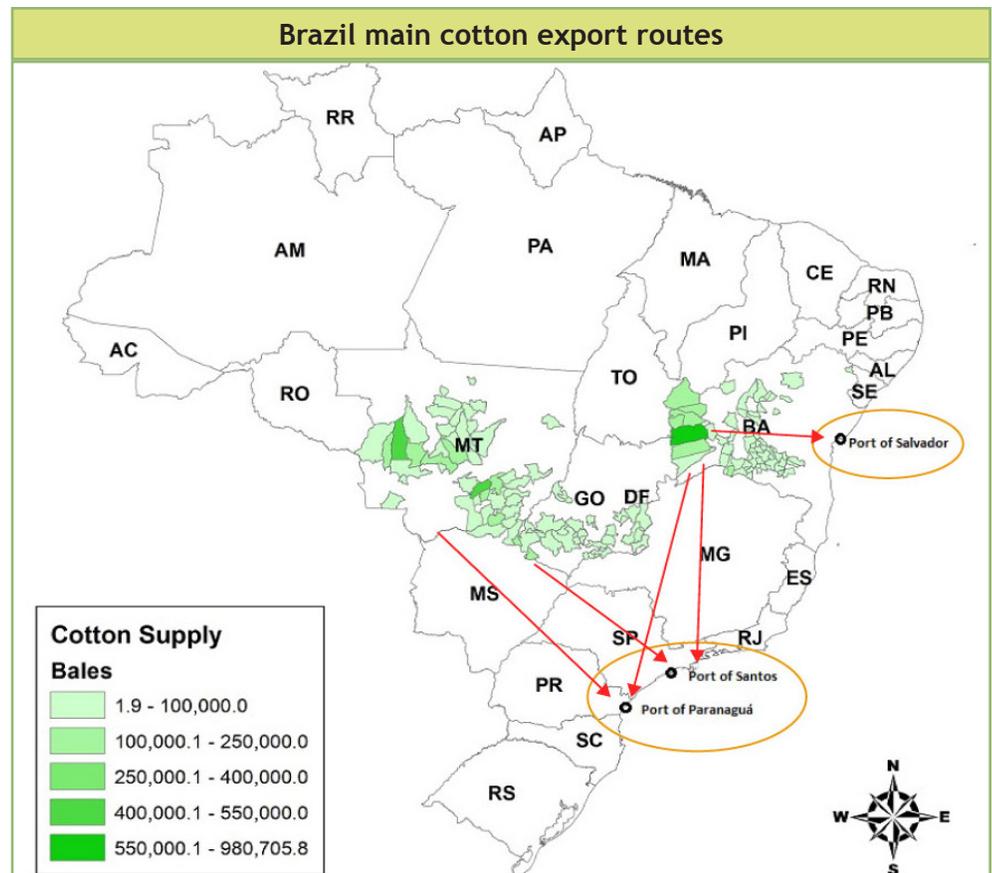
This paper is a summary of:

Rafael de Farias Costa, C. Parr Rosson, III, and Flynn J. Adcock, Transportation Infrastructure in Brazil: Impacts and Implications for Global Cotton Trade, Texas A&M, CNAS 2012-0. May 2012. Web. <http://cnas.tamu.edu/Publications/Brazil_Cotton_Transportation_Report_June_2012.pdf>

Brazil is the third largest cotton exporter after the United States and India. Cotton production in Brazil expanded from 2 million bales in the late 1990s to about 9.3 million bales in 2011. In 2007, Brazil began a comprehensive logistical investment plan to increase competitiveness in the world agricultural market. To increase transportation efficiencies, the Brazilian Government wants to reduce export route distances and port congestion by shifting exports from the southern ports to the north and northeast port regions. Brazilian cotton export routes originate in three major producing States: Mato Grosso (MT), Bahia (BA), and Goiás (GO). The southern ports of Santos and Paranaguá are the main gateways to Asia, accounting for 91 percent of Brazil's cotton shipments. The northeast port of Salvador, BA, represents about 2 percent of total Brazilian exports. Average distances from a farm in Mato Grosso to Santos and Paranaguá are 1,100 and 1,240 miles, respectively. Truck haul average distances from Goiás to Santos and Paranaguá are 640 and 880 miles, respectively. Salvador is located about 530 miles from western Bahia production regions. Bahia's cotton exporters prefer to ship from the port of Santos where the average distance is 1,046 miles because there are no direct shipments from Salvador to Asia, resulting in higher ocean freight rates.

