Environmental Liability of Companies in Europe

ENVIRONMENTAL LIABILITY OF COMPANIES IN EUROPE

Michael Faure[*]

TABLE OF CONTENTS

---

[*] Maastricht University and Erasmus University Rotterdam (both the Netherlands). I am grateful to Csoban Göcze and Inés Pina García-Galán, student fellows at METRO (Faculty of Law, Maastricht University) for their highly valuable research assistance, to Yu Haiyang (Maastricht) for providing information on single ship companies, to Francesca Leucci (Bologna) for providing information on the Ilva-case in Taranto, to Ludo Veuchelen, former contract officer at the Study Centre for Nuclear Research at Mol (Belgium) for providing useful documentation, to Professor Kid Schwarz (Rotterdam/Maastricht) and Professor Mieke Olaerts (Maastricht) for providing useful insights on recent developments in company law as well as to Marina Jodogne (METRO, Maastricht) for excellent editorial assistance.

ABSTRACT

This article aims at gaining deeper insights into the environmental liability of companies in the European Union. It analyses the role of companies within the Environmental Liability Directive (ELD) and evaluates potential hurdles that may limit the possibility to hold companies liable for environmental harm. Various remedies to the limited liability of the corporation are discussed, and the suggestions are formulated to improve access to justice for victims of environmental harm. Specific attention is paid to a balanced regime of mandatory solvency guarantees to support the ELD liabilities of companies.

I. INTRODUCTION

A. Background

Environmental harm remains a major problem for several decades now. Legal systems have used a variety of legal instruments to remedy environmental harm, including environmental liability. The liability mechanism likely was first developed in the United States,[1] but became increasingly used in European countries in the 1980s as well. Their use accelerated after hotspots of pollution, usually soil pollution of orphaned sites, were discovered in many Member States which frequently led to huge costs often for governments (and thus for the taxpayer).

The goal of this environmental liability regime is usually twofold: on one hand environmental liability aims at providing compensation (or cost-reco) by letting polluters pay the compensation due related to the environmental damage they caused.[2] That duty is of course in line with the polluter-pays-principle, so far as the interpretation that polluters should pay for the environmental damage they cause.[3] This demonstrates that environmental liability has on the other hand another function as well (although it is stressed to a lesser or greater extent in various jurisdictions), being to provide incentives to potential polluters for the prevention of environmental harm. Of course, environmental liability alone was never expected to serve those functions (of compensation and prevention via deterrence). Compensation may also be achieved through other mechanisms like (first-party) insurance or compensation funds, whereas prevention may be the primary goal of public law-oriented instruments (such as conditions in permits) and market-based instruments (like emission trading and environmental taxation).[4] Still,

---

1 *See* ANALYZING SUPERFUND: ECONOMICS, SCIENCE AND THE LAW (Richard Revesz & Richard B. Stewart eds., 1995); James Boyd, *A Market-Based Analysis of Financial Insurance. Issues Associated with US Natural Resource Damage Liability*, *in* DETERRENCE, INSURABILITY, AND COMPENSATION IN ENVIRONMENTAL LIABILITY. FUTURE DEVELOPMENTS IN THE EUROPEAN UNION 258 (Michael Faure ed., 2003).

2 *See* Lucas Bergkamp, Liability and Environment: Private and Public Law Aspects of Civil Liability for Environmental Harm in an International Context 73–85 (2001); Jing Liu, Compensating Ecological Damage: Comparative and Economic Observations 50–51 (2013); Mark Wilde, Civil Liability for Environmental Damage: Comparative Analysis of Law and Policy in Europe and the US 8-9 (2013).

3 For an application of the polluter-pays-principle to climate change, *see* Dirk Heine, Michael G. Faure & Goran Dominioni, *The Polluter-Pays Principle in Climate Change Law: An Economic Appraisal*, 10 CLIMATE LAW 94 (2020).

4 Also, Skogh has repeatedly argued that the goals of prevention and compensation can be reached by either a system of liability (for prevention) and insurance (for compensation) or safety regulation (for prevention) and public insurance/social security (for compensation). *See* Göran Skogh, *Public Insurance and Accident Prevention*, 2 INT'L REV. L. AND ECON. 67 (1982); Göran Skogh, *The Combination of Private and Public*

environmental liability may play an important complementary role in achieving the objectives of compensation and prevention.

Notwithstanding these starting points, in many countries environmental liability often has difficulty achieving its goals. This is partially due to general difficulties for victims to use the liability mechanism. Barriers to access justice may be high; environmental damage may sometimes be wide-spread (as a result of which there may not be one individual victim able to bring a suit); problems of uncertainty over causation and latency (the long-time lapse between an emission and the damage) may all contribute to difficulties in applying the liability mechanism in addition to general difficulties in access to justice (such as the high cost of the legal system).[5] In addition to these problems, it appears that when companies cause environmental harm, the liability mechanism often remains especially ineffective for the simple reason that companies *de facto* do not have to pay for the harm they cause. The main reason is that companies are often organized as corporations and enjoy limited liability from the corporate form. To the extent that the harm caused by the corporation is larger than the corporate assets, a liability suit may result in insolvency. As a result, the liability mechanism is unable to fulfill its compensatory and preventive functions.[6]

However, other actors besides companies can cause environmental harm. Households may contribute to pollution, and other organization forms (or even public authorities) may contribute to environmental harm. Yet, most of the infamous environmental incidents that could give rise to environmental liability have occurred in the corporate sphere, which merits a specific focus on the environmental liability of companies. Indeed, a problem that has often been identified in the literature is that corporate actors often, by (ab)using the corporate form, escape the clutches of liability law which undoubtedly reduces the effectiveness of the liability mechanism.[7]

B. The European Context

In the European Union, environmental liability has been regulated in Directive 2004/35/EC of 21 April 2004 on environmental liability (ELD) with regard to the prevention and remedying of environmental damage.[8] This ELD

Regulation of Safety, in ESSAYS IN LAW AND ECONOMICS: CORPORATIONS, ACCIDENT PREVENTION AND COMPENSATION FOR LOSSES 87 (Michael Faure & Roger Van den Bergh eds., 1989).

5 *See* New Trends in Financing Civil Litigation in Europe: A Legal, Empirical and Economic Analysis (Mark Tuil & Louis Visscher eds., 2010).

6 LIU, *supra* note 2, at 87-89.

7 Michael G. Faure & Roy A. Partain, Environmental Law and Economic Theory and Practice 233 (2019).

8 2004 O.J. (L143) 47.

explicitly refers to the already mentioned polluter-pays-principle as its primary mechanism for an environmental liability regime.[9] The ELD has opted for an approach that imposes administrative duties on public authorities to prevent and remedy environmental damage as defined in the ELD. It has chosen a different system than the civil liability systems for traditional damage, which existed until then in many Member States. The idea of the ELD is not to focus on so-called traditional damage (damage to property, economic loss, and personal injury), but rather on so-called pure ecological damage.[10] The Directive defines environmental damage as damage to protected species, natural habitats, water, and soil.

Still, the ELD has specific liability regimes. The first is a strict liability framework that applies to operators of certain activities that are deemed to be of actual or potential concern, listed in Annex III to the ELD. Those can be held (strictly) liable in the event of damage to protected species, natural habitats, water, and soil. Nevertheless, the applicable principally strict liability is more lenient under particular circumstances where an operator's financial responsibility may be alleviated. A second liability regime applies to damage to protected species and natural habitats caused by any occupational activities, other than those listed in Annex III whenever the operator has been at fault or negligent. The Directive has particular definitions of environmental damage which do not apply to the liability and compensation which is already covered by international conventions listed in Annex IV of the Directive.

It may be clear that, although not explicitly mentioned in this way, companies are liable under the ELD. The ELD does not explicitly refer to "companies" but to operators upon whom particular duties can be imposed by public authorities. In reality, those operators (often license holders) will be corporations. For the aforementioned reasons, there is a risk that the effectiveness of the liability regime under the ELD is jeopardized to the extent that operators are not able to meet their obligations. The potential insolvency of an operator may limit the effective application of the ELD. It is recognized in Article 14(1), which encourages Member States to develop financial security instruments and markets by the appropriate economic and financial operators, includes financial mechanisms in case of insolvency, and aims to enable operators to use financial guarantees to cover their responsibilities under the Directive. However, there is no formal duty to provide financial guarantees under the ELD. As a result, in many of the studies with respect to the ELD, examples are provided of major industrial disasters where operators are unable to cover the costs.[11] Such an incident occurred during October

---

[9] Consolidated Version of the Treaty of the Functioning of the European Union art. 191, May 9, 2008, 2008 O.J. (C115) 47.

[10] *See* LIU, *supra* note 2, at 24–25.

[11] *Implement for Life: Crime and Punishment*, EUROPEAN ENVIRONMENTAL BUREAU, at 15 (2020) https://eeb.org/library/crime-and-punishment/ [hereinafter EEB].

2010 in Western-Hungary, where the operator was unable to cover the costs.[12] These and other incidents merit concentrated research into the role of companies in environmental liability generally concerning the ELD. Following suit, the goal of this article is to gain deeper insight into the role of companies in environmental liability and to examine whether there are specific ideas and ways to improve the effectiveness of the ELD, more particularly taking into account the role of enterprises in creating environmental harm.

C. Approach

Environmental liability of companies is not only complex, but also a broad topic. It touches on issues of environmental law, liability law, and company law. As indicated, it is impossible to address environmental liability in isolation; the function of environmental liability should be viewed in relation to other liability mechanisms of criminal and administrative nature. However, given the breadth of the topic, it is impossible to elaborate upon the wealth of literature in this domain in detail. Merely providing an overview of the many studies undertaken concerning the ELD could easily fill an article. The idea is rather to work in a problem-oriented manner and to provide the reader an insight in policy developments, key questions, and challenges and suggested solutions in the literature.

Given the importance and breadth of the topic, a variety of different approaches are used. First, the literature addressing the role of enterprises in the ELD will be analyzed; in addition, the concept of enterprise liability will be analyzed whereby there will be a focus on the current problems created by limited liability of corporations, and potential solutions will be reviewed. The several aspects of enterprise liability will not only be analyzed from a legal perspective, reviewing legal literature and policy documents, but an economic approach will also be applied. An economic approach is suitable to address environmental liability as it has more particularly been the economic literature that has pointed at the fact that environmental liability not only has a compensatory function (as often stressed in legal literature), but that liability rules also provide an incentive effect: by exposing the polluter to a potential liability, the polluter will obtain incentives for prevention resulting from the deterrent effect of the liability rules. That (economic) idea is even explicitly mentioned in the Preamble of the Environmental Liability Directive and was also mentioned in the White Paper[13] (2000) preceding the ELD. In section 3.6 of the White Paper, it was mentioned that

---

[12] *See infra* Section VIII(C)(1).

[13] *Commission White Paper on Environmental Liability*, at 2, COM (2000) 66 final (Sep. 2, 2000). The White Paper is also published in DETERRENCE, INSURABILITY, AND COMPENSATION IN ENVIRONMENTAL LIABILITY: FUTURE DEVELOPMENTS IN THE EUROPEAN UNION 365-389 (Michael G. Faure ed., 2003).

"It is expected that liability creates incentives for more responsible behavior by firms."[14] Moreover, the basic premise of economic analysis, being that corporations are rational actors striving for wealth (profit) maximization could in some cases be debated when applied to individuals, but usually poses no problem when it is applied to corporations who are supposed to maximize shareholder value.

In addition to this economic approach, to the extent possible, a review will also be provided of EU action in particular domains. Again, in some cases there have been myriad initiatives that cause comprehensiveness – given the breadth of the topic – to be simply impossible. I will simply indicate the state of affairs concerning particular topics (such as for example collective action) at EU level in order to make the reader aware of the fact that concerning particular topics action has already been taken at EU level.

After this introduction, a theoretical framework is provided simply sketching why environmental liability of companies is of importance and which are the limits of applying liability rules to companies (II); next, the liability of enterprises under the ELD is summarized, discussing briefly the history of the ELD, its application, and the Commission and other reports on the effectiveness (III). The concept of enterprise liability is introduced, and the difficulties related to the limited liability of corporations will be sketched as well as potential solutions (IV); various innovative instruments related to the role of corporations are discussed (V) as well as the role of environmental liability in the light of criminal and administrative liability (VI). Then, I turn to instruments to improve remedies to access justice (VII). Subsequently, a "reality check" will be provided by discussing examples from Member States. Those will be cases of environmental pollution whereby it will be discussed to what extent environmental liability could effectively be applied to the companies liable for the environmental harm (VIII). Section IX concludes.

II. THEORETICAL FRAMEWORK

A. Environmental Pollution as an Externality

It seems important from the outset to first explain the (economic) importance of environmental liability rules, more particularly in relation to companies. Providing this (economic) foundation of environmental liability is important as it explains the important (but supplementary) role of liability rules and equally lays the foundation to explain their potential limits. These foundations will be important as they will enable a further clarification of the problems that may arise in applying environmental liability to companies and can prove to be equally helpful in searching for potential solutions.

---

14 *Id.*

From an economic perspective, environmental pollution is a negative external effect, also referred to as an externality. Since polluting companies tend to not feel the negative consequences of the harm they inflict outside of their enterprise, this is described as an external effect. It is, moreover, a negative external effect as it imposes costs rather than confers benefits on third parties. Such a negative external effect can create a market failure.[15] If polluters are not forced to pay for the external effects they create through their activities, social costs created by pollution will not be incorporated in the relative products and services of the particular company. Since the externality is not taken into account and the polluter does not invest in pollution abatement, relative prices will be too low and consumers will demand too much of a product or service that creates high costs for society. Pollution creates, in other words, a market failure. Companies would externalize costs. In other words, they impose the costs of pollution on society. The reason is that polluters are not forced to pay for the external effects they create through their activities. As a result, they lack any incentive for efficient cost abatement. The negative external effect would, in other words, not be incorporated into their decision-making process.

This basic insight has a number of important consequences, also for the scope of this article. First of all, one has to realize that externalization of harm generally and of pollution specifically is a natural behavior of rational utility maximizing individuals and of companies. There is no moral connotation to the fact that companies pollute (externalization of harm is not as such considered "bad"). The point is that a company, when having this opportunity, will externalize harm to society in order to raise its profits and maximize shareholder value. It is, in other words, in the absence of legal rules, a behavior that can be expected.[16]

Second, Nobel Prize Winner Ronald Coase has shown that if transaction costs were sufficiently low, the externalities resulting from pollution would be efficiently internalized by companies as a result of bargaining between the parties.[17] However, in many cases the conditions from the Coase theorem (absence of transaction costs) will not be met, as there may be multiple polluters and many

---

[15] *See* Michael Faure, *Economic approaches to environmental governance: a principled analysis, in* RESEARCH HANDBOOK ON FUNDAMENTAL CONCEPTS OF ENVIRONMENTAL LAW 114 (Douglas B. Fisher ed., 2016).

[16] It is, moreover, not only individuals and companies that will externalize harm. In the transboundary context, also states will externalize harm to neighboring (downstream) states, as this will enable them to obtain the socio-economic benefits, but to export the negative effects to neighboring countries. That explains why much of the pollution has a cross-border character. *See* Michael G. Faure, *Transboundary pollution, in* INTERNATIONAL ENVIRONMENTAL LAW. THE PRACTITIONER'S GUIDE TO THE LAWS OF THE PLANET 236, 236-238 (Roger R. Martella Jr. & J. Brett Grosko eds., 2014). That is also why EU action is especially needed to internalize transboundary externalities (Michael Faure, *Harmonisation of Private Law in Europe, in* THE LAW AND ECONOMICS OF FEDERALISM 30 (Jon Klick ed., 2017).

[17] Ronad H. Coase, *The Problem of Social Cost*, 3 J. L. & ECON. 1 (1960).

victims involved which inhibits efficient bargaining. Moreover, the Coase theorem only refers to efficiency and not to distributional effects. For the Coase theorem, it is immaterial whether the prevention costs are paid by the polluter or by the potential victims.

For an environmental lawyer it may be unacceptable (and a violation of the polluter-pays-principle[18]) that potential victims (under a no-liability regime) would have to pay for the installation of efficient abatement technology by the polluter. In other words, legal rules are necessary to force an internalization of the externality. Third, the exposé also makes clear what the goal is of environmental policy in general, but of environmental law more specifically, being to correct the market failure caused by environmental pollution.

B. Goal of Environmental Liability

One of the potential legal instruments that can be used to achieve this internalization of the externality is environmental liability. For economists, the importance of a liability rule is that a finding of liability can provide incentives for careful behavior by those who may be involved in an accident setting, i.e., in environmental pollution. Simultaneously, under particular conditions, liability rules can equally provide compensation to the victim.[19]

The main goal of liability rules is the minimization of what Guido Calabresi called the primary accident costs, being the costs of accident avoidance and of the expected damage.[20] According to him, liability rules should provide incentives to adopt efficient care levels, i.e. the care where the marginal costs of care-taking equal the marginal benefits of accident reduction.[21] The legal rule should not provide incentives to avoid every possible accident that might occur, but only those accidents that could be avoided by investments in care where the marginal costs of avoidance are lower than or equal to the marginal benefits of accident reduction.

This is equally important in the area of environmental harm: the goal of environmental liability is certainly not to prevent all environmental damage at all cost (for the simple reason that it would be too costly and factually probably impossible). Environmental liability should provide incentives to follow optimal prevention levels with respect to environmental harm.[22]

---

18 Faure, *supra* note 15, at 118–119.

19 *See* LIU, *supra* note 2, at 84–90.

20 Guido Calabresi, The Costs of Accidents: A Legal and Economic Analysis (1970).

21 *See* Steven Shavell, Economic Analysis of Accident Law 7 (1987).

22 FAURE & PARTAIN, *supra* note 7, at 107.

C. Strict Liability Versus Negligence

1. Strict Liability for Environmental Harm

One of the fundamental questions in environmental liability, also faced by the ELD, is whether a strict liability or a negligence regime should be applied. Environmental pollution cases are often considered so-called unilateral accident situations, being those where only the care taken by one of the parties (the injurer) can influence the accident risk.[23] Most environmental pollution cases are considered unilateral, because the contribution of the victim to the accident risk will be less important than that of the injurer.[24]

According to the economic literature, if a negligence rule (also referred to as a fault regime) is adopted in a unilateral accident situation, the injurer will take optimal care, provided the due care required by the legal system is equal to the optimal care as defined by the economic model.[25] This is easily understood. If the courts set the due care standard correctly, the polluter can avoid liability by taking due care. If the polluter does so, he can avoid paying the costs of expected damage. A negligence rule will therefore lead to an efficient outcome, provided the legal system defines the due care as equal to the optimal care of the model. However, it has to be recalled that in this case, if the polluter follows the due care level required in the legal system, he will not be found liable and victim compensation will not take place.

Also, a strict liability rule leads to the optimum. It basically states that the injurer must compensate for all damage, irrespective of the level of care taken. The injurer has to bear all social costs of an accident under strict liability, not only the injurer's own costs of taking care, but also those of the expected damage.[26] Accordingly, the polluter will reach exactly the same decision, being to minimize the total expected accident costs.

Even though the influence of the polluter on the pollution risk will generally be much more important than the influence of the victim, in some cases the victim may also have an influence on the accident risk, most often not in reducing the probability of the pollution itself, but in mitigating the damages. In those cases, the accident situation is not unilateral, but rather bilateral (as both parties can have an influence on the accident risk). That is not a reason to move to a negligence regime (since the polluter will still be the one having the most important influence on the accident risk).

However, in those cases it is important to provide a legal rule that gives incentives to the potential victim as well to mitigate the accident risk or the damages through optimal preventive measures. Usually, a rule of comparative negligence

---

23 *Id.*

24 *See* BERGKAMP, *supra* note 2, at 119–150.

25 Steven Shavell, *Strict Liability Versus Negligence*, 9 J. LEGAL STUD. 1 (1980).

26 SHAVELL, *supra* note 21, at 8, 11.

suffices to provide those incentives. That simply entails that the victims' damages claim is reduced to the extent to which he/she contributed to the harm. If such a comparative negligence defense is added to the strict liability rule, efficient incentives for prevention are provided to both the polluter and the victim.[27]

2. Nuances

In principle, in this particular setting (of a unilateral accident), both negligence and strict liability therefore provide incentives to take optimal care. There are nevertheless important nuances to discern.[28] So far, the discussion has been limited to the relevance of care levels. However, the number of times a particular injurer engages in an activity (referred to as the activity level) can also influence the accident risk. For example, the more a company produces, the higher the risk of environmental harm. In this respect there is an important difference between strict liability and negligence. Strict liability places all the costs on the injurer and therefore provides incentives to adopt both efficient prevention as well as efficient activity levels. According to the standard of negligence, the injurer will be immune from liability, as soon as the level of efficient care is achieved. The reason is that a court cannot incorporate optimal activity levels into the due care standard required by the legal system. Consequently, if activity levels have to be controlled, strict liability may be preferred to negligence.

Another difference between both rules concerns information costs. The application of the negligence rule requires the court to set the due care standard with the ancillary burden of obtaining the relevant information, probably at a high cost. The information necessary to weigh the costs and benefits and to fix the optimal care may not be readily available to the courts. On the other hand, the strict liability rule shifts all the costs to the injurer who will then have to define the optimal care level. It may well be that in relation to environmental harm, the information on optimal precaution is more readily available from within the industry. If so, this reduces the burden on the court and thus constitutes an argument in support of the strict liability rule.

Finally, it should be emphasized that if one not only considers the preventive function of liability rules, but also the compensatory effect, there is a large difference between both rules: under the negligence rule, even if it is applied correctly (and provides optimal incentives for care taking), the environmental damage suffered by the victims is in principle not compensated. Under strict liability, victims are compensated by the polluter. This distributional difference may yet constitute another argument in favor of applying strict liability to environmental harm. In the next section, I will review how these arguments apply to the division of negligence and strict liability under the ELD.

---

27 *Id.* at 11–14.

28 FAURE & PARTAIN, *supra* note 8 at 154-61.

3. Effects of Insolvency

There is yet one other important difference between strict liability and negligence. Under strict liability it is crucial that the polluter is exposed to the full social costs of his activity. That implies that the polluter needs to be able to fully compensate the harm he has caused. That may cause a problem if the amount of the damage exceeds the injurer's wealth. In that case, the polluter will consider the accident as one which is equal to his total wealth and will therefore only take the care necessary to avoid an accident with a magnitude equal to his total wealth. If that wealth is lower than the magnitude of an accident, he will take less than the optimal care and therefore a problem of underdeterrence arises under strict liability.[29] Insolvency is less of a problem under negligence, since under that rule the injurer will still have an incentive to take the care required by the legal system as long as the costs of taking care are less than his individual wealth. Taking due care remains a way for the polluter to avoid having to pay compensation to the victim. Strict liability is therefore efficient only if an injurer is always held to fully pay for the consequences of the accident. If the injurer were insolvent, or if the judge were to underestimate the amount of the damage, underdeterrence would follow.[30]

A simple example can illustrate this: suppose that we have three different optimal care levels, which correspond to different amounts of damage. It is hence assumed that the higher the amount of the expected damage will be, the higher the optimal care that the injurer should take to avoid the damage. Thus, the three care levels have a corresponding optimal care level (y*) that varies with the amount of the damage (D):

Table 1: Strict liability versus negligence under insolvency

Care level	**Costs of optimal care (y*)**	**D**
1	10,000	1,000,000
2	5,000	500,000
3	2,000	200,000

Assume now that the potential injurer only has 200,000 at stake, but that society faces an accident with a potential magnitude of 1,000,000. What will the injurer *ex ante* decide?

Under strict liability, the injurer will consider the accident not as one where he can lose one million, since he has only (given insolvency) 200,000 at stake. In

29 Michael G. Faure & David Grimeaud, *Financial Assurance Issues of Environmental Liability, in* DETERRENCE, INSURABILITY, AND COMPENSATION IN ENVIRONMENTAL LIABILITY. FUTURE DEVELOPMENTS IN THE EUROPEAN UNION 35 (Michael G. Faure ed., 2003).

30 ROBERT COOTER & TOM ULEN, LAW AND ECONOMICS 316-318 (3d ed. 2000); Robert Cooter, *Prices and Sanctions*, 84 COLUM. L. REV. 1523 (1984).

order to avoid the accident with a magnitude of 200,000 under strict liability, the injurer will choose the lowest care level (3) and only invest 2,000, the optimal care necessary to avoid an accident with an expected damage of 200,000. Hence, a serious problem of underdeterrence arises since from society's point of view, the injurer should take the high care level (1) and spend 10,000 in order to avoid the risk that a damage with 1,000,000 could occur.

That is precisely the result reached under negligence. Under negligence, the injurer is only interested in the costs of taking care. The legal system will require him to take the high care (1). If he invests the high care (which costs him 10,000), he will not have to compensate the 1,000,000 to the victim. Given that the injurer has 200,000 in assets, he will invest the 10,000, and optimal deterrence is achieved.

If there were therefore an insolvency problem or there is uncertainty concerning the precise amount of the damage, negligence may provide better incentives.[31] This is therefore an important conclusion for any environmental liability regime based on strict liability: it provides efficient incentives to companies only, if companies are exposed to the total damage caused by their activity under the strict liability regime.

D. Limits of Environmental Liability

Precisely under that condition problems may arise as often polluters may not be exposed to liability for the environmental harm they have caused. A famous article by Shavell identifies the difference between *ex ante* regulation of safety via government regulation and *ex post* liability rules.[32] He points at the particular limits of the environmental liability regime, which are equally crucial for this article. Three groups of potential problems with liability rules are distinguished.

1. Information Asymmetry

A first problem with liability rules relates to information asymmetry. As was explained before, liability rules function on the basis of information available with either the judge (under negligence) or with the polluter (under strict liability) which enables them to set efficient care levels. However, in some cases there may be an information advantage with the regulator. The regulator may, in some cases, acquire the information at the least cost, compared to the market participants. For market participants, the costs to engage themselves in research to find out optimal care standards can often be too high. The government can, moreover, generate

---

31 Cooter, *supra* note 30, at 1523.

32 Steven Shavell, *Liability for Harm Versus Regulation of Safety*, 13 J. LEGAL STUD., 357 (1984).

economies of scale by doing research for the entire market and passing on the acquired information via regulation.

2. Insolvency

A second problem relates to the already mentioned insolvency risk. If the potential damage is so high that it exceeds the wealth of the individual polluter, liability rules will not provide optimal incentives. The reason is that the costs of care are directly related to the magnitude of the expected damages. If the expected damages are much greater than the individual wealth of the polluter, the operator will only consider the accident as having a magnitude equal to its wealth. It will, therefore, only take the care necessary to avoid an accident equal to its wealth, which can be lower than the optimal care.[33] This is an application of the general insight that the deterrent effect of environmental liability works only if the operator has assets to pay for the damages he causes. If the operator is protected against such liability by insolvency, the problem of underdeterrence arises.[34]

3. Missing Liability Litigation

A third group of limits of environmental liability relates to missing liability litigation. That relates to the fact that even though some activities can cause considerable environmental harm, a lawsuit to recover these damages may never be brought. If this were the case, there would be no deterrent effect from liability rules. There are a number of reasons why a lawsuit is never brought, even when considerable damage is caused.[35]

A first problem is that the harm can be thinly spread among multiple victims. As a consequence, the damage incurred by an individual victim is so small that no victim has sufficient incentives to bring a suit, i.e., the costs of litigation may exceed the anticipated recoveries. This problem will more often arise if damage is caused to common property, such as surface waters or a forest. Individual victims may suffer from a problem of so-called rational apathy as a result of which a lawsuit is not brought and the injurer can escape liability.[36]

A second problem may relate to the long time-lapse that might have elapsed before the damage becomes apparent. It is sometimes referred to as latency. In this case, much of the necessary evidence may be either lost or not obtained.

---

33 *Id.* at 360.

34 *See generally* Steven Shavell, *The Judgment Proof Problem*, 6 INT'L REV. L. & ECON. 45 (1986).

35 Shavell, *supra* note 32 at 363.

36 Hans-Bernd Schäfer, *The Bundling of Similar Interests in Litigation: The Incentives for Class Action and Legal Actions Taken by Associations*, 9 EURO. J. L. & ECON. 183 (2000).

Another problem is that if the damage only manifests itself years after the activity the injurer might have gone out of business.

A third problem is that it is often hard to prove a causal link between an activity and a type of damage.[37] Often a victim will not recognize that the harm has been caused by a particular tort, but might think that their particular ailment, e.g., cancer, has another non-tortious origin. In some cases, multiple injurers may cause the harm. This problem of causal uncertainty[38] implies that sometimes an injurer can escape environmental liability.[39]

A fourth issue relates to the difficulties for victims in accessing justice. Access to justice is often costly, as a result of which also meritorious suits are in some cases not brought. Especially when victims of environmental harm are risk averse, they may want to avoid the high upfront costs of a lawsuit and refrain from a liability claim, again entailing that the operator will not be held liable even though he did cause environmental harm.

E. Remedies

1. Regulation

In the literature several remedies have also been advanced to cure the aforementioned limits of environmental liability. One major remedy, although admittedly rather radical, is to primarily rely on an alternative to the liability system to provide incentives for prevention. That is the result of applying Shavell's criteria for safety regulation to environmental harm: as the government can often have better information on optimal technologies to reduce environmental harm; as environmental liability may have a limited deterrent effect as a result of insolvency; since the chance of an environmental liability suit being brought is naturally low, it has been argued that some form of government regulation of environmental pollution is necessary.[40] Liability rules alone cannot suffice to prevent environmental harm (or, in other words, to internalize the externality caused by pollution) as a result of which *ex ante* safety regulation may be necessary.[41] One can therefore notice that in practice *ex ante* safety regulation (consisting of licenses, but also of environmental taxation and environmental criminal law) are in practice in most EU Member States (MS) the primary instrument to control environmental harm. Some studies have also generally attempted to examine the effectiveness of safety regulation in controlling environmental harm and demonstrated that the

---

37 WILDE, *supra* note 2, at 74–97.

38 Ariel Porat & Alex Stein, Tort Liability under Uncertainty (2002).

39 LIU, *supra* note 2, at 75–79.

40 FAURE & PARTAIN, *supra* note 7, at 189-90.

41 *Id.*

quality of the environment in North America improved substantially as a result of regulatory efforts, not so much in response to legal action in tort.[42]

2. No Exclusivity

Even though *ex ante* safety regulations may be the primary instrument to control environmental harm, this does not suggest that environmental liability should not be used any longer for its deterring and compensating functions. Regulation may have many weaknesses as well. Regulation is dependent upon enforcement, which may be weak. In addition, the influence of lobby groups on regulation can to some extent be overcome by combining safety regulation and liability rules. Safety regulation also becomes outdated quickly and often lacks flexibility. Environmental liability is more dynamic and flexible. For those reasons, it is important that environmental liability supports safety regulation; this complementary role of environmental liability is crucial given the many weaknesses to which safety regulation can be exposed.[43] Tort law for environmental harm therefore has an important function to play as a response to regulatory failure.[44]

3. Need to Improve Environmental Liability

Given the inherent weaknesses in safety regulation, the overview of the limits of environmental liability (provided in the previous section) should not only lead to an argument in favor of using safety regulation. It is at the same time crucially important to improve the functioning of environmental liability in order to enable liability rules to effectively provide incentives to prevent environmental harm where safety regulation may have too weak standards. Some of the mentioned limits of the liability system can be overcome by improving environmental liability.

For example, the insolvency risk, inherent in any case of harm caused by companies, (given the limited liability of corporations) can lead to remedies for the problem of limited liability (to be discussed in further detail in section IV). But some of the problems in material tort law, such as the difficulties related to latency and causal uncertainty can equally be remedied within liability law itself. Causal uncertainty could be overcome by applying a proportional liability rule as one can now increasingly see in many legal systems.[45] Finally, problems concerning access

---

42 Don Dewees, *The Comparative Efficacy of Tort Law and Regulation for Environmental Protection*, *in* Geneva Papers on Risk and Insurance 446-467 (1992); Don Dewees, David Duff & Michael Trebilcock, Exploring the Domain of Accident Law: Taking the Facts Seriously (1996).

43 Michael Faure, The Complementary Rules of Liability, Regulation and Insurance in Safety Management: Theory and Practice, 17 J. RISK RES. 689 (2014).

44 WILDE, *supra* note 2, at 170–72.

45 Jaap Spier & Olav A. Haazen, *Comparative Conclusions on Causation*, *in* UNIFICATION OF TORT LAW: CAUSATION 146-147 (Jaap Spier ed., 2000).

to justice and rational apathy (the so-called collective action problem) following from the widespread nature of environmental harm could be remedied by lowering the barriers to access justice (for example through contingency fee arrangements or third party funding) or by allowing for collective actions or standing by non-governmental organizations (NGOs) that would act on behalf of the environment. Those procedural innovations will be discussed in further detail in section VII.

III. LIABILITY OF COMPANIES UNDER THE ELD

A. Setting the Scene

The central focus of this article is the liability of companies for environmental harm and the problems that may arise in that respect. Although the topic is also analyzed from a more general angle within the European context, a clear focus on Directive 2004/35 on environmental liability with regard to the prevention and remedying of environmental damage,[46] also referred to as the Environmental Liability Directive (abbreviated ELD). The question examined in this article is whether particular problems arise in making companies liable to fulfil their duties under the ELD, in other words, to respond to environmental harm via the environmental liability measures imposed via the ELD.

I will first briefly introduce the general approach taken in the ELD (B). This will necessarily be brief as one could (again) easily fill a complete article just with a legal analysis of the ELD itself.[47] I will focus on the main provision in order to briefly recall the approach and workings of the ELD. That will make clear which types of obligations can be imposed upon companies under the ELD. Next, more importantly, I will focus more clearly on the role of companies within the ELD (C). The ELD itself has given rise to an amazing amount of legal literature, but also studies commissioned by the European Commission. Again, many of those studies focus more generally, for example on the implementation of the ELD in the various Member States and on the effectiveness of the ELD. However, I will merely focus on those aspects of the studies that are of interest to this topic, the environmental liability of companies (D). Many of those studies have been commissioned by the European Commission as the basis or background for official reports issued by the European Commission on the basis of the ELD. Last, it is undoubtedly important to examine to what extent attention is paid to the specific position of companies within those official reports (E).

---

[46] 2004 O.J. (L143) 47.

[47] *See* THE EU ENVIRONMENTAL LIABILITY DIRECTIVE. A COMMENTARY (Lucas Bergkamp & Barbara Goldsmith eds., 2013).

B. General Approach of the ELD

1. Development

The ELD was adopted on 21 April 2004 after "a turbulent development process that lasted for more than 20 years."[48] The starting point for EU interest in environmental liability was an accident at the industrial site in Seveso in Italy in 1976.[49] Various proposals were launched, *inter alia*, one dealing specifically with liability for damage caused by waste.[50] A subsequent important step was the Commission Green Paper on remedying environmental damage, published in response to a request by the Council.[51] The Green Paper outlined a broad civil liability regime covering environmental damage and presented the broad concepts upon which a European liability regime could rely.[52] The Green Paper provoked negative responses from industry groups and from some Member States that were generally against harmonization of civil liability.[53]

The next important step was the adoption in 2000 of a White Paper on environmental liability.[54] The White Paper argued that an EU environmental liability regime was crucial to implement the key environmental principles of the Treaty, above all the polluter-pays-principle. If that would not be applied, "either the environment remains un-restored or the state, and ultimately the taxpayer, has to pay for it. Therefore, a first objective is making the polluter liable for the damage he has caused. If polluters need to pay for damage caused, they will cut back pollution up to the point where the marginal cost of abatement exceeds the compensation avoided. Thus, environmental liability results in prevention of damage and in internalization of environmental costs."[55] This quote illustrates how the White Paper is fully in line with the (economic) theoretical framework presented in the previous section: environmental liability is seen as an important tool to

---

48 Kristel de Smedt, The Environmental Liability Directive: The Directive that Nobody Wanted – Part I: A Reflection on Achievements and Challenges of the ELD Pending its REFIT Evaluation, in ENVIRONMENTAL LIABILITY 168 (2015); see also SANDRA CASSOTTA, ENVIRONMENTAL DAMAGE AND LIABILITY PROBLEMS IN A MULTILEVEL CONTEXT: THE CASE OF THE ENVIRONMENTAL LIABILITY DIRECTIVE 39-104 (2012).

49 De Smedt, *supra* note 48, at 168.

50 *Amended Proposal for a Council Directive on Civil Liability for Damage Caused by Waste*, COM (1991) 219 final (June 27, 1991), amended by COM(91) 219. *See also* Geert van Calster & Leonie Reins, *The ELD's Background, in* THE EU ENVIRONMENTAL LIABILITY DIRECTIVE: A COMMENTARY 10 (Lucas Bergkamp & Barbara Goldsmith eds., 2013).

51 Commission Green Paper on Remedying Environmental Damage, COM (1993) 47 final (May 14, 1993).

52 De Smedt, *supra* note 48, at 168.

53 *Id.*

54 Commission White Paper on Environmental Liability, COM (2000) 66 final (Feb. 9, 2000).

55 Commission White Paper on Environmental Liability, at 11-12, COM (2000) 66 final (Feb. 9, 2000).

internalize the externality caused by environmental harm. The White Paper continued that it was expected that liability creates incentives for more responsible behavior by firms. However, it also argued that "experience with the US Superfund legislation (liability for cleaning up contaminated sites) shows the need to avoid loopholes for circumventing liability by transferring hazardous activities to thinly capitalized firms which become insolvent in the event of significant damage. If firms can cover themselves against liability risk by way of insurance, they will not tend to resort to this perverse route."[56] Again, one can notice that the White Paper recognizes the danger of using the limited liability of the corporation to externalize harm,[57] as well as the need to remedy this through compulsory financial security.[58] The White Paper proposed contents-wise a civil liability system for traditional damage and an administrative law system for damage to biodiversity and the contamination of sites.[59] Again, the White Paper faced considerable criticism, especially focused on the initiative to harmonize environmental liability regulation.[60] As a result, the Commission changed its strategy in a 2001 Working Paper on prevention and restoration of significant environmental damage and chose for a public law regime to be enforced by competent authorities instead of a civil liability regime. As a result, the ELD is, probably for historical reasons, still called an environmental *liability* Directive. Although contents-wise it is not structured as a liability regime, but as an administrative law system imposing particular obligations of prevention and remediation upon operators to be enforced by administrative authorities.[61]

2. Principles

The ELD is based on the polluter-pays and the preventive principle.[62] Recital 2 of the ELD makes clear that the prevention and remedying of environmental damage should be implemented through the furtherance of the polluter-pays-principle. "The fundamental principle of this Directive should therefore be that an operator whose activity has caused the environmental damage, or the imminent threat of such damage is to be held financially liable." Recital 18

---

[56] Commissiom White Paper on Environmental Liability, at 13, COM (2000) 66 final (Feb. 9, 2000).

[57] *See infra* Section IV.

[58] *See infra* Section IV(G).

[59] *See* LIU, *supra* note 2, at 287–88.

[60] De Smedt, *supra* note 48, at 169.

[61] For a further analysis of the legal history of the ELD and especially for the influence of the various stakeholders in the lobbying process, *see* KRISTEL DE SMEDT, ENVIRONMENTAL LIABILITY IN A FEDERAL SYSTEM. A LAW AND ECONOMICS ANALYSIS 263-97 (2007).

[62] Van Calster & Reins, *supra* note 50, at 26-29; JAN H. JANS & HANS H.B. VEDDER, EUROPEAN ENVIRONMENTAL LAW. AFTER LISBON, 383-84 (4th ed. 2012); *see also* Cassotta, *supra* note 48, at 142–47.

of the ELD continues that according to the polluter-pays-principle "[a]n operator causing environmental damage or creating an imminent threat of such damage should, in principle, bear the cost of the necessary preventive or remedial measures."[63] Article 1 of the ELD clearly states that "the purpose of this Directive is to establish a framework of environmental liability based on the polluter-pays-principle, to prevent and remedy environmental damage."[64]

Both the polluter-pays and the preventive principle are found in Article 191 TFEU and considered pillars of European environmental policy.[65] Legal doctrine doubted whether the ELD would really provide incentives for developing preventive measures. It was doubted whether the costs of preventive research would not be higher than the costs of paying for the damage caused and it was equally argued that prevention could often be more effectively achieved through direct regulatory tools.[66] This is in line with what I equally argued in section 2, being that *ex ante* safety regulation will often be the primary tool to control environmental harm. Environmental liability often plays a secondary role as far as prevention is concerned.[67]

The question arose before the Court of Justice of the EU in the Fipa case whether others than the polluter (more particularly new owners of plots of land) could be held liable for pollution costs, even though the contamination was not caused by them.[68] The Court held that on the basis of the polluter-pays-principle incorporated in the ELD, only the responsible operator could be held liable when it was identifiable.[69] The ELD can therefore not be extended to impose liability on the innocent owner who was not the polluter. However, De Sadeleer in a case note argues that Article 16 ELD provides Member States with the possibility to adopt more stringent provisions in relation to the prevention and remediation of environmental damage and that in practice in many Member States competent authorities also impose remedial measures on landowners rather than on the former polluters.[70]

---

63 Directive 2004/35, of the European Parliament and of the Council of 21 April 2004 on Environmental Liability with Regard to the Prevention and Remedying of Environmental Damage, 2004 O.J (L 143) 56, 57–58 [hereinafter ELD].

64 *Id.* art. 1.

65 *See* Nicolas de Sadeleer, Environmental Principles: From Political Slogan to Legal Rules 27 (2002).

66 Van Calster & Reins, *supra* note 50, at 28.

67 Id.

68 Case C-534/13, Fipa Group & Others, ECLI:EU:C:2015:140, ¶ 38 (March 4, 2015).

69 Id.

70 Nicolas de Sadeleer, Preliminary Reference on Environmental Liability and the Polluter-Pays-Principle: Case C-534/13, Fipa, 24 RECIEL 232, 232–37 (2015).

3. A Hybrid Regime

Within the current ELD there is a crucial role for public authorities. Article 5(1) imposes an obligation on an operator to take necessary preventive measures where environmental damage has not yet occurred, but there is an imminent threat of such a damage occurring. When environmental damage occurs, Article 6(1) applies and the operator has to inform the competent authority of all relevant aspects and take practical steps to control the relevant contaminants and take the necessary remedial measures. It is the authorities that can require the operator to take the necessary preventive and remedial measures.[71] According to Article 8(1), the operator shall bear the costs of the preventive and remedial actions taken pursuant to the Directive. The obligation to compensate for the costs (in other words the liability) is constructed in a complicated manner: for so-called Annex III-activities there is strict liability, whereas for all other occupational activities a fault/negligence regime applies.[72]

The literature holds that the ELD therefore adopts a system of a more administrative nature, rather than a pure civil liability approach;[73] the ELD opted for a system of public liability with a competent authority being primarily responsible for making the environmental liability work in practice.[74] Although the ELD uses legal terms that are characteristic for civil liability, such as fault and strict liability, it is in essence a public or administrative law regime.[75] The liability regime is solely enforced by public authorities; private parties cannot bring any claim against a liable operator.[76]

There is, however, no formal obligation for administrative authorities to take action against operators. The extent to which the goals of the ELD (implementing the polluter-pays and preventive principles) can be met, thus depends upon the action taken by administrative authorities. Jans and Vedder indicate that according to Article 8(2), the competent authority is obliged to recover the costs arising from preventive or remedial measures it has implemented itself.[77] However, Article 8(2) maintains that the competent authority may decide not to recover the full costs where the expenditure required to do so would be greater than the recoverable sum or where the operator cannot be identified. Jans and Vedder argue that the reference to cost effectiveness in this context is misplaced, since environmental liability should have a preventive effect and implements the polluter-pays-principle "It is our opinion that the costs should always be recovered."[78]

---

71 JANS & VEDDER, *supra* note 62, at 387.

72 *Id.* at 386.

73 *See* LIU, *supra* note 2, at 219.

74 *See* JANS & VEDDER, *supra* note 62, at 387.

