CHAPTER 3

The Evolution of Environmental Law and Policy
3.1 Introductory remarks

Even though the internalisation of environmental costs is often associated with the recent use of more ‘economic’ or ‘market based’ instruments of environmental policy, it can also be seen in many other environmental instruments. If, for example, a company is forced to install an extra filter in order to meet new and more stringent governmental emissions standards, this will involve extra costs for this company. The company will try to incorporate these costs in the price of its products so that, ultimately, the consumers end up paying the costs of protecting the environment. This internalisation has an effect on the competitive situation – the level playing field – on a market. The enterprises that are forced to invest in new and more environmentally friendly processes or filters or to cease certain activities, face extra costs that others may not have to bear. In that sense there has been a connection between the competitive situation on the one hand and environmental law and policy on the other ever since environmental regulation has existed.

This relation between competition and environmental protection can lead to a further connection between, on the one hand, competition law and policy and, on the other, environmental law and policy. An example of this secondary connection may be the grant of government subsidies to industry in order to compensate the extra costs resulting from environmental regulation. Such subsidisation is likely to fall within the scope of Article 87 EC according to which state aids are prohibited.

Yet another relation between environmental law and policy and competition law and policy has come about as result of the idea that environmental protection requirements should be made an integral part of the economic process rather than simply forced upon private parties. The emergence of this idea coincides with the shift from so-called ‘command-and-control’ legislation to instruments of environmental policy that require an active participation of the industry. In view of the economies of scale that can be achieved as well as the wish to prevent free riding, the companies have an incentive to cooperate and coordinate their actions with regard to the protection of the environment. As undertakings start to coordinate their environmental activities, Article 81 EC is likely to become relevant. It is this development in the instruments of environmental law and policy in general and the relation with competition as well as competition law and policy that are described in this chapter.

3.2 The regulatory approach

The emergence of the ‘environmental problem’ in the nineteen sixties and seventies together with the then dominant perception of the
state and its role in society resulted in the adoption of so-called ‘command and control’ legislation. This term describes an instrument of environmental policy whereby certain environmental aspects are strictly regulated. An example would be a regulation stating that certain enterprises may emit no more than x kilograms of carbon dioxide per year. This type of environmental regulation has a number of economic consequences.

Firms facing stricter environmental standards are very likely to face accordingly higher costs. Furthermore, environmental regulations may concern specific categories of products and therefore have an effect on the supply-side substitutability of these products. Because of the predominantly national level on which regulation takes place, most effects occur on the level of international competition, i.e. competition between enterprises in different countries. Such stricter standards and the costs that arise from the investments needed to meet these standards are often compensated by the public authorities in order to maintain the competitiveness of the industry. This could be in the form of a government subsidy relative to the investment made. Indeed, the policy of the Commission with regard to such investment aids has – albeit subject to certain conditions – consistently allowed for such state aids. In these cases, governments will grant subsidies and the Commission will declare it compatible with the EC prohibition on state aids essentially because the subsidy only serves to compensate a distortion of the level playing field.

Another example of a regulatory type of instrument that has implications for the level playing field as well as competition law is the exclusive right. We have seen how environmental protection can be characterised as an externality. Moreover, the environmental protection will in many cases by a non-value added activity. An example of such an environmental activity is the environmentally friendly treatment or disposal of waste. The benefit (a cleaner environment) will be an external one whereas in many cases the treatment or disposal of the waste will not add any value to the product. Even in cases where the waste is recycled and the secondary raw materials arising there from can be sold on the market, the price for these raw materials may not be sufficient to cover the costs of recycling. In these circumstances, achieving economies of scale may actually tip the balance so that the treatment or recycling does become profitable and therefore a value added activity. Governments may try to achieve such economies through the grant of exclusive rights to certain enterprises. These companies will thus obtain a statutory monopoly. Such monopolies, in turn, effectively rule out competition since entrants wishing to become active on the market are simply not allowed to do this. This may bring the government’s granting of the exclusive right within the scope of the competition law provisions of the EC Treaty.