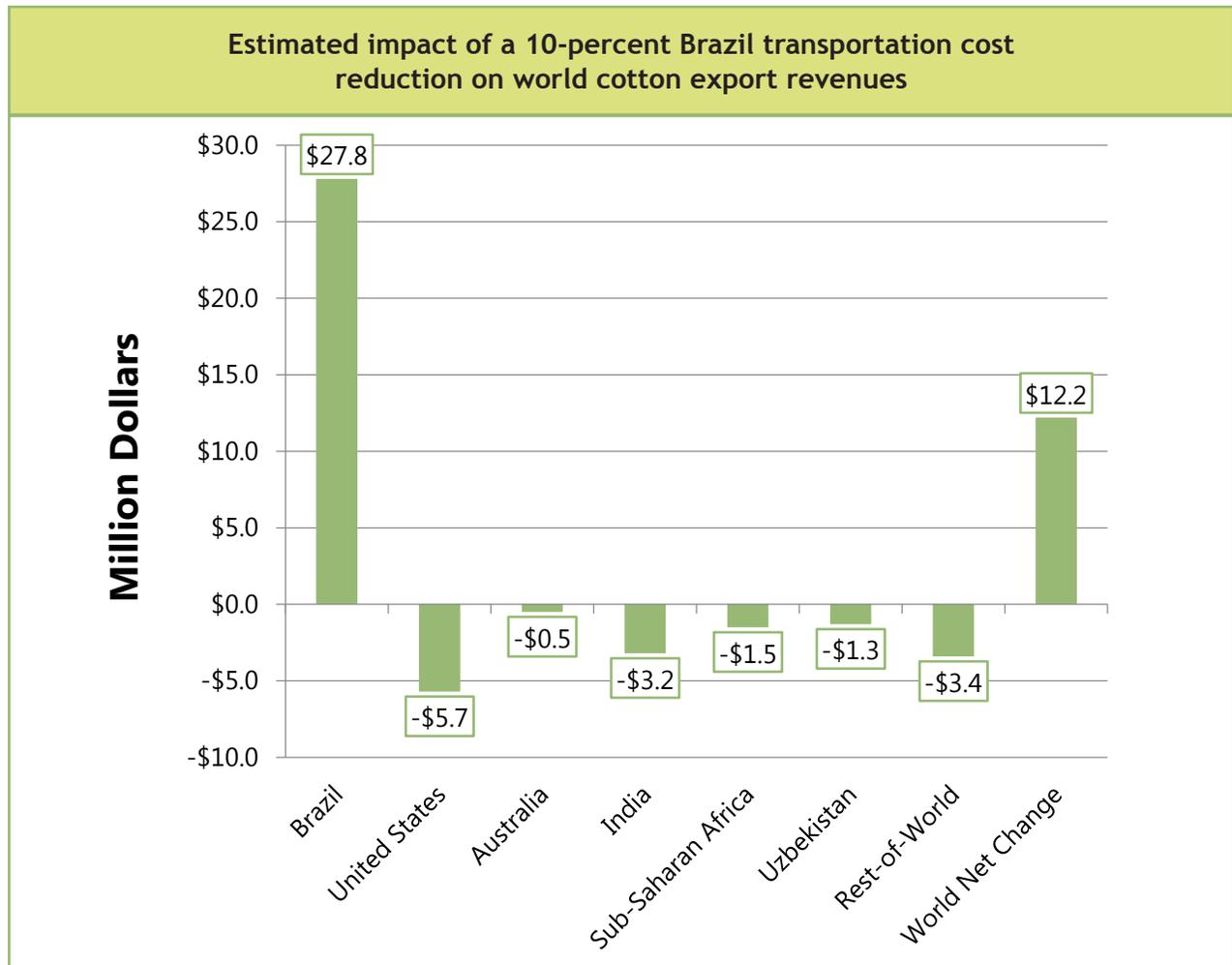
Texas AgriLife Research scientists estimated the impact of Brazil improvements in transportation infrastructure on cotton production, prices, and exports. Transportation costs for different regions within Brazil were estimated to reflect movements from mill to port. An origin-destination matrix of the Brazilian cotton industry that tracks cotton flows within the country was developed and validated.

Findings indicate that a 2- to 3-percent transportation cost reduction would not have a significant impact on the world cotton trade. However, the United States may benefit slightly



from a 2-percent cost reduction, increasing exports by 640 bales, raising prices 2 cents a bale, and growing revenue by \$457,900. If transportation costs drop by 10 percent, Brazilian exports could increase by 64,830 bales, raising prices by \$3.61 per bale and increasing revenue by \$27.8 million. India and the United States might lose market share. U.S. losses could include 4,490 fewer bales exported at a price of \$0.28 less per bale and lower cotton export revenues of \$5.7 million.

Infrastructural improvements could divert Brazilian cotton exports to Asia from Santos to Salvador. As a result of port facility improvements and a shorter distance to Asia, Bahia shippers could gain from a 10-percent reduction in transportation cost by shipping directly from Salvador to Asia. Bahia, the second largest cotton exporter after Mato Grosso, could become the top Brazilian cotton exporter, accounting for almost half of Brazil's total exports.



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