Dirty Trade War: The Effects of Trade War on Carbon Emission *

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Abstract

How trade policy and energy policy interplay in shaping the carbon effect of trade activities is critical to understanding the trade-carbon linkage. Using US-China trade friction as the exogenous shock, we empirically and quantitatively examine the impact of US-China trade friction on carbon emissions, carbon emission intensity, and welfare. With comprehensive firm-level tax survey data, we find that US-China trade friction raises carbon emission intensity at both the city level and firm level. Two mechanisms drive the effects: cities react to the shock by loosening government environmental regulations, which boosts firms usage of coal and then increases subsequent carbon emission intensity; resource reallocation occurs after the shock as former exporters gravitate toward domestic production, which is apparently less clean. Our quantitative analyses further discuss the impact of the trade friction on the welfare of China, the U.S., and the world due to affected production and increased carbon emissions.

Keywords: Trade war, Emission intensity, Environmental regulation, Resource allocation
JEL Codes: F21, F66, J31

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