Natural Resource Management and Policy

Luis Gautier · Mahelet G. Fikru

Handbook of Merger Control and Environmental Policy

Theory and Applications

This book presents an integrated theory of firms' strategies and two types of policies, namely environmental policies, and merger control policies. It develops a framework to examine the intricate relationship between merger and acquisition (M&A) incentives, merger control policy, environmental policies, and firms' sustainability practices. The chapters highlight the importance of policy coordination to underscore the link between M&A and environmental externality, and the link between merger policy and environmental policy. Drawing together related fields that are seldom linked in the literature, this volume offers a comprehensive and authoritative reference for scholars, graduate students, and policymakers.

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Chapter 9
Merger Control and Environmental Policy

Abstract This chapter reviews the goals of two policies: merger control and environmental policies. The chapter then develops an integrated framework where these two policies interact and can affect each other, where merger control policymakers consider environmental aspects while environmental policymakers consider merger incentives. So far, the literature presents environmental policy and merger control policies as two independent topics. We argue these are inextricably linked for policy making and that environmental policy and merger policy could be designed in a synergistic way.

9.1 Introduction

The intersection of merger control policies and environmental regulations plays a crucial role in shaping the landscape of global business. This chapter explores the potential relationship between merger control policies and environmental policies, recognizing their combined influence on market dynamics and sustainable development. We briefly summarize the objectives of each of these policies and propose a framework to integrate them in markets where frequent M&As take place. As we delve into the relationship between environmental policies and M&A control policies, we aim to contribute to the nascent literature that explores the interconnectedness of these two crucial policies.

9.1.1 Merger control policy

Because a significant portion of mergers are motivated by scaling and expanding businesses, this has direct implications for competition and market power. The purpose of merger control policies is to prevent the consummation of mergers that reduce market competition, raise consumer prices, and reduce market efficiencies. Merger

control policy is key for the competitive functioning of markets, where markets provide for the allocation of resources. Decisions to approve, challenge or reject merger proposals have implications on pricing, competition and production decisions with consequences on firm profitability and consumer well-being.

Within the US market, the Federal Trade Commission (FTC) and the Department of Justice (DOJ) are responsible for enforcing the nation's antitrust laws. To evaluate horizontal merger proposals, these two agencies rely on the Horizontal Merger Guidelines first issued in 1968 and later revised in 1982, 1984, 1992, 1997 and 2010 (United States Department of Justice, 2010). Other nations have similar provisions equivalent to these guidelines (Fikru and Lahiri, 2011) . The purpose of the Horizontal Merger Guideline is to develop standards or guidelines to determine whether or not to challenge merger proposals and communicate these standards to industries contemplating M&A deals. A merger proposal would trigger reporting requirement from the FTC and DOJ if it exceeds a given size threshold with respect to both the value of the transaction and the size of the participating firms (Kwoka, 2014).

From a domestic standpoint, M&A takes place across a myriad of sectors, including manufacturing and energy. Historically, merger control agencies have had a significant role in differentiating merger proposals that encourage innovation, benefit consumers, and create cost synergies, from those that would hamper competition. In 2016, for example, the Federal Trade Commission contested the merger between two energy companies, Energy Transfer Equity and The Williams Company, on grounds that the merger would create a monopoly on pipeline-transported-natural gas to Florida, and harm the entry of a newly proposed natural gas transporter. The merger proceeded under the condition that the merged company sells some of its pipeline interest to the state.

In an international context, M&A among multinational companies are not only relevant for the host economies but have global impacts on and require regulatory approval from several countries. A good example is the acquisition of US-based Mead Johnson by UK-based Reckitt Benckiser which required clearance from a total of nine government authorities. Antitrust policy coordination across countries is a contentious topic with implications on international trade deals, investment and merger decisions, and job and wealth creation.

9.1.2 Environmental policies

Environmental degradation poses important global challenges, and the design of cost-effective environmental policy is regarded as key to tackle these challenges. Implications from environmental policy design range from improving health outcomes and air quality, and promoting the development of new technology, to concerns about firms remaining competitive in a global economy. Increasingly, countries are looking for new ways to address environmental degradation. This is supported by many global and local efforts in the design and implementation of market-based and command-and-control environmental policies. Examples include the Paris Agree-

ment, carbon pricing schemes in the EU, emissions fees in certain US states, the expansion of green urban areas, the promotion of the use of distributed renewable energy resources and the development of policy consistent with the UN's Sustainable Development Goals (Fikru, 2011; Keohane and Olmstead, 2016).