75 *See* Erwin Brans, *Fundamentals of Liability for Environmental Harm Under the ELD*, *in* THE EU ENVIRONMENTAL LIABILITY DIRECTIVE. A COMMENTARY 38 (Lucas Bergkamp & Barbara Goldsmith eds., 2013).

76 *Id.*

77 JANS & VEDDER, *supra* note 62, at 388.

78 *Id.*

However, there is no formal way to force the competent authority to take action. Natural persons or NGOs can on the basis of Article 12(1) of the ELD submit observations relating to environmental damage or an imminent threat to the competent authority and according to Article 13 there should be judicial review of the legality of decisions, acts or failure to act of the competent authority.

4. Scope of the ELD

The ELD has a particular limited scope which seriously limits the application of the Directive. First, the personal scope is limited to operators. Operator according to Article 2(6) means any natural or legal, private, or public person who operates or controls the occupational activity or, whether this is provided for a national legislation, to whom decisive economic power of the technical functioning of such an activity has been delegated, including the holder of a permit or authorization for such an activity or the person registering or notifying such an activity.

Occupational activity is defined in Article 2(7) as "any activity carried out in the course of an economic activity, a business or an undertaking, irrespectively of its private or public, profit or non-profit character." Since this concept is crucial to determine which companies fall under the scope of the ELD, I will discuss this aspect of the scope of the ELD in more detail in the next section.

The material scope of the ELD is limited by the definition in Article 2 of the ELD. Damage is defined in Article 2(2) as a "measurable adverse change in a natural resource or measurable impairment of a natural resource service which may occur directly or indirectly."[79] Environmental damage means (a) damage to protected species and natural habitats. According to Article 2(1), it includes any damage that has significant adverse effects on reaching or maintaining the favorable conservation status of such habitats or species. The significance of such effects is to be assessed with reference to the baseline condition, taking account of the criteria set out in Annex I. In addition, environmental damage also includes (b) water damage and (c) land damage. These three constituent parts are exhaustive. There is therefore only environmental damage in the sense of the Directive when it concerns damage to protected species and habitats, water damage or land damage within the specific (narrow) definitions of the ELD.[80]

The third limitation in scope relates to the temporal scope: the ELD only applies on the basis of Article 17 to an emission, event or incident that took place after the implementation date of the Directive, i.e., 30 April 2007.[81] The ELD has, in other words, no retrospective effect,[82] which is equally in line with the theoretical

---

79 *See also* Lucas Bergkamp & A. Van Bergeijk, *Scope of the ELD regime, in* THE EU ENVIRONMENTAL LIABILITY DIRECTIVE: A COMMENTARY 51, 55-57 (Lucas Bergkamp & Barbara Goldsmith eds., 2013).

80 *See also id.* at 57–62; JANS & VEDDER, *supra* note 62, at 384–85.

81 JANS & VEDDER, *supra* note 62, at 385-86.

82 Bergkamp & Van Bergeijk, *supra* note 79, at 71–72.

framework presented in section 2. It is a retroactive application of liability that could not provide any incentives for prevention.

The relatively narrowly defined scope of the ELD entails the consequence that in case of environmental harm unavoidably also other rules may be applicable to remedy the harm which does not fall within the scope of the ELD.[83]

5. Exclusions

There are various exclusions in the ELD which should only be briefly mentioned as a detailed discussion would be beyond the scope of this article.[84] The exceptions can be briefly listed as follows:

The ELD is not applicable to:

- damage caused by an armed conflict, hostilities, civil war, or insurrection;[85]
- damage caused by a natural phenomenon of exceptional, inevitable, and irresistible character;[86]
- damage covered by international conventions listed in Annex IV (regarding liability for and compensation of oil pollution damage);[87]
- nuclear risks;[88]
- diffuse pollution; and[89]
- activities related to national defence or international security.[90]

Liability is also excluded in case of:

---

[83] De Smedt, *supra* note 61, at 189.

[84] For a more detailed analysis of the exceptions and defenses under the ELD, *see* Bergkamp & Bergeijk, *Exceptions and Defenses*, *in* THE EU ENVIRONMENTAL LIABILITY DIRECTIVE: A COMMENTARY 80, 80-94 (Lucas Bergkamp & Barbara Goldsmith eds., 2013).

[85] DIRECTIVE 2004/35; for further details *see* Bergkamp & Van Bergeijk, *supra* note 79, at 81–82.

[86] ELD *supra* note 62 at Art. 4(1)(b); *see* further Bergkamp & Van Bergeijk, *supra* note 79, at 82.

[87] ELD *supra* note 62 at Art. 4(2); *see* Bergkamp & Van Bergeijk, *supra* note 79, at 82–83.

[88] ELD *supra* note 62 at Art. 4(4); *see* Bergkamp & Van Bergeijk, *supra* note 79, at 83–84.

[89] ELD *supra* note 62 at Art. 4(5); *see* further Bergkamp & Van Bergeijk, *supra* note 79, at 84–85.

[90] ELD *supra* note 62 at Art. 4(6); *see* further Bergkamp & Van Bergeijk, *supra* note 79, at 85–86.

- damage caused by a third party;[91] and
- compliance with a compulsory order or instruction.[92]

In addition, Member States have the possibility to allow the operator to invoke the following defences:

- the compliance with permit defence;[93] and
- the state-of-the-art defense.[94]

There are further issues which are certainly of importance related to the application of the ELD, but which remain further undiscussed here.[95] I will now focus on the issue, which is most important within the scope of this article, how companies and their potential liability are viewed within the ELD.

C. Companies in the ELD

1. Central Notion "Operator"

As I already indicated Article 2(6) defines an operator as anyone who operates or controls "the occupational activity."[96] That concept is defined in Article 2(7) as an activity carried out in the course of an economic activity, a business or an undertaking. Jans and Vedder indicate that this definition may be problematic with regard to public entities as they may not be involved in economic activity. Their activities could well result in environmental damage, but they are outside the scope of the Directive.[97]

But there is no doubt that the companies central to this article are usually the operators under the ELD. But to be clear, the concept operator in Article 2(6) ELD is broad and therefore certainly not limited to legal entities. Also, a natural person could be an operator in the sense of the ELD. The operator usually is the holder of the permit/authorization related to the occupational activity that would be at the source of the environmental harm. However, the definition of operator is

---

91 ELD *supra* note 62 at Art. 8(3)(a); *see also* Bergkamp & Van Bergeijk, *supra* note 79, at 87–88.

92 ELD *supra* note 62 at Art. 8(3)(b); *see also* Bergkamp & Van Bergeijk, *supra* note 79, at 88.

93 ELD *supra* note 62 at Art. 8(4)(a); *see also* Bergkamp & Van Bergeijk, *supra* note 79, at 91–92.

94 ELD *supra* note 62 at Art. 8(4)(b); *see* further Bergkamp & Van Bergeijk, *supra* note 79, at 92.

95 For details *see* JANS & VEDDER, *supra* note 62, at 383–90; DE SMEDT, *supra* note 61, at 188–95; LIU, *supra* note 2, at 287-93; Bergkamp & Goldsmith, *supra* note 75.

96 CASSOTTA, *supra* note 48, at 147–48.

97 JANS & VEDDER, *supra* note 62, at 384.

broader than that and not limited to only the holder of a permit.[98] But under the ELD there is no channeling of liability to any specific party. Anyone who therefore had a substantive contribution to the risk can be held liable under the ELD.[99]

The definition of operator refers to the person who controls the operation, not (only) the actual operator. Bergkamp and Van Bergeijk argue that this could, at least in theory, also make claims possible not only against the actual operator, but also against a parent company. If that were the case, parent corporations would have a strong incentive to take all measures not to be deemed to be "controlling" the activities of the subsidiary. This may lead to a perverse incentive, for example to discontinue a corporate environmental and health program and compliance auditing. The latter could be considered as an element of control and therefore lead to ELD liability of a parent corporation. Bergkamp and Van Bergeijk therefore argue that such an expansive interpretation of the concept of operator could lead to pervert incentives as the enforcement of corporate standards and the monitoring of actual compliance can obviously be in the public interest.[100] They argue that Member States are able to prevent those adverse effects by not treating parent companies and other affiliates as operators for purposes of ELD liability.

2. Broadening the Operator?

They equally argue that the operator definition could be interpreted too broadly if it covers the person that has registered or notified the activity. That may be problematic because it may not be the person that actually controls the activity. Such a situation could be the case if for example, a chemical manufacturer would be exposed to liability for downstream damage caused by a chemical substance he produced.[101] Again, they argue that those types of broad interpretations should be avoided by Member States that limit the operator concept to only those entities that exercise effective control over the relevant activity that caused the damage.[102]

Interestingly, since the operator definition also covers natural persons and therefore not only corporations, in principle also a manager who directs a covered activity could be exposed to ELD liability.[103] The operator definition is certainly a critical issue of the ELD regime. Some scholars, like Bergkamp and Van Bergeijk strongly argue against a broad interpretation that expands ELD liability to parent companies. They contend that they may render the ELD regime ineffective in achieving environmental restoration.[104] They argue that such perverse side-effects could be prevented if national authorities consider as the operator primarily the

98 LIU, *supra* note 2, at 289.
99 *Id.*
100 Bergkamp & Van Bergeijk, *supra* note 79, at 53.
101 *Id.*
102 *Id.* at 54.
103 *Id.*
104 *Id.*

holder of the permit for the specific activity that caused the damage, excluding in principle all others.

Only when the operator definition would not correspond with the person effectively controlling the operation, that other person should be identified as the operator.[105] Others, however, have no difficulties in applying the operator definition broadly and in pleading in favor of parental liability for ELD obligations. Cassotta and Verdure argue that parent companies could perfectly fit into the definition of Article 2(6) of the ELD as they would control the professional activity involved.[106] They advocate for joint liability of a parent company and a subsidiary for ELD obligations. However, they argue that this would require a modification of the ELD as the current version of the ELD would not allow such a joint liability.[107]

Another solution they examine is to hold a parent company liable for the obligations of the subsidiary. This is in the line of similar developments in European competition law, where a parent company can be held liable for the fines incurred for competition law violations by a subsidiary based on a rebuttable presumption that the parent controlled the activities of the subsidiary.[108] Whereas Bergkamp and Van Bergeijk seem to warn against such a parental liability for ELD obligations, Cassotta and Verdure see more benefits in such a solution. However, both seem to agree that such a joint liability of a parent company and a subsidiary would not fit within the current formulation of the ELD.

3. Evasive Strategies?

In an interesting publication, Bergkamp analyses how companies manage their ELD exposure.[109] He argues that if the ELD applies and the operator is aware it does, regulatory evasion may occur if the operator is able to avoid the ELD's effective application and the related liabilities.[110] Virtually all companies are potentially subject to the ELD. Any company engaged in a commercial occupational activity is exposed to (fault) liability (if not listed in Annex III) for

---

105 Bergkamp & Van Bergeijk, *supra* note 77, at 54. This argumentation is also developed by Bergkamp in another publication: Lucas Bergkamp, L., *The Environmental Liability Directive and Liability of Parent Companies for Damage Caused by Their Subsidiaries ("Enterprise Liability")*, 13 EURO. COMPANY L. 184–85 (2016).

106 Sandra Cassotta & Christophe Verdure, La Directive 2004/35/CE sur la Responsabilité Environnementale: Affinements des Concepts et Enjeux Économiques, 2 REVUE DU DROIT DE L'UNION EUROPEENNE 233, 242 (2012).

107 *Id.*

108 *Id.* at 242–243. This potential solution will be discussed in the next section IV(E)(3).

109 Bergkamp, *supra* note 105, at 183-90; *see also* Bergkamp & Barbara Goldsmith, *Practice to Date and Path Forward*, *in* THE EU ENVIRONMENTAL LIABILITY DIRECTIVE: A COMMENTARY 333, 334–337 (Lucas Bergkamp & Barbara Goldsmith eds., 2013).

110 Bergkamp, *supra* note 105, at 186.

damages to natural resources arising from its activity.[111] Accordingly, no company should ignore the ELD.[112] One consequence might be that regulatory evasion might occur which may, more particularly arise in the context of corporate limited liability. In theory limited liability entities could be used to avoid liabilities under the ELD. That would effectively mean that the operator would create its own insolvency through limited liability of the corporation.[113] There is, however, so Bergkamp argues, no evidence that corporations are already pursuing this strategy to avoid effective ELD application and related liabilities.[114]

Recall that in the White Paper it was suggested that the ELD might cause corporations to spin off risky operations into separate legal entities.[115] However, there are ways of controlling abuses of limited liability.[116] The EU legislator has not attempted to address the use of limited liability companies, but rather focuses on financial security as a means to address problems of insolvency.[117] Bergkamp concludes that there is little evidence of companies using limited liability to avoid excessive exposure under the ELD. According to Bergkamp, to the extent that limited liability is used to avoid ELD liabilities, there is reason to believe it is less likely to be deployed by corporate groups.[118]

Summarizing, according to Bergkamp, there is under the ELD no room for imposing parent company liability. Parent company liability is only possible if legislation would be introduced holding the parent to be an operator of the activities of its subsidiary.[119] However, Bergkamp is not in favour of that solution and rather pleads in favor of mandatory financial security.[120]

D. Previous Studies

As I already mentioned there has been a plethora of studies contracted by the European Commission concerning the implementation and working of the ELD. Many of those studies contain interesting information *inter alia* on the implementation of the ELD within the Member States, particular problems that arose during the implementation stage and the application of the ELD in practice. I

---

111 Bergkamp & Goldsmith, *supra* note 109, at 334.

112 *Id.*

113 Bergkamp, *supra* note 105, at 186.

114 *Id.*

115 Commission White *Paper on Environmental Liability*, at 15, COM (2000) 66 final (Feb. 9, 2000).

116 Bergkamp, *supra* note 105, at 186; Lucas Bergkamp & Wan-Q. Pak, *Piercing the Corporate Veil: Shareholder Liability for Corporate Torts*, 8 MAASTRICHT J. EURO. & COMP. L. 167-88 (2001). The potential remedies against abuses of limited liability will be discussed in further detail in section IV(B) and following.

117 *See* Bergkamp, *supra* note 105, at 186.

118 *Id.* at 187; Bergkamp & Goldsmith, *supra* note 109, at 336–37.

119 Bergkamp, *supra* note 105, at 189.

120 *Id.*

will review some of those studies in the light of the central focus of this article, being the environmental liability of companies. In that respect, I will pay special attention to the issues discussed previously, being whether there is a likelihood that companies may escape ELD liability through their limited liability or through insolvency. I will examine to what extent those particular issues are addressed in some of the studies that were performed.

1. Financial Security. BIO. 2008

A first report to keep in mind is produced by BIO in August 2008 and deals with financial security in the Environmental Liability Directive. Article 14(1) of the ELD provides that Member States shall take measures to encourage the development of financial security instruments and markets by the appropriate economic and financial operators, including financial mechanisms in case of insolvency, with the aim of enabling operators to use financial guarantees to cover their responsibilities under the ELD. Article 14(2) obliges the Commission to present a report on the effectiveness of the Directive in terms of actual remediation of environmental damages, on the availability at reasonable costs and on conditions of insurance, and other types of financial security before 30 April 2010. It is in the light of that reporting obligation that this report by BIO was drafted.[121]

The report mentions that at that moment (August 2008) a compulsory financial security system had been chosen by six Member States (Bulgaria, Hungary, Czech Republic, Slovakia, Romania, and Spain). Member States have the possibility to choose among different mechanisms to cover their risk. Consequently, the introduction of a mandatory financial security scheme would not only have to rely on insurance products, but could also make use of other forms of financial security, such as bank bonds and asset deposits.[122] The report advocates for a compulsory financial security, arguing that it would promote a faster development and penetration of insurance products and other forms of financial security instruments.[123] However, the report equally argued that there is little awareness of the ELD among operators as a result of which they do not demand products to cover their environmental risks.[124]

2. Implementation Effectiveness. BIO – Stevens & Bolton. 2009

A next report is from November 2009 and drafted by BIO in association with Stevens & Bolton and deals with the implementation effectiveness of the

---

121 *Final Report on Financial Security in Environmental Liability Directive,* (Aug. 2008), https://ec.europa.eu/environment/legal/liability/pdf/eld_report.pdf.

122 *Id.* at 107.

123 *Id.*

124 *Id.* at 108–09.

Environmental Liability Directive and related financial issues.[125] This report provides an overview of the ELD cases, which have occurred since 30 April 2007 in the Member States and that are publicly available. It became clear to the researchers that ELD cases remained rare.[126] They report on a few cases from various Member States. But given the low number of actual and potential ELD cases and the little information available on each case, they can only reach preliminary conclusions.

They noticed inter alia that there is a potential for the ELD to miss out on large polluting incidents, if these are not caused by activities under legislation in Annex III.[127] As far as operators are concerned, this report again argues that they are being largely unaware of the ELD. And to the extent that operators are aware they generally do not believe that their environmental risks have changed due to the implementation. The majority of operators cover their environmental risks through insurance products and believe (according to the researchers perhaps incorrectly) that their environmental liabilities are sufficiently covered by these.[128] The researchers formulate several recommendations to increase the awareness of operators of the ELD and recommend especially to provide operators with information on financial security products for ELD liabilities.[129] The researchers also argue that both MS authorities as well as operators strongly focus on insurance to cover ELD-related liabilities. Often stakeholders are not even aware of the availability of other instruments.[130]

3. Implementation Challenges. BIO – Stevens & Bolton. 2013

A third report jointly produced by BIO and Stevens & Bolton is from May 2013 and deals with the implementation challenges and obstacles related to the ELD.[131] This report pays in a detailed way to the integration of the ELD into existing national legal frameworks. It also includes an overview of the level of application of the ELD regime in seven Member States that were studied (Denmark, France, Germany, Hungary, Poland, Spain, and the United Kingdom). The

---

125 Final Report on Study on the Implementation Effectiveness of the Environmental Liability Directive (ELD) and Related Financial Security Issues, (Nov. 2009), https://ec.europa.eu/environment/enveco/others/pdf/implementation_efficiency.pdf.

126 *Id.* at 81.

127 *Id.* at 87.

128 *Id.* at 91.

129 *Id.* at 92–93.

130 Final Report on Study on the Implementation Effectiveness of the Environmental Liability Directive (ELD) and Related Financial Security Issues, at 94 (Nov. 2009), https://ec.europa.eu/environment/enveco/others/pdf/implementation_efficiency.pdf.

131 *Final Report on Implementation Challenges and Obstacles of the Environmental Liability Directive (ELD)*, (May 16, 2013), https://ec.europa.eu/environment/archives/liability/eld/eldimplement/pdf/ELD%20implementation_Final%20report.pdf.

conclusion is that to date there are only a few cases of environmental damage for which the ELD regime has been applied. Moreover, in the majority of the cases it was not possible to apply the ELD regime because of specific legal issues (such as the impossibility to show that the damage exceeded the significant threshold set by the ELD regime or that the specific activities were not included in Annex III). As a result, in several cases the pre-existing legal frameworks in the Member States were used rather than the ELD.[132] The report also mentions that "the relationships between the business sector and public institutions, and the level of lobbying of the business sector can contribute (or not) to encouraging authorities to apply the ELD regime."[133]

For the case of Spain, it is argued that there is no adequate correspondence between environmental risks and existing financial instruments. The French Federation of Insurance and the German Insurers Association argue that it is an advantage not to have mandatory financial instruments as it permits the insurance market to develop on a free basis, thereby allowing more flexibility. These stakeholders therefore argue that "the ELD should not impose mandatory financial security, but the market for ELD insurance should be allowed to develop on its own."[134] The recommendations suggested various tools to promote the taking out of ELD insurance policies and again, the importance of rising awareness about the ELD is mentioned.[135] Annex Part B provides an overview of cases of environmental damage treated under the ELD and under national legislation.[136] The Annex provides an interesting overview of the (relatively few) cases where the ELD was applied. Some cases were of relatively minor (financial) importance. As a result, the operator cooperated throughout the implementation. This is for example the case for a UK incident, where the costs of the primary remediation measures were £ 41,000 and the estimated costs of the compensatory remediation was £ 39,000.[137]

Also, a French case which was dealt with under national legislation because the conditions of the ELD were not met, was one where the liable party (SPSE) cooperated and accepted to bear all costs. The overall costs of remediation pursuant to a prefectural order were estimated at € 6,562,000, but the global costs for the site clean-up and repair of the pipeline that was at the origin of the damage were evaluated at around € 48,000,000. In that case the operator paid for the compensation and the costs were covered by insurance.[138]

The same was the case for a harbor spill in the United Kingdom treated under national legislation where the costs were paid by the operator and the operator

---

132 *Id.* at 96–97.

133 *Id.* at 134.

134 *Id.*

135 *Id.* at 139.

136 *Final Report on Implementation Challenges and Obstacles of the Environmental Liability Directive (ELD),* (May 16, 2013) https://ec.europa.eu/environment/archives/liability/eld/eldimplement/pdf/ELD%20implementation_Final%20report.pdf.

137 *Id.* at 13–16.

138 *Id.* at 17–23.

cooperated.[139] The same was the case with a contamination of the river Alz in Germany, purely treated under national legislation, causing an estimated remediation cost of approximately € 3,000,000. In that case, the operators again cooperated with the authorities and other stakeholders.[140]

4. Integrating the ELD. Stevens & Bolton. 2013

A December 2013 report by Stevens & Bolton provides a study on the integration of the ELD into eleven national legal frameworks.[141] The report mentions that the number of ELD incidents is especially high in Hungary and Poland, whereas some Member States (Austria, Cyprus, Czech Republic, Denmark, France, Ireland, Luxemburg, Slovakia, Slovenia) did not have one single ELD incident so far. The number of ELD incidents in other Member States varied from 1 and 10 to between 10 and 20.[142] The report also presents a survey of members of the Federation of European Risk-Management Associations which showed that 52% of the companies surveyed had obtained insurance or other financial security for ELD and other environmental risks. However, the companies surveyed were large companies: of the 89 respondents, 72% had 1,000 or more employees, 41% had 5,000 employees or more.[143] The study also provides an interesting overview of the definition of operators under legislation transposing the ELD.[144] Although some Member States have a broad definition of operator, most Member States choose a definition which is essentially equivalent to the ELD.[145] This is important for the questions discussed in the previous section on the possibility to enlarge the definition of operator to include for example also parent companies. Most Member States apparently did not use the possibility of such an enlarged definition.

5. ELD Effectiveness. BIO – Stevens & Bolton. 2014

The next report to be mentioned is a study by BIO and Stevens & Bolton of February 2014 on the ELD effectiveness: scope and exceptions.[146] This report

---

139 *Id.* at 25–29.
140 *Id.* at 31–33.
141 *Final Report on Study on Analysis of Integrating the ELD into 11 National Legal Frameworks*, (Dec. 16 2013), https://op.europa.eu/nl/publication-detail/-/publication/a00dc4f9-876e-409d-9bd2-98378f817e14.
142 *Id.* at 5–6.
143 *Id.* at 7.
144 *Id.* at 69–70.
145 *Id.* at 69–71.
146 *Final Report on Study on ELD Effectiveness: Scope and Exceptions*, (Feb. 19 2014),

analyses the scope of strict liability, of environmental damage, significance, thresholds, and the application of permit and state of the art defenses in the various Member States. The report also analyses the application of the international conventions and instruments listed in Annexes IV and V of the ELD and analyses the possibility to incorporate other international instruments into Annexes IV or V. The notion of operator is not explicitly addressed, reducing the report's relevance for this article. However, the report does examine the scope of strict liability as well as potential extensions of ELD liabilities in view of the potential effects of those extensions on financial security. The report recommends that the European Commission should take into account concerns expressed by some stakeholders. These concerns particularly regard the additional financial burden which an extension of the scope of strict liability would represent for operators through a potential increase in insurance premiums for those operators who have taken out environmental liability insurance.[147] Therefore, the report equally recommends that any extension of environmental liability or revision of the ELD would need to consider the implications on insurance and other financial security instruments.[148]

6. ELD Biodiversity Damages. Milieu and IUCN. 2014

A final report mentioned in this respect concerns a study by Milieu and the IUCN from February 2014 regarding the experience gained in the application of ELD biodiversity damage.[149] The main goal of the report is to analyze the implementation of the ELD concerning biodiversity damage. It provides an interesting overview of case studies, although the case studies merely concern a discussion of specific topics and not really incidents to which the ELD would be applied as the reader might expect.[150] One of the "case studies" deals with insurance and financial securities and mentions that only eight Member States have opted for mandatory financial security. The report recommends that further analysis and exchange of information is needed to determine whether a harmonized mandatory financial security regime is necessary and which obstacles are encountered in that respect by Member States.[151] The same recommendation is repeated in the conclusions to the report.[152]

https://ec.europa.eu/environment/legal/liability/pdf/BIO%20ELD%20Effectiveness_report.pdf.

147 *Id.* at 258.

148 *Id.* at 259.

149 *Final Report on Experience Gained in the Application of ELD Biodiversity Damage*, (Feb. 2014), https://op.europa.eu/en/publication-detail/-/publication/95433298-9437-42b9-b1dc-668ed7294d8e.

150 *Id.* at 22–40.

151 *Id.* at 40.

152 *Id.* at 95–96.

E. Official Reports

Many of the reports concerning the implementation and the effectiveness of the ELD that were discussed in the previous section were commissioned by the European Commission to enable the Commission to draft the official reports that the Commission was supposed to present on the basis of the ELD itself. Not surprisingly, the reports presented by the Commission are therefore largely in line with the findings from the studies presented in the previous section.

1. Effectiveness of the ELD. 2010

The first report is from 12 October 2010 and is an execution of Article 14(2) of the ELD, which was already mentioned. The Article obliged the Commission to present a report on the effectiveness of the ELD in terms of actual remediation of environmental damages, on the availability at reasonable costs of insurance, and other types of financial security. The Article explicitly mentions:

> "The report shall also consider in the relation to financial security the following aspects: a gradual approach, a ceiling for the financial guarantee, and the exclusion of low-risk activities. In the light of that report, and of an extended impact assessment, including a cost-benefit analysis, the Commission shall, if appropriate, submit proposals for a system of harmonized mandatory financial security."[153]

This is a rather surprising statement as the report that analyzed this provided a table concerning the notion of operator from which it appeared that most Member States, in fact, literally copied the definition from the ELD itself.[154] It is therefore not totally clear what the basis is for this argument that the definition of operator would have been extended by "all but one of the Member States."

The report repeats that eight Member States have introduced a system of mandatory financial security up to 2014 (Bulgaria, Portugal, Spain, Greece, Hungary, Slovakia, Czech Republic, and Romania).[155] There is also only a limited number of cases treated by the competent authorities. At the beginning of 2010,

---

[153] Report from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions, COM (2010) 581 final (Oct. 12, 2010).

[154] *Final Report on Implementation Challenges and Obstacles of the Environmental Liability Directive (ELD)*, at tbl. 7, 70–71 (May 16, 2013) https://ec.europa.eu/environment/archives/liability/eld/eldimplement/pdf/ELD%20implementation_Final%20report.pdf.

[155] Report from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions, *supra* note 151, at 4.

only 16 cases were identified, with an estimate that the total number of ELD cases across the EU would be around 50. The report blames this on the slow transposition of the ELD[156] and on the limited knowledge of the ELD by operators.[157] The Commission, therefore, concludes that there is insufficient data to draw reliable conclusions on the effectiveness of the Directive in terms of actual remediation of environmental damage.[158]

The report also holds: "Despite awareness-rising efforts, business and particularly those industry sectors more susceptible to risks and damage falling under the ELD (Annex III operators) are generally not aware of the ELD provisions. This applies in particular to Small and Medium Sized enterprises (SMEs). Interviews with operators in the second half of 2009 showed that the majority had not yet adapted their insurance policies to cover the ELD extended liabilities, while some were not even aware of its entry into force."
"… A report from Business pointed out the need to examine all options available to provide financial security and suggested that Member States work on improving the national environmental liability regimes in place."[159]

Regarding the financial security for the ELD, the report provides an overview of the available coverage in various Member States but concludes that it is at present difficult to assess whether the current capacity of the (re)insurance industry is large enough to cover ELD liabilities efficiently.[160] The general focus to cover ELD liabilities is still on insurance products, although a range of alternatives exists.[161] The Commission addresses explicitly the need for a harmonized mandatory financial security system at EU level. Given that the transposition of the ELD resulted in divergent implementation rules, the Member States opting for mandatory financial security do not yet have their systems in place. Accordingly, the mandatory approaches cannot yet be evaluated, and until more financial security products are becoming available, the Commission holds that it is premature to propose mandatory financial security at EU level.[162]

An interesting point is that the Commission discusses the possibility of excluding low-risk activities from the mandatory financial security scheme based on a risk assessment of the potential environmental damage. Low-risk activities are also considered those where companies have an EMAS or ISO environmental management system in place (that is apparently the case in mandatory systems in Spain and the Czech Republic). The Commission rightly argues that this might be disputable as other factors may play a more significant role in determining the operator's actual environmental risk, such as the nature of the activity and its

---

156 Id.

157 *Id.* at 5.

158 *Id.* at 6.

159 Report from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions, supra note 151, at 6.

160 *Id.* at 7

161 *Id.* at 8.

162 Id.

location.[163] Moreover, stakeholders considered excluding operators on the grounds that their activities are perceived as low-risk to be controversial as those activities could, in reality, still cause significant environmental damage.[164]

The report concludes that since the ELD transposition was only finalized on July 1, 2010, the available information does not yet allow for concrete conclusions to be drawn about the effectiveness of the Directive in remedying environmental damage. There is simply insufficient practical experience available.[165] The report also takes over various recommendations from the studies carried out for the Commission to improve the implementation and effectiveness of the Directive. Regarding companies, it is suggested that the competent authorities should continue to promote awareness of individual operators and financial security providers through awareness-rising actions.[166] Regarding financial security, the Commission concludes that there is not yet sufficient justification for introducing a harmonized system of financial security.[167]

This report has also been commented on and discussed in the literature whereby the authors mostly stress the fact that implementation was apparently difficult as only three Member States (Italy, Lithuania, and Latvia) met the transposition deadline of April 30, 2007.[168] Implementation of the ELD, therefore, proved to be difficult.[169] Also, the fact that the general awareness of the ELD is low especially among SMEs and that only a few cases concerning the ELD reached the court is highlighted in the literature.[170]

a. REFIT Report 2016

The next report dates from April 14, 2016, and is based on Article 18(2) of the ELD, which obliged the Commission to submit a report (before April 30, 2014) which shall include any appropriate proposals for amendment.[171] The report was delayed *inter alia* due to the late submission of the Member States' national

163 *Id.* at 9.

164 Report from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions, supra note 151, at 9.

165 *Id.*

166 *Id.* at 10.

167 *Id.*

168 LIU, *supra* note 2, at 290.

169 JANS & VEDDER, *supra* note 62, at 383.

170 LIU, *supra* note 2, at 291.

171 For a more detailed account of what the report should specifically contain, *see* Directive 2004/35/CE, of the European Parliament and of the Council of 21 April 2004 on Environmental Liability with Regard to the Prevention and Remedying of Environmental Damage, 2004 O.J. (L 143) 56, 64-65.

reports and due to the decision to include a regulatory fitness and performance (REFIT) evaluation of the Directive.[172]

The 2016 report (in the literature referred to as the REFIT evaluation report)[173] mentions that between April 2007 and April 2013, 1,245 confirmed incidents of environmental damage took place, which triggered the application of the ELD.[174] But the number of cases varied greatly between the Member States: more than 86% of all reported cases came from two Member States: 563 from Hungary and 506 from Poland.[175] Eleven Member States reported no ELD damage incidents since 2007, possibly because they dealt with the cases exclusively under their national system. The dangerous occupational activities (to which strict liability applies) mostly concern waste management activities and, to some extent treating dangerous substances and activities under the Industrial Emissions Directive.[176] The available evidence indicates that the costs of remedial action averages around € 42,000. There are, however, a few outliers that are more than € 50,000,000 for large-scale losses due to major accidents (such as in the Kolontár case in Hungary or the Moerdijk case in the Netherlands).[177]

More insurance products would be available, and more environmental liability insurance would be purchased by European companies, but the report concludes, "Despite progress in financial security developments, problems persist regarding the application of the Directive to large-scale accidents and insolvency among liable economic operators."[178] As one of the major challenges, the report again mentions the lack of awareness and information of stakeholders on the ELD, but, on the positive side, the report holds that industry and other stakeholders contributing to the evaluation are largely satisfied with the current legal framework.[179]

---

172 Kristel de Smedt, *The Environmental Liability Directive: The Directive that Nobody Wanted – Part II: An Assessment of the ELD REFIT Evaluation of 14 April 2016*, 24 ENV'T LIAB. 5 (2016). Technically, I should mention that in addition to this Commission Report of 14 April 2016 (COM(2016) 204 final) on the same date there was equally a Commission Staff Working Document issued with a REFIT evaluation of the ELD (SWD(2016) 121 final). But most of the conclusions of the REFIT-study were incorporated in the Commission Report; that is why I suffice here with discussing the Commission Report rather than the Staff Working Document.

173 *Id.*

174 Report from the Commission to the Council and the European Parliament Under Article 18(2) of Directive 2004/35/EC on Environmental Liability with Regard to the Prevention and Remedying of Environmental Damage, at 3, COM (2016) 204 final (Apr. 14, 2016).

175 *Id.*; *see also* De Smedt, *supra* note 172, at 7.

176 Report from the Commission to the Council and the European Parliament Under Article 18(2) of Directive 2004/35/EC on Environmental Liability with Regard to the Prevention and Remedying of Environmental Damage, *supra* note 174, at 4.

177 *Id.* at 5.

178 *Id.* at 6.

179 *Id.* at 9.

Comments from the literature on this report stress the significant variations between the Member States[180] and also discuss again the topic of mandatory financial security. In a REFIT evaluation report, the Commission states that the situation has changed in the period from 2010 (where the previous report was presented) to 2016 in the sense that more products are now available on the insurance market to cover ELD liability.[181] Given the steady upward trend in the insurance supply across the entire EU, it is held that the case for the introduction of a harmonized financial security instrument is still weak and that the adoption of tailor-made solutions at the national level are the better solution.[182]

b. MAWP

Another document to be mentioned is the Multi-annual ELD Work Program (MAWP) for the period 2017-2020 "making the Environmental Liability Directive more fit for purpose" issued on 28 February 2017.[183] This MAWP contains ideas on how to develop the ELD in the light of the REFIT evaluation. The conclusion from REFIT was that the ELD is working, but to a much lower extent compared to the original expectations and with great variation between Member States.[184] One of the key actions to be taken suggested in the MAWP is to promote the availability of financial security for ELD liabilities across the EU.[185]

The baseline according to the Commission is the largely sufficient availability of financial security products for ELD liabilities, but a demand that is sufficiently lagging behind.[186] The Commission particularly emphasizes the need to take a closer look at liability cases involving bankruptcy and unknown operators.[187] The European Union Network for the Implementation and Enforcement of Environmental Law (IMPEL) launched a project on financial provisions in 2016 and the Commission suggests to cooperate with the IMPEL project and then to investigate more systematically with the possible help of external studies the situation with regard to the demand for insurance and sufficiency of financial security.[188] The crucial question for such a possible future

---

180 De Smedt, *supra* note 172, at 9.

181 *Id.* at 13.

182 *Id.*

183 Directive 2004/35/CE of the European Parliament and of the Council of 21 April 2004 on Environmental Liability with Regard to the Prevention and Remedying of Environmental Damage, 2004 O.J. (143) 56.

184 *Id.* at 59.

185 *Id.* at 64.

186 *Id.* at 68.

187 *Id.* at 69.

188 Directive 2004/35/CE of the European Parliament and of the Council of 21 April 2004 on Environmental Liability with Regard to the Prevention and Remedying of Environmental Damage, 2004 O.J. (143) 56, 69.

IMPEL project is whether financial security for ELD liabilities is available at reasonable costs in all EU Member States to cover all types of environmental damages, in particular also major accidents and bigger losses.[189]

F. Concluding

Companies play an important role in the system of the ELD as they will often be the operators upon whom the specific ELD obligations are imposed. Given the administrative nature of the ELD there is a crucial role for administrative authorities to take the initiative, but the obligations to prevent and remedy environmental harm as defined in the ELD will ultimately lay with operators.

There has been a question in the literature whether the concept of operator in the ELD could be interpreted in a broad way to include for example also parent companies. Some seem to welcome such an expansion, whereas others point at potentially pervert effects as parent companies may then take measures to avoid controlling subsidiaries (for example via internal compliance mechanisms) whereas that could precisely promote environmental performance within the subsidiaries. The White Paper preceding the ELD was aware of the fact that operators will often be corporations which raises the question whether there is a danger to spin off hazardous activities to thinly capitalized corporations, thus creating an insolvency risk.[190] To deal with that insolvency risk, the ELD encourages Member States to develop financial security instruments because there was at the time no consensus to introduce mandatory financial security.[191]

The various studies drafted on behalf of the European Commission and those issued by the European Commission itself stress that the ELD has not been widely applied in practice, mainly due to a low awareness. That low awareness among companies may also explain a relatively low demand to cover ELD related liabilities. The most recent ELD report stresses that the availability of insurance and other financial security products has spectacularly increased. As a result, the Commission still prefers to promote a gradual development of insurance and financial security markets rather than mandatorily imposing financial security for ELD obligations.

The few cases presented in the various reports show that to a large extent, operators did collaborate with authorities in the remediation of polluted sites and in

---

189 *Id.* at 70.

190 Commission White Paper on Environmental Liability, at 13, COM (2000) 66 final (Feb. 9, 2000).

191 *See* Directive 2004/35/CE, of the European Parliament and of the Council of 21 April 2004 on Environmental Liability with Regard to the Prevention and Remedying of Environmental Damage, 2004 O.J. (L 143) 56, 64 (indicating that member States shall take measures to encourage the development of financial security instruments and markets by the appropriate economic and financial operators, including financial mechanisms in case of insolvency, with the aim of enabling operators to use financial guarantees to cover their responsibilities under this Directive).

fulfilling their ELD obligations. The average costs of liabilities mentioned in the last EU Commission ELD report was also not of that magnitude that companies would not be able to meet those amounts. However, problems may arise in the case of catastrophic events where environmental harm causes large losses and may equally create insolvency. That insolvency is then often related to the limited liability of the corporation, which will therefore be addressed in further detail in the next section. The extent to which insolvency risks are real, is obviously an empirical matter which is difficult to assess given the relatively small number of ELD cases so far. Some of the cases will be reviewed in section VIII.

IV. LIMITED LIABILITY AND ITS REMEDIES

A. Relevance

The previous section dealing with the ELD made clear that obligations related to environmental liability under the ELD are imposed upon operators, but that in many cases those operators will be companies. In the theoretical framework of section II, I already discussed that an important limitation of any environmental liability system is the potential insolvency of the defendant.[192] Insolvency arises from the moment that the total environmental damage is larger than the assets of the operator.

In that particular case the operator is referred to as "judgment proof"[193] referring to the fact that a judgment forcing the polluter to compensate the harm cannot affect him as the operator may simply be unable to pay the (full amount of the) damage. Insolvency obviously has as problematic consequence that victims will not be compensated and that the environmental harm will not be restored as envisaged in the ELD. Moreover, I already indicated that insolvency can also lead to underdeterrence, i.e., lacking incentives to prevent environmental harm. That effect is, so I argued, stronger under strict liability than under negligence.[194] Since the ELD introduced strict liability for most cases of environmental harm, insolvency can therefore seriously undermine the deterrent effect of the ELD.

Insolvency may be a problem irrespective of the particular defendant's identity, a natural person or a legal entity. Also, natural persons may have limited assets and can cause environmental damage larger than their personal wealth. The problem is, however, even more serious in the case of companies, as they benefit in many legal systems (if they are incorporated) from a limited liability. That simply means that shareholders having contributed assets to the corporation can only lose the value of their shares, but nothing more than that.[195] As a consequence, when a

---

[192] *See infra* Section IV(A).

[193] *See* Shavell, *supra* note 34.

[194] *See supra* Section II(D)(3).

[195] Reinier Kraakman et al., The Anatomy of Corporate Law: A Comparative and Functional Approach, 9-11 (2d ed. 2009).

corporation causes environmental harm of a larger magnitude than its total asset value, bankruptcy could follow and tort victims can in principle not call upon individual shareholders to recover their losses.

Given the limited liability of the corporation and the fact that corporations often engage in the type of ultra-hazardous activities that can give rise to ELD liability, insolvency is a realistic problem. Moreover, there is not only the risk that a corporation may accidentally cause environmental harm of a magnitude beyond its assets and thus face insolvency; in fact, there is even a risk that the corporate form is (ab)used to put ultra-hazardous activities into separate legal entities as a result of which the firm in fact organizes its own insolvency. The increased liabilities imposed upon companies as a result of the introduction of the ELD could lead to regulatory evasion. And one way to evade liabilities is to use corporate limited liability.[196] Recall in this respect that in the theoretical framework it was held that externalization of harm is a "natural" phenomenon in the sense that when companies have the possibility to maximize profits by reducing costs, they will not refrain from doing so.[197] Using the corporate structure to externalize harm to society is such a technique to minimize costs.

This danger of limited liability is widely recognized and discussed in corporate literature. Again, many volumes have been filled just discussing this issue. Within the framework of this article, I will limit myself to analysis of the main issues raised in the literature, explaining what the basic justification is for limited liability (B) and then discussing several remedies that have been advanced, like minimum capital requirements (C), unlimited shareholder liability (D), enterprise liability (E) and compulsory solvency guarantees (F). The first three remedies all fit within the corporate law framework; the last one leaves the corporate law framework basically untouched, but looks for a solution within liability and insurance by mandating the corporation to provide a guarantee to cover its environmental liability. An evaluation of the various remedies will conclude the section (G).

B. Limited Liability

1. History and Ratio of Limited Liability

Limited liability has certainly not always existed. Even though some already trace back limited liability to ancient Rome[198] some contractual forms of limited liability emerged in the Middle Ages concerning international shipping ventures.[199] However, until 1850 the general rule was that shareholders would face

---

[196] Bergkamp, *supra* note 105, at 186.

[197] *See supra* Section II(A).

[198] Giuseppe Dari-Mattiacci et al., *The Emergence of the Corporate Form*, 33 J. L., ECON. & ORG. 193 (2017).

[199] Sharon Belenzon, Honggi Lee & Andrea Patacconi, Towards a Legal Theory of the Firm: The Effects of Enterprise Liability on Asset Partitioning,

joint and several unlimited liability.[200] There was a lot of discussion concerning the desirability of limited liability and its introduction was much debated.[201] It was only by the 1850s that a company's Act in England introduced limited liability[202] and around that time several states in the US also started introducing limited liability.[203]

Posner explains the ratio of limited liability by showing first that the corporation is a method of solving problems encountered in raising substantial amounts of capital.[204] The disadvantage of a partnership is that it can be easily dissolved and is automatically dissolved in case of the death of any partner. Moreover, each partner is personally liable without any limit which excludes the possibility for a mere partnership to raise capital from investors.

The major advantage of the corporation is that it has perpetual existence and that shareholders liability for corporate debts is limited to the value of his shares. This has the major advantage that passive investment becomes possible as equity interests in a corporation can be broken up into shares of relatively small value, which can be traded in organized markets.

The corporate form therefore enables an investor to make small equity investments and to reduce risk through diversification. The shareholder may have little information about the business in which he has invested. Without limited liability a shareholder would have high costs of monitoring the managers in corporations in which he invests. Moreover, unlimited joint and several liability of all shareholders for corporate debts would equally force all shareholders to monitor each other as well.

Without limited liability, transfer of shares would not be possible either, for example if the shareholder would sell his share to an insolvent person, thus increasing the insolvency risk.[205] Limiting the liability of a shareholder to its investment is crucial to make passive investment possible. Shareholders no longer needed to have detailed information on the performance of the particular firm in which they would invest (in order to reduce their risk). By simply diversifying their portfolio (buying shares from many different companies) they could diversify and reduce their investment risk. Limited liability also implied that the specific qualities of the shareholder (poor or rich) became irrelevant. Limited liability allowed passive, anonymous investment and thus facilitated raising capital for corporations. A major advantage of limited liability is that it can be used to partition investor assets into distinct pools. Limited liability permits firms to isolate different business

---

Decentralisation and Corporate Growth, 7-8 (Nat'l Bureau of Econ. Research, Working Paper No. 24720, 2018).