The use of regulatory or 'command and control' instruments may thus have clear implications on the level of the application of competition law. Similarly, command and control instruments may affect the competitive situation on a market. We have seen above how competition can be understood as a situation on a market in which the allocation is optimal as well as a dynamic process where innovation is central. The use of regulatory instruments has important implications for this latter view of competition. One of the disadvantages of regulatory instruments is considered to be the fact that they contain no incentive to go beyond the level of environmental protection prescribed by the regulations. According to this view, a company that meets the prescribed level of protection will not invest in research into pollution abatement technologies that will allow it to go beyond that level. Furthermore, even if the companies do invest in the development of such new technologies, there is nothing to ascertain that these new technologies will also result in a higher level of environmental protection. This argument may meet with the reply that the company could invest in even more innovative and more efficient environmental protection technologies so that it can reach the prescribed level at lower costs. This, however, still does not guarantee that the company will indeed opt for a higher level of protection at the same costs instead of going for costs saving while 'merely' meeting the prescribed levels of protection. Again, because of the external nature of the environment, there is simply no incentive for the company to invest more than it has to in order to meet the prescribed level of environmental protection. The internalisation of the environmental costs mentioned in paragraph 3.1 above, can thus be said to take place only insofar as is prescribed by the regulation.

The mobilisation of the market forces by such regulatory instruments is therefore rather limited. As it is widely recognised that the market mechanism is probably the most efficient allocative instrument, this can certainly be called a missed opportunity. Attempts to make more of the potential that the market mechanism or competition offers, have led to the emergence of new class of instruments of environmental policy.¹

### 3.3 Towards market-based instruments

In some respects, the shift in environmental policy instruments from command and control to the more market-based instruments can be said to be the result of the wish to more adequately internalise these external costs. Command and control type of regulation focuses on a specific aspect of the environmental deterioration and tries to cure this by imposing certain

¹ See in general about the disadvantages of command and control instruments and the shift to other instruments: Hussen 2000, p. 237 et seq.
behaviour on the actors. The result of this type of regulation, from the perspective of the internalisation of environmental costs, is that the taking into account of environmental benefits is still not truly and fully internalised but remains external, prompted by regulation rather than by the competitive process. This is generally considered to make command and control instruments both less effective as well as efficient. The lower effectiveness relates to the fact that the environmental performance of command and control instrumentation is lower than that of instruments that actively involve the private actors. The absence of an incentive to go beyond what has been prescribed by the command and control instrument is just one example of the lower effectiveness. Furthermore, the setting of a specific norm brings with it an opportunity for the individual actor to bargain for a less strict norm.\(^3\) The lower efficiency of command and control instruments refers to the fact that the costs involved in meeting a certain environmental objective are generally considered to be higher when command and control instruments are used. One explanation for this is the fact that the actors involved in market based instruments can generally be considered to know best where they can achieve a given environmental improvement at the lowest costs.\(^4\)

The only way to make environmental considerations truly a part of the competitive decision-making by actors is to allow these actors some freedom in their approach to an environmental problem. In this view, environmental protection should not be forced upon the parties as an exogenous factor that needs to be respected. Rather, it should become an integral part of everyday decision-making. This has resulted in environmental policy instruments that allow for more self-regulation. This can, for example, take the form of legislation that lays down certain specific objectives but at the same time allows industry the freedom to attain these goals by means of an environmental agreement. Furthermore, depending on the organisation and structure of an industry, enterprises may choose to cooperate to address a certain environmental problem in order to pre-empt the enactment of (command and control-type) environmental regulation. In these cases, industry will negotiate an environmental agreement tailored to the strengths and weaknesses of the companies that are parties. The efficiency and effectiveness of these instruments can, however, also be doubted as self-regulation is liable to degenerate into a vehicle by which the industry leader consolidates his leading position or by which the industry is seeking only to postpone regulatory activities. This can essentially be traced back to the fact that what is called self-regulation must often be characterised as reregulation. As a result, the internalisation of environmental aspects as a result of these instruments is still far from complete.

