

## Environmental Policy and Mergers in Toxic-Intensive Sectors

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**With the recent rise in merger and acquisition activities among polluting firms, a rigorous study of the complex relationship between environmental variables and merger incentives is very important. While there is a wide array of literature on incentives to merge, the following questions have not yet been satisfactorily resolved: Could environmental policies alter the incentive to acquire or merge with other firms in the industry? Could antitrust policies be improved to consider environmental externalities? Could huge mergers in polluting sectors possibly have a say in environmental policy making?**

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The United States (US) Department of Justice and the Federal Trade Commission evaluate horizontal merger proposals and determine whether proposed mergers are likely to impede competition significantly. Likewise, the European Commission Directorate General of Competition provides guidelines for accepting or rejecting merger proposals. These guidelines are general standards based primarily on market concentration criteria and applied to different types of firms seeking horizontal mergers in their respective sectors.

Note that, among those sectors that had the highest merger and acquisition (M&A) deal volume in the US in 2009, sectors with environmental externalities accounted for over 55% of the total value of deals (FactSet, 2010b). Sectors with environment externalities are the 75 toxic-intensive sectors identified by Hettige et al. (1995), such as those related to the production of chemicals, paper, textile, plastic and rubber, printing and publishing, and wood products. Similarly in 2010, M&As in such sectors accounted for about 31% of the total value of merger deals in Europe (FactSet, 2010a).

Why do firms in toxic-intensive sectors merge? Do they have a *special* incentive related to policies regulating their negative externality? Among other reasons, M&As in sectors with environmental externalities may be triggered by environmental regulation changes that induce industrial facilities to acquire firms with *greener technologies*. For instance, one may expect that the European Union's proposal to penalize carmakers with *average* carbon dioxide emission exceeding 120 kg/km may provide incentives for large carmakers to merge with smaller ones in order to balance out emissions (think of Porsche's latest attempt to acquire Volkswagen, followed by Volkswagen's acquisition of Porsche). Likewise, the introduction of an emission-trading system may provide incentives for big energy-intensive facilities to seek joint ventures with projects engaged in offsetting activities. In the presence of today's evolving environmental policies, producers in toxic-intensive sectors may view M&As as viable strategies where financial gains are achieved from adopting greener solutions. Such mergers may enhance social welfare as a result of reduced gross pollution, lower damage costs, and cleaner technologies.

Antitrust agencies, therefore, may in the future wish to consider incorporating environmental variables in their decisions to accept or reject merger proposals involving toxic-intensive firms. So far, antitrust policies are determined independently from environmental factors; hence, some environmentally friendly M&As may be rejected, and the benefit of accepted mergers may be underestimated. In addition, if environmental policies create incentives for mergers, then environmental policy makers have a direct role in affecting market structures. As a result, harmonizing environmental policies with antitrust policies may maximize social welfare.

While it is likely that the type and expected change in environment policy may influence the decision of producers to seek out joint ventures and merger opportunities, environmentalists should also watch closely for the reverse effect.

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Could huge mergers in toxic-intensive sectors possibly have a say in environmental policy making? I believe that collaboration among prominent producers may give rise to market power as well as political power; and perhaps may also shape environmental policy in terms of slowing current proposals from being enacted as law.

Theoretical economic analysis has already provided us with rigorous proof that changes in market structures can affect environmental policies—at least emission taxes. One possible cause of change in the market structure is M&As. For instance, Katsoulacos and Xepapadeas (1996) argue that governments set lower emission tax for industries with few local firms where such rates increase as the number of firms in a given sector increases. Barrett (1994) explains this as a government strategic response that aims to increase the competitiveness of domestic firms relative to foreign firms. How well do these theoretical predictions hold up to explain market strategies for corporate control? Ederington and Minier (2003) find empirical evidence that sectors with influential market power in the US are more likely to have stronger lobbies and hence push for lower environmental regulation in exchange for political support. For instance, the recent merger between Northeast Utilities (NU) and NStar made the company the largest utility provider in New England, which raises concerns that the deal will allow NU/NStar to affect New England's energy policy.

To understand the direction and strength of the relationship between environmental policies and mergers correctly, we need rigorous empirical as well as theoretical studies. Such studies would benefit not only policy makers but also researchers and environmentalists.

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