200 Paul Halpern, *Limited and Extended Liability Regimes*, *in* THE NEW PALGRAVE DICTIONARY OF ECONOMICS AND THE LAW 582 (Peter Newman ed., 1998).

201 *Id.*

202 Belenzon, Lee & Patacconi, *supra* note 199, at 7.

203 Halpern, *supra* note 200, at 582.

204 Richard Posner, Economic Analysis of Law, 536 (9th ed. 2014).

205 *Id.* at 540–42.

lines or ventures for purposes of obtaining credit by separately incorporating them.[206]

Compared to unlimited liability with joint and several liability, limited liability has many advantages for investors. It reduces the costs of monitoring for shareholders and limited liability facilitates diversification of portfolios and efficient risk baring through the stock market.[207] Limited liability also avoids the administrative costs of proceeding against many shareholders in case of a company's insolvency.[208] Limited liability therefore has many positive attributes. The most important one is that it facilitates the functioning of the capital market. Limited liability tells investors that, in the absence of special circumstances, they will not have to use their personal assets to indemnify creditors in case of the insolvency of a company.[209] In short: without limited liability of shareholders the development of capital markets would have been impossible.

Empirical research also shows that limited liability promoted the development of capital markets and thereby increased social welfare. Belenzon, Lee and Patacconi examined the concept of enterprise liability in a great deal of legal systems and found that the propensity of legal systems to hold an entire group liable for the losses incurred by one of its affiliates, affects the growth of the corporation. They show that weaker enterprise liability (in other words a stronger reliance on limited liability) encourages corporations to more finely partition their assets into separate legally independent units. This better compartmentalization of assets also tends to spur investment and growth.[210] They therefore conclude that limited liability spurs entrepreneurship and is therefore likely to increase overall social welfare.[211]

2. Consequences and Dangers

So far, it seems as if limited liability of corporations only has advantages: it makes passive investment possible, allows firms to attract capital and thus spurs entrepreneurship and increases social welfare. But a consequence of limiting the liability of a shareholder to its investment is that in case of insolvency of the corporation, creditors can no longer (fully) be paid back. Limited liability therefore makes risky ventures possible, but in fact shifts the risks from investors to creditors. This may be an efficient risk transfer.

---

206 Reinier Kraakman, *Unlimited Shareholder Liability*, *in* THE NEW PALGRAVE DICTIONARY OF ECONOMICS AND THE LAW 649 (Peter Newman ed., 1998).

207 Frank A. Easterbrook & Daniel R. Fischel, *Limited Liability and Corporation*, 52 CHI. L. REV. 89 (1985).

208 Kraakman, *supra* note 206, at 649.

209 Brian R. Cheffins, Company Law, Theory, Structure and Operation 499-501 (1998).

210 Belenzon, Lee & Patacconi, *supra* note 199, at 3.

211 *Id.* at 9.

Creditors who stand in a contractual relationship with the corporation will be paid to bear the risk (for example via the interest rates paid to a bank). The lender may be a superior risk barer, compared to a passive shareholder: the lender (for example a bank) can specialize in risk appraisal and may therefore have superior information; second, the shareholder is likely to be more risk averse than the bank.[212] The interest rate charged by the bank (or other creditor) will reflect the risk of default.[213] Problems, however, arise in case of involuntary creditors, such as for example victims of environmental pollution.

The problem is that they have no *ex ante* opportunity to contract with the corporation and are therefore confronted with the risk that the corporation externalises harm to them.[214] This undesirable consequence of limited liability is widely recognised and discussed in the literature and the environmental case is explicitly mentioned in that respect. In case of involuntary creditors (like in case of damage done to the environment) there are serious concerns over the inadequate incentives to reduce risk provided by limited liability.[215] Involuntary creditors are not compensated for the additional risks that they incur under limited liability.[216] Limited liability may therefore engender a risk of opportunism and moral hazard. Limited liability could encourage entrepreneurs to take on socially excessive levels of risk. This is problematic, especially if the company is undercapitalized, suggesting an intent to externalize losses on others.[217]

Limited liability can provide an incentive to shareholders to gamble with creditors' money as shareholders reap all the benefits as residual claimants and involuntary creditors bear the losses.[218] The most familiar inefficiency created by limited liability is the incentive it provides for shareholders to direct the corporation to spend too little on precaution; underdeterrence in other words.[219] Limited liability also encourages overinvestment in hazardous industries as it permits cost externalization.[220]

The literature also indicates that these dangerous consequences of limited liability depend on two specific issues, the creditor classes and the different ownership structures of the firm.[221] Considering the creditor classes, I already indicated that limited liability is generally not problematic for voluntary creditors as they can *ex ante* take into account the default risk. For example, in the price they charge for a particular product they deliver or in the interest rate they will charge. Involuntary creditors, and more particularly tort victims, do not have the possibility

---

212 POSNER, *supra* note 204, at 541.
213 *Id.* at 541–42.
214 *Id.* at 543.
215 Halpern, *supra* note 200, at 582.
216 Belenzon, Lee & Patacconi, *supra* note 199, at 10.
217 *Id.*
218 CHEFFINS, *supra* note 209, at 497–98.
219 Kraakman, *supra* note 206, at 650.
220 *Id.*
221 Halpern, *supra* note 200, at 582.

of this *ex ante* bargaining and therefore the externalities related to limited liability remain with them.

As far as the ownership structure is concerned, the danger of externalization and abuse is, according to some, especially present in case of close corporations and especially sole proprietorships. The owners of the firm are usually also involved in the management and may have large incentives to externalize harm to involuntary creditors. The management in a widely held firm to the contrary generally receives little direct benefit from shifting wealth from creditors to shareholders.[222] Problems of limited liability (and their remedies) are therefore often discussed in the context of the close corporation. On the one hand it is held that for most close corporations, the entrepreneur has invested a substantial amount of its personal wealth in the venture. Often the portfolio is undiversified and the ability to bear losses is limited. Those would at first blush be arguments in favor of limited liability for the close corporation.

However, the problem is that the owner/manager of the close corporation obtains the full benefit of any opportunistic behavior with respect to involuntary creditors, thus providing him a strong incentive for such opportunistic behavior. That explains why cases of piercing the corporate veil (enabling a creditor to reach the personal assets of the shareholder) often involve a close corporation.[223]

3. Examples

The fact that companies may abuse the limited liability structure to incorporate hazardous (environmentally unfriendly) activities into separate legal entities, is also well demonstrated in the literature. Halpern refers to the owner of a fleet of taxicabs who separately incorporated a company for each taxicab. The result is that in case of a tort claim, the liability exposure is limited to the assets within that individual company (which only contains one cab).[224] That obviously can result in an incentive to increase opportunistic behavior.[225]

In hazardous industries, firms often follow a strategy to remain small in order to minimize the risk that tort liability might reduce investor return.[226] Ringleb and Wiggins found that between 1960 and 1980 the rate of formation of small businesses was significantly higher, as compared to overall trends, in industries characterized by particularly hazardous activities, more specifically in

222 *Id.*

223 Easterbrook & Fischel, *supra* note 207, at 109.

224 Halpern, *supra* note 200, at 590. It concerns the case Walkovszky v. Carlton, 223 N.E.2d6 (N.Y. 1966), (determining under which conditions courts may pierce the corporate veil).

225 *Id.*

226 Reinier Kraakman, *Economic Policy and the Vicarious Liability of Firms, in* RESEARCH HANDBOOK ON THE ECONOMICS OF TORTS 253 (Jennifer Arlen ed., 2013).

the chemical industry.[227] Alberini and Austin also noticed that the imposition of strict liability in state environmental policies resulted in a greater spill severity and frequency. This was associated with smaller production units and thus reduced assets compared to states following negligence-based liability.[228]

The shift to strict liability apparently led firms to organize themselves in smaller production units with reduced assets, thus being able to externalize harm. Also in the maritime industry, this phenomenon is well known in the form of so-called single ship companies. Large shipping companies often create separate legal entities, especially for tankers, which run large risks of third-party liability. Consequently, if a pollution incident happens, creditors can only execute against the company in which the single ship was brought.[229] These few examples show that the risk that especially companies engaging in environmentally hazardous activities would use the limited liability to create separate entities and to shield their assets from creditors is not at all imaginary.

4. Remedies

In the remainder of this section, I will address a variety of remedies that could be used against the phenomenon of limited liability, some within company law (4.3-4.5) and some outside of company law. In theory, a wide variety of remedies is possible. But I will not discuss some within the scope of this article. One possibility is to provide environmental claims priority in bankruptcy. That could provide a (partial) remedy, but of course only to the extent that there are at least some assets available to satisfy (environmental) creditors.[230] Another possible remedy is to focus on the liability of companies' directors or controlling officers, holding them liable for excess liability.[231]

However, directors' liability is debated as it is said that it could dilute incentives of directors to engage in beneficial risk-taking to the benefit of the shareholders. That is why most systems (in line with law and economics predictions) are relatively restrictive as far as directors' and officers' liability is

---

[227] Al Ringleb & Steven Wiggins, *Liability and Large Scale, Long-Term Hazards*, 98 J. POL. ECON. 574 (1990).

[228] Anna Alberini & David Austin, *Liability Policy and Toxic Pollution Releases*, *in* THE LAW AND ECONOMICS OF THE ENVIRONMENT 112 (Anthony Heyes ed., 2001).

[229] *See* Dimitrios Christodoulou, The Single-ship Company: The Legal Consequences from its Use and the Protection of its Creditors 278-279 (1999); Dimitrios Christodoulou, The Single-Ship Company: The Legal Consequences from its use and the Protection of its Creditors, 278–279 (2000).

[230] Kraakman, *supra* note 206, at 653.

[231] Id.

concerned.[232] Moreover, often there is either indemnification or insurance of directors' liability, which may equally limit deterrence.[233] Some even mention the possibilities of criminal liability of directors.[234] I will briefly discuss criminal liability below in section 6, but as such not too much is to be expected from that.

Some authors are relativistic and wonder whether the limited liability is really such a major problem in practice. Cheffins for example mentions that only a small fraction of tort victims ever seeks any form of legal redress, that a vast majority is settled out of court and that a liability insurer will intervene anyway. He therefore concludes that the "presence or absence of limited liability will be irrelevant to the victim."[235] That is true only to the extent that, as Cheffins apparently assumes, tort victims will anyway be compensated as he assumes there is a liability insurer present to do so. But that may not always be the case, as a result of which he is probably overoptimistic. The literature therefore still pays a lot of attention to the various remedies that tort victims could use to deal with the adverse aspects of limited liability.[236]

C. Minimum Capital Requirements

1. Advantages and Drawbacks

Minimum capital requirements are mentioned in many of the studies dealing with the problematic aspects of limited liability as one of the potential remedies.[237]

The technique is in principle relatively simple: it is based on a statutory duty that specifies that for particular corporations a minimum capital needs to be available. It could either be a general lump sum amount that would be mentioned, or the requirement could relate to a fixed ratio of equity to the liabilities.[238] In theory, such a minimum capital requirement could guarantee that at least some capital would be available to satisfy the claims of the creditors, including the involuntary creditors, such as (environmental) tort victims.

Although this proposal sounds attractive, it has many potential drawbacks. One problem is that it may lead to huge administrative costs and significant

---

232 *See generally* Patrick C. Leyens & Michael G. Faure, *Directors' and Officers' Liability: Economic Analysis*, *in* DIRECTORS' & OFFICERS' (D&O) LIABILITY 769–808 (Simon Deakin & Helmut Koziol eds., 2018).

233 *See generally id.*; *see* MAX GABER, THE EFFECT OF D&O INSURANCE ON MANAGERIAL RISK-TAKING: A LAW AND ECONOMICS APPROACH TO THE MANAGERIAL LIABILITY RISK AND THE ROLE OF D&O INSURANCE (2015).

234 David M. Ong, The Impact of Environmental Law on Corporate Governance: International and Comparative Perspectives, 12 EUR. J. OF INT'L L 707 (2001).

235 Cheffins, *supra* note 209, at 506.

236 *See* Halpern, *supra* note 200, at 590.

237 *See* Kraakman, *supra* note 206, at 653; Halpern, *supra* note 200, at 590.

238 POSNER, *supra* note 204, at 543–44.

difficulties identifying the correct levels of intervention.[239] After all, if such a general minimum capital requirement would be introduced, it needs an administrative agency to control whether the amount was indeed available. A problem is that one would have to determine for a specific corporation, given the nature of its activities, what an appropriate amount would be. If the amount would be fixed at too high a level, it could function as a barrier to market entry, which could limit the possibilities of small- and medium-sized enterprises to enter the market, resulting in a reduction of competition.

Theoretically, the amount should not be fixed at a general level determined by statutes. The riskiness of the activities of corporations can vary. In the ideal case, an administrative authority would have to determine the potential amount of liabilities and determine the minimum capital accordingly. But to do so for each separate company would lead to huge administrative costs. In addition, the problem is that merely requiring minimum capital may not provide adequate protection for creditors if there would be no guarantee that the amount would still be available at the moment of insolvency. In other words, the minimum capital as such could be satisfied, but the relevant question is obviously whether it is sufficient to satisfy the liabilities towards (involuntary) creditors. To answer that question that would in theory require an almost permanent monitoring of the financial situation of the company, again leading to huge costs. Minimum capital requirements are therefore often considered too rigid and unlikely to be appropriate for all firms, even in a narrow industry.[240] If they are set low relative to the potential tort liability, the problem of cost externalization is not solved. And if the minimum capital is set relatively high, the coverage requirement can be intrusive.[241] Moreover, a general minimum capital requirement would not guarantee that funds are available at the moment of insolvency to restore environmental harm.

2. Effectiveness

For minimum capital requirements to really provide an effective protection to tort creditors, there should be perfect monitoring and enforcement, which would lead to huge costs. According to Posner, "a statist solution that has thus far been resisted in most financial industries in the United States."[242]

The minimum capital requirement had a goal to take care of a safety buffer of a minimum magnitude for the creditors. In (European) Member States that had such a minimum capital requirement, the effect of this in practice was almost neglectable as the amounts of the minimum capital were relatively limited and therefore did not provide any real protection against company losses, nor against

239 Halpern, *supra* note 200, at 590.
240 Kraakman, *supra* note 206, at 653.
241 *Id.*
242 POSNER, *supra* note 204, at 544.

fraudulent erections of corporations.[243] The minimum capital requirement also did not have a positive impact on the behavior of shareholders. Given the relatively low amounts of minimum capital, the losses that would result from risky investments were small anyway.[244] The minimum capital requirements also did not prove to be able to prevent the bankruptcy risk.[245]

It was already mentioned that limited liability can especially have the risks of externalization in the case of closely held corporations.[246] Nevertheless, in many European Member States minimum capital requirements only apply to widely held corporations and not to closely held corporations. And in some countries where minimum capital requirements also applied for closely held corporations (for example in Belgium and the Netherlands), as a result of recent legislative changes, the minimum capital requirement for closely held corporations were abrogated.[247]

3. Law and Policy

Minimum capital requirements were already imposed by the EU since the Second Council Directive 77/91/EEC of 13 December 1976 on coordination of safeguards which, for the protection of the interests of members and others, are required by Member States in respect of the formation of public limited liability companies.[248] The Directive has been amended many times. Originally, Article 6(1) of that Directive required that a company, to be incorporated, had to subscribe a minimum amount of €25,000. The minimum capital requirement only applies (see Article 1) to the public company limited by shares. The Member States implemented this minimum capital requirement in different ways. There was considerable variation between the Member States as far as the amounts required are concerned.[249] The provision currently in force, providing for a minimum capital requirement, is Article 45 of Directive 2017/1132 of 14 June 2017 relating to certain

---

243 See Kristof Marescau & Christoph Van der Elst, Het Belgische Wetboek van Vennootschappen en Verenigingen: Een Verkenning, 2 TVOB 37 (2020).

244 *Id.*

245 *See* Christoph Van der Elst, *The Effectiveness of Minimum Capital and the Financial Plan: An Empirical Study of the Belgian Experience*, *in* BELGIAN AND EUROPEAN PERSPECTIVES ON CREDITOR PROTECTION IN CLOSED COMPANIES 45-68 (Diederik Bruloot ed., 2019).

246 Kraakman, *supra* note 206, at 653.

247 A new Belgian Code of Company Law which entered into force on 1 May 2019 abrogated the minimum capital for closely held corporations (*see* Marescau & Vander Elst, *supra* note 243, No. 38) and in the Netherlands there is also no longer a minimum capital requirement for closely held corporations since 1 October 2012. *See* KID A. SCHWARZ, INLEIDING TOT HET NIEUWE BV-RECHT. DE BELANGRIJKSTE WIJZIGINGEN PER 1 OKTOBER 2012 (2012).

248 1997 O.J. (L 26) 20.

249 *See* Adriaan F.M. Dorresteijn et al., European Corporate Law, 162–64 (3rd ed. 2017).

aspects of company law.[250] The amount still is €25,000. However, Member States may impose higher requirements, and many do. Recall that also this Directive is only applicable to public limited liability companies, not to private companies. An overview of minimum capital requirements in European Member States created by DLA Piper and incorporated in Annex 1 to this article, supports the same point: for closely held corporations, there is either a low or no minimum capital; only for joint stock companies are there slightly more substantial amounts required, but never higher than €80,000. It is clear that these amounts are too insignificant to seriously deal with any substantial environmental claims. Not only will the value of an environmental claim (for example in case of soil clean-up) often be of a much larger magnitude, the minimum capital is also not specifically reserved for environmental claims, but needs to satisfy all creditors in case of insolvency. And as there is no rule under which environmental claims would have priority in bankruptcy, it may be clear that in the current regime the minimum capital requirements cannot provide any adequate protection to satisfy environmental liability claims. Given the high information, monitoring and enforcement costs, it is not likely that this is an attractive remedy at all.

D. Unlimited Shareholder Liability for Corporate Torts

1. Basic Idea

It was already mentioned that limited liability of the corporation does not create as many problems for voluntary creditors (such as banks and others who stand in a contractual relationship with the corporation), as they can protect themselves *ex ante* via contracting. The situation is different for involuntary creditors such as tort victims and victims of environmental harm. A revolutionary proposal was launched to solve this problem in a famous paper by Hansmann and Kraakman of 1991. They propose to extend shareholder liability in an unlimited way for corporate torts.[251] In a way it could be considered as a case of piercing the veil of the corporation, i.e., extending liability to shareholders and abrogating the limited liability for corporate torts. Veil piercing cases, as will be discussed in the next section, usually relate to situations of either a small and undercapitalized firm that is managed by a controlling shareholder who holds the real wealth of the enterprise or a parent company of a corporate group who keeps its operating companies thinly capitalized by dividing out most of their profits.[252]

The Hansmann/Kraakman 1991 proposal is a specific case of veil piercing, but only applicable to corporate torts. Their basic idea is that

---

[250] 2017 O.J. (L169) 60.

[251] Henry Hansmann & Reinier Kraakman, *Toward Unlimited Shareholder Liability for Corporate Torts*, 100 YALE L.J. 1879, 1879–1934 (1991).

[252] Kraakman, *supra* note 226, at 251.

shareholders are the residual claimants of the firms' cash flows. Any savings that result from externalising costs by the corporation accrue to its shareholders. They argue that the traditional doctrine of vicarious liability in tort (of a corporation or an employer for torts committed by his employee),[253] should be extended to a vicarious liability in tort reaching the assets of the shareholder.[254] They argue that the control rights of shareholders would be a sufficient legal basis for extending tort liability to shareholders when a corporate bankruptcy threatens to leave tort victims uncompensated.[255] They argue that it is simply because involuntary creditors (like tort victims) are politically powerless. Limited shareholder liability has generally survived notwithstanding the inherent inefficiency associated with shareholder liability for company torts.[256]

2. Specific Features

Kraakman stresses that the main reason why limited liability was originally introduced was that the alternative under the old regime (or, for example, with partnerships) is that shareholders were not only liable with all assets, but that there would be joint and several liability as well. Joint and several liability obviously has the disadvantage that it forces every shareholder not only to monitor the management of the corporation, but all other shareholders as well. Joint and several liability leads to high monitoring costs and makes transferring shares difficult. Limited liability thus reduces shareholder monitoring costs by decoupling the value of the firm from the wealth of its shareholders.[257] The rule Hansmann and Kraakman argue for in their 1991 paper is a so-called *pro rata* liability, under which each shareholder is personally liable for a tort judgment in proportion to the equity ownership in the company.[258] Unlimited liability should therefore not automatically be equated with joint and several shareholder liability.[259]

Hansmann and Kraakman also distinguish the need for *pro rata* unlimited shareholder liability depending upon the nature of the firm. It was already mentioned that abuses of the corporate firm are most likely with closely held firms.[260] Investors in small companies often lack access to capital markets, which would rather be an argument to say that they might have higher risk aversion (as shareholders in a closely held company often do not diversify), which would provide an argument for limited liability in closely held companies. However, as mentioned, often small, undercapitalized, closely held corporations are used as a

---

253 *See generally* Reinier Kraakman, *Vicarious and Corporate Civil Liability*, *in* TORT LAW AND ECONOMICS 134 (Michael Faure ed., 2009).

254 Kraakman, *supra* note 226, at 252.

255 *Id.*

256 Kraakman, *supra* note 206, at 648.

257 *Id.* at 649.

258 *Id.* at 650.

259 *See* Easterbrook & Fischel, *supra* note 207.

260 *See also* Paul Halpern, Michael Trebilcock & Stuart Turnbull, *An Economic Analysis of Limited Liability in Corporation Law*, 30 U. TORONTO L. J. 117 (1980).

vehicle for externalizing liability costs.[261] Also, small businesses may deal with their risk aversion by obtaining adequate insurance coverage.[262] There are strong arguments in favor of unlimited shareholder liability precisely in the case of closely held corporations. It may drive some inefficient closely held companies out of business, however, that may be a desirable effect as they are effectively being subsidized by externalizing social costs.[263] The administrative costs of *pro rata* unlimited shareholder liability are, however, more serious in publicly traded companies. However, Hansmann and Kraakman argue that these costs should not be prohibitive at all. The *ex ante* possibility to assess the *pro rata* access tort liability is, so they hold, not impossible (differently than in the case of joint and several liability). *Pro rata* liability is independent of the wealth of the fellow shareholders. Unlimited shareholder liability would lead to a closer monitoring of the company's tort risks, but that may well be a desirable effect. In sum, also for public held companies they argue that *pro rata* unlimited shareholder liability may have beneficial effects.[264]

3. Drawbacks

There may be difficulties in enforcing unlimited liability as there could be attempts to evade unlimited liability through various strategies; for example, selling equity to shareholders in foreign jurisdictions that do not recognize unlimited shareholder liability.[265] It is for this and other reasons that, although the proposal by Hansmann and Kraakman has been discussed by many, it has not reached introduction at the policy level. Some argue that enforcement costs of unlimited liability would be huge for tort victims,[266] evasion techniques are very real, also for environmental claims. Some individuals referred to as "high rollers" would be ready to purchase the risky assets of companies and thus remove the tort risk exposure from the original company. That already exists under a limited liability regime but may be more serious in case of unlimited shareholder liability.[267] Others argue that it may be practically difficult to implement the *pro rata* unlimited shareholder liability.[268]

---

261 Ringleb & Wiggins, *supra* note 227, at 574–95.

262 Kraakman, *supra* note 206, at 651.

263 *Id.*

264 *Id.* at 652.

265 Janet C. Alexander, *Unlimited Shareholder Liability Through a Procedural Lens*, 6 HARV. L. REV. 387 (1992).

266 David Leebron, *Limited Liability, Tort Victims, and Creditor*, 91 COL. L. REV. 1565 (1991).

267 Halpern, *supra* note 200, at 588.

268 Alexander, *supra* note 265.

It is for those reasons that most authors reject the Hansmann/Kraakman 1991 proposal as being too radical.[269] However, they do recognize that, especially with closely held corporations, the owner/manager may have strong incentives for opportunistic behavior towards involuntary creditors, as a result of which veil piercing may be an attractive remedy in that situation. However, in general courts may be more inclined to pierce the veil in order to hold a parent corporation liable for debts of a subsidiary, rather than reaching the personal assets of shareholders.[270] Generally, authors doubt that in case of mass torts it would be the limited liability of the defendant company that would have a substantial impact on the amount available for recovery.[271] Even in situations where a company may not provide suitable redress for tort victims, allowing them to sue shareholders personally might not be much of benefit in practice as this may lead to important procedural and logistical difficulties.[272] Therefore, one can argue that the theoretical proposal of unlimited shareholder liability for corporate torts has sparked off new ideas concerning remedies for limited liability. The idea itself is generally considered too radical and impracticable, but it has led to an increased debate on the social costs of limited liability[273] and to a debate on alternative remedies (other than unlimited shareholder liability) to deal with the inefficiencies created by limited liability.[274]

E. Veil Piercing and Enterprise Liability

1. The Case for Veil Piercing: Theory

Whereas a general *pro rata* unlimited shareholder liability for corporate torts may still be a bridge too far, there are of course circumstances where the courts will not recognize the limited liability and lay claim on the assets, for example of an owner/manager in a closely held corporation or a parent company (in a corporate group).[275] Veil piercing is, in the words of Sjåfjell et al., "[a] doctrine which is marred by confusion and inconsistency."[276] In law and economics scholarship, piercing the corporate veil is considered to promote efficiency in two situations. The first is where the corporate form is used to limit

---

[269] *See* BERGKAMP, *supra* note 2, at 324–327; Halpern, *supra* note 200, at 589–590.

[270] *See* Leebron, *supra* note 266, at 1628.

[271] CHEFFINS, *supra* note 209, at 506–07.

[272] *Id.* at 507.

[273] Kraakman, *supra* note 206, at 653.

[274] *Id.*; CHEFFINS, *supra* note 209, at 506–08.

[275] *See* Bergkamp, *supra* note 2, at 306–29.

[276] Beate Sjåfjell et al., *Shareholder Primacy: The Main Barrier to Sustainable Companies, in* COMPANY LAW AND SUSTAINABILITY: LEGAL BARRIERS AND OPPORTUNITIES 137 (Beate Sjåfjell & Benjamin Richardson eds., 2015).

tort liability to accident victims.[277] It would be the example of a taxi corporation incorporating each taxicab separately. Still, Posner argues that permitting tort victims to reach the shareholders' assets imposes additional risk on the shareholders.[278] Moreover, "piercing the corporate veil is an administrative nightmare when there are many shareholders and shares turn over frequently."[279] An alternative would be to require the corporation engaged in a dangerous activity to post a bond equal to the highest reasonable estimate of the probable extent of its tort liability.[280] This is to a large extent equal to a compulsory solvency guarantee, which I will discuss in the next section.

The less problematic case for veil piercing is where separate incorporation misleads creditors. Again, Posner distinguishes between the publicly held corporation and the close corporation.[281] The case is much stronger with closely held small firms, where the danger of abuse of the corporate form is greatest.[282] But even if a large, publicly held corporation operates through wholly owned subsidiaries, if those subsidiaries are in unrelated businesses, maximization of the enterprise's profits will require that the profits of each subsidiary be maximized separately. In other words, the subsidiaries should be treated as if they were in separate firms, as creditors are not prejudiced by being limited to their rights against the particular subsidiary with which they dealt.[283] The situation is different when creditors are misled into thinking that they are dealing with one single corporation (for example, when a subsidiary has a name confusingly similar to that of the holding company).[284]

The normal justifications for limited investor liability[285] (like the advantage that shareholders no longer have to monitor the solvency of other shareholders, nor the performance of the board and the assurance that their personal assets will not be exposed to liability), do not apply where the shareholder in question is a parent company or a controlling shareholder.[286]

Typical veil piercing cases are those where there is a small and undercapitalized firm that is managed by a controlling shareholder who holds the real wealth of the enterprise or the parent company of a corporate group keeps its operating companies thinly capitalized.[287] Courts are likely to pierce the corporate veil when wealthy shareholders appear to have shifted assets to frustrate creditors.[288] Veil piercing can deter shareholders from externalizing harm to tort

---

[277] POSNER, *supra* note 204, at 558.
[278] *Id.*
[279] *Id.* at 559.
[280] *Id.*
[281] *Id.*
[282] POSNER, *supra* note 204, at 560.
[283] *Id.*
[284] POSNER, *supra* note 204, at 561.
[285] *See infra* Section IV(B)(1).
[286] Sjåfjell et al., *supra* note 276, at 137–38.
[287] Kraakman, *supra* note 226, at 251.
[288] *Id.*

victims,[289] but legal systems impose strict conditions for veil piercing. Undercapitalization or undertaking risky, but legitimate, activities are as such not a sufficient reason to set aside the corporate veil on behalf of tort creditors.[290] Depending on the legal system, additional requirements are usually necessary, showing that the limited liability of the corporation was "abused" to disadvantage tort creditors. In some cases, models of vicarious liability are extended by treating the aggregation of different firms as a single enterprise or an enterprise-wide guarantee of any residual tort liability left unpaid by an asset constraint individual firm is imposed.[291] These types of models incentivize integrating related businesses into a single firm and they encourage mutual monitoring between different entities.[292] Piercing the corporate veil is therefore a mechanism whereby the courts ignore the corporate entity and hold shareholders directly liable.[293] The justification is usually an abuse of limited liability, more particularly in relation to involuntary creditors (like tort victims). Again, this type of veil piercing is especially advocated in the context of closely held corporations, but there are always dangers of evasive behavior to escape the veil piercing.[294] Law and economics scholars hold that veil piercing can be seen as a situation where the courts trade off the benefits of limited liability against the costs.[295] In other words, when the costs of limited liability (more particularly for involuntary creditors) exceed the benefits, there is a high likelihood that the veil will be lifted.

2. Law and Policy: Enterprise Liability

Most of the law and economics literature with respect to this issue relates to common law and more particularly to US law. There are, however, many different forms of veil lifting and, moreover, many differences between the jurisdictions. A situation where an entire group is held liable for the losses incurred by one of its affiliates is usually defined as enterprise liability.[296] There is some confusion concerning this notion: in corporate law, enterprise liability is used to describe a situation where several corporate entities within a group could be held jointly and severally liable for the debt of one of the members in the group. The entire group is seen as one enterprise that is made liable. However, in tort law, enterprise liability has also been developed in accident law as a way to increasingly introduce strict liability for harms caused by companies within

---

289 *Id.* at 252.

290 *Id.* at 257.

291 *Id.* at 258.

292 Kraakman, *supra* note 206, at 258–259.

293 *Id.* at 653.

294 *Id.*

295 Easterbrook & Fischel, *supra* note 207, at 109.

296 *See* STEPHEN M. BAINBRIDGE & M. TODD HENDERSON, LIMITED LIABILITY. A LEGAL AND ECONOMIC ANALYSIS 194-198 (2016).

American common law.[297] That development of enterprise liability within tort law has been heavily debated by law and economics scholars such as George Priest.[298] That second tort law interpretation of enterprise liability is less interesting for the scope of this article, as the nature of the liability regime in the ELD is given.[299] Therefore, I focus on enterprise liability as it is discussed in the corporate law literature. Enterprise liability, in that sense, is a form of veil piercing and setting aside the limited liability of the separate corporations.

The literature mentions that a problem with the piercing the corporate veil doctrine (generally, but also in the creation of enterprise liability) is that in many legal systems the specific conditions under which it can be applied are vague and discretionary.[300] Usually (case) law allowing piercing the corporate veil is intended to eliminate limited liability in cases where owners are considered to abuse the rationales of incorporation. Still, in many countries it is difficult for courts to formulate precise conditions under which this would be possible. Courts rather work with a list of variables that can be applied, such as 1) undercapitalization of the firm; 2) commingling of corporate and personal assets; 3) assets stripping, transfer of assets; 4) disregard for corporate formalities; 5) owners' control or domination over management issues; 6) fraud or misrepresentation of business operations.[301] The conditions under which veil piercing is possible largely differ between the EU Member States.

Germany is a country which is representative of a legal system that easily accepts enterprise liability. The German *Konzernrecht* is recognized as the most sophisticated regulatory scheme applicable to corporate groups with explicit standards for parental liability.[302] German law relatively easily accepts liability of a parent company for obligations of a controlled subsidiary.[303] At the other end of the spectrum is the United Kingdom which views companies as distinct legal entities, even when they operate under the direction of a parent firm. British courts therefore persistently rejected the application of the enterprise approach.[304] In the UK, the role of piercing the corporate veil is therefore very limited and in fact only applied as a sanction against fraudulent behavior.[305] In Germany to the contrary, when a subsidiary is completely dominated by the parent or subordinated

---

297 *See generally* Gregory C. Keating, *The Theory of Enterprise Liability and Common Law Strict Liability*, 54 VANDERBILT L.R. 1285 (2001).

298 *See generally* George L. Priest, *The Invention of Enterprise Liability: A Critical History of the Intellectual Foundations of Modern Tort Law*, 14 J. OF LEGAL STUD. 461 (1985).

299 *See infra* Section III.

300 *See* Belenzon, Lee & Patacconi, *supra* note 199, at 11.

301 *Id.*

302 *See* Sjåfjell et al., *supra* note 276, at 138.

303 Belenzon, Lee & Patacconi, *supra* note 199, at 4.

304 *Id.*

305 *Id.* at 13.

to its interests, the parent will be held liable for losses incurred by the subsidiary.[306]

There is currently no harmonized rule with respect to enterprise (group) liability within the EU. However, a European Company Law Experts (ECLE) group has formulated a proposal for reforming group law in the European Union. That proposal mostly aims at regulating the relationships between the controlling shareholder (the parent company) and the subsidiary and does not explicitly deal with the potential liability of the group towards third parties.[307] A Draft Proposal for a 9th Company Law Directive was created in the 1970s and eventually abandoned in the 1990s.[308] That seems to be the only piece of major legislation covering corporate groups specifically. Sjåfjell et al. rightly stress that a distinction should be made between direct liability schemes (whereby a parent can be held liable solely on the formal basis of its relationship with its subsidiary) and indirect liability schemes (where the parent company is held liable for its own wrongdoings through the use of the concept of the duty of care).[309]

In an elaborate study, Belenzon, Lee, and Patacconi analyze enterprise liability in many countries, including many European Member States, and score their intensity as far as the easiness to pierce the corporate veil is concerned.[310] Some Member States, such as Italy, France, and the Netherlands, are considered intermediate cases, but with a stronger tendency towards the (German) enterprise approach.[311] Cheffins, for example, noticed concerning English law that a court can lift the corporate veil and declare a shareholder personally liable for companies' debts when there is evidence of an unlawful purpose or deliberate concealment of the true state of affairs. With public corporations, courts rarely disregard corporate personality; for closely held companies veil piercing suits will be more successful when defendants are served as directors or officers.[312] Ong notes that US law and practice regarding veil piercing should alert both UK and continental European companies to the potentialities of far-reaching tendencies of corporate environmental liability affecting an entire group.[313] There could be a positive incentive effect as the possibility of shareholder liability for corporate environmental damage may lead to pressure from shareholders on company directors.[314] One weakness of parental liability schemes is the lack of

---

306 *Id.* at 14.

307 *See generally* European Company Law Experts, *A Proposal for Reforming Group Law in the European Union,* ECLE (2017), https://europeancompanylawexperts.wordpress.com/publications/reforming-group-law-in-the-eu/.

308 *See generally id.*

309 Sjåfjell et al., *supra* note 276, at 140–141.

310 *See* Belenzon, Lee & Patacconi, *supra* note 199, at 12–15.

311 *Id.* at 14.

312 CHEFFINS, *supra* note 209, at 505.

313 Ong, *supra* note 234, at 721.

314 *Id.*

extraterritoriality. It is rare that enterprise liability can apply to all affiliated companies, also across national borders whereas environmental harm often has a cross-border character.[315]

Belenzon, Lee, and Patacconi also analyzed the effects of enterprise liability, i.e. the propensity of courts to hold an entire group liable for the obligations of one of the subsidiaries. They found that where enterprise liability is weaker, groups tend to partition their assets more finely into distinct legally independent subsidiaries and grant their subsidiaries more autonomy.[316] Their study underscores the point that there is a relationship between enterprise liability and the internal organization of corporate groups. In countries with strong enterprise liability, asset partitioning into separate legally independent subsidiaries may make less sense, but the contrary is true in legal systems where enterprise liability is weaker.

3. Parental Liability

There is one interesting development worth mentioning here at the EU level. It was already indicated that, regarding veil piercing and enterprise liability, there are important differences between the Member States. There are also no binding rules of EU company law (Regulations or Directives) in this respect. However, there has been an important evolution in the case law of the Court of Justice of the EU in the domain of competition law. Already for a long time in EU competition law the possibility to hold a parent company liable for violations of competition law by a subsidiary were highly debated. In a landmark judgment of 10 September 2009 (Akzo Nobel)[317] the Court of Justice endorsed the attribution of liability to Akzo Nobel for the conduct of its fully owned subsidiary on the ground that they were part of a "single economic unit." In a later decision the court held:

> [W]hat counts is not whether the parent company encouraged its subsidiary to commit an infringement of the EU competition rules or whether it was directly involved in the infringement committed by its subsidiary, but the fact that those two companies constitute a single economic unit and thus a single undertaking for the purpose of Article 101 TFEU, which enables the Commission to impose a fine on the parent company.[318]

The Court moreover established in Akzo a rebuttable presumption of decisive influence for fully owned subsidiaries. In that situation, the burden of

---

315 Sjåfjell et al., *supra* note 279, at 142–43.

316 Belenzon, Lee & Patacconi, *supra* note 199, at 5.

317 Case C-97/08, Akzo Nobel v. Commission of the European Communities. 2009 E.C.R. I-08237; *see* John Briggs & S. Jordan, *Developments in the Law: The Presumption of Shareholder Liability and the Implications for Shareholders in Private Damages Actions and Otherwise*, 2 GLOBAL COMPETITION LITIG. R. 203, 203-209 (2009).

318 Case C90/09, General Quimica v.Comm'n, 2011 E.C.R. I-00001; *see* BELLAMY & CHILD, EUROPEAN UNION LAW OF COMPETITION, 1142 (Vivien Rose et al. eds., 7th ed. 2014).

proof is reversed and the parent company must demonstrate the autonomy of the subsidiary in conducting its commercial policy.[319] The literature has examined to what extent this parental liability based on the "single economic unit" approach is compatible with the principle of personal liability and has found that this is indeed the case, although criticism is formulated as well.[320] Some argue that the parental liability under Akzo Nobel amounts to an almost strict liability as rebutting the assumption of control over its subsidiaries would be almost impossible. Some authors consider this unfair towards the parent company and violating fundamental rights and principles, such as the personal character of the penalty.[321]

This approach is far-reaching as there is a presumption of decisive influence (sufficient to justify parental liability) in the case a subsidiary is fully owned. This reversal of the burden of proof is in line with suggestions by Antunes,[322] and supported by other literature[323] arguing that when a victim of environmental harm has proved that a subsidiary company has caused environmental harm, the company would be required to bring evidence as to whether the challenged decisions have originated from its control or were taken autonomously by the subsidiaries.[324] There have not yet been cases regarding parental liability in the context of corporate groups for environmental liability to the court, but it may be interesting to consider whether this concept of parental liability as applied in EU competition law could also be extended to environmental liability, thus holding parent companies liable for environmental liability obligations under the ELD incurred by their subsidiaries. It has already been suggested in the literature related to the ELD that such a jurisprudential development, whereby a parent would also be presumed to control the 100% daughter with determining influence in the environmental domain, should be welcomed. As a result, the parent company will equally be liable to fulfil the obligations of the subsidiary under the ELD.[325]

---

[319] *See also* Adriani Kalintrini, *Revisiting Parental Liability in EU Competition Law*, 43 EUROP. L.R. 145 (2018).

[320] *See* Louis Amory, *Parent Company Liability in EU Competition Law: Peace in the Valley?*, (2019) (Master's thesis, Ghent University) (on file at https://lib.ugent.be/fulltxt/RUG01/002/790/221/RUG01-002790221_2019_0001_AC.pdf) at 69-79.

[321] *See, e.g.*, Bettina Leupold, *Effective Enforcement of EU Competition Law Going too Far? Recent Case Law on the Presumption of Parental Liability*,34 EUR. COMPET. L. REV. 570 (2013); Laura La Rocca, *The Controversial Issue of the Parent Company Liability for the Violation of EC Competition Rules by the Subsidiary*, 32 EUR. COMPET. L. REV. 68 (2011).

[322] JOSE E. ANTUNES, LIABILITY OF CORPORATE GROUPS 132-384 (1994).

[323] Sjåfjell et al., *supra* note 279, at 143.

[324] *Id.*

[325] *See also* Cassotta & Verdure, *supra* note 106, at 242–243.

F. Compulsory Solvency Guarantees

1. Relevance

So far, I discussed three possible remedies for the inefficiencies that could result from limited liability, still sticking within the boundaries of company law (minimum capital requirements, unlimited shareholder liability for corporate torts and veil piercing). Even though there are some proponents of those solutions in the literature, each of those also have serious limitations. Another type of solution equally advanced within the literature is to look for remedies not necessarily within company law, but rather in the sphere of environmental liability and insurance itself. The problem of potential insolvency related to limited liability (but also in other contexts) could be remedied by *ex ante* forcing corporations, but in fact more generally operators, to provide financial security to cover their third party liabilities in relation to the ELD. Also in the corporate law literature, the regulatory strategy to require firms pursuing hazardous activities to carry a certain minimum level of insurance is explicitly mentioned.[326] In this section I will review the possibilities and challenges of such compulsory solvency guarantees.

2. Criteria for Mandatory Financial Security

In law and economics research, several criteria have been advanced to indicate where mandatory financial security may be indicated.[327] Insolvency is considered the most important reason for introducing mandatory financial security. As was indicated in the theoretical section,[328] insolvency will not only lead to a failing compensation to the victim, but also to underdeterrence. Insolvency, in other words, will result in the goals of the ELD not being met. The problem is especially relevant within the context of the ELD as the most important liability rule chosen in the ELD is strict liability. Insolvency leads to more risks of underdeterrence under strict liability than under negligence.[329]

The law and economics literature points out that by introducing a duty to purchase insurance cover for the amount of the expected loss better results will be obtained with insolvency, where the magnitude of the loss exceeds the injurer's assets.[330] When an operator is under a duty to provide mandatory financial security (for example liability insurance) the provider of the security (for example an

---

326 KRAAKMAN ET AL., *supra* note 196, at 121; CHEFFINS, *supra* note 209, at 508; Halpern, *supra* note 200, at 590.

327 *See generally* BENJAMIN J. RICHARDSON, ENVIRONMENTAL REGULATION THROUGH FINANCIAL ORGANISATIONS. COMPARATIVE PERSPECTIVES ON THE INDUSTRIALISED NATIONS 357-71 (2002).

328 *See supra* Section II(C)(3).

329 *See supra* Section II(D)(3).

330 *See* Peter J. Jost, *Limited Liability and Requirement to Purchase Insurance*, 16 INT'L REV. OF L. AND ECON. 259 (1996); Michael G. Faure, *Economic Criteria for Compulsory Insurance*, 31 THE GENEVA PAPERS ON RISK AND INS. 149 (2006).

insurer) will have incentives to control the behavior of the operator. The way in which insurers do this is by controlling the so-called moral hazard risk. Moral hazard will be controlled through a detailed risk differentiation (*ex ante* monitoring and *ex post* adaptation of the premium to the accidents) in combination with exposing the insured still partially to risk (via deductibles).[331] As the provider of financial security will control the moral hazard, incentives are again provided to operators to invest in prevention of environmental liability. Thus, under mandatory financial security, underdeterrence can be cured and better results can be attained than under a judgment proof scenario.