\(^3\) That this is not unlikely to happen is evidenced by what is called the captive regulator problem. cf. Esty 1999, p. 1515.

Environmental protection requirements must first be made an integral part of everyday decision-making in the industry. For this we need, as it were, a translation of environmental protection requirements into the language of the industry. This language is that of price and costs and, if we pursue the analogy, the dictionary is the polluter pays principle. Quantity based systems (tradable permits), do not rely on the price mechanism but rather entail a direct reduction of the environmental degradation (e.g. through a reduction of the number of emissions permits). Since specific action on the part of competition law with regard to this type of environmental instrument seems unlikely, we will not devote further attention to it.

3.3.1 The polluter pays principle from a Coasian perspective

In legal terms, the internalisation of external environmental costs in the competitive process is governed by the polluter pays principle. According to this generally accepted principle, the polluter should bear the costs of his damage to the environment. In theory this principle could lead to a full internalisation of all environmental costs as a result of which greener products would actually be cheaper than their polluting counterparts and thus leading to a more environmentally friendly world. All this would take is to clearly identify all the environmental external costs and assign these to a party. Intuitively, this party should be the polluter or person responsible for the pollution. Conferring the costs of the environmental damage to him then almost gets the character of a punishment that is rightfully deserved for damaging the environment. This brings the so-called Coase theorem into the picture. It is submitted that the Coase theorem can be seen as an attempt to take the internalisation of external costs out of the morally laden world of crime and punishment. According to the Coase theorem, the property rights arising from an internalisation can freely be assigned to anyone (‘polluter’ or ‘victim’) involved in the environmental degradation. Bargaining will then result in the level of pollution that is socially optimal. Coase, however, makes his theorem subject to the proviso that transaction costs are zero or negligible. This requires that all the parties involved know each other’s costs and the implications of any outcome for their own situation. The problem, of course, is that we do not live in a zero-transaction cost world and that transaction costs are even further from zero for externalities such as the environment.

The Coase theorem is for the purpose of this research understood to be primarily significant for the insight that the property rights arising from the

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5 Theorem proposed by Nobel laureate Ronald A. Coase in his seminal article ‘The Problem of Social Cost’.

6 As Coase himself acknowledges in section VI of his article.
internalisation of environmental costs should be assigned to the person who can most efficiently cure the environmental damage and thus curb the environmental costs assigned to him even when this person may not be the (sole) polluter. This insight is particularly important in situations where it is difficult, if not impossible, to appoint a specific polluter. Secondly, the Coase theorem is considered to be important for the understanding that the reduction of transaction costs may also contribute to a more efficient internalisation of environmental costs. This second view of the Coase theorem is important in that it leads to the conclusion that in situations where it is difficult to appoint a specific polluter, the environmental costs should be assigned in a way that minimises the transaction costs involved in sharing or redistributing the environmental costs among the polluters.

The following cases illustrate the difficulties involved in assigning the environmental costs. According to the principle of producer responsibility, the producers are responsible for the collection and recycling of the waste that their products become once these have reached their end of life and the consumer would like to dispose them. The producers are thus made to bear the costs involved in collecting and recycling the products. In the terminology of the polluter pays principle, that is often considered to be implemented through the principle of producer responsibility, the producers are considered to be the polluters. A pertinent question, however, would be to ask who ultimately decides on what is produced in which quantities and qualities. Is not the whole idea behind the free market economy guided by competition that consumer preferences (even though they may be influenced by the producers) are what ultimately steers the market? As a result, cannot the absence in certain cases of, for example, so-called ‘design for recycling’ also be traced back to the fact that consumers are simply not interested in environmentally friendly designed products? Furthermore, we may ask ourselves why environmentally friendly producers need to be subsidised. At first sight, this is necessary because these production methods are often more expensive than the not so environmentally friendly production processes. The real problem, however, is the fact that consumers are generally unwilling to pay more for the green products. Many people will, for example, still buy the cheap industrially produced meat in supermarkets instead of the more expensive ecologically friendly meat. Could it not be said that in these cases the consumers, and not the industrial meat producers, are the actual polluters?

