

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

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JOB MARKET PAPER

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**ABSTRACT.** I study the effect of access to new (international) markets on innovation direction using two historical experiments on the textile industry in Spain at the end of the 19th century. I provide causal evidence on how trade structure enhanced biased technical improvements. Although, each shock meant access to new markets to Spanish cotton textiles, their effect on innovation was different because the change on demand characteristics was different. First, after Spain effectively forced their colonies to buy manufactured cotton goods in 1891, I observe an increase on innovation destined to create cotton textiles. Second, after the Spanish-American war and the unexpected lost of these captive markets, I find a change inside the cotton industry towards weaving innovation. After the 1898 war, and with the already installed capacity, cotton industrialists were forced to enter and compete in the international markets that demanded more sophisticated fabrics. Using novel archive data from a big cotton firm, I show that the changes on the intermediate goods relative prices, that each one of these shocks represented, explain the type of innovation developed. Finally, I show that these new incentives on innovation translated directly into the adoption of new mechanized tools in the sector. In particular, I find evidence of an increase on industrial technical change with an increase on cotton looms used in Spain after 1900.

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

**KEYWORDS:** Directed Technical Change, Induce Innovation, Trade Structure

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