3. Conditions and Challenges

The literature has equally formulated several conditions and warnings when introducing compulsory financial guarantees.[332] The first issue is that the moral hazard problem should be adequately controlled. In the words of Richardson, "The potential for improving deterrence and facilitating compensation may be enhanced when insurance is made by the state a compulsory condition of engaging in specified developments. To require this, however, insurers must be able to effectively differentiate and price insureds' risks, and cost-effectively monitor loss prevention."[333] In the normal case, the provider of a solvency guarantee (like a liability insurer) will have incentives to adequately control the moral hazard risk as otherwise the likelihood of the accident occurring would increase. However, an adequate control of moral hazard supposes that the provider of financial security has adequate information in order to be able to control moral hazard. Moreover, when insurance markets are highly concentrated, the incentives to adequately control moral hazard might be distorted.[334] If the moral hazard problem could not be adequately controlled, the solvency guarantee may do more bad than good and the regulator should consider a prohibition of liability insurance.[335]

The second issue is that it may be wise not to limit the duty to provide solvency guarantees to insurance. It is therefore on purpose that I referred to compulsory solvency guarantees and not to compulsory liability insurance only. The disadvantage of just referring to liability insurance is that it may make the policymaker completely dependent upon the insurance market to fulfil the duty to insure. This could also create an undesirable situation whereby insurers would become *de facto* licensors of the industry which should be avoided from a policy

---

331 *See* Steven Shavell, *On Moral Hazard and Insurance*, Q. J. ECON. 541 (1979).

332 *See generally* Faure, *supra* note 328.

333 RICHARDSON, *supra* note 325, at 332.

334 Michael G. Faure & Roger Van den Bergh, *Restrictions of Competition on Insurance Markets and the Applicability of EC Antitrust Law*, 48 KYKLOS 65-85 (1995).

335 *See* Shavell, *supra* note 33, at 57.

perspective. This may therefore be a strong argument for a flexible approach, i.e. not to limit the provision of mandatory security necessarily to insurance, but to allow the market itself to suggest a wide variety of financial and insurance instruments as long as they can guarantee the fulfilment of the obligations of an operator under the ELD. Insurance may, of course, be able to do so, but there is, in addition, a wide variety of other instruments that could do so as well, such as self-insurance, using the capital market, guarantees and a variety of risk pooling schemes. All of those mechanisms may theoretically have advantages and particular limits and are *de facto* also used to cover environmental risks.[336] From a policy perspective it is important to keep a wide variety of different instruments available to cover environmental risks, which can equally provide incentives to the market to develop further financial security instruments, also beyond (liability) insurance. The advantage of such a broad, flexible, approach is that it makes the policymaker less dependent upon the insurance market. Otherwise, the risk always exists that industry will argue (as is currently also the case in relation to the ELD) that compulsory solvency guarantees cannot be implemented as there is no sufficient availability of insurance. By opening up the duty to provide solvency guarantees, also beyond insurance, a more flexible approach is followed, making the policy-maker less dependent on the insurance market.

That could also solve problems when in the insurance market within a particular Member State there would be (*de facto*) restrictions on the competition in the supply of insurance cover. That could result, for example, from high entry barriers and a limited number of insurance companies providing cover for the liability regime under the ELD. A small number of players would lead to high concentration with the risk of high premiums and a danger that this would reduce the incentives of insurers to control the moral hazard risk.[337] Even though those types of concentrations on the environmental liability insurance market may remain problematic, it is as such not an argument against introducing compulsory solvency guarantees as long as sufficient other financing techniques are available to operators to provide financial security. An interesting example of the wide variety of different financing techniques is provided at the occasion of the geological storage of carbon dioxide, also referred to as carbon capture and storage (CCS). This is regulated in the EU through Directive 2009/31/EC on the geological storage of carbon dioxide. In order to implement this Directive, Guidance Document 4 has been issued. That

---

[336] *See generally* Michael G. Faure & Hui Wang, *The Use of Financial Market Instruments to Cover Liability Following a Major Offshore Accident, in* CIVIL LIABILITY AND FINANCIAL SECURITY FOR OFFSHORE OIL AND GAS ACTIVITIES 237 (Michael Faure ed., 2017).

[337] *See* Michael G. Faure & Roger Van den Bergh, *Competition on the European Market for Liability Insurance and Efficient Accident Law*, 9 MAASTRICHT J. EUR. & COMPAR. L. 279 (2002).

Guidance Document provides a wide overview of all possible techniques that could be used to provide financial security.[338]

It has to be recalled that the obligations stemming from the ELD relate to all operators; not only large players, but also small and medium size operators. For them, there is a serious risk of insolvency i.e. the inability to financially meet their obligations under the ELD. That could, as already often stressed, lead to underdeterrence and therefore to a too high environmental risk. For that reason, it is crucial that the ELD obligations imposed upon operators are supported by compulsory solvency guarantees. That, of course, plays an important role to the extent that insolvency may arise from the limited liability of the corporation (largely discussed in this section), but again, it is obviously not only corporations that may be insolvent (related to limited liability); insolvency could arise with other organizational forms (like partnerships) as well and operators could also be natural persons for whom there equally could be an insolvency risk.

4. Solvency Guarantees in the ELD

There was a lot of debate preceding the ELD on whether there should be compulsory solvency guarantees to support the operators' obligations. The 2000 White Paper preceding the ELD was cautious concerning the introduction of a regulatory duty to seek financial coverage. It states:

> Moreover, *the EC regime should not impose an obligation to have financial security*, in order to allow the necessary flexibility as long as experience with the new regime still has to be gathered. The provision of financial security by the insurance and banking sectors for the risks resulting from the regime should take place on a voluntary basis.[339]

But the European Commission requested a study to examine the financial assurance issues of environmental liability and the Technical Annex for that study explicitly stated the question whether there should be a duty to provide financial security.[340] The study clearly advised in favor of an obligation to seek financial security, arguing

> The theoretical case is relatively simple: without financial security against insolvency, strict liability may lead to underdeterrence. Insolvency indeed poses larger problems under strict liability than under negligence… The desirability of a strict liability rule decisively hinges on the availability of

[338] *See* MICHAEL G. FAURE & ROY A. PARTAIN, CARBON CAPTURE AND STORAGE. EFFICIENT LEGAL POLICIES FOR RISK GOVERNANCE AND COMPENSATION 149-184 (2017).

[339] *Commission White Paper on Environmental Liability*, at 24, COM (2000) 66 final (Feb. 9, 2000).

[340] *See* Faure, *supra* note 15, at 391–398.

> financial security. Simply trying the new strict liability regime and waiting for financial and insurance markets to develop the necessary mechanisms to provide security seems like a dangerous route to take.[341]

However, it seemed in practice much more difficult to implement this at the policy level as there was large opposition from particular Member States. Although many NGOs and a few Member States supported such a mandatory system, it was politically not feasible.[342] This reluctance is also reflected in the final text.[343] Article 14 of the ELD only requires the Member States to promote the development of financial security instruments and the Commission to present a report on the availability of such instruments.[344] The result is that in some Member States there is a duty to seek financial cover, but in others there is not.[345] Meanwhile there have been a variety of studies addressing the possibility to improve financial security in the context of the ELD,[346] the most recent one of March 2020.[347]

5. Implementation

How could a compulsory solvency guarantee mechanism be shaped for the ELD? I had sketched a mechanism in my report to the European Commission following the White Paper 2000,[348] and I have more recently sketched a similar model for a financial security mechanism to compensate for offshore oil and gas activities.[349] In short, it comes down to the following: starting point is that insolvency is a serious risk, creating the market failure of externalization of social costs and that therefore some regulatory action mandating financial security is needed. The EU policy-maker has clearly already taken up this advice by prescribing in the ELD that Member States should stimulate financial cover for the

---

341 *Id.* at 249.

342 Kristel de Smedt, *Is Harmonisation Always Effective? The Implementation of the Environmental Liability Directive*, EUR. ENERGY AND ENV'T L. REV. 2, 11 (2009).

343 The necessity to have a mandatory insurance mechanism in the ELD is considered "one of the most controversial and crucial focal points in the development process of the ELD." *See* CASSOTTA, *supra* note 48, at 198.

344 LIU, *supra* note 2, at 290.

345 *See* LUCAS BERGKAMP, NICOLAS HERBATSCHEK & SURIYA JAYANTI, THE EU ENVIRONMENTAL LIABILITY DIRECTIVE: A COMMENTARY 132-135 (Lucas Bergkamp & Barbara Goldsmith eds., 2013).

346 *See supra* Section III.

347 *See* Valerie Fogleman, Stevens and Bolton LLP. *Improving Financial Security in the Context of the Environmental Liability Directive*, No. 07.02.03/2018/789239/SER/ENV.E.4, March 2020, Study prepared for the European Commission.

348 Faure, *supra* note 13, at 248–50.

349 CIVIL LIABILITY AND FINANCIAL SECURITY FOR OFFSHORE OIL AND GAS ACTIVITIES 335-39 (Michael G. Faure ed., 2017).

ELD obligations. The problem, however, still remains that some Member States may not require any financial cover at all and others could require neglectable amounts of financial cover. The EU level should therefore go one step further by also mandating under what type of circumstances particular amounts should be required in security and what types of securities should be deemed sufficient. Obviously specific amounts cannot be mandated on an EU-wide basis, nor can the EU prescribe which security would be sufficient in which circumstances. This may very much depend on location specific circumstances. A one-size-fits-all approach at EU level would therefore not be feasible.[350] Also, De Smedt argues that tailor-made solutions at national level constitute the better option.[351] This calls in other words for a regulatory framework at the EU level, still allowing sufficient flexibility to regulators at the Member States. An example of this could be a Guidance Note. A similar Guidance Note on financial responsibility issued within the framework of the Directive on carbon capture and storage provides an interesting example.[352] This Guidance Note provides information to regulators in Member States on the type of financial security that would be acceptable. That could guide the regulator in Member States on the amounts and types of financial security to be required. A guidance has the advantage of doing what it says, which is to guide local regulators in Member States and at the same time still leaving sufficient flexibility with the Member States to access the amount and form of financial security in a particular case, taking into account location specific circumstances.

There are still a few issues to be discussed related to this proposal: first, recall that when discussing minimum capital requirements it was mentioned that the literature considers those as rather ineffective for the simple reason that they are often general amounts applying to all companies and that, moreover, the mere fact of having a minimum capital at the start of a corporation does not guarantee that money would also be available if it would be needed to remedy environmental harm. For that to be the case, it would require constant monitoring of which the administrative costs would be huge. Moreover, the amounts were of such a low magnitude that they cannot be considered as a serious remedy against the insolvency risk.[353] The question could then be asked if the same problem would not arise with mandatory financial security. The answer is that, precisely in order to avoid those problems (of lacking flexibility and high monitoring costs), the decisions on the amount needed for financial security and the adequacy of the security offered by the operator should be decentralized to local authorities who have better information. That guarantees that only once costs are made to verify

---

350 *See* Bergkamp, *supra* note 105, at 187 (referring to a report by Insurance Europe, arguing that a mandatory harmonized approach could impede the current encouraging development of insurance products in the Member States).

351 De Smedt, *supra* note 172, at 13.

352 European Commission, Implementation of Directive 2009/31/EC on the geological storage of carbon dioxide, Guidance Document 4, 2011; *See* Michael G. Faure, *Liability and Compensation for Damage Resulting from CO_2 Storage Sites*, 40(2) WM. & MARY ENV'T L. & POL'Y REV. 387 (2016).

353 *See supra* Section IV(C)(2).

which amount would be needed for the potential environmental risks of the particular operation. Moreover, the advantage of decision-making at the local level is precisely that flexibility and differentiation are possible to align the type and amount of financial security to the risk posed by the specific activities and operator. In that respect it may be inconsequential that there are currently reports that many operators still do not have a specific demand to cover their ELD liabilities, for example via insurance.[354] It may well be that those are large operators that have a sufficient balance sheet to be able to deal with the risks themselves via so-called self-insurance. In such a case it makes obviously no sense to force an operator to purchase costly financial security without added value for them. The crucial issue is that competent authorities verify the nature and magnitude of the risk as well as the financial security offered. There is wide experience with that model to cover the risks related to the civil liability for offshore oil and gas activities. Operators dispose of a wide variety of possibilities to offer security and the competent authorities verify (and follow up on a yearly basis) whether the offer of security made by the operator can be considered adequate for the risk involved.[355]

Summarizing:

- Financial security has to be mandated to cover the strict liability obligations imposed upon the operator under the ELD.
- The policy-maker could indicate that a wide variety of mechanisms may be used to provide this financial security.
- A Guidance Note can be issued at the EU level, guiding local licensing authorities in Member States on the required amount and type of financial security to cover ELD obligations.
- The type of financial security should therefore not be regulated in a general matter, but its adequacy may be assessed by the administrative authorities who can decide on the type and the amount of the financial security when issuing the license.
- As far as the amount is concerned, this Guidance Note should be based on an objective assessment of the environmental liability risk, taking into account technical criteria that relate a specific operation and operator to particular amounts of potential damage.
- The guidance should allow sufficient flexibility as far as the forms of financial security are concerned and not necessarily limit those to insurance. The only condition would be that local regulators accurately verify whether the form and the amount of the financial security offered by the operator would be adequate to cover the potential damage emerging from ELD obligations.

---

[354] *See supra* Section III.

[355] *See* Michael G. Faure & Hui Wang, *Compensating Victims of a European Deepwater Horizon Accident: OPOL Revisited*, 62 MARINE POL'Y 25, at 26 (2015); Faure & Wang, *supra* note 334, at 263–266.

- Such an approach allows sufficient flexibility and also avoids unnecessary costs (for example forcing major operators to transfer risks to lower rated insurance companies or to immobilize large amounts of capital), encourages a level playing field for operators and avoids an externalization of social costs (and thus a market failure) in the case of insolvency.

G. Evaluation

This section reviewed problems that may arise in case of the inability of ELD operators to meet their financial obligations that could result from the limited liability of the corporation but could arise in other circumstances as well.

I reviewed a variety of options to remedy limited liability within corporate law, but each of those had their own specific problems. Mandatory capital requirements are not considered very effective mechanisms to protect the interests of creditors, are moreover considered rigid and either easily to avoid or leading to high monitoring and enforcement costs. Unlimited *pro rata* shareholder liability for corporate torts is an interesting thought experiment but could equally lead to high litigation costs if it would mean that tort victims would have to sue a variety of different shareholders. Also in that case, problems of evasion and enforcement may arise, especially when shares would be shifted to foreign jurisdictions. A third possibility, piercing the corporate veil, is applied in some EU Member States (when particular conditions are met), but large differences between the Member States persist. Moreover, some consider the litigation related to veil piercing "an administrative nightmare." However, the Court of Justice case law in EU competition law (Akzo Nobel) leading to parental liability for competition law violations committed by subsidiaries, could lead to inspiration in the environmental liability context as well.

Many other solutions within corporate law have been mentioned in the literature as well. One possibility is to focus more strongly on (civil and criminal) liability of directors; another one is to award victims of environmental tort a higher priority in case of bankruptcy of the corporation.[356] Each of those different options undoubtedly leads to differing costs and benefits. What is the cheapest option among all alternatives available is by the end also an empirical issue?[357] But the fundamental question is whether it is desirable to fundamentally adapt principles of corporate law "just" to deal with the problem of environmental liability of companies. It was already noticed that in some of the remedies I discussed within corporate law (like veil piercing or minimum capital requirements) solutions between the EU Member States largely diverge. Company law is also a domain of which economists argue that there is great benefit in divergence and many

---

356 KRAAKMAN ET AL., *supra* note 195, at 121; KRAAKMAN, *supra* note 226, at 252.

357 Halpern, *supra* note 200, at 590.

drawbacks from harmonization.[358] Some argue that environmental interests are penetrating corporate law and can lead to an adaptation of corporate governance;[359] this is most clearly visible probably in the domain of corporate environmental responsibility,[360] which will be addressed in further detail in the next section.[361] But the question still arises whether it is really feasible to adapt corporate law and corporate governance to regulate a problem of environmental liability. The political feasibility of fundamental changes in that domain at the EU level seems low to say the least.

Weighing all the different options, I therefore argue that the last remedy, mandating solvency guarantees, is the most attractive one. It has a number of advantages: it is already (to some extent) mentioned in the ELD (albeit that there is no clear obligation yet); many Member States moreover already have mandatory financial security for environmental (ELD) obligations. The advantage is, moreover that this not only solves an insolvency problem related to the limited liability of the corporation, but also potential insolvencies that may arise in other contexts (like with partnerships or natural persons). It is also what EU law has done. The European Union legislature has not attempted to address the use of limited liability companies, but rather focused on financial security to address problems of insolvency.[362] That is not to say that some of the other options (like parental liability for ELD obligations of subsidiaries or priority for environmental liability claims in bankruptcy) should not be examined as well. But the most promising and probably most effective strategy seems to be to focus on supporting the operators' obligations under the ELD with mandatory financial security. That is, moreover, also in line with recent policy developments at EU level.

V. INNOVATIVE INSTRUMENTS

A. Introduction

The central focus of this article is on the environmental liability of companies. In the previous section I addressed problems that can arise from insolvency in general and from the limited liability of the corporation in particular. Several remedies to increase the environmental accountability of corporations were already discussed in that respect, some within the framework of corporate law (minimum capital requirements, unlimited shareholder liability for corporate torts and enterprise liability), some outside of corporate law (compulsory financial

---

358 *See* LUCA ENRIQUES, *Company Law Harmonisation Reconsidered: What Role for the EC?, in* EUROPEAN COMPANY LAW IN ACCELERATED PROGRESS 59-82 (Steef M. Bartman ed., 2006).

359 *See e.g.*, Ong, *supra* note 234, at 686.

360 *Id.*; MENGXING LU, CORPORATE SOCIAL AND ENVIRONMENTAL RESPONSIBILITY: ANOTHER ROAD TO CHINA'S SUSTAINABLE DEVELOPMENT (2018).

361 *See infra* Section V(D).

362 *See* Bergkamp, *supra* note 105, at 186.

guarantees). To some extent those could also be considered as "innovative" instruments in the sense that they certainly do not exist in all EU Member States. However, in this section I want to focus on a few other instruments that received a lot of attention in recent literature and to some extent at the EU policy level as well, but which are not, in the strict sense, directly related to corporate law. These instruments, again, do not only affect environmental liability, but are general instruments that may improve the environmental compliance of enterprises and thereby also reduce the likelihood of environmental harm, thus contributing to reaching the goals of the ELD. Precisely for that reason they are worth a brief discussion.

I will start with the question of why companies breach environmental regulation. Jennifer Arlen, who has from an economic perspective, especially looked into the black box of the corporation, analyzing the question why some persons within the corporation cut corners and breached environmental law and how law enforcement may affect the behavior of the corporation, more particularly the likelihood of compliance (B). Admittedly, this topic is closer to corporate crime, which will be addressed in the next section VI, but the general question how environmental compliance by companies can be promoted is obviously crucial for environmental liability as well. The question even arises whether the lessons from that literature with respect to corporate compliance (and crime) should be translated at the policy level, either by forcing companies to adopt an environmental compliance mechanism or to reward companies that not only have such an environmental management scheme, but that equally actively engage in self-policing and reporting of violations (C). A related yet different literature is the well-known domain of corporate social responsibility (CSR), in this context corporate environmental responsibility (CER). It is not in the core of corporate law, but addresses the environmental behavior of corporations. But the core difference with the previous topic (compliance assurance) is that CER, by definition, strives to go beyond mere environmental compliance. Again, it can be argued that if that instrument is correctly implemented, it can prevent environmental liability and therefore merits a brief discussion within the scope of this study. It could be further argued that the debate on CER is surely not new, but it is increasingly receiving a prominent role, not only at the policy level, but also in academic literature where especially Beate Sjåfjell has recently formulated interesting proposals towards a fundamental reform of corporate law, away from shareholder primacy and calling on the societal responsibility and accountability of companies (D). And that brings the topic again in the core of the environmental liability of companies.

B. Environmental Compliance by Companies

1. Potentially Perverse Incentives

In the next section I will explain that there are strong arguments to apply under particular circumstances, not only civil, but also criminal liability for environmental harm. Moreover, I will explain that there are equally strong arguments in favor of criminal responsibility of the corporation. That is how in reality (both civil and criminal) liability regimes are structured: they address primarily the corporate entity, usually via a vicarious liability regime. It is not the corporation itself that commits environmental harms, but natural persons, employees acting on behalf of the corporation. Still, the corporate entity will be held liable for environmental harm caused to third parties or for environmental crime.[363]

In a 1994 paper, Jennifer Arlen showed this vicarious liability regime, whereby corporations are *de facto* held strictly liable for any wrongs committed by their employees, can lead to potentially perverse incentives for the following reason.[364] If a corporation is able to monitor its employees and if it does so in an optimal way, it may automatically detect more environmental violations. But given the strict (civil or criminal) liability of the corporation for acts of the employees, these increased monitoring efforts by the corporation would only lead to more potential liability for the corporation. The logic is that when the corporation increases enforcement expenditures, it will equally increase the probability that violations will be detected, thus increasing the expected liability of the corporation. Better and additional enforcement by the corporation could therefore only increase the firms' expected liability. As a result, Arlen holds that strict vicarious liability can lead to the perverse incentive that the corporation will reduce the monitoring of its employees in order to avoid the detection of corporate (environmental) crime.[365]

2. Remedies

A lot of the subsequent literature, especially by Arlen, but also in other papers by Arlen and Kraakman,[366] examines how the law could be shaped differently to provide better incentives to the corporation to monitor and detect violations. An optimal liability regime should not only induce a firm to investigate and self-report the torts of its agents *ex post*, but it should also motivate the firm to take the right preventive measures *ex ante*.[367] The problem is that liability, on the one hand should induce firms to invest in preventive measures until the marginal social benefits of doing so equal the marginal costs of the investment. On the other hand, liability should be sufficiently large to incentivize firms to monitor employees and report possible torts. That means that, in fact, two liability regimes would be necessary: one to provide incentives to invest in preventive measures and another

[363] Kraakman, *supra* note 226, at 245–248.

[364] Jennifer Arlen, *The Potentially Perverse Effects of Corporate Criminal Liability*, 23 J. OF LEGAL STUD. 833 (1994).

[365] Kraakman, *supra* note 226, at 245.

[366] Jennifer H. Arlen & Reinier H. Kraakman, *Controlling Corporate Misconduct: A Comparative Analysis of Alternative Corporate Incentive Regimes*, 72 N.Y. U. L. REV. 687 (1997).

[367] Kraakman, *supra* note 226, at 247.

one to induce the cooperation of the firm in monitoring and reporting of torts.[368] Arlen and Kraakman argue that the nature of the two liability regimes should be different: the first might be a vicarious liability, holding the firm liable if it did not invest in efficient measures to prevent environmental harm. But the second regime would rather be a negligence standard, inducing a firm to take reasonable steps to monitor and report the torts committed by its employees. The result would be that the corporation that invests reasonable efforts in monitoring and reporting the torts of the employee would escape liability for violating its *ex post* duties, but the corporation would still have to pay for the environmental harm (social costs) of the tort caused.[369]

The problem is that a simple vicarious liability of the corporation cannot satisfy all objectives at the same time: incentivizing preventive measures *ex ante*, stimulating cooperation and information *ex post* and ensuring that the firm bears the social costs of its activities.[370] Administering such a liability regime that would provide correct incentives would equally lead to high administrative costs.[371] The crucial point from this literature is that a traditional rule of strict corporate liability can result in excessive wrongdoing since it does not provide firms with sufficient incentives to implement policing measures, such as monitoring, investigating and reporting misconduct.[372] The best regime proposed is a multi-tiered regime whereby a corporation faces a high default penalty, which can be reduced to a much lower residual penalty if the firm satisfies its monitoring, investigating and reporting duties. The corporation receives, in other words, an implicit reward by monitoring, investigating and reporting. If that reward is large enough (the difference between the default penalty and the penalty in case of cooperation) it will provide an incentive to the corporation to monitor, investigate and report.[373]

3. Example

This general idea implies that the liability regime needs to be structured in such a way that corporations are incentivized to cooperate, in other words, that they can gain by cooperating (detecting, investigating and reporting) and that it cannot only lead to a higher probability of incurring civil or criminal corporate liability. This idea has strongly influenced US federal policies under which the adoption of compliance management systems by corporations may be considered a mitigating factor of civil penalties. In 1995 the Environmental Protection Agency (EPA) issued a policy *Incentives for Self-Policing: Discovery, Disclosure, Correction and*

---

368 *Id.* at 248.
369 Arlen & Kraakman, *supra* note 366, at 712–717.
370 Kraakman, *supra* note 226, at 248.
371 *Id.*
372 Arlen & Kraakman, *supra* note 366, at 753.
373 *Id.*

Prevention of Violations.[374] It has been slightly revised and reintroduced later, but the bottom-line remains that the policy aims to encourage corporate compliance with federal environmental laws.[375] The general idea is that when corporations exert meaningful compliance efforts, they will be rewarded by liability mitigation when a violation occurs in spite of those efforts. Several incentives are built in for self-policing, each of which alleviate the corporations' exposure to liability for non-compliance.[376] This United States model of corporate crime control, strongly influenced by these publications by Arlen and Kraakman, has had an important impact on corporate and governmental policy. In the first place it led, as mentioned by the example of the EPA audit policy, to incentives for corporations to develop compliance management systems; but also more generally, this US model of corporate crime control with a practice of reducing sanctions, and often with holding convictions for corporations that assist enforcement authorities by detecting, reporting and helping to prove criminal violations, has also had its influence around the globe and is now affecting criminal policy in many legal systems.[377] Given the importance of compliance management systems, also for environmental liability I will focus on those systems in the next section.

C. Environmental Compliance Mechanisms

1. Objectives

An internal compliance mechanism (or a compliance management system) is basically a device which allows a corporation to signal that it is willing to take compliance with regulatory duties seriously. This signal can be reinforced by the engagement towards the earlier mentioned self-auditing and self-policing. By adopting an internal compliance mechanism, a corporation can signal to the regulatory authorities a willingness to take compliance with (environmental) regulation seriously.

An internal compliance management system fits into the earlier mentioned strategy to provide positive incentives to corporations to self-monitor and self-police. The approach recognizes that corporations may, as such, be willing to comply with environmental legislation, but that, when looking into the "black box" of the corporation, one can notice that there may be individual employees who, contrary to company policy (because of a variety of motifs) violates environmental

---

[374] Incentives for Self-Policing: Discovery, Disclosure, Correction and Prevention of Violations, 60 Fed. Reg. 66706 (Dec. 22, 1995) (E.P.A.)

[375] *See* SHARON ODED, CORPORATE COMPLIANCE. NEW APPROACHES TO REGULATORY ENFORCEMENT 129-132 (2013).

[376] *See id.*at 128.

[377] *See* Jennifer Arlen & Samuel W. Buell, *The Law of Corporate Investigations and the Global Expansion of Corporate Criminal Enforcement*, 93 S. CAL. L. REV. (2020).

legislation. The primary goal of developing a compliance management system is to create a model of responsibilization within the corporation, as a result of which all employees work together to execute the company's policy of complying with environmental legislation. If executed correctly, such a compliance management system could lead to self-policing within the corporation as a result of which violations are discovered at an earlier stage and can thus be adequately remedied, but, more importantly, compliance can generally be promoted and violations thus avoided.

Kaplow and Shavell observed increasing tendencies of law enforcement authorities to ask self-reporting in exchange for a mitigation of penalties. Without putting this directly into the framework of an internal compliance mechanism, Kaplow and Shavell argue that from the perspective of minimizing the social cost of enforcement, such a model of self-reporting makes a lot of sense. The primary advantage from the government (and therefore for the social cost) perspective is that self-reporting obviously reduces enforcement costs. In the words of Kaplow and Shavell: "Self-reporting does not merely reduce enforcement costs, it eliminates them: once someone confesses, others need not be investigated."[378] The other major advantage of self-reporting that Kaplow and Shavell see is that it reduces risk. From the individual's perspective the self-reporting avoids the uncertainty of being detected and sanctioned, but creates the certainty of a sanction. Similar advantages are equally stressed by Innes.[379] Innes stresses that violators often engage in costly "avoidance" activities. Those are activities which lower the probability of detection and punishment. Self-reporting will avoid violators having to engage in these costly avoidance activities that they would otherwise undertake. Moreover, as a result of self-reporting the government will be able to deter offences with less enforcement efforts and thus at lower costs.

So far, the literature therefore signals two major advantages of developing internal compliance mechanisms. First is the Arlen/Kraakman[380] point that some incentive needs to be provided to corporations to monitor their employees; the other advantage[381] is that self-policing can reduce enforcement costs for the government.

In the environmental area an internal compliance mechanism relates also to an inspection method that differentiates between companies with different levels of compliance management. This is based on a so-called *ex post* targeting strategy. In short, a tit-for-tat strategy refers to a game played in different phases whereby one party (the firm) would signal its willingness to engage in cooperative behavior to which the other party (the enforcing government) would react with cooperative behavior as well. Various variations of what is now referred to as a "targeting strategy" in enforcement have been developed in the literature. Scholz developed a targeting strategy, offering the enforcement authority the choice between a

---

378 Louis Kaplow & Steven Shavell, *Optimal Law Enforcement with Self-Reporting of Behaviour*, 102 J. POL. ECON. 583, 601 (1994).

379 Robert Innes, *Violator Avoidance Activities and Self-Reporting in Optimal Law Enforcement*, 17 J. L., ECON. & ORG. 239 (2001).

380 Arlen & Kraakman, *supra* note 366.

381 Kaplow & Shavell, *supra* note 378.

deterrent-based, and a cooperative enforcement style based on the initial behavior of the firm in the first game in which the firm would either signal cooperation or defection and based on that, be treated with a cooperative or a deterrence-based enforcement style.[382] The targeting strategy has been modelled by Harrington who showed that enforcement agencies can increase compliance by dividing firms into different groups depending upon their compliance performance in previous periods. Enforcement on the group that signaled "good" behavior in the first period would be based on cooperation whereas the firms belonging to the "bad" group would be confronted with a more deterrence-based, hence tougher approach.[383] Also Arlen and Kraakman have suggested an enforcement strategy whereby firms would be required to self-report a violation of pollution standards.[384] Voluntary reporting would subsequently be rewarded with lenient treatment, whereas prosecutors focus their enforcement efforts on violations which are not self-reported.[385] Adopting an internal compliance mechanism can therefore be a strategy for a corporation to signal cooperation.

An internal compliance mechanism can have a discernible impact on corporate governance.[386] A corporate environmental management system can also protect the corporation and its officers from potential environmental liability.[387] There may be external pressure for the establishment of a corporate environmental management system, but this may, in turn, require internal changes to corporate management structures.[388]

One (empirical) question is to what extent the mere fact of having such a compliance management system will indeed encourage compliance within the corporation; another (legal) question is whether compliance with an internal management scheme will either be a mitigating factor or completely shield the corporation from either civil or criminal liability.[389] The final question is obviously how these two relate, i.e. whether rewarding a corporation for adopting a compliance management scheme will also increase compliance. These questions will now be examined in turn.

---

382 John T. Scholz, *Cooperation, Deterrence and the Ecology of Regulatory Enforcement*, 18 L. & SOC'Y REV. 179 (1984).

383 Winston Harrington, *Enforcement Leverage When Penalties are Restricted*, 37 J. PUB. ECON. 29 (1988); Sandra Rousseau, *Evidence of a Filtered Approach to Environmental Monitoring*, 29 EUR. J. L. & ECON. 197 (2010).

384 Arlen & Kraakman, *supra* note 366.

385 *Id.*

386 Ong, *supra* note 234, at 707.

387 *Id.* at 708–709.

388 *Id.* at 714.

389 *See* Sharon Oded, *Inducing Corporate Pro-active Compliance: Liability Controls & Corporate Monitors* (Mar. 30, 2012) (Ph.D. dissertation, Erasmus Univ. Rotterdam), at 107–170.

2. Internal Compliance Mechanisms and Compliance

Does an internal compliance mechanism also lead to a better environmental performance by the corporation?

De Bree holds that the problem is that companies are not alike. There may be companies which competently implemented compliance management systems, but others where the system is merely "window dressing". He argues that regulators and inspectors can positively stimulate the process of self-regulation and thus stimulate the intrinsic motivation of corporations towards compliance.[390] Also some practitioners from inspection agencies argue that the government "should use the governance structure and the management systems of the companies in a smarter way."[391] Meerman holds that public authorities should "maintain continuous dialogue about violations, as well as risks and risk management", whereby inspections would also rely on compliance management systems on a more regular basis. "If companies perform well managing their own compliance and this can, on the basis of track records, indicate a level of justified confidence, then authorities can save a lot of time and focus more on the front runners who just need that push to perform (at compliance)."[392]

These quotes show the willingness from (at least some) inspection agencies to engage in a constructive dialogue with the regulated communities, but also to use internal compliance mechanisms in their inspection activities.

The findings from the academic literature on the effectiveness of internal compliance mechanisms provide a mixed picture. One study by Telle[393] found that violations were under-reported in self-audits. He therefore holds that "softer monitoring and enforcement practices, like self-reporting and voluntary disclosure programs, could undermine compliance with environmental regulations." Also, Gunningham indicates that the soft approach (by him referred to as advice and persuasion) may constitute a "negotiated non-compliance"[394] and may even reduce compliance altogether (also among better actors) "if agencies permit law breakers to go unpunished."[395] An empirical study by Darnall and Sides on voluntary environmental programs implemented by 30,000 US firms showed that voluntary environmental programs do not improve the environmental performance compared

---

390 Martin de Bree, *Understanding Compliance Management: Opening the Black Box of Self Regulation*, *in* SPECIAL REP. ON NEXT GENERATION COMPLIANCE (G. Baldwin et al. eds., 2015), at 29-30, http://inece.org/topics/next-gen-compliance/.

391 Paul Meerman, *Compliance Management Open Change, Because it Must Happen and Certainly can*, *in* SPECIAL REP. ON NEXT GENERATION COMPLIANCE (G. Baldwin et al. eds., 2015), at 40-41, http://inece.org/topics/next-gen-compliance/.

392 *Id.*

393 Kjetil Telle, *Monitoring and Enforcement of Environmental Regulations. Lessons from a Natural Field Experiment in Norway*, 99 J. PUB. ECON. 24 (2013).

394 Neil Gunningham, *Negotiated Non-Compliance: A Case Study of Regulatory Failure*, 9 L. & POL'Y 69 (1987).

395 Neil Gunningham, *Enforcing Environmental Regulation*, 23 J. ENV'T L. 187 (2011).

to non-participants. They even found that non-participants improved their environmental performance by 7.7% more than the participants in the voluntary environmental programs.[396]

Other studies are more positive, although they also tend to indicate that voluntary compliance will only have the expected positive effects under particular conditions (more particularly when the voluntary compliance program is embedded in an adequate regulatory framework). Earnhart and Harrington conducted an empirical research study of the effectiveness of self-audits and held that they lead to improvements toward and beyond compliance. The empirics relate to the behavior of the US chemical manufacturing sector between 1999 and 2001 and relate to EPA data. They argue (cautiously) that self-audits improve compliance with effluent limits (emission standards) for one but not for all pollutants.[397] Khanna and Widyawati hold that facilities that self-audit are more likely to be in compliance with clean air regulations. They equally found that firms that had been subject to inspections in the past and those that face a stronger threat of liabilities under so-called Superfund legislation and that are more visible due to size, are also more likely to undertake environmental audits. They equally analyzed the effects of different legal consequences for self-policing: a so-called audit privilege policy (mitigating penalties in case of self-reporting) had a statistically negative impact on compliance whereas immunity laws (providing a shield against liability in case of self-policing and self-reporting) had an insignificant impact on compliance.[398] Arimura et al. use Japanese facility-level data concerning the effects of complying with ISO 14001. They hold that ISO 14001 appears effective in reducing environmental impacts, except for wastewater. Assistance programs offered by local governments on a voluntary basis also promote facilities to adopt ISO 14001. The authors therefore hold that governments can use command and control and voluntary approaches concurrently.[399]

A few other studies are worth mentioning. Murphy and Stranlund argued that the reduced penalty could lead to less care and thus to a reduction of overall environmental quality.[400] Lange and Gouldson discussed compliance mechanisms

---

[396] Nicole Darnall & Stephen Sides, *Assessing the Performance of Voluntary Environmental Programmes: Does Certification Matter?*, 36 POL'Y STUD. J. 95 (2008).

[397] Dietrich Earnhart & Donna R. Harrington, *Effect of Audits on the Extent of Compliance with Waste Water Discharge Limits*, 68 J. ENV'T. ECON. & MGMT. 243 (2014).

[398] Madhu Khanna & Diah Widyawati, *Fostering Regulatory Compliance: The Role of Environmental Self-Auditing and Audit Policies*, 7REV. L. & ECON. 129 (2011).

[399] Toshi H. Arimura, Akira Hibiki & Hajime Katayama, *Is a Voluntary Approach an Effective Environmental Policy Instrument? A Case for Environmental Management Systems*, 55 J. ENV'T ECON. & MGMT. 281 (2008).

[400] James J. Murphy & John K. Stranlund, *An Investigation of Voluntary Discovery and Disclosure of Environmental Violations Using Laboratory Experiments*, (Univ. of Mass. Amherst, Dep't of Res. Econ., Working Paper), http://www.umass.edu.resec/workingpapers.

within the framework of "trust-based environmental regulation".[401] They argue that another EPA's initiative with respect to self-auditing the EPA's National Nitrate Compliance Initiative (200/2001) yielded an improved toxic release inventory compliance reporting for nitrate compounds from 60% to 98%, as a result of self-reporting. It reduced time and cost investments for both the regulated and the regulator in comparison to the traditional inspection and enforcement actions.[402]

Innes indicates that firms still face substantial risks when they self-report their environmental violations. He argues that if one wishes to improve the success of those programs, steps should be taken to further protect operators who self-report. That could, for example, imply immunity for corporate officers from criminal liability, but equally to limit or bar citizens' suits in connection to self-closed violations.[403] It shows that the success of self-reporting programs is strongly related to the certainty of a reward for the self-reporter in terms of reduced expected costs. If that is not the case, the effectiveness of the self-reporting mechanism may fail. That raises of course the question under what conditions self-policing will also lead to self-reporting.

3. Does Self-Policing Lead to Self-Reporting?

From the work of Arlen, it appears that corporations may have reduced incentives to self-police as it could increase the probability of detection and therefore their own liability. Arlen and Kraakman therefore suggest a multi-tiered enforcement system whereby corporations would be rewarded (with lower liability) for self-policing and self-reporting. A crucial element of the costs in case of self-reporting relates to the applicable sanction when companies self-report. The larger the mitigation of a potential penalty, the larger the propensity to self-report will be. It is a point equally mentioned by Kaplow and Shavell. They argue that the benefits of self-reporting are not fully realized in practice. According to them, the reason is that incentives to self-report may be weak for the simple reason that the reduction in penalties for parties who self-report is often too modest.[404] Therefore an important lesson is that self-auditing will only lead to self-reporting if the related reduction in the expected penalty is indeed substantial. That is also what seems to be the result of the elaborate literature that has studied this question.

A number of studies on the effectiveness of voluntary compliance programs have been executed by Short and Toffel.[405] The main message of their

---

401 Bettina Lange & Andy Gouldson, *Trust-Based Environmental Regulation*, 408 SCI. TOTAL ENV'T. 5235 (2010).

402 *Id.* at 5240.

403 Innes, *supra* note 379, at 253–54.

404 Kaplow & Shavell, *supra* note 378, at 603.

405 Jodi L. Short & Michael W. Toffel, *Coerced Confessions: Self-Policing in the Shadow of the Regulator*, 1 (Working Paper, 2007) http://asq.sagepub.com/content/55/5/361.refs.; Jodi L. Short & Michael W. Toffel, *Making Self-Regulation More than Merely Symbolic: The Critical Role of the Legal Environment*, 55

numerous studies is that self-audit policies that do encourage companies to self-disclose violations of environmental laws lead to self-reporting on the condition that corporations were subsequently provided with immunity from prosecution for the self-disclosed violations.[406] They moreover found that the legal environment, more particularly the enforcement activities of regulators, significantly influences the likelihood that companies will effectively implement the self-regulatory commitments that they symbolically adopt. Under those conditions (i.e. that agencies provide an effective threat of sanctioning) self-regulation can be a useful tool for leveraging the normative motivations of corporations, but it cannot replace traditional deterrence based enforcement.[407] Therefore, they hold that self-regulation is most likely to occur when government regulators have sufficient resources to monitor and to sanction and when regulators and companies have a reasonable consensus about the norms or standards to be complied with. Self-regulating firms that either are themselves heavily inspected or are in industries that are heavily inspected are more likely to improve their compliance records. Firms will therefore take their self-regulation commitments more seriously when regulators are more likely to catch them shirking.[408] When self-regulation is, however, not embedded in a robust regulatory framework, but implemented in "regulatory void," this is doomed to lead to regulatory failure.[409]

A few other studies are worth mentioning in this respect. Murphy and Stranlund argue that the reduced fine necessary to induce voluntary disclosure can be viewed as the "price" that society pays for the revelation of privately held information about a firm's environmental performance.[410] They find that reducing the penalty for disclosed violations to motivate more self-reporting also reduces the care taken to avoid these violations; it increases the frequency of violations and reduces overall environmental quality.[411] They also argue that the use of disclosure policies clearly extends beyond the environmental area also to regulations concerning occupational health and safety.[412] The propensity of subjects to voluntarily discover and disclose violations, so they found out in a laboratory experiment, depends very much on the risk attitude of the individuals involved.

Interesting research has been conducted on the self-policing policy of the US Environmental Protection Agency. The EPA issued audit policies in 1995 and 2000, which to some extent reward self-reporting.[413] Under the audit policy,

---

ADMIN. SCI. Q. 361 (2010); Michael W. Toffel & Jodi L. Short, *Coming Clean and Cleaning Up: Does Voluntary Self-Reporting Indicate Effective Self-Policing?*, 54 J. L. & ECON. 609 (2011); Jodi L. Short, *Self-Regulation in the Regulatory Void: 'Blue Moon' or 'Bad Moon'?*, 649 ANNALS AM. ACAD., AAPSS 22 (2013).

406 Short & Toffel 2007, *supra* note 405.

407 Short & Toffel 2010, *supra* note 405; Toffel & Short, *supra* note 405.

408 Short, *supra* note 405, at 25.

409 *Id.* at 26–27.

410 Murphy & Stranlund, *supra* note 400 at 16.

411 *Id.*

412 *Id.* at 17.

413 *See* ODED, *supra* note 374, at 128–132.

operators that voluntarily self-disclose a violation are eligible for significant penalty reductions. However, the audit policy does not apply to the portion of the penalty that is based on the economic benefit gained from non-compliance. Various studies have examined the effectiveness of this audit policy. Pfaff and Sanchirico found that the policy led indeed to self-reporting, but that a problem is that many of the self-reported violations concern violations related to reporting and are not related to emissions.[414] Most of the self-reported violations did not concern emissions. They provide a few possible explanations for this result. One possibility is that the structure of the fine reduction is simply not attractive for operators. Since the fine reduction does not apply to the economic benefit component of the fine, self-reporting provides most benefits to firms for violations for which the largest part of the penalty is not related to cost savings. Reporting and recording violations most likely do not lead to huge cost savings, that could explain why there is a preference to report those.[415] Another possibility is that firms use the audit policy strategically: they could disclose relatively minor reporting violations in order to distract attention from major unreported violations. That is a hypothesis that was, however, not further tested.[416] Another problem is that self-reporting could lead to private citizen suits against the operator which the audit policy cannot prevent.[417] This would have indicated that the audit policy is not that often used for the simple reason that the rewards from self-reporting are not sufficiently large. Pfaff and Sanchirico also point at the fact that the audit policy may have a perverse effect on cost saving: if a firm only turns in minor violations, it could lead to the opposite effect that the agency becomes obliged to deal with those minor violations, thus having less time to investigate serious violations. If that were the case (which they could not investigate) the audit policy could lead to an unwanted reallocation of regulatory funds.[418]

4. Law and Policy

Corporate environmental management systems are also stimulated through guidelines issued at various levels. For example, the OECD Guidelines on Multi-National Enterprises[419] invite enterprises to establish and maintain a system of environmental management appropriate to the enterprise that includes, *inter alia*, collecting data on its environmental impact, setting objectives and targets and monitoring progress. For European policy the most important document is undoubtedly the Council Regulation 1836/93 on the voluntary participation of commercial enterprises in a community system for environmental management and

414 Alexander Pfaff & Chris W. Sanchirico, *Big Field, Small Potatoes: An Empirical Assessment of EPA's Self-Audit Policy*, 23 J. POL. ANALYSIS & MGMT. 415 (2004).

