1 Economic Instruments: Theory and Complications

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Theme of the Volume

This volume deals with instrument choice and design in European environmental policy. The unfolding of environmental policies in many countries and on the international level during the last decades has given rise to a renewed interest in the effectiveness and efficiency of different instruments. Moreover, given the tendencies towards intensification, internationalization and integration of environmental policy, the European Union (EU), as a rather new institutional level to which national competencies of the Member States may or may not be transferred, can be seen as a promising opportunity to optimize the policy level at which policy goals are set and implemented.

In all the case studies of this book, attention is paid to this European dimension. In cases of transfrontier pollution (e.g. the chapter on transito traffic through Austria, and the one on VOC emissions) as well as continental and global issues (e.g. emissions of greenhouse gases) this is self-evident, but even policies curbing local environmental degradation need European coordination, because of unforeseen and unwanted interferences. The EU offers the perspective of a well-coordinated European approach to environmental problems. In fact, the contours of such a European environmental policy are already visible, for example in the Fifth Environmental Action Programme. In addition, the intention to complete the Internal Market could be an extra incentive to coordinate the environmental policies of individual Member States.

The extent to which these opportunities will be exploited in practice is something quite different. In fact, the optimization process itself proceeds like a ‘Procession of Eckternach’, that is making three steps forward and two steps backward. There seem to be two fundamental reasons for this. First, the ultimate principle of the European Union is to exploit comparative advantages between Member States by abolishing all kinds of trade protection. As such these measures boost opportunities for economic growth. Second, the ongoing debate about the interpretation of the principle of subsidiarity causes fundamental problems with respect to the responsibility of the EU to initiate particular environmental policy measures. According to this principle, laid down in the new constitution of the EU, the Maastricht Treaty, policy measures should be taken at the lowest possible level, adequate for solving the problem at hand. Whereas the principle as such does not raise much controversy, its implementation in specific policy areas, such as environmental policy, leaves several observers skeptical as to what extent environmental issues receive enough attention.

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In any case, this book does not discuss questions concerning the role the EU should play in the environmental standard setting process, nor does it pay attention to how these goals are based on preferences of Member States or the population in the Union at large. Instead we focus on the implementation of environmental policy and its translation into policy instruments. The regulatory or legal approach to environmental policy is common in both the Union and its Member States. This approach is usually based on direct interventions using some form of legislation. Polluters’ compliance is mandatory in this system, although sanctions for noncompliance do not always exist. Several failures of this ‘command-and-control approach’ have been reported (Hahn, 1989; Faure et al., 1994). Without being complete, we mention the paralyzing effects on the economy, legitimation problems, growing bureaucracy, and increasing enforcement problems. Due to the inflexibility for individual agents, several inefficiencies occur. Such failures are grist to those economists who cogently argue in favor of using market-based incentives, such as environmental taxes and tradeable permits. The superiority of market-based incentives, or economic instruments as they are usually called, has become well established in economics since the work of Baumol and Oates (1971). However, this superiority is based on a number of simplifying assumptions, which are, in practice, at best only partially fulfilled. This raises the basic theme of this volume whether the textbook-like pleas for using economic instruments can be developed into practical policy proposals without sacrificing too much of their attractiveness.

This volume contains six attempts to do so. Chapters 2 through 7 each deal with specific environmental problems, varying from a mainly local character (nutrient leaching from agriculture, waste disposal) to global issues (CO₂ emissions). For many of these problems a more or less far-reaching policy already exists. However, the authors of these chapters argue that the performance of these policies could be substantially improved, that is, attaining the already stated policy goals at lower costs through a different policy approach. Moreover, this general claim would even hold if one explicitly allows for the cost of regulation itself as is argued in some of the following contributions. This conclusion should be appealing, because if environmental policy measures become more stringent, the cost of regulation tends to rise considerably.

The next section sets the stage for the European dimension in this volume by evaluating the extent to which the EU is serious about developing a European environmental policy and by describing their current initiatives. Next we summarize the main features of the economic approach to environmental problems in general. The simplifying assumptions used on this abstract level of economic theory are useful to establish important theoretical insights, but are of little help if one is apt to apply the policy recommendations originating from these theoretical accounts as concrete policy proposals. The major complications are discussed in the fourth section. Our conclusion is that a case-by-case approach is the only way to synchronize the problem (the environmental issue concerned), its solution (the policy goal chosen) and the road to the solution (the instruments suggested).

Contours of a European Environmental Policy

Environmental policy, as any policy field, is an amalgam of policy goals and instruments. It can be called an amalgam because in practice goals and instruments are not easily separated. It is received knowledge in policy analysis nowadays that rational policy design is illusionary, and practical decisions only reveal some kind of ‘muddling through’ (Wildavsky, 1984). Therefore it takes courage to separate goals from instruments and analyze policy as if it were rational. Nonetheless, this is what most economists still do