ECONOMIC CRITERIA FOR CRIMINALIZATION
ECONOMIC CRITERIA FOR CRIMINALIZATION

Optimizing Enforcement in Case of Environmental Violations

Katarina Svatikova
Economic Criteria for Criminalization: Optimizing Enforcement in Case of Environmental Violations
Katarina Svatikova
Supervisor: Prof. Dr. Michael G. Faure
Erasmus University Rotterdam

© 2012 Intersentia
Cambridge – Antwerp – Portland
www.intersentia.com | www.intersentia.co.uk

ISBN 978-1-78068-050-7
NUR 824


No part of this book may be reproduced in any form, by print, photoprint, microfilm or any other means, without written permission from the publisher.
ACKNOWLEDGMENTS

My sincere gratitude and recognition to Michael, my dear supervisor, who has been leading me, motivating me and supporting me throughout my entire 4-year PhD journey. It was not always easy to keep me challenged and motivated but Michael succeeded by involving me in different projects, workshops and conferences, for which I am very grateful. It was a pleasure to work with him and even a greater pleasure to have him as a friend, and hopefully this will continue also in the future. I am also thankful to the Members of my Committee, Luigi Franzoni, Sandra Rousseau, Louis Visscher, Paul Mevis, Gunter Heine, Henk van de Bunt and Thomas Eger for their helpful comments on my thesis, and a special thanks to Nuno Garoupa for giving me the opportunity to do a research visit at the University of Illinois, Champaign-Urbana.

Furthermore, I would like to thank the entire RILE staff (the order is random): Wicher and Marianne for being so great and helpful (ALWAYS), Alessio and Olia for supporting me professionally as well as mentally (I know I complained a lot about the never-ending PhD, especially in the final stages), Roger for being an extraordinary person and character, Sharon and Maya for all the insights and always calming me down, Ann-Sophie for her humor and great attitude, Klaus for being so proud of me that I attended the CES-ifo conference, Hanneke for her amazing support and tips on anything, Louis for being always there to help me and answer my questions, and to all the others on the fifth floor who made my four years enjoyable.

Special thanks to our EDLE group, Laarni, Bashir, Max, Vera, Frank, Sonja, Meltem, Ale, Gosia, Franz, Vania, Weiqiang and the rest. Not only you gave me important remarks during our EDLE seminars but you also made my PhD life fun. Another special thanks to the EMLE 2008–2009 group, Salvo, Mark, Tom, Ashish, Laure and the others. The same goes to my Slovak gang, Zuzka, Zuska, Kella, Linda, Katka, Luc, etc. and the Culemborg gang, Erik, Arjan, Andre, etc.

And of course, my big big thanks for all the support throughout my entire life to my parents and to my sister.
CONTENTS

Acknowledgments ................................................................. v
Executive Summary ............................................................. xi

Chapter 1.
Introduction ........................................................................ 1
  1.1. Introduction ............................................................... 1
  1.2. Relevance ................................................................. 4
  1.3. Research Question(s) and Purpose ................................. 6
  1.4. Methodology ............................................................. 7
  1.5. Scope of Research ...................................................... 8
  1.6. Structure .................................................................. 10

Chapter 2.
Criminal Legal Theory: Why Criminal Law? ......................... 13
  2.1. Introduction ............................................................... 13
  2.2. What is Crime: Distinguishing Characteristics of a Criminal Act ........................................ 14
      2.2.1. Harm ................................................................. 14
      2.2.2. Intent/Guilty Mind (mens rea) ................................. 15
      2.2.3. Punishment ........................................................ 17
      2.2.4. Standard of Proof .............................................. 17
  2.3. When is a Crime Crime: The Principle of Legality .......... 18
  2.4. Functions and Goals of Criminal Law ......................... 19
      2.4.1. Deterrence ......................................................... 20
      2.4.2. Prevention ......................................................... 20
      2.4.3. Incapacitation ..................................................... 21
      2.4.4. Rehabilitation .................................................... 21
      2.4.5. Restoration and Reparation ................................. 21
      2.4.6. Punishment ......................................................... 22
  2.5. Why Criminalize: Legal Criteria for Criminalization .... 23
      2.5.1. The Principle of Individual Autonomy ................... 25
      2.5.2. The Principle of Welfare ..................................... 27
      2.5.3. The Principle of Harm ....................................... 27
      2.5.4. The Principle of Morality ................................... 30
2.6. The Development of Administrative Law ........................................... 33
  2.6.1. Enforcement Deficit under Criminal Law ........................................ 33
  2.6.2. Corporate Criminal Liability ............................................................. 35
2.7. Limitations of the Legal Approach to Criminalization ....................... 38
2.8. Conclusion ................................................................................................. 40

Chapter 3. 
Criminological Perspectives on Criminalization ............................................ 43

3.1. Introduction ................................................................................................. 43
3.2. Labeling Perspective .................................................................................... 45
3.3. Conflict and Radical Theories .................................................................... 47
  3.3.1. Conflict Criminology ............................................................................. 47
  3.3.2. Radical Criminology ............................................................................. 48
3.4. Critical Theory ............................................................................................. 49
3.5. Corporate Actors and Enforcement of Environmental Law .................. 51
3.6. Limitations of this Approach ...................................................................... 53
3.7. Conclusions ................................................................................................. 53