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8 Design for recycling or eco-design means that the ease with which products can be recycled is already taken into account at the design stage. Poor eco-design often leads to higher recycling costs thereby reducing the possibilities of recycling.
How can environmental costs be internalised most effectively taking into account the difficulties involved in appointing the polluter? The traditional solution would have been the imposition of a tax on the use of the externality. This corrective mechanism has been proposed by the economist Arthur C. Pigou and is since referred to as a Pigovian tax.\(^9\) Basically, it involves a government-imposed tax on the use of the externality.\(^10\) This could take the form of a tax per unit of pollutant emitted. As a result the polluter will have an incentive to cut back on his emissions right up to the level where the costs of further limiting emissions will no longer offset the costs arising from the tax. This also indicates the great difficulty inherent in the Pigovian tax.\(^11\) In order to effectively limit pollution to the socially optimal level, the tax needs to be set at exactly the right amount. Too much tax will not only reduce pollution but also welfare whereas too little taxes will not result in the desired level of environmental protection. Setting the Pigovian tax at the right level is very likely to involve considerable costs.\(^12\) Moreover, the level of the tax may have to be quite high before it results in any behavioural changes. Finally, the Coase theorem gnaws at the theoretical foundations of the Pigovian approach to the internalisation of externalities.\(^13\) In short, the Pigovian approach, however simple, appealing, and promising it may seem at first sight, starts from shaky theoretical presumptions and must overcome serious hurdles in order to work effectively in practice.

### 3.3.2 Producer responsibility

A more refined form of a Pigovian approach to internalising environmental costs can be seen in the producer responsibility principle. According to this principle, as we have seen above, the producers are responsible for their products 'from the cradle to the grave'. As a result they have to take back and recycle their products once these have outlived their useful life and are thus considered waste by the consumers. As a result, the producers have to bear the costs arising from the collection and recycling and will thus have an incentive to minimise these costs by designing their products with the recycling in mind.\(^14\) This can be characterised a Pigovian approach in that the government imposes these costs on the producers. It is more refined in that it leaves the actual definition of the costs to the market. In a producer responsibility scheme the government does not dictate that, for example, every different type of plastic

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9 Proposed by Pigou in his Wealth and Welfare.
10 Pigovian subsidies are, of course, also possible.
11 See, for a critical approach to Pigovian Taxes: Cornes & Sandler 1996, p. 79 et seq.
12 See, for further references: Husseen 2000, p. 248.
13 Coase 1960, in section VIII et seq.
14 Commonly referred to as 'eco-design' or 'design for recycling'.
used in the production of a certain good will cost an amount of tax. Instead, it creates a market in which the price for an extra type of plastic and the resulting reduced recyclability is the result of supply and demand.

If we look at the principle of producer responsibility from a Coasian perspective, a number of questions arise. Firstly, why has the (financial) responsibility for the waste that products become once they reach their end of life, been assigned to the producers and not to the consumers? Taking into account the observations made above in paragraph 3.3.1, the consumers would appear to be the polluters as much as the producers. Secondly, how does the cooperation of producers, in order to fulfil the producer responsibility, relate to the assignment of costs? Such cooperation can generally be expected in the environmental context as a result of the enormous potential for economies of scale. This potential is even larger in the case of producer responsibility schemes as we will see below.

Firstly, the question why the responsibility is allocated solely with the producers. In general the consumers share with the producers the responsibility for the fact that most products are not designed with the recycling in mind. Consumers have, to put it bluntly, not cared for eco-design. The answer to the question why the costs have been assigned to the producers probably follows from efficiency considerations. Firstly, making the consumers responsible would mean that the enforcement costs are probably much higher. This for the simple reason that the number of persons with regard to which the regulation laying down the responsibility would then have to be enforced, increases tremendously. Moreover, this problem would only become more pressing as assigning the responsibility to the consumers would in this case mean that the costs are incurred at the moment when the product reaches the end of its useful life. This, in turn, is likely to result in wild dumping. A further reason is the fact that a price difference of, say, ten Euros reflecting different recyclability of one product compared to another may not influence the consumer’s decision while a thousand times ten Euros for an entire production run will probably influence the producers’ decision. It is thus submitted that allocating the responsibility for waste products to the producers is primarily the result of the wish to effectively and efficiently internalise environmental costs. It is not so much an inherent consequence of the application of the polluter pays principle to this specific situation. As a result, the fact that the environmental costs arising from the waste-

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15 Assuming that this will lower production costs but reduce the recyclability and thus increase the costs of recycling.

