



# Documentos de Trabajo sobre Economía Regional y Urbana - How do environmental shocks affect competitors in a supply chain? Evidence from a competitors' weighting matrix

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Publication Date: Wednesday, 14 of February 2024 **Abstract**

Quantifying the impact of supply shocks on global commodity trade networks is an increasing concern for researchers under the current threats of climate change and the lessons from the COVID-19 pandemic. This paper proposes a novel methodology to estimate these effects across the entire trade network: we create a weight matrix based on an index that captures the extent to which two coffee-producing countries compete within consumer markets. Using this matrix, we estimate the degree to which an adverse weather shock in a coffee-producing country influences the coffee production of its competitors. Our results show that this adverse shock has a negative direct effect on the country's coffee exports and, importantly, a positive effect on the quantities produced by its competitors.