415 *Id.* at 426.

416 *Id.*

417 *Id.* at 427–428.

418 *Id.* at 428.

419 *See* Ong, *supra* note 233, at 690.

the environmental management audit,[420] commonly known as the EC Eco-management and Audit Scheme (EMAS). The regulation has been replaced several times, inter alia by the EMAS Regulation 761/2001[421] and Regulation 1221/2009.[422] Participation in EMAS is voluntary, but the organization applying to qualify for EMAS must be willing to continually improve the environmental performance. The organization must adopt an environmental management system, carry out environmental auditing, and prepare an environmental statement.[423] The compliance with the EMAS Regulation has to be verified and the results have to be sent to the competent authority of the Member State. The environmental verifiers have to be accredited. If all conditions of the Regulation are met, the organization that applied for EMAS can be placed on a list of registered locations. In that case, the organization may use the EMAS logo.[424] Environmental assessment and audits are also regulated in the laws of various Member States.[425]

The appropriate legislative environment may have acted as a catalyst for corporate environmentalism. However, it is mentioned that there is no proof of any causality between environmental regulation on the one hand and the introduction of internal corporate environmental management systems on the other.[426] In addition, as was already mentioned above, there is always the danger that environmental management systems are merely used as a smoke screen for continuing degradation of the environment.[427]

Especially in the US, standards for corporate compliance programs have been developed in a lot of detail. They are also regularly updated. There are various memoranda of the US Department of Justice that aim to assist prosecutors in making informed decisions as to whether and to what extent a corporations compliance program was effective for purposes of *inter alia* the appropriate remedy or monetary penalty.[428]

There is one other aspect of self-monitoring, discussed in this section, which still should be mentioned. I so far assumed that self-monitoring and policing would be voluntary, thus asking the question how rewards (carrots) could be provided to encourage self-policing and self-reporting. However, there is also a scholarship that argues that self-monitoring and self-reporting should become mandatory, thus placing the initial burden of detection on the regulated corporate

---

420 1993 O.J. (L 10) 36.

421 2001 O.J. (L 114) 44.

422 2009 O.J. (L 342) 52.

423 Commission Regulation 1221/2009, 2009 O.J. (L 342) 52; *see* JANS & VEDDER, *supra* note 62, at 381–382.

424 Commission Regulation 1221/2009, art. 10, 2009 O.J. (L 342) 1; *see* JANS & VEDDER, *supra* note 62, at 382.

425 *See* Ong, *supra* note 234, at 710–714.

426 *Id.* at 715.

427 *Id.* at 716.

428 *See* Guidance Document from the US DOJ Criminal Division of April 2019, Evaluation of Corporate Compliance Programs to be found at: https://www.justice.gov/criminal-fraud/page/file/937501/download.

entity instead of on the agency.[429] For now, I just signal this literature, but it would lead me too far off the core of this study to develop this in detail.

D. Beyond Environmental Compliance: CER

1. Going Beyond Compliance

On the one hand, Corporate Environmental Responsibility (CER) can hardly be considered as an innovative instrument as it has been on the policy agenda (increasingly also in corporate governance) since the famous work of John Elkington on the so-called triple bottom-line of people profit and plan ytk6et (PPP), which should each get equal attention and be balanced within corporate policy.[430] On the other hand, in traditional law and economics, Corporate Social Responsibility (CSR) and CER were not very popular. The position of Milton Freedman in this respect is well-known. He held that the only responsibility of managers in a corporation is to maximize profits.[431] Also the pope of law and economics, Posner held that especially in a competitive market CSR would not have a bright future for the simple reason that, for example, additional investments in pollution reduction technology would only lead to higher prices, because of which customers would turn away from firms that engage in CSR.[432]

The reality is slightly more balanced as the concepts of CSR and CER enjoy increasing popularity today.[433] Many firms engage in environmental reporting and sustainability indices are published where firms compete to score high on these indices.[434] One of the reasons for firms to engage in CER is the so-called strategic CER, meaning that the promotion of environmental interests could simply be a strategic decision to promote the business interests. There may be a variety of reasons why that could be the case.[435] CER could reduce nuisance for the immediate

---

429 Seema Kakade & Matt Haber, *Detecting Corporate Environmental Cheating*, 47 Ecology L. Q. 771, 774 (2020).

430 JOHN ELKINGTON, CANNIBALS WITH FORKS: THE TRIPLE BOTTOM-LINE OF SUSTAINABILITY, 82 (1998).

431 Milton Freedman, *The Social Responsibility of Business is to Increase its Profits*, N. Y. TIMES, Sept. 13, 1970, at 17.

432 POSNER, *supra* note 204, at 577-578.

433 *See* Ans Kolk, *The Social Responsibility of International Business: From Ethics and the Environment to CSR and Sustainable Development*, 51 J. WORLD BUS. 23 (2016).

434 A well-known sustainability index is the Dow Jones Sustainability Index (DJSI) which was launched in 1999 to track the stock performance of the worlds' leading companies in terms of economic, environmental and social criteria. *See* http://www.sustainability-indices.com.

435 *See* Mengxing Lu & Michael G. Faure, *The Regulation of Corporate Environmental Responsibility*, *in* MARKET INTEGRATION: THE EU EXPERIENCE AND IMPLICATIONS FOR REGULATORY REFORM IN CHINA 248-249 (Niels Philipsen et al. eds.), 2016; LU, *supra* note 360, at 71–77.

environment, thus leading to satisfaction with the local community and good relations between the corporation and the local community, many of whom may also be working for the corporation. CER could also be an advertising strategy from which the corporation could benefit via increased sales. CER and self-regulation may also be a strategy to reduce the likelihood of government regulation.[436] Finally, CER could also fit in the tit-for-tat strategy in regulatory compliance and enforcement, discussed earlier. Firms that present themselves as complying voluntarily with a high standard CER (and implementing an internal compliance assurance mechanism) could thus benefit from reduced pressures from environmental enforcement. There are, in other words, many reasons why corporations may engage in this strategic CER and why they could benefit from it.[437]

The argument that strategic CER could be profit-maximizing also fits into the work of Michael Porter who argues that firms that move beyond environmental compliance will automatically not only do more investments in environmental protection, but become more innovative in general. The innovation needed to reach higher environmental standards would, according to Michael Porter, also provide other benefits to the firm and thus make firms in the end more profitable.[438] A literature review shows that the empirical evidence of the Porter hypothesis to a large extent supports it. There is fairly clear evidence that stricter environmental regulation also leads to more innovation; the fact that stricter regulation would also enhance business performance has led to mixed evidence: some studies find a negative effect between environmental regulation and business performance; others provide support for the Porter hypothesis.[439]

It is for those reasons, understandable that there is an increasing interest in the business community (and at the policy level as well) for CER. There is equally a link between CER and environmental liability as compliance with CER can obviously reduce the likelihood of environmental harm and therefore of environmental liability; at the same time the question could also be asked whether non-compliance with CER could also be a ground of environmental liability.

2. Measuring and Reporting

CER has become popular to such an extent that consumers may now be overloaded with sustainability reports and reports on CER performances of a variety

---

[436] *See* DAVID VOGEL, THE MARKET FOR VIRTUE: THE POTENTIAL AND LIMITS OF CORPORATE SOCIAL RESPONSIBILITY 16 (2006).

[437] *See also* Markus Kitzmueller & Jay Shimshack, *Economic Perspectives on Corporate Social Responsibility*, 50 J. ECON. LITERATURE 51, 74-75 (2012).

[438] *See* Michael E. Porter & Claas Vanderlinden, *Toward a New Conception of the Environment-Comparativeness Relationship*, 9 J. ECON. PERSPS. 97, 99-100 (1995).

[439] *See* Stefan Ambec et al., *The Porter Hypothesis at 20: Can Environmental Regulation Enhance Innovation and Competitiveness?*, 7 Env't Econ. Pol'y 2, 9-16 (2013).

of corporations. For consumers it may be very difficult to verify the environmental claims that are made, for example in sustainability reports. One can now increasingly notice the emergence of rating indices whereby a variety of sustainability reports are evaluated and indexed.[440]

The first index, launched in 1999, was the already mentioned Dow Jones Sustainability World Index (DJSI). This DJSI is based on the cooperation between standards & poor Dow Jones indices and sustainable asset management (SAM) research, later Robeco SAM.[441] DJSI encompasses a series of global, regional and national indices. Robeco SAM is one of the most influential rating agencies with a global reputation in the field of sustainability rating.[442] There is now an increased number of CSR rating agencies that assess the social and environmental performance of corporations. However, there is also growing concern over the transparency and credibility of the rating agencies.[443]

One of the problems, however, has been that reporting on non-financial issues has not been based on a clear legal duty. In the words of Sjåfjell: "When the decision-makers in companies are not required to integrate environmental concerns into the decisions of how the core business of the company is to be run and there is no hard law stating that companies must be run in a socially responsible manner, there is a risk that environmental reporting is neither relevant, nor reliable."[444] That makes clear that for environmental reporting to give important and reliable signals to the market, there should equally be a legal duty towards non-financial reporting.[445]

3. Law and Policy

A first question that could be asked, at least from a theoretical perspective, is why there should be any task for law, policy or regulation at all, if CER is after all defined as an approach voluntarily adopted by corporations to go beyond environmental obligations as incorporated in regulation. There may be many ways in which (supplementary) legal rules could assist the CER process. Environmental reporting by corporations could be incomplete, resulting in a market-failure and even information asymmetry. Consumers may be overloaded with sustainability reports and would be unable to verify the environmental claims that are made in those reports.[446] There is a serious risk that without supplementary regulation

---

[440] *See* Egbert Dommerholt, *Validity and Comparability of the SAM and KLD Screening Instruments*, 1 DOVENSCHMIDT Q. 45 (2012).

[441] LU, *supra* note 360, at 108–109.

[442] *Id.* at 110.

[443] *See* Steven Scalet & Thomas F. Kelly, *CSR Rating Agencies: What is Their Global Impact?*, 94 J. BUS. ETHICS 69, 72, 83 (2010).

[444] Beate Sjåfjell, *Why Law Matters: Corporate Social Irresponsibility and the Futility of Voluntary Climate Change Mitigation*, 8 EUR. CO. L. 56, 66 (2011).

[445] *See id.*

[446] Lu & Faure, *supra* note 435, at 260.

concerning environmental reporting, corporations may misrepresent their environmental performance leading to information asymmetry between the corporation and the consumer. That may be an important reason in favor of some legal intervention whereby the government could also play an important role in promoting CSR/CER.[447] Different types of instruments can be used by the government to promote CSR/CER.[448]

In practice, one can also notice that both at the international, the European and the Member State level a variety of different instruments have been developed to promote CSR/CER. At the international level I should mention the UN Global Compact, the UN Guiding Principles on Business and Human Rights and the UN Principles for Responsible Investment.[449] In addition, the OECD Guidelines for Multinational Enterprises, first adopted in 1976 and reviewed and updated several times, are of great importance. The ultimate goal of those Guidelines is to encourage multinational enterprises "to contribute to economic, environmental and social progress with a view to achieving sustainable development."[450] To achieve this goal the OECD Guidelines provide a set of voluntary and non-binding principles and standards for responsible business conducts of MNEs. A third document, issued by a standard-setting organization, the International Standard-Setting Organization (ISO) is the ISO 26000 Guidance on Social Responsibility. It is again a voluntary standard in promoting socially responsible conduct. The ISO has moreover developed ISO 14000 for environmental management. However, whereas ISO 14000 is a management system standard, ISO 26000 only provides guidance, rather than requirements and it cannot be used for certification.[451]

Also at the EU level, several key initiatives with respect to CSR have been taken.[452] In 2001, the European Commission already issued its first CSR policy, the Green Paper on promoting a European framework for corporate social responsibility.[453] The aim of this Green Paper was to "stimulate a wide debate on new ways of promoting corporate social responsibility at both the European level and at the international level."[454] The likely next most important step derived from

---

447 *See* Doreen McBarnet, *Corporate Social Responsibility Beyond Law, Through Law, for Law: The New Corporate Accountability, in* THE NEW CORPORATE ACCOUNTABILITY: CORPORATE SOCIAL RESPONSIBILITY AND THE LAW 9, 9-56 (Doreen McBarnet, Aurora Voiculescu & Tom Campbell eds., 2007).

448 *See* LU, *supra* note 360, at 155–157.

449 *Id.* at 175–177.

450 Organisation for Economic Co-operation and Development [OECD], *Guidelines for Multinational Enterprises*, at 19 (2011).

451 LU, *supra* note 360, at 179–180.

452 *See id.* at 186–192.

453 *Commission Green Paper on Promoting a European Framework for Corporate Social Responsibility*, COM (2001) 366 Final. (July 18, 2001).

454 *Id.* at 23.

the EU Strategy 2011/2014, was launched in October 2011.[455] Whereas in the 2001 Green Paper CSR still was defined as "a concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis."[456] In the 2011 EU Strategy CSR was redefined as "the responsibility of enterprises for their impact on society."[457] The literature considers this an important shift since on the one hand CSR now refers to any possible impacts of the business operations and on the other hand CSR is no longer restricted to the traditional voluntary approach, but certainly has more mandatory connotations as well.[458] In this (2011) new Agenda for Action the Commission also explicitly refers to the UN Global Compact, the OECD Guidelines for Multinational Enterprises and the ISO 26000.

Finally, it is also important to mention that the EU adopted a non-financial reporting requirement. Under Directive 2014/95/EU companies of a certain size are required to include in their management report non-financial information relating to, as a minimum, environmental, social and employee matters, respect for human rights, anti-corruption, and bribery matters.[459] It is the Directive 2014/95/EU, also called the non-financial reporting Directive, which lays down the rules on disclosure of non-financial and diversity information by large companies, amending the accounting Directive 2013/43/EU.[460] The Directive forces large undertakings with 500 employees on average during the financial year to include in the management report a non-financial statement. That statement has to contain information to the extent necessary for an understanding of the undertakings development, performance, position, and impact of its activity, relating to as a minimum, environmental, social and employee matters, respect for human rights, anti-corruption, and bribery matters. It therefore requires large companies to disclose particular information on the way they operate and manage social and environmental challenges. Companies may use international, European, or national

---

455 *Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions*, COM (2011) 861 final (Oct. 25, 2011).

456 *Commission Green Paper on Promoting a European Framework for Corporate Social Responsibility*, at 6, COM (2001) 366 Final (July 18, 2001).

457 *Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions*, at 6, COM (2011) 861 final (Oct. 25, 2011).

458 *See* Lu, *supra* note 357, at 189–190.

459 *See* Beate Sjåfjell, *Regulating for Corporate Sustainability: Why the Public-Private Divide Misses the Point*, (University of Oslo, Faculty of Law Legal Studies Research Paper Series, No. 2016-03, 2016); Beate Sjåfjell & Mark B. Taylor, *Planetary Boundaries and Company Law: Towards a Regulatory Ecology of Corporate Sustainability*, (University of Oslo, Faculty of Law Legal Studies Research Paper Series, No. 2015-11, 2015) at 19-20.

460 Directive 2014/95/EU, of the European Parliament and of the Council of 22 October 2014 Amending Directive 2013/34/EU as Regards Disclosure of Non-Financial and Diversity Information by Certain Large Undertakings and Groups Text with EEA Relevance, 2014 O.J. (L 330) 1.

guidelines to report, such as the UN Global Compact, the OECD Guidelines for Multinational Enterprises, or ISO 26000. In fact, the Directive leaves significant flexibility for companies to disclose relevant information in the way that they themselves consider most useful. The regulatory principle chosen in the Directive is that of "comply – or – explain." That means that if a company does not pursue any policies in relation to environmental, social, and employee matters, it is not obliged to do so by the Directive, but it must provide an explanation for not doing so.[461]

In June 2017, the Commission published guidelines to help companies disclose environmental and social information and equally published guidelines on reporting climate-related information. But it is therefore important to recall that for particular large undertakings in the EU non-financial reporting has become mandatory; the idea that CSR/CER is completely voluntary has therefore changed. There is, however, still criticism of the Directive, as there is no enforcement or sanctioning mechanism to support the reporting requirements. That may, in the words of Sjåfjell and Taylor "undermine the legislative aim of shifting businesses onto a sustainability path."[462]

There are many other developments at EU level, for example, also related to the encouragement of long-term shareholder engagement and proposals to changes to the Shareholder Rights Directive, but a detailed discussion of those is beyond the scope of this study.[463] It is, however, important to recognize that in many reforms at EU level, there is certainly a tendency to include societal and CSR-related issues. Moreover, including CSR becomes increasingly mandatory and is in many aspects no longer a merely voluntary exercise. Finally, it should be mentioned that also within the Member States, there are many developments in the direction of an increasing importance of CSR/CER.[464]

4. Recent Developments

From the sketch of the recent developments at the policy level, it already appears that CSR/CER is now well established. It also has had an important influence on corporate governance. Decisions concerning the environment now belong to the corporate boardroom,[465] and environmental law has therefore made

---

461 *See* Charlotte Villiers & Jukka Mähönen, *Accounting, Auditing and Reporting: Supporting or Obstructing the Sustainability Companies Objective, in* COMPANY LAW AND SUSTAINABILITY. LEGAL BARRIERS AND OPPORTUNITIES 223 (Beate Sjåfjell & Benjamin Richardson eds., 2015).

462 Sjåfjell & Taylor, *supra* note 459, at 20.

463 *See id.* at 20–21.

464 *See id.*; *see* Lu, *supra* note 360, at 192-210; Sjåfjell & Taylor, *supra* note 459, at 20–21.

465 Ong, *supra* note 234, at 686.

inroads into corporate governance reform.[466] The environment is now considered as one of the stakeholders that should play a role in corporate policy.[467]

There are, moreover, recent developments that may push the importance of CSR/CER even further. An important project has been undertaken by Oslo professor Beate Sjåfjell and her team for a few years now. She is strongly arguing for replacing the traditional shareholder primacy paradigm by a different paradigm of sustainable value creation within the framework of her sustainable companies' project.[468] She argues that companies today are expected to play the role of drivers of value creation and innovation. "A company law, which remains open to the social norm of shareholder primacy is a serious impediment to sustainability."[469] She argues that the corporate purpose should be redefined as "creating sustainable value within the planetary boundaries while respecting the interests of its investors and other involved parties."[470] As a consequence, she equally argues that the duties of the corporate board should be redefined to create or promote such sustainable value within the planetary boundaries through a life-cycle based sustainable business plan. Central to her proposal is the displacement of the social norm of shareholder primacy with a legal norm of sustainable value creation.[471] Although these are, at this moment, mere academic proposals, they are strongly based on international environmental principles and international conventions as a result of which one can notice a stronger tendency to make CSR (or in Sjåfjell's words sustainable value creation) also a legal norm. Sjåfjell et al., argue that this reform of corporate law towards sustainability is also necessary as far as the current interpretation of CSR is concerned. She for example argues that the current sustainability reporting has been a failure as a result of a lack of stringency and of verification requirements in the aforementioned Directive concerning non-financial reporting. Moreover, unsustainable businesses still can greenwash without being detected. Her solution is to clarify and strengthen sustainability reporting requirements, to make them more stringent and with specific requirements for external verification.[472] She is also critical of corporate governance codes, created by financial actors without legislative control and without a sound research basis. They are, according to Sjåfjell et al., mere "drivers of shareholder primacy." This needs fundamental reforms other than simply continuing relying on the investor groups behind the codes to implement sustainability in a meaningful manner.[473] The research group formulates various SMART reform proposals, supporting the transition to sustainability.[474] It is clear that the law plays an important role in

---

466 *Id.* at 688.

467 *Id.* at 689.

468 *See* Sjåfjell & Taylor, *supra* note 459.

469 *Id.* at 24.

470 *Id.* at 25.

471 *Id.*

472 Beate Sjåfjell et al., *Supporting the Transition to Sustainability: SMART Reform Proposals*, (University of Oslo, Faculty of Law Legal Studies Research Paper Series, No. 2019-63, 2019) at 2.4.

473 *Id.* at 2.5.

474 *See id.*

realizing these objectives as Sjåfjell et al. make clear that sustainability can only be achieved "if we dismantle regulatory barriers and reinforce positive trends."[475] Needless to say that these proposals all go in the direction of making CSR/CER much stronger as binding sustainability concepts that go far beyond the voluntary character that CSR nowadays often has.[476]

Another interesting development is an increase in private lawyers also becoming interested in CER, more particularly in the so-called North-South relationship. Some, such as the Dutch tort lawyer Van Dam, but equally Enneking,[477] argue that corporations, especially multinational corporations from the North doing business in the developing countries in the South, have to comply with CSR, more particularly as far as respecting environmental norms and human rights is concerned. A problem is that often relocation to developing countries takes place from the North because of the lower standards and norms in developing countries, which precisely reduces production costs for industry from developed countries. This has led to quite a few conflicts; for example with indigenous communities for violation of human rights in developing countries by multinational corporations.[478] It has also led to elaborate questions with respect to the due diligence required by enterprises through global supply chains.[479] Van Dam has held that multinational enterprises can be held liable under international law, or even under national tort law for violations of human rights or environmental pollution, which would occur in the South.[480] This is an important development as, also outside of the North-South relationship, it shows that CSR/CER has the potential to create norms which

475 *Id.* at 5.

476 Of course there is equally criticism on these proposals. For example in a recent paper Fisch and Davidoff Solomon are critical of the fact that a corporation should have a purpose at all and argue that, at least as a default, the purpose of a corporation should be understood as maximizing the economic value of the firm (Jill E. Fisch & Steven Davidoff Solomon, *Should Corporations Have a Purpose?*, (University of Pennsylvania Law School, Institute for Law and Economics Research Paper, No. 20-22, March 2020, available at: https://ssrn.com/abstract=3561164).

477 *See generally* LIESBETH ENNEKING, FOREIGN DIRECT LIABILITY AND BEYOND. EXPLORING THE ROLE OF TORT LAW IN PROMOTING INTERNATIONAL CORPORATE RESPONSIBILITY AND ACCOUNTABILITY (Eleven International Publishing 2012) (a powerful exposé on the role of tort law in promoting international CSR and accountability).

478 *See generally* Leïla Choukroune, *Corporate Liability for Human Rights Violation. The Exxon Mobil Case in Indonesia*, *in* REGULATING DISASTERS, CLIMATE CHANGE AND ENVIRONMENTAL HARM, LESSONS FROM THE INDONESIAN EXPERIENCE 50-80 (Michael Faure & Andri Wibisana eds., 2013) (for an overview and various examples).

479 *See generally* Lise Smit et al., STUDY ON DUE DILIGENCE REQUIREMENTS THROUGH THE SUPPLY CHAIN, (European Union, 1st ed. 2020), https://op.europa.eu/en/publication-detail/-/publication/8ba0a8fd-4c83-11ea-b8b7-01aa75ed71a1/language-en (in that respect an interesting study performed by the British Institute of International and Comparative Law, CIVIC Consulting and the London School of Economics on due diligence requirements through the supply chain).

480 *See* Cees van Dam, *Tort Law and Human Rights: Brothers in Arms on the Role of Tort Law in the Area of Business and Human Rights*, 2 J. EUR. TORT L. 221 (2011).

could, in case of violation, lead to civil liability. In the environmental sphere this would entail that CER could be interpreted as a duty of care under a fault/negligence regime. The moral obligations under CSR/CER "could easily become legal obligations once a sufficiently egregious case presents itself."[481] Violation of CSR/CER norms could then give rise to environmental liability if the other conditions are met.[482] For the ELD this may not be directly of importance, given that the most important liability rule under the ELD is strict liability. Yet, this may open interesting perspectives for other environmental liability cases at the level of Member States.[483]

In short, one can increasingly notice that CSR/CER no longer is merely an engagement voluntarily taken by corporations to go beyond compliance with environmental regulations (as it originally started) but that there is a strong tendency to increasingly see mandatory obligations being imposed upon corporations in the framework of CSR/CER, either through an interpretation of the corporate purpose as sustainable value creation (Sjåfjell) or by considering a violation of CSR/CER norms as a basis for environmental liability. This seems to be a general trend: CSR is no longer only seen as voluntary, but increasingly replaced by an institutional framework for corporate accountability introducing clear rights and duties for companies based on an institutional framework.[484]

E. Concluding

This section focused in a broad sense on various developments both in the literature and at the policy level, which have as a central theme: why do companies violate environmental regulation and how can companies be given an intrinsic motivation towards compliance? I started by presenting the work of Jennifer Arlen who showed that an outright (civil or criminal) liability mechanism may have potentially perverse effects as it could reduce incentives for corporations to monitor their employees. More self-policing and monitoring could lead to more detection and potentially to more liability. That led to the question whether the law can be

481 *See* Bergkamp, *supra* note 105, at 189. *See also generally* B. Sheehy, *CSR and Environmental Law: Concepts, Intersections and Limitations*, *in* THE OXFORD HANDBOOK OF CORPORATE SOCIAL RESPONSIBILITY: PSYCHOLOGICAL AND ORGANISATIONAL PERSPECTIVES 1-23 (Abigail Williams et. al. eds., 2019) (See in that respect also Sheehy who equally argues the CSR does encompass environmental liabilities).

482 *See also* Yan & Daoning Zhang, *From Corporate Responsibility to Corporate Accountability*, 16 HASTINGS BUS. L. J. 43 (2020) (arguing that via the duty of care in tort law victims of irresponsible corporate behaviour can hold companies accountable).

483 A different, though slightly related issue is that increasingly also (legal) obligations are imposed on enterprises related to the reduction of greenhouse gas emissions in order to mitigate climate change. *See generally* GROUP ON CLIMATE OBLIGATIONS OF ENTERPRISES, GLOBAL CLIMATE CHANGE PRINCIPLES ON CLIMATE OBLIGATIONS OF ENTERPRISES, (Jaap Spier et. al., eds., 2nd ed, 2020).

484 *See also* Yan & Zhang, *supra* note 482, at 101–123.

shaped in such a way that companies who cooperate via self-policing and self-reporting could in some way be rewarded.

An important aspect of that quest relates to the introduction of so-called internal compliance mechanisms. There is an increasing tendency in the business world, partially driven by internal motives, partially driven by external pressure, to introduce internal compliance mechanisms. Whether the introduction of those mechanisms has been effective in promoting environmental compliance is not that easy to judge. That is not surprising since the effectiveness of internal compliance mechanisms may well depend upon the types of industries and the specific environment in which internal compliance mechanisms are implemented. The effectiveness may, moreover, be culturally dependent. Two important conclusions seem nevertheless to result from this empirical literature: first, internal compliance mechanisms (implying self-policing and self-reporting) can have a beneficial effect on compliance, but on the condition that those mechanisms are embedded in a robust regulatory framework. This means in practice that companies need to be aware of the fact that in case they fail to comply with the internal management scheme, there is a credible threat of enforcement action by the agency, based on the deterrence approach. Second, a consequence of the previous point is that most studies agree that internal compliance mechanisms can never provide a complete alternative for regulation, but will always be used in combination with regulation. Most studies do show that, as the literature predicts, internal compliance mechanisms are useful tools upon which monitoring agencies can rely and which can hence improve the effectiveness of the enforcement efforts. The empirical evidence on whether self-policing is only effective if accompanied with legal consequences (such as mitigating or shielding from liability) is, however, mixed.

The introduction of an internal compliance mechanism is often also advocated within the second topic discussed in this section, CSR/CER. However, the introduction of an internal compliance mechanism is often merely seen as a minimum, whereas the core of CSR/CER is that companies should go beyond mere compliance. I showed that there are tendencies towards an increasing importance of CSR/CER, especially for large corporations. For example, the work of Beate Sjåfjell interprets CER as an obligation for companies towards sustainable value creation as an alternative for shareholder primacy. CER is also increasingly reaching the policy level, for example in the obligation to provide reporting on non-financial issues as well. Moreover, there can be a relationship between CER and environmental liability and a violation of CER norms could potentially give rise to environmental liability. There is also the potential for tort law to promote international corporate social responsibility.[485] Some have even advocated that a finding of environmental liability of the company, due to irresponsible conduct of the management, may lead to a duty of corporate directors to personally compensate their companies on the basis of their fiduciary relationship.[486] These examples show that CER is no longer merely a voluntary exercise in the sense that there would be

485 *See* ENNEKING, *supra* note 477, at 625–637.
486 Ong, *supra* note 234, at 718.

no legal consequences whatsoever. Violating CER norms and creating environmental harm could lead to both environmental liability of the company and even (under specific circumstances) individual liability of corporate directors.

I indicated that there is some empirical evidence showing that voluntary compliance programs can, under particular circumstances, indeed have positive effects on reducing environmental impacts. Yet, an important lesson from the empirical evidence is that those effects are only reached when the voluntary compliance program is developed in the shadow of environmental regulation, in other words, if there is a realistic threat of enforcement in case of non-compliance. Otherwise, there is always the danger that the compliance management tool will amount to a "negotiated non-compliance"[487] and that the internal compliance mechanism will not lead to substantial environmental improvements.

The same danger also exists as far as CSR/CER is concerned. Many duties, for example concerning reporting on non-financial issues are increasingly imposed, also at EU level, but enforcement remains weak. Moreover, there always remains the danger that voluntary compliance programs and CER may simply function as smoke screens for a continuing degradation of the environment by the company concerned.[488] It therefore remains of utmost importance to always judge the effectiveness of compliance programs and CER[489] not only in terms of whether investing in CER pays off for the corporation,[490] but also related to the more important question whether all innovative mechanisms discussed in this section effectively lead to an improved environmental performance of the corporation involved. In reality, the many (voluntary) compliance mechanisms discussed in this section, will certainly not be an alternative for command and control regulation, but will rather function "in the shadow of the law", in other words, in combination with an effectively enforced and deterrent environmental law.

VI. CIVIL, ADMINISTRATIVE OR CRIMINAL LIABILITY?

A. The Relevance

Although this article focuses on environmental liability of companies, in the introduction it was already sketched that this topic cannot be analyzed in isolation. I stressed that environmental liability serves two functions: compensation and prevention, it has to be recalled that the preventive function can also be achieved by other legal instruments than liability rules. Moreover, in the theoretical section (II) it was stressed that there are important limits in environmental liability which explain why *ex ante* safety regulation by the government would be the

---

[487] Gunningham, *supra* note 394.

[488] Ong, *supra* note 234, at 716.

[489] *See generally* Martijn Scheltema, *An Assessment of the Effectiveness of International Private Regulation in the Corporate Social Responsibility Arena.: A Legal Perspective*, 21 MAASTRICHT J. EURO. & COMP. L. 383 (2014).

[490] Lu & Faure, *supra* note 435, at 257–259.

preferred instrument to control environmental pollution. Moreover, this is also what can be observed in practice. Environmental regulation is enforced through administrative and criminal sanctions. The question therefore arises to what extent companies are also exposed to administrative and criminal liability in case they would violate environmental regulation. The question is of importance as it could shed light on the extent to which administrative and criminal liability could remedy some of the failures of exposing companies to environmental liability, which I have discussed in the previous two sections. It could be examined whether, if environmental liability would fail to provide adequate incentives for prevention (given the limited liability of corporations and a failure of legal instruments to remedy this), administrative or criminal liability could constitute a valuable alternative. If that were the case, these alternative instruments could play a role in incentivizing companies to take optimal preventive measures, aiming at the reduction of environmental harm.

In the following, I first discuss the reason why generally environmental pollution needs a combination of civil, administrative and criminal sanctions (B); I then specifically ask the question whether companies should be held criminally liable (C) and what, in the alternative, the role of administrative liability could be (D). Subsection E focuses briefly on an important EU instrument addressing the issue, known as the Environmental Crime Directive.[491]

B. Civil Administrative or Criminal Law? Theoretical Perspective

1. Private versus Public Enforcement

A first point that can be addressed is the difference between private and public enforcement of regulations. This comes down to the differences between liability rules and regulation as they were explained in the theoretical section 2. The main argument in favor of public enforcement is that private law remedies will, as a general rule, not sufficiently deter. The arguments have been explained in the standard work of Shavell who developed criteria for regulation,[492] explained above.[493] Environmental pollution often has no individual victim that could file a liability suit; there may be insolvency problems and a liability suit is often not brought. The reasons may be that causation may be difficult to prove and there can be a long-time lapse, which makes it difficult to recognize that, for example, damage to nature has been caused through environmental pollution, let alone that a tort claim could still successfully be brought. These are the arguments traditionally advanced in favor of regulation. There are also arguments thatpublic regulation and

[491] Directive 2008/99/EC of the European Parliament and of the Council of 19 November 2008 on the protection of the environment through criminal law, OJ L328 of 6 December 2008.

[492] Shavell, *supra* note 32.

[493] *See* section II(E).

public enforcement may be necessary to cure the negative externality caused by environmental pollution.

There is, however, a second reason in favor of public enforcement and public sanctions, which is related to yet another inherent weakness in civil liability. The sanction of civil liability (having to pay compensation equal to the loss suffered by the victim) works well in cases where the probability of detection is 100%. A major problem with violations of (environmental) regulations is that the probability of detection may in fact be much lower than 100%.

Applying the economic model of crime of Nobel Prize Winner Gary Becker,[494] one can understand why the low probability of detection may lead to underdeterrence. According to Becker's model, the potential criminal (violator of environmental regulation) is faced with the following choice:

$$B \leq p \times S$$

Whereby:
B = benefits of the offense
p = probability of detection
S = severity of the actual sanction

Based on this deterrence hypothesis, the rich and abundant literature on economics of crime and law enforcement suggests that potential offenders respond to the incentives created by the criminal justice system and crime rates, hence *inter alia* depend on risks and benefits of crime.[495] The problem with the remedies provided by private law can easily be understood:

Suppose that an offender could obtain a benefit (B) of 1,000, that the p would be 10% and that S would equally be 1.000. In that case, the expected sanction would be 10% of 1,000, being 100 and under-deterrence would result. This is exactly the situation with the remedy in private law (which would be limited to the harm done). This is simply due to the fact that within liability the tortfeasor is in principle only forced to compensate the victim for the amount of the damage suffered and no more. Private law remedies therefore do not suffice where the probability of detection is less than 100%. For optimal deterrence a higher sanction (in this example of 1,000) has to be imposed in order to compensate for the low detection rate. This cannot be provided through private law, and hence explains the need for public sanctions which permit compensation for the low detection rate.[496]

---

[494] *See* Gary S. Becker, *A Rational Behavior and Economic Theory*, J. POL. ECON. 1-13 (1962); Gary S. Becker, *Crime and Punishment: An Economic Approach*, J. POL. ECON. 169 (1968).

[495] *See* Nuno Garoupa, *The Theory of Optimal Law Enforcement*, 11 J. ECON. SURV. 267 (1997).

[496] Göran Skogh, *A Note on Gary Becker, as Crime and Punishment: An Economic Approach,* SWEDISH J. OF ECON. 305 (1973); Göran Skogh & Charles Stewart, *An Economic Analysis of Crime Rates, Punishment and the Social Consequences of Crime,* PUB. CHOICE 171 (1982).

It may be clear from this presentation that there are also ways of dealing with the limits of civil law. If the main problem with liability law is that it limits compensation to the amount of harm done to the victim, one way of counterbalancing the low detection rate is to increase the amount of compensation payable by the injurer under tort law. That is precisely the idea behind the concept of punitive damages.[497] Introducing punitive damages may therefore be an important instrument to improve the effectiveness (more particularly the deterrent effect) of (environmental) liability, which could for that reason certainly be considered. The problem is, however, that most Member States today reject the idea of punitive damages and it is not very popular in EU policy documents either.[498]

That implies that other remedies are needed in cases where the probability of detection is less than 100%. One obvious possibility is to impose financial penalties through an administrative agency. According to the example above, an administrative fine of 10,000 could, given the detection rate of 10%, lead to an expected sanction of 1,000 and thus provide optimal deterrence. The problem of insufficient deterrence related to a low probability of detection can therefore be cured by public enforcement with administrative financial penalties, thus increasing deterrence and the conditions for compliance.[499] Even though administrative fines can therefore provide optimal deterrence, there may be some limits to administrative financial penalties as well. That may then be a reason to use the criminal law in particular cases.

2. Administrative or Criminal Law

So far, I explained the traditional argument why environmental regulation cannot merely be enforced via private law and why public enforcement with public sanctions is indicated. The main reason relates to the low probability of detecting violations of environmental regulation.[500] This does not yet explain why administrative fines could not be the perfect remedy and why in particular cases the criminal law equally has to be used. All things being equal, the administrative procedure has the major advantage that it is far less costly than the criminal procedure. Administrative fines can be imposed by administrative authorities after a relatively simple procedure, usually requiring a lower threshold of proof, certainly compared to the criminal law and the criminal procedure.[501] Administrative law

---

[497] Robert D. Cooter, *Economic Analysis of Punitive Damages*, S. CAL. L. R. 79, 97-101 (1982).

[498] *See infra* Section VII(B).

[499] *See also* Michael Faure, Anthony Ogus & Niels Philipsen, *Curbing Consumer Financial Losses: The Economics of Regulatory Enforcement*, 31 L. & POL'Y 161, 173-176 (2009).

[500] *See also* Michael G. Faure, *Environmental Crimes*, *in* CRIMINAL LAW AND ECONOMICS, Vol. 3, 324-326 (Nuno Garoupa ed., 2009).

[501] Faure, Ogus & Philipsen, *supra* note 494, at 174.

can therefore easily be used to deter environmental pollution.[502] There are, however, two important reasons why not all efficient penalties necessary to deter environmental pollution can be imposed through administrative law and why criminal law is therefore necessary as well.[503] The first reason is that since the probability of detecting environmental pollution is in practice often very low, the optimal sanction to deter pollution may become very high as well. The likelihood that this optimal fine might outweigh the individual wealth of the offender is relatively high, precisely given the often mentioned insolvency risk. If the optimal fine (to outweigh a low detection rate) would be higher than the assets of a firm, the fine may not deter. Take the following example:

B = 1 million
p = 1%

In the environmental context, this is not imaginary. Suppose that a company would have to install a water treatment plant (which is often very costly, running costs can be in the several tens of millions). Suppose that it has to borrow money from the bank and that it is able to negotiate with administrative enforcement authorities in order to delay the installation of the water treatment plant (*de facto* violating the conditions of its permit). If it would, in this example, have to pay an interest of one million to the bank in a period of one year, delaying the installation of the water treatment plant (again, which would *de facto* be a violation of environmental regulation) would therefore create a benefit of 1 million. Given the detection rate (p) of 1%, the optimal fine in that example would be 100 million euros. Very few environmental laws in the EU Member States have these types of high sanctions. There may also be no willingness with administrative authorities to impose fines of those magnitudes and, most importantly, even if this optimal fine were imposed, there is a great likelihood that the operator would not be able to pay. That explains that when the optimal fine is higher than the ability of the company to pay, non-monetary sanctions (such as imprisonment or community service) have to be imposed to provide deterrence.[504]

Still, the question could be asked why the criminal law would be needed to impose non-monetary sanctions. This is exactly the second reason for criminalization: the goal of the enforcement system is to apply sanctions to the guilty, but also to avoid punishing the innocent. This is referred to as the goal of reducing error costs.[505] There is therefore a clear justification why society does not

---

502 *See in this respect especially* Anthony Ogus & Carolyn Abbot, *Sanctions for Pollution: Do we Have the Right Regime?*, 14 J. ENV'T. L. 283 (2002).

503 *See generally* Roger Bowles, Michael Faure & Nuno Garoupa, *The Scope of Criminal Law and Criminal Sanctions: An Economic View and Policy Implications*, 35 J. L. & SOC'Y 389 (2008).

504 Steven Shavell, *Criminal Law and the Optimal Use of Non-Monetary Sanctions as a Deterrent*, 85 COLUM. L. REV. 1232 (1985).

505 On the importance of error costs, *see* Thomas Miceli, *Optimal Prosecution of Defendants Whose Guilt is Uncertain*, 6 J. L., ECON. & ORG. 189 (1990).

want to impose very stringent sanctions (such as imprisonment, but also high fines) through an administrative procedure. The reason is that the costs of the administrative procedure may be lower than the costs of the criminal procedure, but the accuracy of the latter (where the investigations are often undertaken by professional lawyers) may be a lot higher as well. Error costs are higher when very serious sanctions, like imprisonment, can be imposed, rather than monetary sanctions only. The less costly administrative proceedings can therefore only be used in all cases where the consequences (and thus the error costs) will not be too high in the event of a wrongful conviction.[506]

3. Criteria

If one were to summarize the previous exposé one could argue that administrative fines (with the advantage of being a lower-cost system) could be applied when:

- there is a first-time offender
- who committed a breach of regulation unintentionally
- where the B is relatively low
- where there is a relative high p and
- a relatively modest administrative fine (S) would thus suffice to reach optimal deterrence.

The example might be the case where a small- or medium-size company out of ignorance forgot to appoint an environmental coordinator (assuming that the regulation required to do so). In such a case, there is no direct environmental harm or emission; the failure of reporting does not provide great benefits to the company (especially in the case where the coordinator was appointed, but the company merely failed to report this). For controlling agencies, it is relatively easy to detect this failure to report. In such a case, a modest administrative fine (if sanctioning is needed at all given that the breach took place unintentionally) would suffice.

If however:

- there is a repeat offender
- who committed a breach intentionally
- leading to high B
- and a relatively small p
- a high S would be needed, which can likely not be reached through an administrative fine. A criminal sanction would be appropriate in this case.

Again, this can relatively easily be understood: the fact that it is a repeat offender makes clear that it is not an unintentional breach. The operator might intentionally breach regulation in order to gain profit (for example in case of trade in waste) and the possibilities for authorities to discover the breach might be small,

---

506 Faure, *supra* note 500, at 326; Faure, Ogus & Philipsen, *supra* note 499, at 176.

hence a small p. This is a typical case where a reaction by the criminal law might be needed.[507]

4. Practice

Traditionally criminal law was basically the only instrument used to enforce environmental regulation in the Member States. For example, in Belgium, France and the United Kingdom, for a longtime alternative mechanisms that could equally aim at deterrence (more particularly administrative fines) were not available.[508] Only in Germany and legal systems inspired by the German example (like Austria) systems of administrative penal law, allowing for the imposition of fines (so-called *Geldbußen*) were available. This model of "criminal law only" became the subject of criticism, more particularly in the United Kingdom where a 2002 article by Anthony Ogus and Carolyn Abbot asked "Do we have the right regime?",[509] referring to the fact that the United Kingdom almost exclusively relied on criminal law to enforce environmental law. They influenced the work of Richard Macrory, who carried out a wide-ranging review of regulatory enforcement regimes for the UK cabinet office.[510] He concluded that enforcement systems should involve less reliance on criminal law and make greater use of administrative penalties. Similar views were expressed in Belgium – more particularly in the Flemish Region – during revision of environmental law in a Draft Decree on Environmental Policy.[511]

Different streams of literature, therefore, pleaded in favor of a "toolbox" approach, whereby a variety of different tools (civil penalties, administrative fines and criminal law) are at the disposal of enforcers.[512] A main reason for this plaidoyer was also that data increasingly made clear that criminal sanctions were rarely imposed in practice. For example, for the Flemish Region, the environmental inspectorate collected data on the number of cases that were dismissed out of the total number of violations. For the period 1998-2004, the environmental inspectorate noticed that of all of its notices of violation on average 64% of the

---

507 *See* Michael G. Faure & Katarina Svatikova, *Criminal or Administrative Law to Protect the Environment? Evidence from Western-Europe*, 24 J. ENV'T. L. 253, 258-260 (2012).

508 Michael Faure, *The Revolution in Environmental Criminal Law in Europe*, 35 VA. ENV'T. L. J. 330 (2017).

509 Ogus & Abbot, *supra* note 497.

510 RICHARD B. MACRORY, REGULATORY JUSTICE: MAKING SANCTIONS EFFECTIVE (2006).

511 INTERUNIVERSITY COMMISSION FOR THE REVISION OF ENVIRONMENTAL LAW IN THE FLEMISH REGION, CODIFICATION OF ENVIRONMENTAL LAW, DRAFT DECREE ON ENVIRONMENTAL POLICY (Hubert Bocken & Donatienne Ryckbost eds.) (1996).