The overall objective of environmental policies, regardless of how they are designed or implemented, is to achieve an efficient level of environmental degradation and improve living standards, which often times requires a reduction in damages from environmental degradation, e.g., lower emissions of greenhouse gases (GHG). To achieve this objective, the reallocation of resources in a market economy takes place and said reallocation can have implications on the market structure of particular industries. This restructuring, in turn, can affect the incentives for M&A activities to take place. For example, the implementation of the European Union's Emissions Trading System has prompted many firms across a large number of sectors to adjust to new ways to lower GHG emissions through the development of new technology, the acquisitions of firms with the know-how to reduce emissions or by simply reallocating existing resources within firms consistent with lower GHG emissions, e.g., De Jonghe et al. (2020). These adjustments entail a process through which resources are reallocated with potential implications on the incentives for M&A activity. As a second example, in the context of Chinese polluting industries Sun et al. (2023) and Liang et al. (2022) show that environmental policy (both command and control and emission taxes) can create the incentives for M&A activities associated with firms addressing their environmental externality to take place.

But M&A activities can arguably impact environmental policy, too. As firms engage in M&A activities the market structure of an industry is likely altered with implications on resource allocation and potentially environmental degradation. As a result, the design of environmental policy is likely affected. We point to two potential channels. First, when M&A activities are aimed at achieving economies of scale and expansion of business operations with little regard to environmental effects, stringent environmental policy may be needed. Second, when M&A activities are aimed at reducing firms' environmental externality (green M&As), the need for stringent environmental policy may be limited.

9.2 Integrating Environmental and Merger Aspects

There is a nascent literature on the determinants and consequences of mergers among firms regulated for their pollution. However, there are no comprehensive works at the intersection of environmental and merger policy. The literature has studied merger and environmental policy as two separate elements; however, these are inextricably linked from a policy standpoint. The contribution of this book is to provide a comprehensive analysis of the relationship between merger incentives, environmental policies, and merger decision rules. The few papers in the literature which study aspects of merger and environmental policy in a unified framework are

mainly our own works (Fikru and Gautier, 2016, 2017, 2020a, 2020b; Fikru, 2013, 2016; Fikru and Lahiri, 2013; Fikru and Insall, 2016; Eng and Fikru, 2020).

In what follows, we offer a brief discussion on the very limited literature (other than our own work) at the intersection of merger incentives and environmental policy, followed by the contribution to said literature. We broadly divide the discussion into theoretical and empirical works. These studies (1) focus on examining the effects of pollution permits on the incentives to merge, where stringent environmental policy may or may not yield incentives to merge; and (2) have not examined the effects of mergers on the design of optimal environmental policy. Among others, we make contributions to these two aspects by (a) studying a different set of environmental policies -other than a pollution permit system- and proposing new channels whereby incentives to merge may occur, (b) designing optimal environmental policy in the presence of mergers in a closed-economy vis-à-vis an open-economy setting, (c) looking at the incentives to merge renewable energy may offer, and (d) studying the role of free-entry on merger incentives.

One of the earliest merger models that incorporates aspects of environmental policy is the study by Hennessy and Roosen (1999), where they examine the incentives to merge due to the presence of a pollution permits system. They consider a perfectly competitive output and permits market, where future emissions are uncertain, and show that the incentives coming from the permits market may motivate a merger that wouldn't take place otherwise. The study also briefly discusses how results are ambiguous under a Cournot oligopoly output market.

Creti and Sanin (2017) is an extension of Hennessy and Roosen (1999) with a Cournot output market. They find that in a symmetric Cournot market a horizontal merger is welfare neutral since the decrease in the regulator's revenue due to the resulting decrease in permits price is earned by firms. They also find that if the merger generates efficiency gains, it is welfare enhancing only if such gains are high enough. According to Creti and Sanin (2017), recent big mergers in the utility, energy and power sectors are believed to have been triggered by uncertainty about tightening environmental regulation to reduce the cost-implications of stricter environmental policy i.e., pollution permit system.

