

AN EMPIRE LOST: SPANISH INDUSTRY AND THE EFFECT OF COLONIAL MARKETS AND TRADE ON INNOVATION

DARIO A. ROMERO[†]

JOB MARKET PAPER

This version: October 2021. Latest version [here](#).

ABSTRACT. I study how accessing new (international) markets affects innovation direction. To do so, I use two historical experiments on the textile industry in Spain at the end of the 19th century. I provide causal evidence on how international trade's patterns enhanced biased technical improvements. Although each shock meant access to new markets to Spanish cotton textiles, their effect on innovation differed because demand characteristics were not the same. First, after Spain effectively forced their colonies to buy manufactured cotton goods in 1891, I document an increase in innovation destined to create cotton textiles. Second, after the Spanish-American war and the unexpected loss of these captive markets, I find a change inside the cotton industry towards weaving innovation. After the 1898 war, and with an already installed capacity, cotton industrialists entered and competed in international markets that demanded more sophisticated fabrics. Using novel archive data from a big cotton firm, I evaluate the mechanism that explains my results. I show that changes in intermediate goods relative prices explain the technology type that innovators developed. Finally, I show that these new incentives on innovation translated directly into adopting new mechanized tools in the sector. I find evidence of a rise in industrial technology due to an increase in mechanized cotton looms used in Spain after 1900.

JEL CODES: F15, F63, L16, N73, O24, O32

KEYWORDS: Directed Technical Change, Induce Innovation, Trade

[†]Department of Economics, Columbia University. 1022 International Affairs Building, 420 West 118th Street, New York, NY 10027. E-mail: dr2879@columbia.edu. I owe an enormous debt of gratitude to Suresh Naidu, Réka Juhász, Eric Verhoogen, Michel Best for numerous insightful discussions regarding this work. The paper also benefit from discussions with Silvio Ravaioli, David Rosenkranz, Felipe Netto, Haaris Mateen, Tatyana Avilova, Diego Martin, Teresa Esteban-Casanelles and seminar participants at Columbia Development Colloquium. I owe a special thanks to workers at the Biblioteca Nacional de España, Biblioteca de Catalunya and Arxiu Nacional de Catalunya. All remaining errors are my own.