512 Faure, *supra* note 503, at 339.

cases were dismissed, whereas approximately 7% were prosecuted.[513] Similar data points came from the United Kingdom. Bell and McGillivray report that for the period 2000-2007 around 25.000 pollution incidents were reported, but less than 5% were prosecuted.[514] Also the other data (although in most Member States data on enforcement of environmental law are not available), all pointed in the same direction: many violations of environmental regulation were not prosecuted, but rather dismissed and the number of cases that came before the courts was very limited.[515]

As a result of these developments in many Member States, initiatives were taken deciding that particular violations would no longer be handled by the criminal law, but exclusively through administrative penal law. For example, the United Kingdom, following the recommendations of Macrory in 2008-2009, introduced administrative fines. As a consequence, the environment agency can impose either a fixed monetary penalty or a variable monetary penalty. The idea of applying those fines is to fill the gap in enforcement where prosecutions do not seem to be in the public interest.[516] Similar changes took place in the Brussels, Flemish and Walloon Regions in Belgium, where some environmental crimes have been declassified as administrative offenses, which are no longer subject to the criminal law. Data on the enforcement policy after the introduction of the administrative fining system in the Flemish Region in Belgium show that dismissals (i.e. cases where no enforcement reaction whatsoever took place) had been considerably reduced. Those cases that the prosecutor dismisses are now sent to the administrative authority for imposing an administrative fine, as a result of which the number of cases where no reaction takes place at all, has substantially decreased.[517] However, even though in some Member States there are thus indications that a toolbox approach is followed, this is certainly not the case for all EU Members.

C. Criminal Liability of Companies

1. Theory

---

[513] For a further discussion of these data on the Flemish Region, *see* Michael G. Faure & Katarina Svatikova, *Enforcement of Environmental Law in the Flemish Region*, 19 EUR. ENERGY & ENV'T L. REV. 60 (2010).

[514] STUART BELL & DONALD MCGILLIVRAY, ENVIRONMENTAL LAW, 291 (6th ed. 2005).

[515] For an overview of enforcement in the Member States, *see* Faure & Svatikova, *supra* note 507.

[516] Faure, *supra* note 508, at 353.

[517] *See* Flemish High Council for Environmental Enforcement, http://www.vhrm.be/publicaties (last visited May 18, 2020).

1. The central thesis of this study is that violations of environmental regulation are often committed not by an individual actor, but by persons acting on behalf of a company. Many cases of environmental pollution take place within corporate entities. That raises the unavoidable question of whether the corporation, the employee or both should be held liable.
2. The argument for holding a company liable rather than (only) the individual within the company is *inter alia* related to the insolvency problem: when the company is held liable, the less costly fines can longer be applied in reaction to environmental crime; the company (employer) can in turn apply sanctions to the employee who committed the violation, such as refusing promotion or termination of the contract.[518] Since the employee cannot bear the full burden of the optimal penalty, the government might still be able to impose the optimal penalty on the company.[519]
3. The importance of the possibility to address criminal enforcement also against corporations has often been stressed in the literature.[520] If there is no liability of the corporate entity, prosecutors (and other enforcers) are either forced to look for the specific natural person that committed the environmental crime (in the absence of which no prosecution would be possible) or would automatically charge individuals having a particular function (like a director or corporate officer), which may violate the principle of guilt in criminal law. For that reason, it is important to have a system in place where criminal enforcement can also be applied against companies.
4. Recently, Roef also provided a powerful overview of the reasons why corporate criminal liability should exist:[521]
5. since corporations are viewed as a legal entity separate from their employees and shareholders, this personality should also be subject to the rules of criminal law;
6. the general objectives of criminal law (like retributive justice and utilitarian goals like general deterrence) can also be reasonable justifications for punishments of corporate entities. Corporate criminal liability may therefore discourage other companies from disobeying the law;
7. without corporate criminal liability, there would be a risk of only a few individuals being prosecuted for offenses that were, in reality, caused by corporate policies and practices that transcend individual actions and
8. finally, if through an illegal practice a company enjoys a financial or other benefit, like a better market position, the legal entity should be the one to pay the price and not the employees who have contributed to the commission of the offense.

---

518 Faure, *supra* note 500, at 331.

519 M.A. Cohen, *Criminal Law as an Instrument of Environmental Policy: Theory and Empirics, in* LAW AND ECONOMICS OF THE ENVIRONMENT 208-209 (Anthony Heyes ed., 2001).

520 *See* CRIMINAL RESPONSIBILITY OF LEGAL AND COLLECTIVE ENTITIES, INTERNATIONAL COLLOQUIUM BERLIN 1998 (Albin Eser, Günther Heine & Barbara Huber eds.) (1999).

9. Although the (economic as well as legal) literature indicates that there are strong arguments in favor of corporate criminal liability,[522] there are reasons to combine the criminal liability of the corporation with the liability of individuals within the corporation. One problem is that corporate entities may equally be unable to pay for the damage caused by their pollution. Monetary sanctions can equally exceed the corporations' assets and thus not be an effective deterrent. The problem is that, in the case of non-monetary sanctions, which would be needed to deal with the insolvency problem, they cannot be applied to the corporation, but must be applied to individual employees. Moreover, Polinsky and Shavell indicate that monitoring by firms may often be imperfect. If employees only face fines (and not incarceration) they may not be induced to exercise socially optimal levels of care. It is therefore argued that in addition to the fines applied to corporations, also non-monetary sanctions (imprisonment) should deter employees.[523] The legal entity and the natural person are relatively independent agents acting within their own sphere. Corporate and individual liability are therefore not competing strategies, but rather complementary approaches to fighting corporate crime.[524]
10. Practice

In 1994, the general report of the Association Internationale de Droit Pénal on environmental criminal law still held that the majority of continental European countries adhered to the principle of personal liability and that as a result, corporations cannot commit a crime.[525] A lot has changed since 1994, as many European Member States have now introduced corporate criminal liability.[526] Member States' points of view differ, however, as to whether the nature of that corporate liability should be criminal or administrative. Many Member States have developed side-systems, so-called administrative penal law (as an alternative to criminal corporate liability) to impose sanctions on enterprises.[527] More particularly, because of strong opposition in legal doctrine, Germany (and a few others under its influence) has always opposed criminal liability of legal entities.

---

[521] David Roef, *Corporate Criminal Liability*, in COMPARATIVE CONCEPTS OF CRIMINAL LAW, 333-34 (Johannes Keiler & David Roef eds., 3d edn. 2019).

[522] *See* Lawrence Friedman, *In Defence of Corporate Criminal Liability*, 23 HARV. J. L. & PUB.POL'Y 833 (2000); Dan M. Kahan, *Social Meaning and the Economic Analysis of Crime*, 27 J. LEGAL STUD. 609 (1998).

[523] A. Mitchell Polinsky & Steven Shavell, *Should Employees be Subject to Fines and Imprisonment Given the Existence of Corporate Liability?*, 13 INT'L REV. L. & ECON. 239 (1993); Lewis A. Kornhauser, *An Economic Analysis of the Choice Between Enterprise and Personal Liability for Accidents*, 70 CALIF. L. REV. 1345 (1982).

[524] Roef, *supra* note 521, at 340–41.

[525] Mohan Prabhu, *General Report*, 65 INT'L REV. PENAL L. 715 (1994).

[526] *See* Michael G. Faure & Günther Heine, Criminal Enforcement of Environmental Law in the European Union 41-44 (2005).

[527] *Id.* at 42–43.

Although this distinction may dogmatically be very important, as a practical matter, the most important question is whether it is possible at all to address enforcement actions to the corporation, no matter what label one attaches to the particular penalty that may be imposed (criminal or administrative). Some Member States, like France, Belgium, Poland, Spain (and the United Kingdom), accept criminal responsibility, but Member States like Germany and Italy (as well as a few others) do not. Those differences may perhaps not be that relevant in practice, since even countries that reject corporate criminal liability have other systems in place that effectively allow the imposition of similar penalties as under a criminal liability regime. Germany takes the position that "*societas delinquere non potest*".[528] They therefore adopt an alternative approach of administrative liability of legal entities as they are considered to lack the capacity to act in a blameworthy way.[529] But the label "administrative" sanctions should not mislead into thinking that that system would be less punitive than traditional criminal law approaches. Administrative penalties can often be quite substantial and act as a deterrent for criminal actions.[530] There is some movement in Germany in the sense that criminal liability of companies is at least debated. Most Member States also allow a cumulation between the liability of the corporation with the liability of natural persons.

Dogmatically a great deal of importance is paid to the question of whether the liability of a company is constructed as criminal or administrative. However, it may in practice not make that much of a difference, as in both cases it will result in monetary penalties (fines) to be imposed on corporations as obviously the main criminal sanction (imprisonment) cannot be imposed on corporations. One important difference that remains is that the criminal sanction is also supposed to lead to a "shaming" of the criminal. An administrative fine would lack that moral connotation. If one believes that the imposition of a criminal sanction does have an added value (in the sense of imposing stigma on the corporation), that would be an additional argument to still insist on making the liability of corporations criminal. The empirical evidence concerning the stigmatizing effect of the criminal sanction is, however, debated. Karpoff and Loth showed that whereas the stock value of publicly traded firms could fall after the announcement of a bad environmental outcome, such as an oil spill or criminal prosecution, these "stock price" sanctions are approximately equal to government-imposed penalties, clean-up costs and private settlements.[531] It is therefore doubtful whether a criminal conviction of a company would cause an additional reputational loss. The mere fact of being labelled as a "criminal" apparently does not lead to additional costs. However, the mere fact that in some countries companies can still not be held criminally liable (but only exposed to civil or administrative liability) remains a problem within the framework of the Environmental Crime Directive where it is argued that only criminal penalties "demonstrate a social disapproval of a qualitatively different

528 Corporations are not able to commit crimes.

529 Roef, *supra* note 521, at 340.

530 *Id.*

531 Jonathan Karpoff & John Loth, The Reputational Penalty Firms Bear from Committing Criminal Fraud, 36 J. L. & ECON. 757 (1993).

nature compared to administrative penalties or a compensation mechanism under civil law."[532]

D. Administrative Liability of Companies

As I made clear earlier, companies may equally be exposed to administrative liability in different forms.

1. Administrative Fines

Here, it can be recalled that administrative financial penalties imposed by administrative agencies can under specific conditions provide adequate incentives for deterrence. The administrative fine should be reasonably high if it is to exceed the profit accruing from the violation and discounted by the probability of detection, which often is relatively low. Administrative financial penalties can also give rise to high error costs as they lack the high evidentiary thresholds required for liability in the criminal and justice systems.[533] At the same time, it was equally argued that administrative fines can constitute a low-cost alternative to the costly criminal procedure. In those countries where the criminal law cannot be applied to corporations (like in Germany), administrative fines will be applied to behavior committed within the framework of a corporation and which is formally considered a crime.[534]

2. Measures and Remedies

In many Member States, administrative authorities have the ability to impose particular remedies (measures or sanctions) after they have discovered environmental crime.[535] Many of those measures and sanctions aim at restoration of environmental harm or prevention of future harm. The advantage of the administrative authorities is that they may proceed to a speedy response, especially in cases where speed is of utmost importance. When, for example, waste has been illegally deposited or a dangerous installation is continued to be used in an unlawful manner, it may be clear that it would be unacceptable to wait for the outcome of a civil or criminal trial that could last for many years until a particular action is taken.

---

532 Council Directive 2008/99, 2002 O.J. (L 328) 28.

533 Faure, Ogus & Philipsen, *supra* note 499, at 174.

534 Michael G. Faure, *The Evolution of Environmental Criminal Law in Europe: A Comparative Analysis*, *in* ENVIRONMENTAL CRIME IN EUROPE 299 (Andrew Farmer, Michael G. Faure & Grazia M. Vagliasindi eds., 2017).

535 Faure & Heine, *supra* note 526, at 49–50; Prahbu, *supra* note 525, at 724 –726.

Administrative authorities may then (through administrative measures and sanctions) have the possibility of reacting rapidly to force the perpetrator to reverse the harm done or prevent future harm.[536] In many Member States, those administrative remedies are primarily referred to as "measures" for the reason that their primary goal is restoration or prevention of future harm and not inflicting intentional pain on a perpetrator with a view to deterrence. The latter is usually called a sanction or penalty.

3. Practice

Many Member States have a variety of measures and sanctions that can be imposed by environmental authorities. For example, France refers to a variety of "administrative controls and administrative police measures" allowing the authority to issue a particular ruling and oblige operators to exercise particular duties or to execute, *ex officio*, measures themselves, but at the expense of the operator.[537] The authorities can, moreover, order the payment of a fine of not more than Euro 15,000 and a daily fine of not more than Euro 1,500, which is due until the conditions imposed have been fulfilled.[538]

A classic example of the fining system can be found in the well-known German *Ordnungswidrigkeitengesetz* (Administrative Offences Act), which created a system of administrative penal fines applicable to administrative penal offenses. It is the type of sanction that Germany will apply to corporations. It allows the imposition of a substantial fine up to Euro 10 million.[539] Empirical evidence in Germany shows that administrative fines are in practice more often used for environmental offenses than criminal law.[540]

I already mentioned earlier that, as a result of the 2008 Regulatory Enforcement and Sanctions Act (RESA), it is possible to impose in the United Kingdom civil sanctions as an alternative to criminal prosecutions. The environment agency can issue a compliance note (requiring compliance within a specified time limit), a restoration notice (requiring measures to restore the damage caused) or an enforcement undertaking (whereby the offender offers to undertake

---

[536] Faure, *supra* note 534, at 299.

[537] Floriana Bianco & Annalisa Lucifora, *Environmental Criminal Law in France*, *in* ENVIRONMENTAL CRIME IN EUROPE 59, 89–91 (Andrew Farmer, Michael G. Faure & Grazia M. Vagliasindi eds., 2017).

[538] *Id.* at 91.

[539] Stephan Sina, *Environmental Criminal Law in Germany*, *in* ENVIRONMENTAL CRIME IN EUROPE 95, 114–15 (Andrew Farmer, Michael G. Faure & Grazia M. Vagliasindi eds., 2017).

[540] *See* Volker Meinberg, *Empirische Erkenntnisse zum Vollzug des Umweltstrafrechts*, 100 ZEITSCHRIFT FÜR DIE GESAMTE STRAFRECHTSWISSENSCHAFTEN 112–57 (1988); Faure & Svatikova, *supra* note 507, at 274–79.

specific steps to amend non-compliance).[541] It was already indicated that the 2008 Regulatory Reform in the United Kingdom moved the enforcement system away from a system that traditionally largely relied on criminal enforcement to a system of administrative fines.[542]

In sum, many current and former (like the UK) Member States provide possibilities to administrative authorities to impose measures aiming at a speedy remediation of the particular environmental problem, which would be cumbersome for the civil or criminal justice system. In addition, there seems to be a tendency in many Member States to move towards the use of other remedies than merely the criminal law. Many Member States now rely less on the criminal law and move to systems of administrative financial penalties. As those can undoubtedly be regarded as cost-effective reactions for minor offenses, this tendency can be welcomed.[543]

E. Environmental Crime Directive

1. Brief Sketch

On November 19, 2008, Directive 2008/99 on the protection of the environment through criminal law was promulgated.[544] Within the framework of this study, focusing on environmental liability of companies, this Environmental Crime Directive (ECD) should not be discussed in detail. This would, moreover, not be possible as there have already been numerous publications dealing with this Directive.[545] It is, however, interesting to sketch some of the main features of the ECD, more particularly in the light of the current section dealing with the choice between civil, administrative and criminal liability. It is more interesting to verify to what extent the ECD also fits in the new trends described in this section, being to increasingly impose criminal liability also on corporations and to increasingly use administrative fines rather than criminal penalties.

The Directive had a long history and even gave rise to an institutional conflict between the Commission and the Council.[546]

---

541 Elena Fasoli, *Environmental Criminal Law in the United Kingdom*, *in* ENVIRONMENTAL CRIME IN EUROPE 243, 256–63 (Andrew Farmer, Michael G. Faure & Grazia M. Vagliasindi eds., 2017).

542 *Id.*; Faure & Svatikova, *supra* note 507, at 266–71.

543 Faure, *supra* note 534, at 301–04.

544 Council Directive 2008/99, 2002 O.J. (L 328) 28.

545 *See* Grazia Maria Vagliasindi, *The EU Environmental Crime Directive*, *in* ENVIRONMENTAL CRIME IN EUROPE 31, 31–55 (Andrew Farmer, Michael G. Faure & Grazia M. Vagliasindi eds., 2017) (providing for a recent overview of the literature).

546 This is undoubtedly interesting, but less relevant within the framework of this study. *See* Martin Heidemann-Robinson, *The Emergence of European Union Environmental Criminal Law: A Quest for Solid Foundations*, 16 ENV'T LIABILITY 71 (2008); Diane Ryland, *Protection of the Environment Through Criminal Law: A Quest of*

The ECD starts by mentioning in Recital (2) that the Community is concerned "at the rise in environmental offenses and at the effects, which are increasingly extending beyond the borders of the states in which the offenses are committed. Such offenses pose a threat to the environment and therefore call for an appropriate response." The next Recital (3) is interesting within the scope of our study. It reads:

> Experience has shown that the existing systems of penalties have not been sufficient to achieve complete compliance with the laws for the protection of the environment. Such compliance can and should be strengthened by the availability of criminal penalties, which demonstrate a social disapproval of a qualitatively different nature, compared to administrative penalties or a compensation mechanism under civil law.

As a starting point, it is therefore clear that the drafters of the ECD have a strong belief in the importance of the criminal law, which has a stronger deterrent effect than administrative or civil liability. As a result, Member States have to provide for criminal penalties in their national legislation in respect of serious infringements of provisions of community law on the protection of the environment. The legislation which is listed in the Annexes to the ECD contains provisions that should therefore be subject to criminal law measures to ensure that the rules on environmental protection are fully effective.

The text of the Directive equally makes clear (in Recital 10) that the Directive obliges Member States to provide for criminal penalties in their national legislation in respect of serious infringements of provisions of community law on the protection of the environment, but that the Directive "creates no obligations regarding the application of such penalties, or any other available system of law enforcement, in individual cases."

The way in which the Directive functions is as follows: Article 3 of the ECD provides a detailed list of particular behavior that should be criminalized "when unlawful and committed intentionally or at least with serious negligence." The unlawfulness refers in Article 2(1) to infringing legislation adopted pursuant to the EC Treaty and listed in the Annexes to the ECD or to national Member State law or regulation that gives effect to the mentioned community legislation. Article 5 obliges Member States to take the necessary measures to ensure that the offenses referred to in Articles 3 and 4 are punishable by "effective, proportionate and dissuasive criminal penalties."[547] The ECD also has specific provisions with respect to legal entities. The ECD requires in Article 7 that Member States take the

---

Competence Unabated?, 18 EUR. ENERGY AND ENV'T L. REV. 91 (2009); Vagliasindi, *supra* note 545, at 33–40.

547 *See* Michael G. Faure, *Effective, Proportional and Dissuasive Penalties in the Implementation of the Environmental Crime and Ship Source Pollution Directives: Questions and Challenges*, 19 EUR. ENERGY AND ENV'T L. REV. 256 (2010) (providing a further analysis of the contents of these notions).

necessary measures to ensure that legal persons are held liable and punishable by effective, proportionate and dissuasive penalties. But differently than in Article 5, for legal entities it is not mentioned that those penalties should be criminal in nature. This had been done to facilitate the introduction of a form of corporate liability for environmental crime in those legal systems where the admissibility of a truly criminal liability of legal entities is constitutionally controversial.[548] In other words: the penalties that have to be introduced according to Article 5 of the ECD have to be criminal penalties, but the penalties for legal persons who are liable under Article 6 of the ECD should not necessarily be criminal in character (based on Article 7).

2. Critical Points

Again, it should be stressed that within the framework of this study, it is not the objective to provide a comprehensive analysis of the ECD, but merely to formulate a few remarks in relation to the topic of this study. A first issue to repeat is that legal persons can be held liable for offences listed in the ECD, without requiring the liability to be criminal. One could criticize this; on the other hand, it is mostly valued positively in the literature[549] as by the end legal persons are held liable for environmental crime; it is only not required that the sanctions should be criminal in nature. As mentioned earlier, the difference in practice will not be that large, except that the administrative (or civil) penalties may lack the shaming effect of the criminal law, which the drafters of the ECD (according to the Recital) apparently found important. That "social disapproval of a qualitatively different nature" will therefore not be reached, as far as the sanctions imposed on legal entities are concerned, at least in those Member States that resist the criminal liability of legal entities. But it is doubtful whether that is really a major issue in the practical enforcement of environmental law. This approach is, moreover, in line with the approaches towards corporate liability in other documents emanating from the Council of Europe and the European Union. Those generally require Member States to provide for corporate liability within their legal system. However, they take a pragmatic approach and take into account the different doctrinal positions regarding corporate liability. As a result, it is left to the individual Member States to provide for either criminal or administrative sanctions, as long as they are "effective, proportionate and dissuasive."[550]

A second issue, not so much related to the topic of this section, but to the ECD generally, is that the ECD contains a lot of vague notions. This is already clear in Recital 5 preceding the Directive stressing that "In order to achieve effective protection of the environment, there is a particular need for more dissuasive penalties for environmentally harmful activities, which typically cause or are likely

---

548 Vagliasindi, *supra* note 545, at 49.

549 *Id*.

550 *See* Roef, *supra* note 521, at 370–71 (providing an example of this approach taken in many other legal instruments).

to cause substantial damage to the air, including the stratosphere, to soil, water, animals or plants, including to the conservation of species." These vague notions are of course problematic from the perspective of drafting criminal law provisions and therefore need a more precise formulation in the national implementing legislation.[551] Vague notions are often the result of a political compromise. An evaluative study on the ECD just finished by Milieu Consulting, is *inter alia* suggesting to further define the current vague notions in the ECD.

Even though the penalties imposed on legal entities should not necessarily be criminal in character, they still have to be dissuasive, proportionate, and effective. An OECD report raised doubts on whether the penalties against legal entities in Germany were indeed effective, proportionate and dissuasive as required by Article 7 of the ECD.[552] If penalties imposed in practice on legal entities would be too low, serious questions concerning the dissuasive character could obviously be asked.[553] Incidentally, a study concerning the implementation of the ECD in Member States discovered that it was apparently extremely difficult for Member States to correctly implement the Directive. In none of the seven examined Member States it was argued that the transposition had been flawless. In several Member States there was also criticism in legal doctrine on the way in which the ECD was transposed.[554]

There is one striking feature of the ECD which has to be mentioned in the framework of this section, which is the strong reliance on criminal law. Recall that in many Member States there is, following the literature and the data on the bad performance of environmental enforcement via criminal law, a trend to rely increasingly on administrative financial penalties and no longer merely on the criminal law. It is in that respect striking that the ECD, especially in Recital 3, attaches a strong belief to the criminal law and moreover holds that specific violations need to be regarded as criminal offences in the national legislation implementing the Directive. There is no mentioning whatsoever of administrative penalties (either fines or measures) or of a toolbox approach. Obviously, that does formally not exclude the possibility for Member States to retain administrative penalties and also administrative fines. However, it is clear that in order to implement the Directive correctly, at least the infringements mentioned in the Directive should be threatened by the legislature with criminal penalties. Given the weaknesses in the criminal enforcement system, one could have imagined that the Directive would also have given attention to administrative enforcement.

---

551 *See* Michael G. Faure, *Vague Notions in Environmental Criminal Law (Part 1)*, 18 ENV'T LIABILITY 119 (2010); Michael G. Faure, *Vague Notions in Environmental Criminal Law (Part 2)*, 18 ENV'T LIABILITY 163 (2010) (providing further information on those vague notions).

552 Sina, *supra* note 539, at 114–15.

553 Faure, *supra* note 534, at 309.

554 *Id.* at 308–09.

F. Summary

This section has analyzed environmental liability in a broader framework. Environmental damage can indeed cause harm to individual victims, thus justifying private enforcement. But in many cases environmental harm may be wide-spread and could damage a large area and many victims; there may be some cases that cause no direct harm to individuals at all. That shows an important limitation of the environmental liability system and of private enforcement in general.[555] Many breaches of environmental regulations can be deterred via administrative fines. That is especially the case for so-called administrative violations, for example, where administrative rules are violated, but no concrete environmental harm has been caused yet. The benefits (B) of those administrative violations may be limited and public authorities may easily discover the violation as a result of which the probability of detection (p) should not be low. In those cases, administrative fines may also suffice because there is no need to impose stigmatising sanctions. In some cases, however, the benefit to the perpetrator and the social cost to society may be substantially larger. These could well be cases where criminal enforcement may be indicated.

It is striking that European environmental law represents to some extent a mixture of private and public enforcement with, however, a much stronger tendency towards the use of criminal law. As far as private enforcement is concerned, the ELD, crucial to this study, is the most important one; criminal enforcement is regulated in the ECD. The Environmental Crime Directive is completely silent on the issue of administrative enforcement. This plays, however, an important role in the practice of the Member States. Administrative fines are not discussed at the EU level.[556]

The exposé in this section has taught that in the choice of different instruments to remedy environmental harm, there are possibilities for improvement, such as:

- improving collective action to deal with the rational apathy in case of collective (environmental) harm;
- to examine punitive damage to increase the effectiveness of private enforcement in case of a low probability of detection;
- to further examine administrative enforcement and more particularly administrative fines as alternatives to the criminal law.

In general, it is important to realize that civil, administrative, and criminal law instruments are alternative ways of remedying breaches of environmental law by companies. Each of those instruments has strengths and weaknesses and the key

---

555 Michael G. Faure & Franziska Weber, *The Diversity of the EU Approach to Law Enforcement – Towards a Coherent Model Inspired by a Law and Economics Approach*, 18 GERMAN L. J. 823, 868 –869 (2017).

556 *Id.* at 842 –845.

issue is to search for optimal, smart mixes in the use of those instruments.[557] Moreover, the separate instruments (civil, administrative and criminal) should not (as is often the case) be analyzed in isolation as there are mutual interdependencies between those instruments in practice. A careful analysis of those instruments may again allow an optimal instrument mix in order to guarantee a more effective enforcement in practice.

VII. IMPROVING ACCESS TO JUSTICE

A. Importance

In the theoretical framework in section II, it was made clear that prevention of environmental harm can be achieved, either through *ex ante* safety regulation or through *ex post* liability rules. If it were possible to improve the functioning of liability rules, society would be less dependent on the effectiveness of *ex ante* safety regulation to guarantee environmental quality. In addition, it was equally sketched that safety regulation also has important limits and that environmental liability therefore has an important supplementary role to fulfil.

However, it was equally noticed that in some cases environmental liability may not be able to fulfil its preventive and compensating functions. An important reason that was explained in more detail in sections IV and V is that, especially when environmental harm is caused by companies, the limited liability of the corporation may restrict the possibilities to hold companies liable for the total environmental damage they may have caused. There can, however, also be other reasons that limit the effectiveness of environmental liability. Those reasons obviously not only play a role in case of environmental liability of companies, but also in other contexts. This section will focus more on those reasons for a potential lacking effectiveness of environmental liability and will equally advance potential solutions.

A first issue relates to limits in liability itself, such as for example, causal uncertainty. Some of those issues have already been discussed in earlier sections, but they will be brought together to indicate potential solutions (B). A next important problem in the case of environmental liability is that there may be widespread pollution, as a result of which no individual victim can be identified, and no one may bring an individual liability suit. That could result in a market failure as a liability suit will not be brought and social costs will not be internalized (C). However, there are many possibilities to solve this collective action problem (D). Finally, environmental liability suits are often not brought for the simple reason that the potential victim may have an aversion against high costs. As a result, even meritorious claims (that have a positive net present value) are in some cases not brought to court. Again, solutions to this problem have been advanced as well

---

557 *See* SMART MIXES FOR TRANSBOUNDARY ENVIRONMENTAL HARM (Judith van Erp et al. eds., 2019) (providing further information on smart mixes of instruments to remedy environmental harm).

(E). Even though generally access to justice is of importance to increase environmental accountability and liability of companies, one has to recall that Recital 14 of the ELD clearly states that "This Directive does not apply to cases of personal injury, to damage to private property or to any economic loss and does not affect any right regarding these types of damages." In other words: the ELD does not provide for any personal rights to victims to claim compensation for the losses that they suffer. Therefore, the search to improve access to justice is rather of general importance for the environmental liability of companies, also outside the context of the ELD.

One particular problem in the case of environmental liability is that the damage may increase simply as a result of time. When for example a nature reserve was seriously polluted through hydrocarbons, the nearby restaurant may go bankrupt, simply because compensation may take a long time. It is therefore of importance not only that compensation is paid, but also that it is paid rapidly. Some rapid claims mechanisms have been developed to provide (advance) payment in order to avoid that through the mere lapse of time damage would increase (F).

B. Remedies in Liability Law

In the different sections I already discussed particular conditions in material liability law, which may limit the possibilities of environmental liability. As these issues were discussed in different sections, they will now simply be brought together briefly, in order to avoid repetition:

1. Punitive Damages

A first limit of liability law is that the remedy can only be equal to the harm done, in other words, it brings the victim back in the position where the victim was without the tort. That is a general principle in the law of damages of many Member States. That remedy works well in cases where the probability of detection is 100%. But, as indicated in the previous section, as soon as the probability of detection is lower than 100%, a remedy which merely forces the tortfeasor to compensate the harm may lead to underdeterrence. That was why public enforcement and higher monetary penalties (or even non-monetary penalties) were needed in order to outweigh the low detection rate. One obvious possibility to increase the effectiveness of liability law is to allow for punitive damages. However, traditional European civil law systems have fundamentally rejected punitive damages.[558] Nevertheless, some authors see a growing European attention

[558] Lotte Meurkens, *The Punitive Damages Debate in Continental Europe: Food for Thought, in* THE POWER OF PUNITIVE DAMAGES. IS EUROPE MISSING OUT? 3, 13 (Lotte Meurkens & Emily Nordin eds., 2012).

for punitive damages.[559] An important development in that respect was the decision of the Court of Justice of the EU in Manfredi, where the Court held that national courts can award punitive damages for violations of community law if their national legal system awards such damages for domestic claims.[560] The Court affirmed that, "In accordance with the principle of equivalence, if it is possible to award specific damages, such as exemplary or punitive damages, in domestic actions similar to actions founded on the community competition rules, it must be possible to award such damages in actions founded on community rules." The punitive part of the award is therefore treated as a purely national peculiarity, but which is respected at European level.[561]

It is *inter alia* under the influence of economic analysis[562] that there has been an increasing interest for punitive damages also at the EU level.[563] In a Proposal concerning private antitrust lawsuits in a 2005 Green Paper on damages actions for breach of the EU antitrust rules,[564] the Proposal called for the awarding of double damages for horizontal cartel cases and was considered as an incentive to stimulate private enforcement of competition law.[565] But in later drafts the punitive damages disappeared[566] and also in the final Directive 2014/104 punitive damages seemed to have completely disappeared,[567] which was also criticized in the literature.[568]

---

559 *Id.* at 31–32.

560 ECJ joined cases C-295/04 – C-298/04, Vincenzo Manfredi v Lloyd Adriatico Assicurazioni SpA (C-295/04), Antonio Cannito v Fondiaria Sai SpA (C-296/04), Nicolò Tricarico v Assitalia SpA (C-297/04) and Pasqualina Murgolo v Assitalia SpA (C-298/04) [2006] ECR I-6619,. *See also* Bernhard A. Koch, *Punitive Damages in European Law, in* PUNITIVE DAMAGES: COMMON LAW AND CIVIL LAW PERSPECTIVES 197, 206 (Helmut Koziol & Vanessa Wilcox eds., 2009).

561 *See* C. Vanleenhoven, *Punitive Damages and European Law: Quo Vademus?, in* THE POWER OF PUNITIVE DAMAGES. IS EUROPE MISSING OUT? 337, 347 (Lotte Meurkens & Emily Nordin eds., 2012).

562 *See* Meurkens, *supra* note 558, at 44–45.

563 *See* Louis Visscher, *The Law and Economics of Punitive Damages, in* THE POWER OF PUNITIVE DAMAGES. IS EUROPE MISSING OUT? 471, 471–97 (Lotte Meurkens & Emily Nordin eds., 2012) (providing a summary of the economic justification for punitive damages); *see generally* Koch, *supra* note 560, at 197–209 (explaining punitive damages in European law).

564 Commission Green Paper on Damages Actions on Breach of the EC Antitrust Rules, COM (2005) 672 final (Dec. 19, 2005).

565 Vanleenhoven, *supra* note 561, at 347.

566 *Id.* at 347 –348.

567 Directive 2014/104/EU of European Parliament and of the Council of 26 November 2014 on Certain Rules Governing Actions for Damages Under National Law for Infringements of the Competition Law Provisions of the Member States and of the European Union, O.J. (L 349) 1.

568 Roger Van den Bergh, *Private Enforcement of European Competition Law and the Persisting Collective Action Problem*, 20 Maastricht J. EUR. & COMP. L. 12, 33–34 (2013); Franziska Weber, *A 'Chain Reaction' or the Necessity of Collective Actions for Consumers in Cartel Cases*, 25 MAASTRICHT EUR. & COMP. L. 208 (2018).

Generally, it is fair to say that there is a rather hostile attitude at the European level against punitive damages. Significant in this respect is, for example, a recent Proposal for a Directive on representative actions for the protection of the collective interests of consumers of November 28, 2019.[569] Recital 15A of this proposal holds, "This Directive should not enable punitive damages being imposed on the infringing trader or overcompensation being awarded to consumers affected by an infringement." This shows that the question that was the title of a book in 2012, "The Power of Punitive Damages. Is Europe Missing Out?"[570] should still be answered in the affirmative.[571] As was mentioned earlier, there are reasons for a more positive attitude towards punitive damages as it may improve private enforcement and therefore the functioning of environmental liability; it can provide additional incentives for victims to use the liability mechanism and it can reduce the need to call on public enforcement and criminal law. In that sense the introduction of punitive damages can even be considered as a mechanism of decriminalization.

2. <u>Causal Uncertainty</u>

Uncertainty over causation can be an important limitation on environmental liability. There can be uncertainty concerning the identity of the tortfeasor (the polluter). That is more particularly the case when more than one company has contributed to the environmental harm and it cannot be distinguished which company exactly caused the loss. There may also be cases where there is uncertainty concerning the status of a victim. This plays a special role in so-called toxic torts, whereby some of the population have been exposed to hazardous substances or radiation and subsequently a certain disease, such as cancer is discovered.[572] In that case the identity of the injurer is certain, but there is uncertainty about who the victim is. Some may well have got the disease from some background risk and not from the toxic tort.[573] The problem may arise that

---

569 Proposal for a Directive of the European Parliament and of the Council on Representative Actions for the Protection of the Collective Interests of Consumers, and Repealing Directive 2009/22/EC, COM (2018) 184 final (Apr. 11, 2018).

570 The Power of Punitive Damages. Is Europe Missing Out? (Lotte Meurkens & Emily Nordin eds., 2012).

571 Koch, *supra* note 556, at 288–89 (arguing that although the EU is inconsistent concerning punitive damages, reflecting the contrast between the common law and the continental civil law).

572 See Jeffrey Trauberman, *Statutory Reform of Toxic Torts: Relieving Legal, Scientific, and Economic Burdens on the Chemical Victim*, 7 HARV. ENV'T L. REV.. 177 (1983).

573 See also Samuel D. Estep, Radiation Injuries and Statistics: The Need for a New Approach to Injury Litigation, 59 MICH. L. REV. 259 (1960); M. Gardner et al., Results of a Case-Control Study of Leukaemia and Lymphoma Among Young People Near Sellafield Nuclear Plant in West-Cumbria, BRIT. MED. J. 423 (1990).

experts could indicate a likelihood that a certain activity may cause certain damage expressed in a percentage, say thirty percent. The question then arises how, within the legal system, one should deal with this uncertainty if expert opinion cannot provide certainty on the causation. The traditional approach was to award compensation only when the probability that the damage was caused by the tort passed a certain threshold of, say, fifty percent This threshold rule is a kind of "all or nothing" approach: if the probability is lower than the threshold, the victim receives no compensation; if the probability is higher than the threshold, the victim receives full compensation.[574] The victim must, in other words, convince the judge that it is "more probable than not" that its damage was caused by the tort.[575] The disadvantage of this approach is that an operator could systematically create danger of environmental harm, but as long as the probability of causation remains below fifty percent, the operator would never be held liable. This threshold liability rule is therefore undesirable, both from a deterrence and from a victim compensation perspective.[576] A more fine-tuned alternative can be found by translating the probability of causation by awarding the victim a proportionate amount of his damage.[577] If the probability were thirty percent that the operator's activity caused the victim's environmental harm, the victim would be compensated for thirty percent of his damage. From an economic perspective, the advantage of this proportional liability is that it exposes the injurer precisely to the access risk and provides optimal incentives for prevention.[578]

The ELD mentions in Article 9 that it is "without prejudice to any provisions of national regulations concerning cost allocation in cases of multiple party causation especially concerning the apportionment of liability between the producer and the user of a product." In other words: the ELD does not regulate this issue of causal uncertainty.[579] There is, however, another document of interest, being the Principles of European Tort Law (PETL) drafted by the European Group on Tort Law.[580] The Group provides the example of two factories that discharge poisonous wastewater into a river and, as a result, fish in the river die. The wastewater of each factory separately was sufficient to kill the

[574] *See* Omri Ben-Shahar, *Causation and Foreseeability*, *in* TORT LAW AND ECONOMICS 83, 92 –93 (Michael Faure ed., 2009) (explaining further on the threshold rule).

[575] Michael G. Faure, *Causal Uncertainty, Joint and Several Liability and Insurance*, *in* LIBER AMICORUM PIERRE WIDMER 79, 83–84 (Helmut Koziol & Jaap Spier eds., 2003).

[576] Ben-Shahar, *supra* note 574, at 94.

[577] *Id.* at 93–96.

[578] Steven Shavell, *Uncertainty over Causation and the Determination of Civil Liability*, J. L. & ECON. 587 (1985) (providing a detailed analytical and comparative account of proportional liability); *see* Israel Gilead, Michael Green, & Bernhard Koch, *General Report: Causal Uncertainty and Proportional Liability: Analytical and Comparative Report*", *in* PROPORTIONAL LIABILITY: ANALYTICAL AND COMPARATIVE PERSPECTIVES 1 (Israel Gilead et al. eds., 2013).

[579] De Smedt, *supra* note 61, at 222–24.

[580] *See* FRANCESCO BUSNELLI ET AL., PRINCIPLES OF EUROPEAN TORT LAW: TEXT AND COMMENTARY (2005).

fish. It is a case of so-called "concurrent causes."[581] In this particular case, Article 3:102 of the Principles prescribes solidary liability. It reads: "In case of multiple activities, where each of them alone would have caused the damage at the same time, each activity is regarded as a cause of the victim's damage." Article 9:101(2) explains what the consequences of solidary liability are: "The victim may claim full compensation from anyone or more of them, provided that the victim may not recover more than the full amount of the damage suffered by him."[582] However, a different solution is stated in case of causal uncertainty. This occurs where two or more causes may or may not have caused a loss.[583] In that case there is uncertainty about whether or not the respective events do fulfil the *condition sine qua non* requirement. This is referred to as a situation of "alternative causes." In that case the Principles of European Tort Law opt in Article 3:103 for proportional liability: "In case of multiple activities, where each of them alone would have been sufficient to cause the damage, but it remains uncertain which one in fact caused it, each activity is regarded as a cause to the extent corresponding to the likelihood that it may have caused the victim's damage."[584] This shows that now, in case of uncertainty over causation, proportional liability is accepted, which is in line with the literature discussed earlier.

3. Latency

In case of environmental pollution there is often a long-time lapse between the moment of the emission and the moment the damage occurs. It concerns risks with a so-called "long-tail." In that case victims may still desire compensation, but the question arises whether the behavior of the operator was unlawful at the time when it was committed. What should be avoided is to hold an operator liable according to the standards of today, whereas the behavior was not considered wrongful at the time when the emission took place. The problem with such a retroactive liability is that it may fail to provide incentives for prevention.[585] Moreover, such a retroactive liability may be an uninsurable.[586] The better solution is to determine from which moment operators should have had a knowledge, for example that depositing waste in soil was not allowed (and therefore unlawful) and to allocate liability proportionally only for the damage that occurred from that moment on. For damage that still appears today, but that was caused at the moment when the behavior was not unlawful, it is better to finance this historical pollution

---

581 *See* UNIFICATION OF TORT LAW: CAUSATION 6 (Jaap Spier ed., 2000).

582 Michael G. Faure, *Attribution of Liability: An Economic Analysis of Various Cases*, 91 CHI. KENT L. REV. 603, 609 –611 (2016).

583 BUSNELLI ET AL., *supra* note 580, at 47–48.

584 *Id.*

585 Faure & Grimeaud, *supra* note 29, at 49–50.

586 *Id.* at 169–70.

from the public purse (via the government) than via a liability rule, which could anyway no longer provide incentives for prevention.[587]

This is also the approach which is followed in the ELD. Already the White Paper preceding the ELD argued that for historic pollution the Member States should install funding mechanisms instead of relying on liability.[588] It is also the approach followed in the ELD: as far as the temporal application is concerned, Article 17 clearly states that it shall not apply to damage caused by an emission, event or incident that took place before the date referred to in Article 19(1), being the date by which the Member States had to implement the ELD.[589] In addition, Article 10 provides for a limitation period for the recovery of costs based on the ELD of five years.

C. Widespread Pollution and Market Failure

Suppose that multiple operators emit noxious substances, which lead to damage in a particular nature reserve. The damage is that serious that trees start dying, there is acidification of a lake and a rare species start disappearing. The nature reserve which was very attractive to tourists because of its ecological value and biodiversity has, as a result of the emissions completely lost its biodiversity. There is substantial ecological and economic damage.

The problem in this particular case is that the social loss, as argued, can be substantial. Nevertheless, there is a substantial danger that a lawsuit in environmental liability will never be brought. The reason is simple: the costs to start a liability suit are considerable and entail high risks. Suppose that there is a victim who enjoyed the nature reserve and now experiences a loss of utility as she can no longer enjoy the beauty and biodiversity in the nature reserve. If she were to start an environmental liability suit, she would have to pay a lawyer and moreover invest a lot of time in a procedure (so-called opportunity costs). There is a large danger that the individual costs for the nature -loving victim may be substantially higher than the potential gains. There is a large likelihood that, even though the victim is upset and suffers a real loss as a result of the tort, she will take the rational decision not to file a liability suit.[590] The reason that the victim will not use the liability system is in the first place related to a high-risk aversion against the costs of the procedure. Many victims will be so-called "one shotters" and file a liability suite only once.[591] As a result it is difficult for the victim to predict *ex ante* what

---

[587] *Id.* at 178–79.

[588] Commission White Paper on Environmental Liability, at 16, COM (2000) 66 final (Feb. 9, 2000).

[589] DE SMEDT, *supra* note 1, at 214 –216 (stating that the ELD therefore clearly has no retroactive liability).

[590] *See* Schäfer, *supra* note 36, at 185.

[591] *See* Marc Gallanter, *Why the 'Haves' Come out Ahead: Speculations on the Limits of Legal Change,* 9 L. & SOC'Y REV. 95 (1974) (noting the difference between the so-called one shooters and repeat players).

the precise costs of a procedure will be. An additional problem in this particular case is that there is in fact no individual loss, but rather a collective, ecological damage. As a result, the individual interest to bring a lawsuit may be limited. If the individual victim would support high costs to file a lawsuit against the emitters, that one victim would suffer all the costs whereas all the advantages would be for the entire community that would benefit from an improved biodiversity in the nature reserve. In that case, a so-called free-riding problem would arise, meaning that one individual has all the costs, but others can benefit. The free-riding problem will prevent the one individual from investing in the lawsuit. The result is that if remedies are lacking, no individual will file a lawsuit and operators will not be exposed to the social costs of their activity. They are able to externalize harm to society and the market failure caused by their negative externalities prevails. Finding a remedy for this collective action problem is therefore crucial in order to solve the market failure problem that arises.

