

RESEARCH ARTICLE

Disentangling economic crisis effects from environmental regulation effects: Implications for sustainable development

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Abstract

With climate change becoming more severe, policy makers must impose environmental regulations that will lead firms to adopt sustainable corporate models. According to the Porter hypothesis, environmental regulation can favour the implementation of business strategies that improve economic and environmental performances. In this study, we examine how one such form of regulation, the European Union Emission Trading Scheme (EU ETS), impacts firm performance, and we subsequently widen the examination beyond the regulation to evaluate an economic crisis which could potentially confound regulation effects. We estimate a panel model with time- and firm-fixed effects for different subsamples that disentangle the effect of the EU ETS policy from the 2008 economic crisis. The results indicate that the EU ETS policy in its third phase can activate the Porter hypothesis and is effective in fuelling the implementation of sustainable corporate models by firms. However, we also find that the economic crisis neutralises the effects of the regulation on firm performance, precluding the triggering of the Porter hypothesis in severely affected firms.

KEYWORDS

environmental policy, EU ETS, firm performance, pollution reduction, Porter hypothesis, sustainable corporate model

1 | INTRODUCTION

The fight against climate change is the most important environmental challenge for humankind today. The increasing concentration of greenhouse gases (GHGs) due to economic development has consequently increased greenhouse effects and global warming. Since the Brundtland Report (1987) and the subsequent summit in Rio de Janeiro (UNFCCC, 1992), sustainable development has been a major goal for society to strive towards. Institutional answers to climate change, from the Kyoto Protocol to the Paris Agreement together with the United Nations' (UN) Sustainable Development Goals (SDGs), contribute to trace the environmental sustainability path (Fowler & Hope, 2007; Mio et al., 2020; Torelli et al., 2020).

Policymakers are required to impose environmental regulations that balance pollution reduction targets and economic development while simultaneously encouraging firms to adopt sustainable corporate models. By imposing pollution reduction targets, the

environmental regulation of firms generates coercive pressure designed to attain economic and environmental goals (Delmas & Toffel, 2004; Hoffman & Ventresca, 2002; Jennings & Zandbergen, 1995; Levy & Rothenberg, 2002). A large thread of literature investigates the question 'Does it pay to be green?' (Ambec & Lanoie, 2008; Dixon-Fowler et al., 2013), suggesting that an improved environmental performance might also positively impact a firm's economic performance (Baker & Sinkula, 2005; Christmann, 2000; Clarkson et al., 2008; Coombs & Gilley, 2005; Hart & Ahuja, 1996; Orlitzky et al., 2003). In this respect, the design of environmental regulation plays a key role. According to the Porter win-win hypothesis (Porter, 1991; Porter & van der Linde, 1995), environmental regulation can favour the implementation of business strategies that improve both a firm's economic as well as environmental performance under a flexible institutional framework, guided by a regulation that fixes the objective of pollution reduction while firms can freely identify their optimal solutions in attaining the environmental