16 Another way of putting it would be to ask why there is no such thing as a consumer responsibility?

17 With regard to the the Diftar-system in the Netherlands, according to which consumers have to pay per unit of waste, a study on behalf of the Ministry of Justice concludes that ‘it cannot be ruled out that the introduction of tariffs leads to more illegal dumping’, report by B & A Groep, to be found on the website of the Ministry: <http://www.minjust.nl/a_belcid/handhaven/bestpractices/bp/milieu/bastortenverbranden.doc>, p. 14. 15.
stage of production and consumption have been assigned to the producers does not mean that they have to actually bear these costs.

The second question relates to the allocation of the responsibility between the various producers when they cooperate. As we have seen the economies of scale argue very much in favour of cooperation. Moreover, the desire to reduce the incentives for illegal dumping or – to formulate more positively – to increase consumer participation, have resulted in various requirements that try to ascertain that the system involves minimal hassle for consumers. In effect, these requirements mean that waste products have to be picked up close to or even from the home of the consumer. Moreover, the collection will be more successful if it takes place on a non-brand specific basis. Finally, as the current chaos surrounding the deposit and return fee for one way beverage containers in Germany shows, consumers need a clear structure and the existence of parallel (deposit and return) systems will not help the environmental effectiveness. These additional requirements that serve to increase the consumer acceptance of a producer responsibility scheme, involve setting up a considerable network that will involve entire distribution chain and notably the retailers. As a result, the potential for economies of scale is quite significant. These scale advantages may be achieved through a cooperation between the producers that also involves the retailers.

A further reason for a cooperative approach to producer responsibility relates to the problem of the so-called 'historical waste'. Assigning the responsibility to the producers from a certain moment on, introduces an element of what may be called solidarity in such a cooperative system. Most producer responsibility schemes take the form of an obligation to take back and recycle a certain category of products from a certain date onwards. If the period between the entry into force of this obligation and the date on which the producer responsibility obligation becomes effective, is shorter than the lifespan of the product in question, it will effectively mean that the producers are made responsible for products that they have already designed, produced and marketed before the respon-

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18 An example of this is the old for new rule according to which the producers are responsible for taking back the old product when a consumer buys a comparable new product. If this new product is delivered to the home of the consumer, the producer is obliged to take back the old product from that house.
19 It is not difficult to envisage that the consumer will be more tempted to illegally dump his old product if he has to first locate a collection point that will take back his brand. Cf. a similar argument forwarded by the Danish government in the Danish Bottles case, Case 302/86, Commission v. Denmark (Danish Bottles) [1988] ECR 4607, paras. 15, 16.
20 In Germany most of the supermarkets have actually implemented their own deposit and return system. As a result, the deposit will only be returned if the consumer bring the packaging back to the shop where he bought the packaging in the first place. The environmental effectiveness of this system is greatly diminished by the fact that consumers are unwilling to take the empty containers back to the shop where they bought it.
sibility was enacted. With regard to these products, design for recycling in order to minimise the costs of recycling is impossible for the simple reason that the products in question have already been produced and marketed and are thus physically outside the reach of the producer. For the first years following the entry into force, the parties will thus be taking back historical waste. In terms of the producer responsibility principle, these are products with regard to which no differentiation on the basis of the recyclability is possible. This impossibility to differentiate the costs on the basis of the actual recyclability of the specific product involved is further increased by the fact that the take-back will often take place on a non-brand specific basis. The latter requirement will mean that current producers will, for example, be taking back products that were designed, produced and marketed by companies that have since then ceased their activities on the market. Similarly, a successful newcomer with a significant but only recently acquired market share may end up taking back the products of his once-successful competitors. In these and other cases, the parties will all have their incentives to free-ride.