D. Solving the Collective Action Problem

1. Options

There are, in theory, a wide variety of options available to solve the problem that appeared from the example.[592] A first remedy would be the use of property rights. In the example the problem arose because the lady enjoyed the nature reserve, but with her so did many others which she could not exclude as a result of which she lacked sufficient incentives to bring a lawsuit. The problem would be solved if property rights could be allocated to the nature reserve.[593] Private property rights may give the owner (an individual, a collectivity or company) incentives to act against third parties that cause harm to the nature reserve.[594] And one particular type of property right could be the allocation of public property rights. A public authority, like a community, province, or the state) could own the nature reserve and in many legal systems (also EU Member States) nature reserves are public property. However, even though that may in theory provide the public authority incentives to take action to protect the nature reserve, those incentives may not be perfect. Public authorities may be subject to lobbying, inefficiencies and collusion as a result of which they may sometimes lack incentives

---

592 S*ee* G. Miller, *Group Litigation in the Enforcement of Tort Law, in* RESEARCH HANDBOOK ON THE ECONOMICS OF TORTS 262–78 (Jennifer Arlen ed., 2013).

593 DANIEL H. COLE, POLLUTION AND PROPERTY: COMPARING OWNERSHIP INSTITUTIONS FOR ENVIRONMENTAL PROTECTION 131 (2002).

594 Daniel H. Cole, *New Forms of Private Property: Property Rights in Environmental Goods*, *in* PROPERTY LAW AND ECONOMICS 229 (Boudewijn Bouckaert ed., 2010).

to take action in the public interest and to use liability law.[595] The specific incentives of the individual who walks in the nature reserve every weekend can be much stronger than the incentives of a bureaucrat who may be at a far distance of the nature reserve that deserves protection.

A second alternative often mentioned in the literature, but probably less relevant for our case, is to solve the problem of rational apathy by granting the right to a group to act on behalf of all individuals that suffered a loss. It is the so-called collective action or group litigation.[596] Bundling of claims allows a lower cost per individual. The theory predicts that more claims would be filed and therefore deterrence would be increased.[597]

This group litigation (in the US referred to as a class action) is especially useful when there is a large number of victims that suffers from comparable losses and that each have a financial claim. In that particular case, an attorney may act as an entrepreneur who will represent the class. After judging the merits of the case, the attorney may make a substantial upfront investment, hoping to collect a substantial fee out of a positive judgment or settlement. Although collective actions surely have many advantages and allow remedying rational apathy in case of so-called scattered losses, they also have particular limits. One problem is that the attorney representing the group may have different interests than the victims he represents (a so-called principal-agent problem may therefore arise). Questions also arise concerning the financing of the claim and the formation of the class.[598] The major issue for our example is that collective actions may remedy the problem of dispersed losses in case of a wide number of consumers that all suffer a relatively small loss. Bringing together all those financial claims in one group litigation can reduce the litigation costs and thus bring substantial benefits. However, in the case of the nature reserve, there are no individual claims of the various nature lovers that feel harmed as a result of the ecological losses. A group action can therefore not provide a remedy in this particular case. Moreover, it has to be mentioned that in the recent EU policy documents, it is also clear that the EU is not charmed by the idea of a group litigation, but would rather like to go for the following alternative.

A third possibility is to opt for a so-called representative action. I will first briefly discuss the representative action[599] as it comes from consumer law and then focus in the next subsection on the environmental case.

---

595 JING LIU, MICHAEL FAURE & PETER MASCINI, ENVIRONMENTAL GOVERNANCE OF COMMON POOL RESOURCES: A COMPARISON OF FISHERY AND FORESTRY 11–12 (2018).

596 *See* Sonja Keske, Andrea Renda & Roger Van den Bergh, *Financing and Group Litigation*, *in* NEW TRENDS IN FINANCING CIVIL LITIGATION IN EUROPE. A LEGAL, EMPIRICAL AND ECONOMIC ANALYSIS 59 (Mark Tuil & Louis Visscher eds., 2010).

597 Hans W. Micklitz & Astrid Stadler, *The Development of Collective Legal Actions in Europe, Especially in Germany Civil Procedure*, 17 EUR. BUS. L. REV. 1473 (2006).

598 Michael G. Faure, *CADR and Settlement of Claims – A Few Economic Observations*, *in* RESOLVING MASS DISPUTES. ADR AND SETTLEMENT OF MASS CLAIMS 38, 48–49 (Christopher J.S. Hodges & Astrid Stadler eds., 2013).

599 Miller, *supra* note 592, at 263.

The representative action basically comes down to granting the right to a representative organization, such as a non-governmental organization (NGO) or consumer organization to file a suit on behalf of the victims. It is well-known in the domain of consumer losses, where for example a national consumer organization would act on behalf of all the victims that suffered a particular loss. Questions can again be asked on whether the association really acts to represent the interests of the victim in an adequate manner.[600] The danger of a divergence of interests between the representative organization (like the Consumer Union) and the victims, may especially be large in the situation that the consumer organization is *de facto* a monopoly. That plays especially a role with consumer organizations in many EU Member States. A lot has meanwhile been published on this so-called compensatory collective redress for low-value consumer claims.[601] As I already indicated earlier, in the most recent Proposal from the General Secretariat of the Council of 28 November 2019, there will be a Directive on representative actions for the protection of the collective interest of consumers.

But the representative action could also relate to an environmental NGO that would have standing to represent the interests of the environment, in our particular example, the damaged natural reserve. In the following subsection I will develop the arguments in favor of a generous standing for NGOs in environmental cases.

2. Justifications for Environmental Public Interest Litigation

The case where damage is widespread leads to small private incentives for victims of pollution to bring a lawsuit. This provides a strong argument for a representative action in environmental cases, especially in case of widespread nature of the harm.[602] This can provide a remedy for the widespread nature of environmental damage, which would otherwise no longer lead to private incentives to bring litigation.[603] It is hardly thinkable that a nature lover who feels damaged as a result of the loss of biodiversity of the nature reserve, would file an environmental liability suit. It is not only the rational apathy and free-rider

---

600 Keske, Renda & Van den Bergh, *supra* note 596, at 67–72.

601 *See, e.g.,* Joanna M.L. van Duin & Candida Leone, *The Real (New) Deal: Levelling the Odds for Consumer-Litigants: On the Need for a Modernisation, Part II*, 27 EUR. REV. PRIV. L. 1227 (2019); Marco Loos, *Towards Civil Justice in the EU: The European Commission's New Deal for Consumers: An Introduction to this Issue*, 27 EUR. REV. PRIV. L. 1219 (2019); Maria Ioannidou, *Compensatory Collective Redress for Low-Value Consumer Claims in the EU: A Reality Check*, 27 EURO. REV. PRIV. L. 1367 (2019).

602 WILDE, *supra* note 2, at 261 (stating that NGOs can undertake representative actions on behalf of the public interest).

603 *See* Michael G. Faure, Manuela Mühl & Niels J. Philipsen, *Incentives, Costs and Benefits: A Law and Economics Analysis*, *in* ACCESS TO JUSTICE IN ENVIRONMENTAL MATTERS: A SOCIO-ECONOMIC ANALYSIS 23, 41 (Michael G. Faure & Niels J. Philipsen eds., 2014).

problems that arise; it may equally be difficult to determine who would be a member of the group; as a result, the collective action discussed earlier will often not be possible.[604] Precisely ecological damage is often defined as damage caused to non-individualized goods.[605] As the victim cannot claim any property rights, she will not have the possibility to use an environmental liability suit. That is exactly the reason why, also from an economic perspective, standing should generously be granted to environmental NGOs.[606] It comes down to a situation where the NGO represents the nature reserve and files a suit to end the damaging activities.

The traditional economic justification in favor of *locus standi* in private law is not to overburden courts and not to create overdeterrence of operators.[607] However, more particularly where the public interest is at stake, a too strict standing requirement may not always work in the interest of justice. The lawsuit filed by an NGO representing a large number of stakeholders takes on the nature of a public good. That would not be provided for, or risk, at best to be undersupplied by a rational victim.[608] In that case, *locus standi* can become an impediment to the redress process.

Of course, also in case of a suit by an NGO principal-agent problems could arise. Even when an NGO claims to represent the damaged nature reserve, the question can arise on what that claim is based and to which extent the NGO is effectively representing the interests of the damaged nature reserve. In most EU Member States this is solved by granting standing to particular environmental NGOs only, when they meet specific conditions. It will usually be required that the NGO needs to be in existence for a longer time (in order to avoid *ad hoc* NGOs). In addition, it will also be required that the claim filed by the NGO corresponds with the social goals as laid down in the articles of incorporation of the NGO. But if these conditions are met, allowing standing to NGOs offers the possibility to still use private law and to reinforce environmental liability.[609]

Also in cases of standing of NGOs to represent the interests of the damaged nature reserve, questions can arise concerning the financing of the NGO and the related incentives. The basic financing for an NGO will usually be provided by membership fees. As long as the NGO acts to realize the interests for which the NGO was created, financing by its members is unproblematic. The NGO itself will have to use representation (by a lawyer) in a lawsuit. One advantage of the NGO

---

[604] Michael G. Faure & Louis T. Visscher, *Een Rechtseconomische Visie op Collectieve Actie*, *in* Preadviesen 2015; I.N. TZANKOVA, COLLECTIEVE ACTIES: UITGEBRACHT VOOR DE VERENIGING VOOR BURGERLIJK RECHT 28 (2015).

[605] LIU, *supra* note 2.

[606] *See, e.g.*, Michael G. Faure & Angara V. Raja, *Effectiveness of Environmental Public Interest Litigation in India: Determining the Key Variables*, 21 FORDHAM ENV'T L. REV. 293, 293–94 (2010).

[607] Faure, Mühl & Philipsen, *supra* note 603, at 50.

[608] Anna van Aaken, *Making International Human Rights Protection More Effective: A Rational Choice Approach to the Effectiveness of Ius Standi Provisions, in* 23 CONFERENCES ON NEW POLITICAL ECONOMY: INTERNATIONAL CONFLICT RESOLUTION, 29, 50 (Stefan Voigt et al. eds.,2006).

[609] Faure & Visscher, *supra* note 604, at 28–29.

is that it cannot be considered as a one shotter, but will often be a repeat player and therefore well able to adequately monitor the quality of the lawyer they would hire. Environmental NGOs have an advantage (compared to consumer associations) of homogeneity of the group.[610] Therefore, financing the lawsuit through membership fees is, as mentioned, unproblematic. The lawsuit will, if successful, also lead to internalization of social costs by the operator and can thus assist in correcting the market failure caused by the collective action problem.

3. Collective Action at EU Level

As already mentioned, collective action is widely discussed in the literature with respect to consumer claims. Even though the law and economics literature generally favors group actions, the EU, in its latest (November 2019) Proposal goes in the direction of a representative action (again, for consumer claims). In various Member States there is a generous approach towards group actions when there is a communality of interests or issues.[611] However, despite developments in various Member States towards group actions, as a general rule, class actions remain unpopular at the EU level.[612]

As far as environmental liability is concerned, the predecessor of the ELD, the 2000 White Paper, was in favor of empowering civil society to share the burden of enforcing environmental law. It took a proactive role by affording NGOs *locus standi* to seek injunctive relief. The White Paper adopted a two tier approach whereby "Member States should be under a duty to ensure restoration of biodiversity damage and the contamination in the first place (first tier) by using the compensation or damages paid by the polluter."[613] But in urgent cases:

> interest groups should have the right to ask the court for an injunction directly in order to make the (potential) polluter act or abstain from action, to prevent significant damage or avoid a further damage to the environment. They should be allowed, for this purpose, to sue the alleged polluter, without going to the state first.[614]

This provided in other words a possibility for NGOs to go directly against the polluter in civil proceedings.[615] The ELD, however, which replaces the tort based approach contained in the White Paper with a public law based cost recovery

---

610 *Id.* at 29–30.
611 *See* WILDE, *supra* note 2, at 268–71.
612 *Id.* at 271.
613 Commission White Paper on Environmental Liability, at 22, COM (2000) 66 final (Sep. 2, 2000).
614 *Id.*
615 WILDE, *supra* note 2, at 260.

system affords no special status to NGOs.[616] The ELD indirectly recognizes the role of NGOs as Article 12(1) mentions that natural or legal persons (b) having a sufficient interest in environmental decision-making relating to the damage … shall be entitled to submit to the competent authority any observations relating to instances of environmental damage or an imminent threat of such damage. Article 12 equally holds "To this end, the interest of any non-governmental organization promoting environmental protection and meeting any requirements under national law, shall be deemed sufficient for the purpose of subparagraph (b)."

This means that under the ELD NGOs can submit to the competent authority observations relating to instances of environmental damage.[617] Article 12(3) holds that where the request for action and the accompanying observations show in a plausible manner that environmental damage exists, the competent authority shall consider any such observations and requests for action. Moreover, should the request of the NGO not be successful, then there is a possibility of review under Article 13 ELD as "The persons referred to in Article 12(1) shall have access to the court or other independent and impartial public body competent to review the procedural and substantive legality of the decisions, acts or failure to act of the competent authority under this Directive."

However, the ELD does not grant any direct right to NGOs to directly file a lawsuit against the operator liable for the environmental harm, as was the case in the White Paper. The role of NGOs is therefore very limited. That is an issue, which has also been criticized in the literature.[618] But then again, the ELD does not grant that right to natural persons either.

Access to justice is more generally regulated in Article 9 of the Aarhus Convention on access to information, public participation in decision-making and access to justice in environmental matters. The so-called "third pillar" of the Aarhus Convention calls for a reasonable entitlement to access (also referred to as *locus standi*) and reasonable conditions of access (i.e. fair and effective procedures in terms of time and costs). Article 9(2) of the Aarhus Convention provides that:

> Each party shall, within the framework of its national legislation, ensure that members of the public concerned
>
> (a) having a sufficient interest

---

616 *Id.*

617 CASSOTTA, *supra* note 48, at 170 (stating in other words that "[t]he way by which this provision entitles environmental associations and NGOs to act, is through making them first pass, through the competent authorities").

618 WILDE, *supra* note 2, at 260–61; Ludwig Krämer, *De Positie van de Milieuorganisaties als Gevolg van de Richtlijn Milieuaansprakelijkheid*, *in* AANSPRAKELIJKHEID VOOR SCHADE AAN DE NATUUR 73, 89 (R. Mellenbergh & R. Uylenburg eds., 2005) (arguing that the position of NGOs in the ELD is particularly weak as they in fact only have the possibility to ask the competent authority to take measures. But as the competent authority does not have an obligation to take remedial measures itself, the only "right" for NGOs is to force the competent authority to consider particular remedial measures and to take a decision. But the discretionary power of the competent authority in that respect is very large).

> or, alternatively,
>
> (b) maintaining impairment of a right, where the administrative procedural law of a party requires this as a precondition,
>
> have access to a review procedure before a court of law and/or another independent and impartial body established by law to challenge the substantive and procedural legality of any decision, act or omission subject to the provisions of Article 6.[619]

Some of these obligations under the Aarhus Convention have also been transposed in EU law.[620] Two Directives from 2003 implement the two first pillars of the Aarhus Convention in EU law.[621] Directive 2003/35/EC guarantees access to justice in two distinct areas of environmental law, cases where an environmental impact assessment (EIA) is necessary and cases related to integrated pollution prevention and control (IPPC) (now replaced by the Industrial Emissions Directive).[622] The scope of Directive 2003/35 is therefore relatively limited. However, at the same time, as the promulgation of this Directive (with its limited application to EIA and IPPC) a Proposal was launched to provide a broader access to justice.[623] Many arguments in favor of this broader access to justice in environmental matters were advanced.[624] The Proposal mentioned explicitly that greater compliance by operators and public authorities with environmental

---

619 *See* Chris Backes, Michael Faure & Fokke Fernhout, *Legal Background*, *in* ACCESS TO JUSTICE IN ENVIRONMENTAL MATTERS: A SOCIO-ECONOMIC ANALYSIS 7, 8 (Michael Faure & Niels Philipsen eds., 2014) (explaining further the specific obligations under the Aarhus Convention).

620 See JANS & VEDDER, *supra* note 62, at 228–37.

621 Council Directive 2003/4 of Jan. 28, 2003, On Public Access to Environmental Information and Repealing Council Directive 90/313/EEC, 2003 O.J. (L 41) 26; Council Directive 2003/35 of May 26, 2003, For Public Participation in Respect of the Drawing Up of Certain Plans and Programmes Relating to the Environment and Amending with Regard to Public Participation and Access to Justice, 2003 O.J. (L 156) 17; Council Regulation 1367/2006 of Sept. 6, 2006 On the Application of the Provisions of the Aarhus Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters to Community Institutions and Bodies, 2006 O.J. (L 264) 13 (covering the implementation with regard to the EU institutions).

622 Directive 2010/75, of the European Parliament and of the Council of 24 November 2010 on industrial emissions (integrated pollution prevention and control), 2010 O.J. (L 334) 17.

623 Commission Proposal for a Directive of the European Parliament and of the Council on Access to Justice in Environmental Matters, COM (2003) 624 final (Oct. 24, 2003). For a discussion, see Backes, Faure & Fernhout, *supra* note 619, at 9.

624 Adam D. Nagy, *The Aarhus-Acquis in the EU: Developments in the Dynamics of Implementing the Three Pillars Structure*, *in* THE MAKING OF A NEW EUROPEAN LEGAL CULTURE: THE AARHUS CONVENTION 19–69 (Roberto Caranta, Anna Gerbrandy & Bilun Müller eds., 2018) (detailing a full account of the implementation of the Aarhus-Acquis in the EU).

provisions was expected. In addition, the Commission Proposal also mentions that they expected that there would be higher preventive effects, leading to lower expenditures for public authorities in the field of environmental protection.[625] A lot of those arguments in favor of an enlarged access to justice are precisely in line with the economic arguments concerning the importance of standing. However, the Commission apparently had difficulties convincing the Member States. During the consultation round preceding the 2003 Proposal, many member states raised substantial concerns related inter alia to the requirement to provide standing to groups without legal personality. The opposition from some Member States was apparently so strong, that in their Handbook of 2012 Jans and Vedder argued that this Proposal is "politically speaking, 'dead.'"[626]

There has, however, been increased pressure, especially from the European Parliament. The Parliament stressed the need to adopt the proposed Directive on access to justice and called on the Council to respect its obligations resulting from the Aarhus Convention and to adopt a common position on the corresponding Commission Proposal before the end of 2012.[627] Notwithstanding those clear calls, the Proposal has not yet turned into a Directive.

E. Solving High Cost Aversion

A failure to hold companies liable for the environmental harm they cause cannot only be related to the rational apathy and collective action problem discussed in the previous section, but also to high cost aversion. High cost aversion can; moreover, also be a problem when the environmental harm is not widespread and just one or a few victims suffer the harm. In the literature (and in various EU Member States) a variety of different instruments have been developed to enable victim's access to justice, notwithstanding the potential high costs. Some of those remedies will now briefly be reviewed. Again, this topic is so broad that one could easily fill a book just dealing with those remedies. I will mainly focus on three (conditional fees, legal expenses insurance, and third-party financing). However, other mechanisms which could also play a role are; for example, a transfer of claim; public funding of litigation (public aid), as well as the allocation of legal fees (the loser pays versus each party pays its own costs). Those issues will not be further discussed here.[628] I will, in turn, discuss conditional fee arrangements, legal expenses insurance, and third-party funding of litigation.

[625] Commission Proposal for a Directive of the European Parliament and of the Council on Access to Justice in Environmental Matters, at 8, COM (2003) 624 final (Oct. 24, 2003).

[626] JANS & VEDDER, *supra* note 62, at 236.

[627] European Parliament Resolution of 20 April 2012 Review of the 6th Environmental Action Programme and the Setting of Priorities for the 7th Environmental Action Programme No. 2011/2194(INI), 2013 O.J. (C 258) 115; *see also* Backes, Faure & Fernhout, *supra* note 619, at 11.

[628] *See also* NEW TRENDS IN FINANCING CIVIL LITIGATION IN EUROPE, *supra* note 5; RESOLVING MASS DISPUTES; ADR AND SETTLEMENT OF MASS CLAIMS (Christopher

1.Conditional Fee Arrangements

The traditional way of paying a lawyer in Europe is based on an hourly fee. This system has two disadvantages, both from society's perspective and for the individual client. The first problem is that under this hourly fee system, lawyers may not have adequate incentives to critically decide whether the suit is meritorious or not. There is; therefore, a danger under the hourly fee system that also non-meritorious suits would be taken up by lawyers, leading to social costs of litigation (where it would not be merited) and to costs for the individual client who equally pays for cases that are not meritorious. The second problem is that it may be difficult for clients (especially one-time clients) to monitor the performance of the attorney. If the client does not know what a reasonable amount of hours is to be spent on a particular case, there is a danger of overbilling. The only way of controlling the adverse selection that exists in that respect between the lawyer and the client is either by repeat players (who use an attorney more often) or to have regulation. Reputational pressures and regulation of attorneys could monitor and reduce abuses to some extent,[629] but certainly not perfectly. Hourly fee systems lead therefore to the danger that unmeritorious suits with a negative expected value will be brought and that lawyers spend too many hours on the case.[630] The major advantage of an alternative fee system, a conditional fee arrangement, is that in that case the interests of the lawyer and the client are better aligned. A conditional fee arrangement basically means that the lawyer is paid on the basis of the result obtained. Various different models exist of conditional fee arrangement, but they usually come down to a system where the lawyer receives no remuneration if there is no positive result obtained for the client (so-called no cure no pay).[631] From the perspective of the consumer the main advantage would be that it reduces his risk aversion, certainly if the result-based fee is constructed like a "no cure, no pay" model. An advantage of a result-based remuneration system is, moreover, that it provides strong incentives for lawyers to *ex ante* monitor the quality of cases and thus excessive or frivolous litigation would be avoided, since lawyers would only have an incentive to accept meritorious cases.[632] Empirical research confirms that

---

Hodges & Astrid Stadler eds., 2013); Ilja Tillema, *Entrepreneurial Mass Litigation: Balancing the Building Blocks*, (Jan. 18, 2019) (Ph.D. dissertation, Erasmus University Rotterdam) (RePub).

[629] *See* Regulation of Professions. A Law and Economics Approach to the Regulation of Attorneys and Physicians in the US, Belgium, the Netherlands, Germany and the UK (Michael Faure et al. eds., 1993) (however, there is always a danger that the regulation of lawyers (and other professions) rather creates barriers to entry and protects the private interests of the profession instead of the public interest of the public at large.).

[630] Faure, Visscher & Tzankova, *supra* note 604, at 17.

[631] *See* Michael Faure, Fokke Fernhout & Niels Philipsen, *No Cure, No Pay and Contingency Fees, in* NEW TRENDS IN FINANCING CIVIL LITIGATION IN EUROPE: A LEGAL, EMPIRICAL, AND ECONOMIC ANALYSIS 33, 33–56 (Mark Tuil & Louis Visscher eds., 2010).

[632] Faure, *supra* note 598, at 43; Faure, Visscher & Tzankova, *supra* note 604, at 18–19.

conditional fees discourage the filing of low-quality suits and hence increase the legal quality of cases. Lawyers do; therefore, effectively function as gatekeepers to guarantee that only meritorious suits are brought.[633] Empirical evidence also shows that many forms of result-based fees are applied on both sides of the Atlantic and this happens apparently without any alleged problems.[634]

The payment system for lawyers can also generally have an influence on the incentives of a lawyer to accept a settlement. Again, if a lawyer is paid on an hourly basis, this may have the undesirable effect that the lawyer may have incentives not to accept a reasonable settlement and hence to litigate too many cases. This will only be reduced through legal ethics or through reputational mechanisms. However, those reputational effects may mostly work in cases of repeat players and not with one-time clients. A result-based compensation system provides better incentives for a lawyer to accept a settlement. They will only continue to negotiate (or decide to litigate) when it is cost-effective.[635]

In sum, allowing a result-based remuneration system (like conditional fees) is an important tool as it can cure the high-cost aversion of victims and therefore improve access to justice. From society's perspective it has, moreover, the advantage that the lawyer will, as a gatekeeper, monitor the quality of the cases as a result of which only meritorious cases will be brought.

So far, there has not been a lot of intervention at the EU level with the payment system of lawyers, as this strongly diverges between the Member States. Of course, I do not argue that all cases should only be handled on the basis of conditional fees. But it would be important that the many regulations (in statutes or in legal ethics) that prohibit lawyers to charge result-based fees would be abrogated. If result-based fees would be available (next to hourly fees) at least the client would have a choice, which is not the case in many systems today. It is interesting that in some Member States, like the Netherlands, the prohibition to use contingency fees was held to violate competition rules.[636] It is therefore possible that competition authorities may, in their attempt to apply competition rules also to liberal professions (such as attorneys), challenge national rules containing prohibition of result-based remuneration for lawyers. From both an economic perspective and from the perspective of increasing access to justice for victims, this development can be supported.

---

633 Eric Helland & Alexander Tabarrok, *Contingency Fees, Settlement Delay and Low-Quality Litigation: Empirical Evidence from Two Datasets*, 19 J. L. ECON. & ORG. 517 (2003).

634 *See* Faure, Fernhout & Philipsen, *supra* note 631, at 33–56; MICHAEL G. FAURE, FOKKE FERNHOUT & NIELS PHILIPSEN, RESULTAATGERELATEERDE BELONINGSSYSTEMEN VOOR ADVOCATEN: EEN VERGELIJKENDE BESCHRIJVING VAN BELONINGSSYSTEMEN VOOR ADVOCATEN IN EEN AANTAL LANDEN VAN DE EUROPESE UNIE EN HONG KONG (2009).

635 Faure, Fernhout & Philipsen, *supra* note 631, at 37; FAURE VISSCHER & TZANKOVA, *supra* note 604, at 21–23.

636 *See* Faure, Fernhout & Philipsen, *supra* note 634, at 26.

2. Legal Expenses Insurance

Another way to solve the risk aversion of the consumer, and hence to give potential plaintiffs incentives to bring meritorious claims, is to use insurance techniques. The principle is relatively simple: the insurer takes over the risk of having to pay legal expenses from the plaintiff with risk aversion and can in that way stimulate that meritorious claims would be brought. The classic legal expenses insurance is a before the event insurance (BTE) whereby a risk averse individual *ex ante* seeks coverage against the risk of being engaged in a trial and incurring legal expenses.[637] The way in which legal expenses insurance (LEI) works is that the risk of the expenses to be incurred in a procedure are shifted to an insurance company. Again, the advantage is that an insurer, as the ultimate repeat player, will function as a gatekeeper and screen the case on the merits. As a result, only meritorious claims will be brought.[638]

A rather surprising empirical fact is; however, that notwithstanding the theoretical advantages of LEI, in most EU Member States relatively few individuals in fact conclude those insurance policies. Even in systems where insurability should be relatively easy (for example in Germany where there is fixed fee system for lawyers), the scope of the coverage is not very high.[639] Only in Sweden do legal expenses insurance have a high coverage. But the reason is that in that country LEI is mandatorily added on to healthcare insurance.[640] In the literature various potential explanations for this lacking demand for LEI have been explored.[641] Whatever the reason may be, the problem is that in practice in most Member States individuals do not possess LEI, as a result of which it may not help victims of environmental harm.

Another possibility is to conclude insurance after the event on an *ex post* basis. This is referred to as after the event insurance (ATE). In fact, it is no longer an insurance contract, since the premium in fact amounts to a contingency (a proportion of the proceeds) that the winning insured would have to receive from the

---

637 *See* Willem van Boom, *Financing Civil Litigation by the European Insurance Industry*, *in* NEW TRENDS IN FINANCING CIVIL LITIGATION IN EUROPE: A LEGAL, EMPIRICAL AND ECONOMIC ANALYSIS 92, 92–108 (Mark Tuil & Louis Visscher eds., 2010).

638 *See* Louis Visscher & Tom Schepens, *A Law and Economics Approach to Cost-Shifting, Fee Arrangements and Legal Expense Insurance*, *in* NEW TRENDS IN FINANCING CIVIL LITIGATION IN EUROPE. A LEGAL, EMPIRICAL AND ECONOMIC ANALYSIS 7–32 (Mark Tuil & Louis Visscher eds., 2010).; FAURE VISSCHER & TZANKOVA, *supra* note 604, at 24 –25.

639 *See e.g.* Matthias Killian, *Alternatives to Public Provision: The Role of Legal Expenses Insurance in Broadening Access to Justice: The German Experience*, 30 J. L. & SOC'Y 31, 36 (2003).

640 *See* Francis Regan, *The Swedish Legal Services Policy Remix: The Shift From Public Legal Aid to Private Legal Expenses Insurance*, 30 J. L. & SOC'Y 49, 52 (2003).

641 *See e.g.* Jef de Mot & Michael G. Faure, *Third-Party Financing and Litigation Expenditures*, 12 N. Y. U. J. L. & BUS. 749, 751–78 (2016); Jef de Mot, Ben Depoorter & Michael G. Faure, et al., *The Multiplication Effect of Legal Insurance*, 13 N. Y. U. J. L. & BUS., 1 (2016).

operator, once winning the case after the event.[642] ATE is in practice limited to the UK, but would be used rather frequently in that country.[643]
Finally, it should be mentioned that there have been various EU Directives in this domain. Directive 87/344 of 22 June 1987 coordinated the laws, regulations and administrative provisions relating to legal expenses insurance. That Directive has, however, been repealed and is no longer in force since 31 December 2015.

3. Third Party Funding

A model which is now becoming increasingly popular is a system whereby a third party simply finances litigation. It is called third party funding (TPF). The third party receives a payment which can consist in a part of the proceeds in case of success.[644] The way TPF works is that a private company offers a plaintiff cash in exchange for a property interest in an unresolved lawsuit. The cash will usually be provided to pay for the litigation costs. TPF was originally only popular in the US,[645] but now it has become increasingly popular in Europe as well.[646]

TPF can be an important instrument to enlarge the possibility for European citizens to access justice and to enforce their rights.[647] It is therefore no surprise that TPF is especially used in the EU in the private enforcement of competition law. The Directive on actions for damages in the field of competition law has explicitly mentioned the possibility of transferring a claim to third parties which would succeed in the claim. Article 2(4) of Directive 2014 of 26 November 2014[648] defines "action for damages" as an action ". . . brought before a national court by an alleged injured party, or by someone acting on behalf of one or more alleged injured parties where union or national law provides for that possibility, or by a natural or alleged legal person that succeeded in the right of the alleged injured party, including the person that acquired the claim."

In practice TPF is actively used in Germany, Belgium and the Netherlands in cartel damage claims.[649] Also, as far as collective redress mechanisms are

---

642 Van Boom, *supra* note 637, at 98.

643 Paul Fenn & Neil Rickman, *The Empirical Analysis of Litigation Funding*, *in* NEW TRENDS IN FINANCING CIVIL LITIGATION IN EUROPE. A LEGAL, EMPIRICAL AND ECONOMIC ANALYSIS 142 (Mark Tuil & Louis Visscher eds., 2010).

644 *See* Michael G. Faure & Jef de Mot, *Comparing Third-Party Financing of Litigation and Legal Expenses Insurance*, 8 J. L. ECON. & POL'Y 743 (2012); *see* GIAN MARCO SOLAS, THIRD PARTY FUNDING. LAW, ECONOMICS AND POLICY (2019) (providing a comparison between LEI and TPF).

645 *See* Deborah R. Hensler, *Financing Civil Litigation: The US Perspective*, *in* NEW TRENDS IN FINANCING CIVIL LITIGATION IN EUROPE. A LEGAL, EMPIRICAL AND ECONOMIC ANALYSIS 153 (Mark Tuil & Louis Visscher eds., 2010).

646 *See* Maya Steinitz, *Whose Claim is this Anyway? Third Party Litigation Funding*, 95 MINN. L. REV. 1268, 1278 (2011); SOLAS, *supra* note 644, at 38–122.

647 SOLAS, *supra* note 644, at 86.

648 2014 O.J. (L 349) 1–2.

649 SOLAS, *supra* note 644, at 89.

concerned, the different proposals that have circulated mentioned the possibility of TPF as legal and useful for collective actions. On the other hand the proposals equally make efforts to enhance transparency in order to prevent abuses.[650] For example, the most recent version of the Proposal for a Directive on representative actions for the protection of the collective interest of consumers (of November 2019) mentions that the qualified entities (consumer organizations) should not be influenced by any third party, other than their legal counsel and the consumer concerned in taking the procedural decisions in the context of the representative action. It also mentions that in order to prevent a conflict of interest, Member States should be able to set out rules according to which courts or administrative authorities could examine whether a qualified entity bringing a cross-border representative action for redress is funded by a third party having an economic interest in the outcome of a specific cross-border representative action and, if this is the case, reject the legal capacity of the qualified entity for the purpose of that action.

This shows that at EU level the importance of TPF as a tool to increase access to justice is recognized, but that at the same time there is also concern for conflicts of interests. Provided that those concerns can be take care of in an adequate manner, TPF might also be a useful tool to potentially finance environmental liability claims as a result of which meritorious suits will be brought.

<u>4. Summary</u>

This brief overview shows that various arrangements do exist, not only in theory, but also in practice to deal with the aversion of victims against the potential high costs of litigation and the resulting risks. Any of the arrangements discussed above could remedy that risk aversion and hence make sure that a meritorious environmental liability suit is nevertheless brought. The mere fact that so many alternatives are in principle available should be welcomed from both an access to justice and an economic perspective. The more options available, the better it can guarantee access to justice and exposure to environmental liability of companies.

In practice, one will, however, often notice that not in all Member States are the theoretically possible options are available. Some legal rules in particular Member States may prohibit particular solutions (like TPF). In other cases problems may arise on the supply side of legal services (for example many European legal systems still prohibiting particular forms of result-based remuneration for lawyers). In still other cases a theoretically available option is simply not used because of problems on the demand side (like LEI which is in many EU Member States purchased to a very limited extent).

It has to be recalled that the more mechanisms are available to finance litigation, the better it is to guarantee access to justice and to expose companies, via environmental liability suits, to the social cost of their activity. At the European

[650] *Id.* at 92–94.

level there should hence be no limitation on those alternatives to financing litigation and Member States rules (in statutes or in legal ethics) that prohibit those, should be critically reviewed. If in particular Member States the many theoretically possible alternatives to remedy risk aversion following from high litigation costs will not be available in practice, the result is that meritorious suits will not be brought and the resulting market failure may continue. In many Member States there have now also been positive experiences with many of the instruments sketched. That empirical evidence can also be used to show that there is no justified fear for negative effects of particular instruments not yet employed in a particular Member State (like conditional fees or TPF). The competition that in that respect exists between Member States has the major advantage of providing scope for mutual learning with respect to the potential benefits of alternative mechanisms.[651]

F. Rapid Claims Mechanism

1. Importance

A problem that arises with the application of liability rules and the following litigation is that it could potentially take many years. The civil procedure related to a liability case may take a substantial amount of time in order to review whether the conditions for environmental liability are actually fulfilled in the particular case. The problem is, however, that when victims may have to wait for a long time, the resulting losses could increase. Take again the case of a polluted nature reserve and a nearby restaurant which benefitted every weekend from the tourists coming by, enjoying the nature reserve and relaxing in the restaurant or hotel. Often those establishments have financed their activities based on credit. The pollution may imply that clients no longer come and that the restaurant or hotel owner loses income as a result of the business interruption. That could have devastating consequences and potentially lead to bankruptcy. Income is lacking and loans still need to be paid back. The question therefore arises if it is possible to guarantee a rapid claims settlement in order to prevent further damage resulting from the insolvency. In that respect it may be important to go beyond traditional environmental liability (via civil procedures) as the court procedure in order to establish liability may take long with potentially devastating consequences for the financial situation of the victims.[652]

---

[651] *See* Roger Van den Bergh, *Towards an Institutional Legal Framework for Regulatory Competition in Europe*, 53 KYKLOS 435, 437–38 (2000) (detailing those positive learning effects regarding different solutions in various Member States).

[652] *See* Kristel de Smedt, Hui Wang & Michael G. Faure, *Towards Optimal Liability and Compensation for Offshore Oil and Gas Activities*, *in* CIVIL LIABILITY AND FINANCIAL SECURITY FOR OFFSHORE OIL AND GAS ACTIVITIES 359, 369 (Michael G. Faure ed., 2017) (providing further on the need for this rapid claims mechanism); *see also* Michael G. Faure & Franziska Weber, *Potential and Limits of Out-Of-Court Rapid Claims Settlement – A Law and Economics Analysis*, 28 J. ENV'T L. 125 (2015).

2. Examples

There are many different examples of risk; pooling schemes, funds and others that allow some form of rapid claims settlement. Usually those consist in not providing full compensation to the victim (which would only be possible in a liability case), but in an advanced payment that could at least avoid further damage which would result in case of insolvency and bankruptcy of the victim.[653] I will just provide two examples in order to make clear that this could be important also in the domain of environmental liability in order to guarantee a rapid compensation to victims in cases where a long time lapse may lead to increasing damage.[654]

The first case concerns the compensation model after the Deepwater Horizon incident, which happened on April 20, 2010. Following the spill, the Gulf Coast Claim Facility (GCCF) was created which took over the administration of the claims on August 23, 2010. Claimants received the option to file either with the GCCF or in court.[655] Choosing the GCCF route was entirely voluntary. The GCCF allowed for three types of payment: a quick payment,[656] an interim payment,[657] or a final payment.[658] In other words, the quick and final payments by the GCCF excluded compensation from the court; with interim payments that was not the case.[659]

On June 16, 2010 BP established a fund of Euro twenty billion with an open-ended commitment should the amount turn out to be insufficient.[660] The GCCF was administered by Kenneth Feinberg and two independent trustees.[661] The GCCF issued a protocol for emergency advance payments on the day it started its activities (23 August 2010). On November 22, 2010, the GCCF issued a protocol

---

653 *See* De Smedt, Wang & Faure, *supra* note 652, at 359–69 (providing examples of those rapid claims mechanisms for damage resulting from offshore oil and gas activities).

654 In the framework of this study the examples will be briefly presented; for further details, *see* Faure & Weber, *supra* note 652, at 133 –36.

655 *See* Thomas J. Schoenbaum, *Liability for Damages in Oil Spill Accidents: Evaluating the USA and International Law Regimes in the Light of Deepwater Horizon*, 24 J. ENV'T L. 408 (2012).

656 *See* KENNETH R. FEINBERG, WHO GETS WHAT? FAIR COMPENSATION AFTER TRAGEDY AND FINANCIAL UPHEAVAL 167 –68 (2012) (implying that just filling out a form without any further documentation of damage and receiving a check within two weeks of $ 5.000 for individuals and $ 25.000 for businesses and a corresponding obligation not to sue BP).

657 *Id.* at 169 (explaining such payments would be based on past damage, while remaining their right to sue and to return to the GCCF).

658 *Id.* at 171 (covering past, present and future damage on the condition of a full release, promising not to sue and no right to return to the GCCF).

659 *Id.* at 169–71.

660 *Id.* at 130; WILDE, *supra* note 2, at 270.

661 Kenneth Feinberg was also known for having administered the September 11th victim compensation fund and to have overseen a large number of other funds.

for interim and final claims. Within 1.5 years, the GCCF proceeded over one million claims and paid a total of more than $ 6.2 billion to over 220,000 individual and business claimants.[662] In addition to the establishment of the GCCF, litigation in court equally took place. Although there has been criticism of the GCCF in various legal publications,[663] the advantage of this model is that it could provide speedy low-cost recovery.[664] The GCCF has at least been able to provide compensation quickly and at less costs to the claimants.[665] Moreover, the system was entirely voluntary, but did provide the possibility for victims who needed money quickly to be paid within a relatively rapid time. On the whole, the GCCF was therefore valued positively. The strength was especially that the mechanism was able to deal with a large number of claims in a relatively short term, thus avoiding further damage just resulting from a time lapse.[666]

Another example constitutes a Belgian Act of November 13, 2011 concerning the compensation for victims of technological accidents. The need for this Act was related to a disaster of an exploding gas pipeline on July 30, 2004 in Ghislenghien. As a result of the accident twenty-four people died and more than 150 were injured. Most of the victims were only compensated many years after the accident which explained the need for a new act with the specific aim of accelerating victim compensation.

The Act applies to a technological disaster of great extent. Compensation is taken care of by the Belgian Motor Insurance Guarantee Fund. The Fund in principle only compensates bodily injury. Victims are free to choose to claim under the Act or under the Belgian civil liability regime. Within three months after the Fund has received the list of the victims an advice will be formulated explaining whether the damage is of such a nature that it should be compensated. If the advice is positive, the Fund will provide an offer of compensation.[667] The financing is based on prepayment by insurance companies. Private insurers pay to the Fund on the basis of their market share. The Fund is subrogated in the rights of the victim against the liable tortfeasor and his insurer.[668] When no liable tortfeasor can be identified, the Fund requests repayment from the National Disaster Fund.

For victims this procedure is very attractive as the costs are low. There are in fact no costs whatsoever. Speedy compensation is the goal and that has to prevent large follow-on damage. The Fund is also guaranteed by relying upon wealthy contributors, the insurance sector.[669] Victims can choose between tort law or the

---

662 Faure & Weber, *supra* note 652, at 135.

663 See Linda S. Mullenix, *Prometheus Unbound: The Gulf Coast Claim Facility as a Means for Resolving Mass Tort Claims: A Fund Too Far*, 71 LA. L. REV. 819, 822 (2011).

664 Deborah E. Greenspan & Matthew A. Neuburger, *Settle or Sue? The Use and Structure of Alternative Compensation Programs in the Mass Claim Context*, 17 ROGER WILLIAMS U. L. REV. 97, 99 (2012).

665 *Id.*

666 Faure & Weber, *supra* note 652, at 142.

667 Article 13 of the Belgian Act of 13 November 2011.

668 Article 9, § 4 of the Act of 13 November 2011.

669 Faure & Weber, *supra* note 652, at 143.

Fund, which is of course positive. This Belgian model shows an interesting example whereby an administrative agency provides speedy compensation to victims, but still recovers the costs from the liable tortfeasor. Victims are paid speedily and the procedure against the tortfeasor can take a long time (via litigation). The advantage is that rapid compensation is provided to victims, but that tortfeasors are still deterred as they finally pay the bill.

These two examples can also be very important for environmental liability, especially when it is feared that a long-time lapse until payment may lead to follow-on damage. A facility which rapidly pays the damage to a specific category of victims for which substantial follow-on harm can be prevented, has large societal benefits. It would merit to examine whether also for particular environmental liability cases, such a rapid claims mechanism should be created.

G. Summary and Recommendations

This section reviewed various limits in environmental liability which may reduce the likelihood that companies would have to respond to environmental harm. At the same time, also potential remedies to those problems were advised.

First of all, limits related to the conditions for liability were reviewed, equally leading to particular remedies:

- the fact that the traditional remedy (of fully compensating the victim equal to the damage suffered) does not provide deterrence in case of a probability of detection of less than 100% could be remedied by introducing punitive damages;
- problems related to uncertainty over causation could be remedied by applying a proportional liability regime;
- problems related to the long-time lapse between an emission and the occurrence of the harm (latency) should lead to an examination of whether the behavior of the tortfeasor was already wrongful at the time when it was committed; if that is not the case, public compensation of the victim should be provided in order to prevent retroactive liability.

Second, I reviewed the fact that widespread pollution may lead to the paradoxical situation that on the one hand the total social loss may be huge, but that on the other hand the damage of each individual may be so small that no one has a sufficient incentive to bring a suit. It is the classic rational apathy or collective action problem, resulting in a market failure. The best remedy is a representative action by an NGO. Granting access to justice, also in liability cases in line with the Aarhus Convention is what therefore should be strived for.