Canton et al. (2012) considers horizontal mergers in the eco-industry (waste management), and show mergers are less likely to occur as environmental policy tightens up. Thus, some disagreement might arise between an antitrust agency seeking to limit the impact of market concentration on consumer surplus and a regulator who wants to tackle damages to the environment. In the same vein, Benchekroun et al. (2019) examine the profitability of horizontal mergers within non-renewable resource industries such as oil, gas and mineral extraction (limited stock). They find that a merger is less likely to be profitable the higher the emission tax rate. This is because a higher tax raises the firm's extraction cost while the merger slows down extraction rate.

Other than these four theoretical studies, there are a few recent empirical studies in the strategic management field that explore merger incentives among polluting firms. Recent empirical evidence suggests that firms in pollution-intensive industries consider merger and acquisition strategies with objectives additional to just gaining

synergies or reducing redundant cost (Berchicci et al., 2012, 2017; Kwon et al., 2018)

We propose a framework whereby merger control policies may benefit by considering the environmental performance of merging parties. This is particularly important in pollution intensive sectors such as energy and power generation. This is because a significant number of deals occur in such sectors where the deal maybe primarily motivated by pollution aspects (e.g., to gain greener technologies) in addition to growth motives. Furthermore, mergers can potentially facilitate synergies to achieve higher environmental performance which in turn reduces costs which can result in lower prices for consumers. Environmental synergies created due to consolidations could also help reduce local pollution.

Figure 9.1 presents the conceptual framework that could be used to examine the need for updating merger control policies, which currently focus on consumer impacts in the form of price increases. While M&A deals could drive growth, efficiency and synergy, not all deals gain regulatory approval and not all approved deals improve market efficiency. Moreover, M&A deals impact sustainability practices of firms, and the way firms respond to environmental policy. Figure 9.1 illustrates the intricate relationship between M&A incentives, merger control policy, environmental policies, and firms' sustainability practices. The decision made on, say, whether to reject or accept a merger by antitrust policymakers has implications on resource allocation (e.g., production and pricing decisions), which in turn affect environmental performance and, consequently, environmental policy design (Creti and Sanin, 2017). Thus, pre-merger variables such as environmental policy and environmental performance could potentially change post-merger outcomes. For instance, due to environmental synergies firms could adopt more sustainable practices post-merger hence reducing the need for environmental regulation.

By the same token, the implementation of environmental policy touches on issues of firms' cost structure and efficiency, and degree of competition in the market, which can create incentives for M&As to take place. When firms propose to merge, it is the role of the merger control agency to approve, challenge or reject those mergers. Because of the intricate relationship between firm incentives and policy response, it is important to address the question of whether the dual policy goal of addressing damages from environmental degradation and benefiting consumers and firms through mergers achieves welfare gains.

9.3 Conclusion

We argue there is a clear link between M&A activities and environmental aspects, and that there is a role for environmental and merger policy to achieve efficiency gains by acting cooperatively. Currently, anti-trust authorities (e.g., Department of Justice and Federal Trade Commission in the US) and environmental policy authorities (e.g., Environmental Protection Agency or EPA) set policy independently from each other. We argue that there could be efficiency gains to be achieved should these authorities

were to coordinate policy design and implementation. We also develop an analogous argument in an international context.

Policy makers can consider the following recommendations to optimize market dynamics and promote sustainable development. First, current merger control policies may benefit from an additional consideration of environmental performance in the merger evaluation and approval process. This is crucial, especially in pollution-intensive sectors like energy, where M&A deals may be driven by environmental considerations, such as the acquisition of greener technologies. Second, the framework proposed in this chapter emphasizes the potential benefits of updating merger control policies. Traditionally focused on consumer impacts in the form of price increases, these policies could evolve to consider the environmental performance of merging parties. The conceptual framework presented suggests that merger control decisions impact resource allocation, firms' sustainability practices, and environmental policy design. Policymakers must weigh not only the immediate consumer and market effects of mergers but also their long-term implications on environmental sustainability and overall welfare.

In summary, the integration of environmental and merger control policies is crucial for achieving a balance between market efficiency, consumer well-being, and environmental sustainability. Policymakers are encouraged to consider the proposed framework as a guide to updating merger control policies, ensuring that the approval or rejection of mergers aligns with broader goals of sustainable development. This holistic approach acknowledges the multifaceted impact of M&As on markets, competition, and environmental outcomes, fostering a regulatory environment that promotes both economic growth and environmental responsibility.

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Fig. 9.1: Conceptual framework