Innovations for Decarbonization under Weak Regulatory Constraints

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This article explores the incentives for companies to implement sustainability-oriented innovations to reduce their climate impacts voluntarily. Considering those sectors that are not subject to carbon prices or stringent public regulations regarding decarbonization targets, we model how supply-chain pressure from the market, and particularly final clients, can cascade up through the value chain, but not always and necessarily encouraging substantial innovations. On the contrary, in the absence of complete information regarding sustainability metrics, firms may choose opportunistic behaviours that do not consistently reduce environmental impacts. We examine empirical evidence for this theoretical prediction in the context of industrial electronics, through a multiple case study of multinational companies operating in the same supply chain. We confirm that in most cases, absent any regulatory pressure or mandatory mechanism for transparent and homogeneous information disclosure, companies prefer strategically to limit innovation.