The third type of problems related to the high-cost aversion, which may prevent a victim from bringing a lawsuit. A variety of different instruments (also already applied in several Member States) were introduced, more particularly conditional fees, legal expenses insurance and third-party funding of litigation. It was argued that a wide area of different instruments should be made available in

Member States in order to stimulate litigation. Existing restrictions with respect to several of those instruments within Member States should therefore be removed.

Finally, it was mentioned that some cases of environmental harm may lead to large follow-on losses for the simple reason that the victim may have to wait a long time until compensation is provided. It was therefore argued that mechanisms of alternative dispute resolution should be developed, allowing a rapid compensation of the victim (either through an alternative mechanism like in the case of the GCCF or via an advancement fund like in Belgium) in order to avoid those follow-on losses.

VIII. RELEVANT CASES AND EXAMPLES

A. Introduction

When discussing the various studies that have been executed for the Commission regarding the implementation of the ELD in section 3, some attention was already paid to the practical application of the ELD. In this section, I will focus more closely on some cases and examples. It is, unfortunately, impossible to do a full-fledged empirical study for the reason that data regarding the application of the ELD in all Member States are simply lacking. There are, however, via various sources (such as the mentioned studies and equally the Commission reports) some indications on specific cases. It is interesting to pay some attention to these cases as it can provide some information on the question whether in the specific cases the company concerned was able to fulfil its ELD obligations and actually did so. To the extent that it would not be the case, it is equally important to analyse what the specific reasons would be for the company being unable to follow ELD liabilities. That equally raises the question whether other tools or remedies have been employed.

The cases can therefore provide information, for example on whether the limited liability of companies (discussed in section IV) constituted a particular problem with respect to the obligation of the company to fulfil its ELD liabilities. The cases can also illustrate whether in a specific situation where civil liability was not employed, perhaps other instruments such as administrative or criminal liability intervened (as discussed in section VI) or whether particular barriers to access to justice existed and whether there were particular remedies to solve them (discussed in section VII). But it should be recalled that the cases are simply selected because they appeared either in previous studies, Commission reports or in the literature. There is therefore certainly no claim that they are representative of the way in which the ELD is applied in Member States. But even with that caveat, some insight into specific problems that played a role could be useful as it could illustrate whether some of the issues raised in the literature do indeed seem to arise in practice or not.

Empirics have also fueled the coming into being of the ELD itself. Van Calster and Reins refer to the many cases that arose during the ELD's long gestation process, such as the Aznacollar spill in Spain in 1998, the Baia Mare spill in 2000 in Romania and the Erika tanker incident in 1999 in France.[670] These cases undoubtedly played an important role in making the time ripe for action with respect to environmental liability at the EU level.[671]

B. Previous Studies and Reports

The studies and reports with respect to the ELD, already introduced in section 3, provide some information on the cases in Member States that applied the ELD. The 2009 study on implementation effectiveness by BIO and Stevens & Bolton provides an overview of the ELD cases that occurred until that moment.[672] The study mentions the difficulty in collecting cases as even when environmental liability cases are reported in the media, it is usually not even mentioned that the particular case might be an application of the ELD.[673] The study mentions a total number of nine cases from six Member States. Of those nine cases, five did not involve an application of the ELD. The study therefore concludes that there is indeed a very limited number of ELD cases which makes an assessment of the effectiveness impossible. It also mentions that quite a few cases do not fall under the ELD as they are not caused by activities under legislation in Annex III.[674] In the cases that were mentioned in the study, operators seemed mostly to collaborate with the authorities, as a result of which insolvency did not seem to be an issue in the few cases discussed in the study.[675] This study provided input for the first report by the European Commission of 12 October 2010.[676] The Commission concluded that given the low number of ELD cases, there is insufficient data to draw reliable conclusions on the effectiveness of the Directive in terms of the actual remediation of environmental damage.[677]

A second study that provides information on the cases applying the ELD is equally from BIO and Stevens & Bolton from 2013 and deals with

670 Van Calster & Reins, *supra* note 50, at 12.

671 *Id*.

672 Final Report on Study on the Implementation Effectiveness of the Environmental Liability Directive (ELD) and Related Financial Security Issues, 81 – 87 (Nov. 2009), https://ec.europa.eu/environment/enveco/others/pdf/implementation_efficiency.pdf.

673 *Id.* at 81.

674 *Id.* at 87.

675 *Id.* at 86 (explaining that it could have been a problem in a Spanish pollution case regarding wetlands and lagoons at Las Tablas de Daimiel National Park, but there was no further information on the potentially liable operators).

676 Report from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions: Under Article 14(2) of Directive 2004/35/CE on the environmental liability with regard to the prevention and remedying of environmental damage, COM (2010) 581 final, at 4–5 (Oct. 12, 2010).

677 *Id.* at 6.

implementation challenges.[678] The study provides a section summarizing the practical application of the ELD for seven Member States (Denmark, France, Germany, Hungary, Poland, Spain and the United Kingdom).[679] Of the seven Member States examined, two had no ELD cases so far (Denmark and France); others had cases varying between one and twenty; only Poland reported a high number of cases.[680] The study concludes that there were only few cases of environmental damage for which the ELD regime was applied and that in the majority of cases it was not possible to apply the ELD regime because of specific legal issues.[681] Of special interest is the Annex Part B to this report as it provides more details concerning five specific environmental liability cases that occurred in the Member States. In four out of the five cases the operator apparently cooperated throughout the procedure and agreed to bear the costs of clean-up. It was only in one case (in Poland) that the operator did not cooperate and contested the decisions by the administrative authorities. He contested the results of the experts' assessment and did not take preventive or remedial measures. Again, even though it only concerns five cases, in four out of five the operator apparently cooperated with the authorities.

In the second implementation report of April 14, 2016, the European Commission mentions an average cost of remedial action of around € 42,000.[682] Only in two large-scale losses (to be discussed in further detail below), more particularly Kolontár in Hungary and Moerdijk in the Netherlands, were the costs more than € 50 million. The Commission concludes that "Problems persist regarding the application of the Directive to large-scale accidents and insolvency among liable economic operators."[683]

C. Kolontár, Moerdijk, and ILVA

1. Kolontár

Two cases which are often mentioned as examples of catastrophic environmental harm are the cases of Kolontár (in Hungary) and Moerdijk (in the Netherlands).

---

678 *Final Report on Implementation Challenges and Obstacles of the Environmental Liability Directive (ELD)*, (May 16, 2013), https://ec.europa.eu/environment/archives/liability/eld/eldimplement/pdf/ELD%20implementation_Final%20report.pdf.

679 *Id.* at 95–115.

680 *Id.* at 96.

681 *Id.* at 97.

682 Report from the Commission to the Council and the European Parliament under Article 18(2) of Directive 2004/35/EC on environmental liability with regard to the prevention and remedying of environmental damage, COM (2016) 204 final, at 5 (Apr. 14, 2016).

683 *Id.* at 6.

The Ajka Alumina sludge spill was an industrial accident at a waste reservoir chain of the Ajkai Alumina plant in Western-Hungary. On October 4, 2010, the northwest corner of the dam of the reservoir No. 10 collapsed, freeing approximately 1 million m^3 (35 million kubic feet) of liquid waste from red mud lakes. The mud was released as a one to two meter wave, flooding several nearby localities, including the village of Kolontár and the town of Deceser. Ten people were killed and hundreds were injured. Of more than 1,000 hectares affected by the disaster, forty-seven fell within the Natura 2000 network and forty-four were designated as nature protection areas.[684]

Apparently, there were many issues in the Kolontár incident including the wrongful reclassification of the waste in the dams as "non-hazardous", and the failure of the Hungarian authorities to determine that the extractive waste directive applied to the facility.[685] The magnitude of the liability faced by the operator, MAL, without sufficient insurance covering third party liability finally led to its declaration of bankruptcy in 2013. The insurance policy of MAL was limited to € 40,000 and only covered traditional damages, but not remedying environmental harm.[686] The Hungarian government renationalized the company and became the ultimate guarantor of the environmental liabilities. The Hungarian government submitted an application to the European Commission for solidary fund assistance under the "extraordinary regional disaster" criteria, claiming that the total damages attributable to the disaster amounted to € 174.32 million. The application of Hungary was rejected *inter alia* on the grounds that the occurrence was insurable.[687] The executive director of the company was arrested and the investigation finished in November 2011 with fourteen employees being criminally charged.[688]

2. Moerdijk

On January 5, 2011 ,a large fire occurred at Chemie-Pack, a company in Moerdijk in the Netherlands that dealt with storage, processing, and packaging of chemicals. It caused significant environmental damage, in particularly soil pollution. Large quantities of chemicals were involved in the fire, and the fire extinguishing water was heavily polluted. Around eight hectares of land and water were contaminated including two ports at the river Hollandsch Diep.

Administrative, civil, and criminal proceedings have been conducted on the legal aspects of the fire at Chemi-Pack. The company which performed the activity (the operator) was also the authorization holder, Chemie-Pack Nederland B.V. It did, however, not have sufficient financial resources to cover the costs of

---

684 *See* Teresa Fajardo del Castillo & Juan Fuentes Osorio, *The Aznalcollar and the Kolontár Mining Accidents*, EFFACE, at 27 (Dec. 2014), https://efface.eu/sites/default/files/EFFACE_The%20Aznalcollar%20and%-20Kolontar%20Mining%20Accidents_revised.pdf; De Smedt, *supra* note 172, at 15.

685 *Id*., at 30.

686 EEB, *supra* note 11, at 15.

687 Fajardo del Castillo & Fuentes Osorio, *supra* note 684, at 39-40; LIU, *supra* note 2, at 293.

688 EEB, *supra* note 11, at 15.

all necessary measures. Therefore, a duty under administrative law was imposed upon the director of the company and upon the owner of the land. In addition, property belongings were seized and a large number of trials followed. Chemie-Pack went bankrupt and the insurance of Chemie-Pack did not provide adequate coverage. As a result, only a fraction of the costs could eventually be recovered from Chemie-Pack.[689] Total costs were estimated at € 70 million, but a settlement was reached with Chemie-Pack for a total amount of € 4.2 million. The insurer of Chemie-Pack did not cover as specific laws and regulations had been violated and in that case the insurance does not cover.[690]

The case is interesting as it raises the question whether imposing a duty to seek financial cover could have provided a solution; in addition, the case shows that not merely one approach (environmental liability under the ELD) suffices to handle such a major incident, but that it requires a combination of administrative, civil and criminal liabilities, as argued in section 6.

3. ILVA

ILVA is Europe's largest steel and iron plant (an operation in Taranto, Italy since 1965). There have been problems with pollution due to emissions from ILVA since the 1990s. In 2005, the Supreme Court of Italy (Corte di Cassatione) condemned ILVA, the holding company RIVA Fire, her president (Emilio Riva) and the local director in Taranto for air pollution, rejection of hazardous materials and emission of particles. Just before the end of the limitation period, the local municipality asked in 2010 compensation for environmental harm, due to the emissions until 2006. It claimed the following heads of damages:

- € 2 billion for environmental damage (clean-up costs);
- € 1 billion for the damage to the image of the public body (non-economic damage);
- € 300 million for damage to movable and immovable goods.

In March 2015, ILVA entered into insolvency proceedings. In August 2017, the judge in charge of the insolvency proceedings in Milan denied the compensation asked by the municipality of Taranto (of a total of € 3.3 billion) because they held that the causality between the activity and the damage was not proven. The court only awarded the municipality € 17,000 for tax credits (that the companies did not pay) and € 14,000 for unsecured credits. The municipality appealed the decision. On April 9, 2019, the Court of Appeal of Milan established that the municipality of Taranto was entitled to receive a compensation for the environmental harm caused by ILVA until 2005, at that time managed by the RIVA group. In February 2020, the civil tribunal of Milan awarded a compensation of €

---

[689] S*ee* De Smedt, *supra* note 172, at 8.

[690] Bergkamp, *supra* note 105, at 188.

15,000 to two families claiming damages. They owned real estate in the area adjacent to the polluting plant.[691]

This particular case is interesting as the total amount of damages could not be paid as the polluter went bankrupt. The municipality was only entitled to claim compensation until the entry into force of the new Italian law that implemented the ELD. The case is equally interesting because the claims were not only directed against the company in Taranto (ILVA), but also against the holding company, RIVA Fire. In this case again, not only a civil proceeding was filed (which basically failed due to the bankruptcy), but a criminal lawsuit as well. In 2018, ILVA merged with ArcelorMittal. The merger was approved, also with reference to the fact that it might facilitate the restoration of the environmental harm. The involved commissioner (Vestager) mentioned: "the sale of Ilva's assets to ArcelorMittal should also help accelerate the urgent environmental clean-up works in the Taranto Region. This essential de-pollution work should continue without delay to protect the health of Taranto's inhabitants."[692]

D. United Kingdom Cases

There are several cases regarding environmental harm that occurred in the UK that are extensively reported on and, therefore, worth mentioning. An article in The Guardian dated January 30, 2017 mentions that the Environment Agency collected more than £ 1.5 million for broken environmental laws.[693] The companies paid between £ 1,500 and £ 375,000 in "enforcement undertakings". It is an alternative to prosecutions for breaching environmental laws. The money is directly invested in cleaning up stretches of rivers and to restock water waste with native species. Northumbrian Water paid *inter alia* £ 375,000 for pumping raw sewage into a tributary of the River Tyne while Anglian Water Surfaces made two separate

---

[691] I am grateful to Francesca Leucci (Rotterdam) who provided me detailed information on this case. *See Website of the Committee in charge of the Extraordinary Administration of ILVA S.p.A.*, http://www.gruppoilvainas.it/; latest dossier on the state of the insolvency proceedings with overview of all legal proceedings; http://www.gruppoilvainas.it/pdf/ilva/Relazione_Trimestrale_IV_Trim_2019.pdf; https://www.tuttoambiente.it/sentenze-premium/danno-ambientale/; http://lexambiente.it/; https://archiviodpc.dirittopenaleuomo.org/d/6572-ambiente-e-diritti-umani-nella-sentenza-della-corte-di-strasburgo-sul-caso-ilva; https://www.corrieretaranto.it/2019/04/09/22inquinamento-ex-ilva-il-comune-sara-risarcito/; https://bari.repubblica.it/cronaca/2020/03/17/news/-ex_ilva_inquinamento_a_taranto_giudice_ordina_risarcimento_di_15mila_euro_per_2_famiglia_il_legale_ma_non_arriveranno_m-251499437/?refresh_ce.

[692] European Commission Press Release IP/18/3721, Mergers: Commission Clears Arcelor Mittal's Acquisition of Ilva, Subject to Conditions (May 7, 2018).

[693] *Companies Pay Out More Than £1.5m for Breaking Environment Laws*, THE GUARDIAN, (Jan. 30, 2017), https://www.theguardian.com/environment/2017/jan/30/companies-pay-out-more-than-15m-for-breaking-environment-laws.

payments of £ 100,000 for pollution incidents that killed fish. The Environment Agency praised the instrument of "enforcement undertaking" as very suitable to restore the environment quickly, improve company practices, and avoid longer criminal court cases. Moreover, the payments are said to comply with the polluter-pays-principle.

The total amounts mentioned in the article paid by the various companies are:

Northumbrian Water	£ 375,000
Filippo Berio UK	£ 253,906
Anglian Water Surfaces: two payments of £ 100.000	£ 200,000
Heineken UK	£ 160,000
Carry Ingredients UK	£ 127,975
Sandoz	£ 120,932

Of course, based on the newspaper article it is unknown whether any of these cases involved an application of the ELD. But it is interesting to see that the administrative authority (Environment Agency) in this case uses its newly acquired powers (since 2015) to impose what are *de facto* administrative penalties on polluters. This is completely in line with the suggestion made in section 6 to increasingly use administrative financial penalties as a low-cost deterrent, which avoids the costly route to the criminal court.[694]

Another interesting case is mentioned in a recent (March 2020) study by the European Environmental Bureau (EEB) on crime and punishment.[695] The study reports on a freshwater pollution case involving Thames Water Utilities, a private company responsible for UK water supply and wastewater treatment. They were fined a record-breaking £ 20,61,140.06 for a series of pollution incidents on the river Thames caused by their negligence. The case combines six separate incidents causing significant and repeated pollution from 2012 to 2014, making it the largest freshwater pollution case in the Environment Agency's twenty-year history.[696] The Environment Agency's investigations revealed several reckless failures by Thames Waters that disregarded warnings by its staff and ignored over 1,000 high priority alarms. 1.4 billion liters of untreated sewage in total was discharged, which made it an unprecedented case. In this case, it was the Crown Court that imposed the record file, applying new sentencing guidelines, leading to these high penalties.[697] Again, it is not known whether the ELD played any role at all in this particular case, but it shows an effective intervention by the Environment Agency and the imposition of a spectacular fine, hopefully inducing the defendant towards compliance.

Finally, I should mention an interesting case before the Cardiff Administrative Court against Natural Resources Wales (NRW). The case dealt with

694 *See supra* Section VI(D).
695 EEB, *supra* note 11.
696 *Id.* at 25.
697 *Id.*

a specific lake in Wales (Snowdonia) called Llyn Padarn. The lake became famous among anglers *inter alia* for the presence of a rare species of fish, the Arctic Charr. Discharges of treated and untreated sewage by Welsh Water endangered the quality of the ecosystem and could potentially lead to the extinction of the Arctic Charr. It is an anglers association, Fish Legal, that took action for the court. The interesting point, extensively mentioned in an article by Fogleman, is that the Cardiff Administrative Court gave direct effect to temporal provisions of the Environmental Liability Directive instead of applying the regulations that had transposed the ELD into Welsh law.[698] As a consequence, the provisions of the ELD prevailed over the Welsh regulations that transposed the ELD (with a later date for its implementation and enforcement). Discussing the case law of the Court of Justice of the EU, Fogleman indicates that ELD liabilities already arise in case of a progressive environmental damage resulting from an activity that began before 30 April 2007 and continued after that date unless the operator can prove that the damage entirely occurred before 30 April 2007.[699]

E. Parental Liability

There is now, in many Member States, an increasing number of cases where victims of pollution outside of Europe (or NGOs) allegedly caused by subsidiaries of European companies try to bring environmental liability lawsuits against parent companies before courts in the EU. As the ELD has no territorial effect beyond the EU, those cases obviously do not fall within the scope of the ELD. It is, however, interesting to briefly mention some of those cases as they constitute examples of parental liability discussed in section 4,[700] but also of the increasing tendency to make European companies liable in the North-South relationship for environmental harm occurring in the South.[701] The activism of some NGOs is moreover in line with environmental standing as discussed in section 7.[702]

An interesting case was *inter alia* brought by the King of the Ikebiri community in the Niger delta in Nigeria against ENI in Milan (Italy), supported by Friends of the Earth Nigeria and Friends of the Earth Europe.[703] ENI, an Italian based company, had a Nigerian subsidiary, the Nigerian AGIP Oil Company (NAOC), having activities in Nigeria. On April 5, 2010, an oil pipeline operated

698 Valerie Fogleman, *The Temporal Provisions of the Environmental Liability Directive: The Start Date, Direct Effect and Retrospectivity*, 4 ENV'T. LIABILITY 137, 137 (2014).

699 *Id.*

700 *See supra* Section IV(E)(3).

701 *See supra* Section V(D)(4).

702 *See supra* Section VII(D)(2).

703 *ENI and the Nigerian Ikebiri Case*, FRIENDS OF THE EARTH EUROPE, (May 4, 2017) https://www.foeeurope.org/sites/default/files/extractive_industries/2018/foee-eni-ikebiri-case-briefing-update.pdf.

by NAOC burst 250 meters from a creek north of the Ikebiri community. The spill affected the creek, fishing points and trees. Some initial payments were made by NAOC/ENI (of approximately € 14,000), but that was rejected as being insufficient. The Ikebiri community launched a case against ENI in the Court of Milan, seeking clean-up and compensation for damages from the oil spill that affected their community in the Niger delta. In Court the community sought damages of approximately € 2 million. The plaintiffs brought the case to Italy as they consider ENI, the parent company, the one who is ultimately liable as the parent also profits from the oil production in Nigeria. The plaintiffs did not want to bring their case to a Nigerian Court because of lack of access to justice and poor enforcement.[704]

The case is interesting as it shows an attempt to make parent companies in Europe liable for environmental harm caused by its subsidiary in the south. This could make parental liability realistic. In this particular case, given the assets of ENI, the potential insolvency did not appear to be a problem and neither was the potential limit of liability of NAOC the reason to bring the case in Italy, but rather the lack of trust in the court and enforcement system in Nigeria. On March 17, 2021 the Court of Milan acquitted ENI, its chief executive and the management team involved in the Nigeria case on every count on the ground that the case was unfounded.[705]Many similar cases have been brought with variable success for the plaintiffs. Another case concerned the Swedish mining giant Boliden and dates from longer ago: the 1980s. Boliden was accused of having disposed 20,000 tons of led and arsenic contaminated smelter waste in Chile.[706] Not realizing the toxic nature of the deposits, housing developments took place within yards of the waste and children played on a toxic playground. Even though the case originated from the 1980s, the public uproar only started at the beginning of this century when the damage, more particularly to human health, became clear. A lawsuit had been brought for the damage which occurred in Chile, in September 2013 against Boliden in Sweden. The Swedish Court passed judgment in March 2018 in favor of Boliden for a variety of reasons, but an appeal has been filed.[707]

A number of interesting cases were also filed in the UK on parent company liability.

In the case of *Okpabi v. Shell*, the London High Court rejected in a decision of January 2017, jurisdiction over the claims against the parent company, finding that the claimants failed to present an arguable claim that the parent company was responsible for the systematic pollution caused by its subsidiary. The decision was confirmed by the Court of Appeals on February 14, 2018, ruling that there is no

---

[704] *Id.*

[705] Antonio Tricaricol, *Eni/Opl245 Trial: A Shadow Stretches Over the Court of Milan*, SHELL & ENI ON TRIAL (Feb. 7, 2020), https://shellandenitrial.org/2020/02/07/eni-opl245-trial-a-shadow-stretches-over-the-court-of-milan/.

[706] *Mining Waste From Sweden Poisons Chileans*, ENVIRONMENTAL DEFENDER LAW CENTER, https://edlc.org/cases/remedying-health-and-environmental-harms/mining-waste-from-sweden-poisons-chileans/ (last visited May 13, 2020).

[707] *Id.*

arguable case that the parent company (Royal Dutch Shell) could be held legally responsible for the actions of its Nigerian subsidiary.[708]

Another case of *Lungowe v. Vedanta*, dealt with damage that occurred in Zambia by a UK mining firm Vedanta, leading to a claim by Zambian villagers against Vedanta. Vedanta was the parent company of Konkola Copper Mines (KCM) an extractive resources company active in Zambia. Both the High Court and the Court of Appeals ruled that the case could be heard in English courts.[709] The case went to the UK Supreme Court where it was confirmed that it could be heard by UK courts.[710] An author concludes "that it is now harder for UK parent companies to deny that they have a duty of care for the acts of their subsidiaries… This case could act as an important weapon for claimants to mitigate environmental impacts which can be linked to multinational companies' operations."

A third case dealt with ethnic violence of which Kenyan nationals were victims following the 2007 Kenyan presidential election. 218 Kenyan nationals brought together in a group (AAA) sued Unilever Tea Kenya Limited (UTKL) as well as Unilever PLC. UTKL was the Kenyan domiciled subsidiary whereas UPLC the UK domiciled parent. The argument of the victims was that ethnic violence was carried out on the plantation whereas the risk of violence was foreseeable and the defendants owed them a duty of care to protect them from these risks.[711] In that particular case the Court found that the claims concerning a duty of care did not have arguable merit and so the case could not be heard in English courts. Meade argues that these cases all show that the question arises whether the parent company with a separate legal entity has sufficient control over the subsidiary to be held liable for harm caused by the subsidiary outside of the EU.[712] There is, in general, so he argues, an important development towards improved access to remedy in the UK for victims of overseas corporate related harm which calls for reforms "thereby mitigating against risk of parent companies distancing themselves from subsidiaries and enable victims of environmental and human rights abuse to access justice."[713] And these developments are certainly not limited to the UK, but can be found in

---

[708] HRH Emere Godwin Bebe Okpabi and Overs v. Roya Dutch Shell plc and another, [2018] EWCA (Civ) 191, [2018] Bus LR 1022; *see also* United Kingdom, BUS. & HUM. RIGHTS L., www.bhrinlaw.org/key-developments/58-united-kingdom, (last updated Aug. 31, 2020).

[709] BUS. & HUM. RIGHTS L., *supra* note 708.

[710] Anita Lloyd, *UK Supreme Court Considering Parent Company Liability for Environmental Harm Caused by Oversees Subsidiary*, SQUIRE PATTON BOGGS: FRESH L. BLOG (May 1, 2019), https://www.freshlawblog.com/2019/05/01/uk-supreme-court-considering-parent-company-liability-for-environmental-harm-caused-by-overseas-subsidiaries/.

[711] BUS. & HUM. RIGHTS L., *supra* note 708.

[712] William Meade, *Recent Decisions in the UK on Parent Company Liability Cases Show the Need for Law Reform*, BUS. & HUM. RIGHTS RES. CTR. (Sept. 7, 2018), https://www.business-humanrights.org/en/recent-decisions-in-the-uk-on-parent-company-liability-cases-show-the-need-for-law-reform.

[713] *Id.* at § 4.

many other EU jurisdictions as well, indicating an increased likelihood of imposition of a duty of care on parent companies located in the EU for environmental harm (or other violations) caused by their subsidiaries outside the EU.

F. European Environmental Bureau

I already referred to a recent (March 2020) study by the European Environmental Bureau on crime and punishment, which also provides an interesting presentation of several cases.

One case mentioned in the report deals with Doñana, an important wetland located in Spain, but where the underground aquifer was exploited by suspicious irrigation points and illegal wells.[714] Greenpeace estimated the costs of this water theft to be nearly € 15 million between 2013 and 2017, yet the probability of detection seems to be low. In 2014 a plan was made to close 3,000 hectares of illegal farms, but it was not implemented. Illegal and unsustainable agricultural practices and the related water usage have been mentioned as the main driver of the reduction of the aquifer. In this particular case the Commission took Spain to court for its failure to protect the Doñana wetlands, as Doñana is part of the Natura 2000 network.

One important problem mentioned concerning this case is that there could be as much as 510,000 illegal wells, but that the exact number is simply unknown. It is the wide-spread immunity that leads to a continuation and increase of illegal wells, threatening the habitat.[715]

This case was not examined under the ELD framework, but under the Water Framework Directive and the Environmental Crime Directive. It shows (again) that in these particular cases of serious and continuous pollution, the liability instrument itself may not suffice and effective enforcement, supported by the criminal law (as argued in section 6) may be indicated.

Another case discussed by EEB concerns illegal logging that took place in Romania, again in Natura 2000 areas by an Austrian timber company.[716] In May 2018 the damage caused by the illegal logging was estimated at € 25 million. Approximately twenty million cubed meters would be illegally logged each year, estimated to be worth at least € 4 billion in a four-year period. In this case the traceability of the timber is mentioned as an impediment for effective corporate accountability and liability. Again, it is a case where there could be a violation of the EU Timber Regulation, which amounts to environmental crime. However, significant enforcement gaps and a lack of criminal prosecution made it difficult, even to apply the criminal law in this particular case.[717] NGOs who tried to

---

714 EEB, *supra* note 11, at 7.
715 *Id.*
716 *Id.* at 17.
717 *Id.*

challenge the activity of the Austrian timber company were even sued, claiming compensation for legal costs as an act of intimidation.[718]

G. Conclusion

In this section I discussed some of the cases with respect to the application of the ELD and environmental liability in general. The case selection was limited, based on the available material and therefore certainly not representative. Therefore, one has to be cautious with drawing too strong conclusions based on such a small sample.

Most informative are the studies performed for the European Commission and the Commission Reports themselves. They already provide a few interesting conclusions. One of them is that there are so far not many cases applying the ELD. In the cases that were reported often the operator seems to cooperate; the average amount of the damage (restoration costs) was also relatively low. On the basis of that, one could conclude that there should not be a major worry that operators (try to) escape the application of the ELD; there are apparently no major issues of insolvency or externalizing harm to thinly capitalized subsidiaries. However, there are also a few rather spectacular exceptions (like the cases of Kolontár, Moerdijk and ILVA) where the damage was substantial and immediately an insolvency problem arose. The consequence in both cases was that insurance was either not available or insufficient and that by the end of the day it was the government (and therefore the general taxpayer) that picked up the bill. That could justify the conclusion that financial security instruments[719] are especially needed in cases where the expected damage could be substantial.

Moreover, it also became clear that in really large pollution cases multiple instruments need to be applied. One could often see not just the application of environmental liability instruments, but also administrative measures, financial penalties and in some cases criminal prosecution. Some of those more spectacular cases also illustrate that one would be wrong to think that within the EU there would not be large pollution cases anymore. Unfortunately, they apparently still do exist and, in that case, need a coordinated and integrated mix of different instruments (administrative, civil and criminal) as suggested in section 6.

One could also notice that, especially in cases of cross-border pollution or rather pollution taking place in countries outside the EU by subsidiaries of European companies, there is increasingly a search for possibilities to hold the European parent company liable.[720] Increasingly it is argued that the European parent has a duty of care to prevent (environmental and other) harm to be caused by its subsidiaries active outside of the EU. In that relationship parental liability therefore

---

718 *Id.*

719 *See supra* Section IV(F).

720 *See* ENNEKING, *supra* note 477, at 77–266 (fitting into the continued trend of foreign direct liability).

becomes a reality and increasingly EU courts also accept those cases even though the damage occurred outside the EU and the foreign subsidiaries were domiciled outside of the EU.

It is equally striking that many of the environmental harm and environmental liability cases discussed either in the literature or in press reports do not refer to the ELD. That does not always mean that the ELD is not of importance; in some cases, one may not even be aware that *de facto* legislation is applied, which constitutes a transposition of the ELD. Moreover, given the limited scope of the ELD and the fact that it does not award a right to sue to individual victims, it is as such not surprising that those individual victims rather call on instruments of domestic law in cases of environmental liability. And obviously the crucial question is not so much whether the ELD is effectively applied, but rather whether in general companies within the EU are held liable for the environmental harm they are causing, either based on instruments transposing the ELD or on the basis of other instruments.

Data with respect to environmental harm and the cases to which they give rise are apparently still scarce. One important recommendation would therefore consist of collecting reliable data on environmental incidents within the EU (whether or not they give rise to application of the ELD) as well as of the instruments (civil, administrative, criminal) that were applied to deal with those incidents.[721] Only when more reliable data becomes available will it be possible to examine whether today a combination of different legal instruments is able to adequately respond to environmental harm, or whether serious gaps still exist that would have to be remedied.

IV. CONCLUDING REMARKS

This article addressed environmental liability of companies at EU level and therefore focused on the European instrument addressing environmental liability, being the ELD. But I merely addressed the potential limits that today exist in holding companies liable under the ELD. That leads to particular limits in at least two respects. The first one is that the ELD is for the European level undoubtedly an important instrument, but it also has a relatively limited scope[722] as a result of which the many studies concerning the effectiveness of the ELD also indicate that (in fact only with the exception of two Member States) the ELD is certainly not frequently applied in practice to environmental liability. In reality, victims of environmental harm in EU Member States will call on domestic environmental liability law to receive compensation for the damage they suffered, irrespective of whether that national law was the result of the implementation of the ELD or not. That important point means that in order to provide an integral

---

[721] *See* Van Erp et al., *supra* note 557 (lining up with the literature that increasingly pleads in favour of a so-called smart mix between different instruments to deal with environmental harm).

[722] *See supra* Section III(B)(4).

assessment of the state of environmental liability of companies within the EU, one obviously would have to look beyond the ELD and ask more generally whether companies in the EU can be held liable for environmental harm, whether that is on the basis of legislation implementing the ELD or on the basis of other rules. That would obviously require an investigation into domestic environmental liability law of the Member States which was beyond the scope of this study.

Today, within the EU, is there any specific problem with the environmental liability of companies? A first way of approaching this question is by looking at the number of cases. The various studies that consultants drafted for the European Commission[723] and the reports presented by the European Commission[724] both make clear that the number of cases is relatively small: only Hungary and Poland report a lot of cases where the ELD is applied, but the number of cases generally is low, and eleven Member States even report no case whatsoever where the ELD is applied.

In the reports presented by the Commission one sometimes senses a slight disappointment when these numbers are presented. The question, however, arises whether that disappointment is justified. After all, the mere fact that Member States report few cases does not necessarily say anything about the effectiveness of the ELD or even of the environmental liability regime in general within the Member State. The few cases applying the ELD could be related, as the Commission reports also indicate, to the fact that many Member States were late in implementing the ELD. In this respect it is typical that only three Member States succeeded in transposing the ELD within the correct time frame. The reports also refer to the low awareness of the ELD among operators. That, in itself, would not explain the low number of cases, but it is possible that also among plaintiffs and their lawyers the awareness is not large. One important possibility, also addressed in the Commission reports is that plaintiffs, lawyers and the judges in the Member States simply apply domestic law. Given the many limitations in the scope of the ELD, that should as such not be a surprise and not even be considered problematic. It may be that particular Member States had already a strong and effective environmental liability regime in place, which practitioners (plaintiffs and judges) continue applying, also after the transposition of the ELD. If that is indeed the case, the goal of exposing companies within the EU to environmental liability is still reached, even if it is not via legislation implementing the ELD. After all, the ELD should not be considered as a holy grail that should at all costs be applied. If effective Member State legislation can reach the same goals of prevention and compensation[725] the mere fact that the ELD is not applied should not be considered as problematic.

And finally, if there were in a particular Member State just a small number of environmental liability cases (not just a few cases applying the ELD), that could also mean that the general environmental regulatory framework has been effective

---

[723] *See supra* Section III(D).
[724] *See supra* Section III(E).
[725] *See supra* Section I(A).

in preventing environmental harm and/or that the applicable environmental liability rules had a supplementary deterrent effect providing adequate incentives for the prevention of environmental harm. But whether that is really the case is of course an empirical question that certainly merits further attention.

The second effectiveness question relates to the issue whether, if a company is held liable for environmental harm, it is also able to pay the compensation due? It is interesting to see that the studies that analyzed the cases within the Member States mention several cases in which operators fully cooperated with the authorities and were able to pay the remediation costs.[726] One case is even mentioned of repair costs of a total of € 48 million which were equally paid by the operator and his insurer.[727] Unfortunately the number of cases reported is so small that it is impossible to draw any serious conclusions with such a small number. However, also the reports issued by the European Commission mention average costs for remedial actions of € 42,000[728] which are obviously costs which would be compensable by most operators. There is mention of a few problematic cases where the losses were higher than € 50 million, but these cases seem to be relatively few in number.[729] That would probably justify the conclusion (again, one has to be cautious given the limited availability of data) that in the majority of ELD cases operators are apparently able to meet their obligations. Not surprisingly it is only in case of disastrous accidents that insolvency may arise.

In the many studies and reports the related question is asked whether operators in Member States seek insurance coverage for their ELD obligations. Again, one notices that several studies mention that operators often do not have a specific demand for financial cover (for example via insurance) to deal with their ELD liabilities.[730] Again, the reports by the European Commission do mention with some sense of disappointment that demand for specific financial products to cover ELD liabilities is still relatively low.[731] However, one has to caution that the mere fact that demand to cover ELD liabilities would be low should as such not necessarily come as a surprise and should not under all circumstances be considered as problematic either. The crucial question is indeed whether the particular operator expects large losses for which it would have a particular risk aversion. Given the mention of an average cost of remedial actions of € 42,000,[732] one should as such not be surprised that operators do not have a demand to seek protection for these kind of costs. The economic logic is simple: they would simply not have a risk aversion to pay remedial costs of € 42,000. Many operators may well be able to cover those costs with their own balance sheets and therefore have no specific demand to seek cover for relatively low costs of remediation. Logically, operators

---

726 *See supra* Section III(D)(3).
727 *Id.*
728 *See supra* Section III(E)(2).
729 *Id.*
730 *See supra* Section III(D).
731 *See supra* Section III(E)(1).
732 *See supra* Section III(E)(2).

only have a demand for financial cover for accidents which would create high costs going beyond the financial capabilities of the operator for which they might have risk aversion. But that demand for financial cover therefore strongly depends upon the nature of the particular operator, the type of activity involved and the magnitude of potential losses that could be created. A differentiated, balanced solution is therefore indicated.

I just indicated that one should as such not be surprised that operators do not have a demand to seek financial cover for relatively low expected costs. However, the flipside is that they may have a demand when environmental harm would lead to large losses, but there exactly the problem arises that when the losses become very high (beyond the magnitude of the corporation) there would not be a demand for financial cover either, for the simple reason that the insolvency related to the limited liability of the corporation would then allow an externalization of losses to involuntary creditors. That is precisely the reason why exactly for those higher magnitude losses, mandatory financial security has to be introduced.[733] Yet, as I just explained: given the differentiated character of operators, risks and potential losses, there should not be a generalized duty (for example with specific amounts) mandating financial security at the EU level. That would basically mean that also operators are forced, for example to pay insurance premiums, where insurance would have no added value to them (for example because they have a stronger balance sheet than the insurance company involved). For that reason, the EU level should mandate financial security, but leave it to the Member States to implement this in a differentiated manner. The Guideline could of course make clear which elements administrative authorities within the Member States should take into account in order to assess the type and magnitude of a particular financial security needed. That has the advantage of on the one hand allowing sufficient flexibility and on the other hand guaranteeing that financial security is available, precisely for the large disastrous losses where the danger of externalization of harm to involuntary creditors is the largest.

One general problem, discussed at length in section IV, is the limited liability of the corporation. The remedy I suggested in this study is to find the solution within the framework of environmental liability and insurance by mandating financial security in a differentiated, flexible and balanced manner. Yet, many remedies have also been proposed within corporate law. But each of those particular remedies had their own specific problems. For example, minimum capital requirements did not seem to be very effective in protecting creditors and the idea of pro rata unlimited shareholder liability was considered to be difficult to implement. More generally, several scholars[734] are very critical of a further European intervention concerning corporate law and generally argue that the harmonization of corporate law at EU level has not been very effective.[735] The

733 *See supra* Section IV(F).

734 *See* ENRIQUES, *supra* note 358.

735 Luca Enriques, *EC Company Law Directives and Regulations: How Trivial are They?*, 27 U. PA. J. INT'L ECON. L. 1 (2006).

question also arises whether it is necessary to revolutionize the entire domain of corporate law just to solve one particular problem of environmental liability. The advantage of mandating financial security in a balanced manner is that it focuses on the particular problem of environmental liability without touching upon the totality of corporate law, which could potentially have adverse effects as well. Examining the possibilities of extending financial cover for ELD liabilities is moreover, what is currently also examined at EU level.

One could imagine some adaptations of corporate law to strengthen environmental liability of companies. Several interesting ideas have in that respect been formulated in the literature which certainly merit further research. For example, the idea of expanding ELD liabilities to corporate groups or to parents (for ELD liabilities of a subsidiary) is an interesting thought, discussed but debated in the literature. The Court of Justice has taken important steps in that respect in Akzo Nobel in the domain of competition law and the question could be asked whether environmental liability would merit a similar solution. However, that depends of course on the empirical question whether today subsidiaries often escape ELD liability because of corporate structures and whether as a result companies could not meet ELD liabilities. It should first be examined whether that is really the case before such a revolutionary step would be recommended. The literature has also warned that a too generous parental liability might lead to perverse effects (for example of limiting the control of subsidiaries via internal compliance mechanisms). Another solution mentioned in the literature to deal with the negative consequences of limited liability for involuntary creditors is to award tort victims a higher priority in case of bankruptcy. Again, that would merit further research. The question, for example, arises whether that would really help in cases where companies intentionally organize their own insolvency and there are no assets left whatsoever for creditors. It is certainly worth further examining these and other solutions, but generally mandating financial security for environmental liability seems to be the optimal way to guarantee effective compensation of environmental harm and an effective internalization of externalities.

ANNEX 1: MINIMUM CAPITAL REQUIREMENT

Austria

General Partnership and Limited Partnership: no minimum capital requirement.

Limited Liability Company: €35,000 minimum share capital, with at least €17,500 paid up in cash.

Stock Corporation:

- €70,000 is the minimum share capital, with twenty-five percent of the minimum issue amount fully paid up in cash.
- Formation by contribution in kind is possible.

Belgium

Public limited company (*société anonyme/naamloze vennootschap*):

- Minimum capital: € 61,500 fully paid-up at the time of incorporation.

Limited company (*société à responsabilité limitée/besloten vennootschap*): there is no capital requirement.

Czech Republic
Limited liability company: there is a minimum of CZK1.
Joint stock company: there is a minimum of CZK 2 million or €80,000.

Denmark
Limited liability company (*Kapitalselskab*)
Limited liability companies must have the following minimum share capitals respectively:
- Entrepreneur company (*iværksætterselskab*): DKK 1.
- Private limited company (*anpartsselskab*): DKK 40,000.
- Public limited company (*aktieselskab*): DKK 400,000.
- Limited partnership company (*partnerselskab*): DKK 400,000.

Finland
Osakeyhtiö (Oy):
- Private Limited Liability Company (*Oy*): €0
- Public Limited Liability Company (*Fi: Julkinen osakeyhtiö, Oyj*): €80,000

France
Société par actions simplifiée (SAS): the minimum is €1.
Société à responsabilité limitée (SARL): there is a minimum of €1.
Société anonyme (SA): €37,000.

Germany
GmbH – limited liability company: there is a minimum of € 25,000.

Greece
Societé anonyme (S.A.): the minimum share capital is currently €25,000.
Limited liability company (L.T.D.): no minimum capital requirement.
Private company (P.C.): no minimum capital requirement.

Hungary
Private company limited by shares (Zrt.): at least HUF 5,000,000 (approx. US$20,000).
Limited liability company (Kft.): at least HUF 3,000,000 (approx. US$12,000).

Ireland
Private company limited by shares (LTD): no minimum capital requirement.
External company: determined by the laws of the jurisdiction of incorporation.

Italy
Società a responsabilità limitata (S.r.l.):
- Minimum capital requirement of €10,000.
- The corporate capital is at least equal to €1.

Società per azioni (S.p.A.): minimum capital requirement of €50,000.

Luxembourg
Private limited liability company (*Société à responsabilité limitée* or S.à r.l.): € 12.000, fully paid-up upon incorporation.
Public limited liability company (*Société anonyme* or S.A.): €30.000, fully subscribed and at least ¼ of each share must be paid up.
Special limited partnership (*Société en commandite spéciale* or SCSp): no minimum capital requirement.

Netherlands
B.V. (private company with limited liability): no minimum capital requirement. Issued capital can be as small as €0.01 (or one cent in any other currency).
Co-operative U.A.: no minimum capital requirement.
C.V. (a limited partnership): no minimum capital requirement.

Norway
Private LLCs: NOK 30,000.
Public LLCs: NOK 1 million.
Partnerships with liability: no minimum capital requirement.

Poland
PLN 5,000 for limited liability companies.
PLN 100,000 for joint-stock companies.
PLN 1 for simplified joint-stock companies.
PLN 50,000 for limited joint-stock partnerships. No limits exist in respect of other organizational forms.

Portugal
Sole shareholder private limited liability company (LDA with 1 shareholder): minimum share capital of €1.
Private limited liability company (LDA): minimum share capital of €2.
Joint stock company (SA): minimum share capital of €50,000.

Romania
Joint stock company (JSC):
- Minimum share capital of RON 90,000.
- Minimum nominal value per share of RON 0.1.

Limited liability company (LLC):
- Minimum share capital of RON 200.
- Minimum nominal value per share of RON 10.

Spain
Branch (*Sucursal*): there are no minimum capital (fund allocation) requirements.
Limited liability company (*Sociedad Limitada*): minimum of €3,000.
Joint-stock company (*Sociedad Anónima*): minimum of €60,000.

Sweden
Trading partnership (*Sw. handelsbolag*, HB): no minimum capital requirement.
Limited partnership (*Sw. kommanditbolag*, KB): no minimum capital requirement.

United Kingdom
Private limited company: companies must have a share capital, which can be any value above zero.
Limited Liability Partnership (LLP): there is no concept of share capital, and no minimum capital requirement.