In their cooperation, the parties will want to avoid eventual free rider-problems that are to be expected whenever a collective is internalising external costs. This for the simple reason that free riding is likely to keep the parties from meeting their producer responsibility targets. Moreover, the parties know that free riding will increase the costs of the cooperation to such an extent that less cooperative alternatives become interesting, thus leading to the end of the collective approach and as a result foregoing the economies of scale. The need to control free riding is all the more pressing because the external nature will make keeping a check on whether all parties indeed contribute to the internalisation extra difficult.

21 This is not only probable but an actual problem if we consider that such producer responsibilities have been enacted for durable consumer goods such as cars and electronical and electrical equipment. The life span of these products is measured in years whereas producer responsibilities generally become effective within a year from the entry into force of the regulation. Annual reports of the producer responsibility scheme for end of life vehicles show that the average age of the vehicles recycled at this moment is over ten years and still increasing.

22 The newcomer may, for example, advise to its retailers to indicate to consumers that only its brand will be taken back by the retailer. It has an incentive to do so because the newcomer will thus minimise the costs arising from the producer responsibility compared to the situation where it also takes back the incumbent's products.

23 There will, for example, considerable costs involved in checking whether or not and to what extent parties do not actually use the system for more waste products than they have paid for. It would mean that in practice the producer of every single appliance that was collected would have to be identified. While this may be feasible with regard to certain branded goods, it will become more difficult for OEM-products whereas it becomes nigh on impossible for PVC pipes, a product for which there is a producer responsibility scheme in the Netherlands, infra, paragraph 10.5.2.
The above paragraphs have dealt with the principle of producer responsibility as a new and promising environmental policy instrument. At the moment, the term ‘producer responsibility’ is used only with regard to the responsibility for products that have outlived their useful life. It thus only deals with the waste-related environmental impact of a product. It is submitted that producer responsibility can be used to analyse a far wider array of environmentally friendly initiatives by an industry. Furthermore, producer responsibility can also be used as an environmental policy instrument to deal with other environmental aspects of the production process as well as products. These areas include those that are now covered by the environmental agreements that were characterised as essentially *reregulatory* above.24

Examples of such producer responsibility agreements in the wider sense are the environmental agreements concerning the energy efficiency of electrical appliances or the agreement concluded by the automobile manufacturing industry according to which they will reduce the carbon dioxide emissions of the cars they produce.25 Such agreements are often concluded in order to avoid government regulation of the matter.26 The fact that parties decide to address an environmental problem themselves has as a consequence that the parties will have to find alternative means to enforce the obligations arising from the agreement in order to prevent free riding. The need to prevent free riding will thus result in tightly drafted comprehensive agreements (hence ‘*reregulatory*’) that may involve some rather far-going obligations such as the exchange of information.

In sum, the incentive to come to a collective approach, the solidarity that is inherent in this collectivism and the wish to prevent free riders will mean that the parties have to make agreements in order to effectively and efficiently implement producer responsibility. Such agreements are very likely to involve restrictions of competition. This is so because in the end, as we have seen in chapter 2, competition inherently involves a degree of wastefulness. A number of companies may, for example, work independently of each other at a solution to the same environmental problem. The fact that these companies all need to have the laboratories and personnel means that resources are wasted. In particular with regard to the internalisation of an externality that is still far from internalised with the consumers, the companies will want to do everything but waste resources. The more resources are wasted, the worse the competitive position of the companies involved becomes. As a result the chance of actually protecting the environment only becomes slimmer.

24 *Supra*, paragraph 3.3

25 This refers to, respectively, the CECE D and ACEA agreements. See further, *infra*, paragraph 8.4.2.3.

26 This is evidenced by the fact that regulation is often used as a stick (in the meaning of the stick and carrot) in that such regulation will be enacted should the parties not meet the targets.