Chapter 4. 
Economic Criteria for Criminalization .......................................................... 55

4.1. Introduction ................................................................................................. 55
4.2. Why Do We Need Law? Harmful Conducts in Economics .................. 57
4.3. Criteria for Public vs. Private Law Enforcement ..................................... 59
  4.3.1. Intent ...................................................................................................... 60
  4.3.2. Imperfect Detection and Enforcement by Private Law Parties .......... 61
  4.3.3. The Level of Harm ................................................................................ 62
  4.3.4. Low Probability of Detection and Sanctioning of Harms ................. 63
  4.3.5. Aim of Law: Compensatory vs. Punitive .......................................... 67
  4.3.6. Administrative Costs of Enforcement (Enforcement Costs) .......... 68
  4.3.7. Conclusion ............................................................................................. 69
4.4. Criteria for Criminal vs. Administrative Law .......................................... 70
  4.4.1. Imprisonment ........................................................................................ 71
  4.4.2. Stigma .................................................................................................... 73
  4.4.3. Aim of Law: Deterrence vs. Compliance Strategies .................... 75
  4.4.4. Enforcement Costs .............................................................................. 77
4.5. Economic Criteria for Criminalization .................................................... 79
  4.5.1. Harm ..................................................................................................... 80
  4.5.2. Stigma .................................................................................................... 81
  4.5.3. Low Detection Rate ............................................................................. 83
  4.5.4. Enforcement Costs .............................................................................. 83
4.6. Conclusion ................................................................................................. 84
Chapter 5.
Criminal or Administrative Law to Protect the Environment? Evidence from Western Europe

5.1. Introduction ................................................................. 87
5.2. Theoretical Framework Applied to Environmental Law ................. 89
5.3. Experiences in Four Legal Systems ...................................... 91
- 5.3.1. Flemish Region ....................................................... 91
- 5.3.2. United Kingdom .................................................... 99
- 5.3.3. The Netherlands .................................................... 105
- 5.3.4. Germany ............................................................. 109
5.4. Critical Comparative Analysis and Implications ......................... 113
- 5.4.1. A Brief Comparison ................................................ 114
- 5.4.2. Sufficiently High Probability of Being Sanctioned? ............... 116
- 5.4.3. Implications for the Actual and Expected Sanctions ............... 117
5.5. Concluding Remarks ..................................................... 119

Chapter 6.
Complementary Use of Administrative and Criminal Fines in Enforcing Environmental Regulations

6.1. Introduction ................................................................. 121
6.2. The Model ................................................................. 124
- 6.2.1. Basic Setup .......................................................... 124
- 6.2.2. Assumptions ......................................................... 127
6.3. Basic Model with Criminal Fines ....................................... 132
6.4. Model with Administrative and Criminal Fines ......................... 135
6.5. Impacts of the Criminal Fine and Administrative-criminal Fine Models on Social Welfare and their Comparison .................. 138
- 6.5.1. Case 1 ................................................................. 138
- 6.5.2. Case 2 ................................................................. 140
- 6.5.3. General Remarks .................................................. 142
6.6. Conclusion ................................................................. 143
Appendix .............................................................................. 144

Chapter 7.
Conclusions ......................................................................... 147

7.1. Introduction ................................................................. 147
7.2. Major Findings ............................................................. 148
- 7.2.1. Criminal Legal Theory, Criminology and Economic Analysis: Comparative Analysis .................. 148
7.2.2. Economic Criteria for Criminalization Summarized .............. 150
7.2.3. The Role of Administrative Sanctions .................................. 152
7.3. Implications of the Analysis .................................................. 155
7.4. Limitations and Suggestions for Further Research ..................... 157

References .................................................................................. 159
EXECUTIVE SUMMARY

BACKGROUND

Recent EU Directive (2008) on the protection of the environment through criminal law asked the Member States to use criminal sanctions to enforce several EU environmental directives. Because a Directive has to be directly transposed into the national legislation, the Member States have the obligation to enforce environmental violations through criminal law. Originally, criminal law was used only for the most serious and ‘intentional’ cases, such as murder, rape or theft. However, with the rise of the new economic order after World War II, more and more violations, regulatory in nature, fell under the umbrella of criminal law. Some speak of the overcriminalization phenomenon, others argue for the increasing need of criminal sanctions because of their deterrent effect.

PURPOSE OF THIS RESEARCH

This debate on the use of criminal law as an enforcement mechanism, particularly in the area of “regulatory” crimes, brings forward a fundamental inquiry and the motivation for this research: why should criminal law be used at all to control these activities? Criminal law has traditionally been portrayed in the literature as the most coercive and expensive instrument to use to deal with harmful conducts because of its severe sanctions and high enforcement costs. Hence, it is puzzling why society uses it also for the allegedly minor harms, administrative in nature. In these cases, the use of administrative sanctions, particularly of administrative fines, might show to be more efficient, since the administrative proceedings are much simpler, and hence presumably cheaper, compared to the criminal proceedings. These developments in administrative penal law have been seen in certain jurisdictions, however, it is still questionable whether they make sense also from an economic perspective. The bottom line is that the rationale for using criminal law is not always clear. Therefore, the purpose of this research was to answer the question why, from an economic perspective, society should use enforcement through criminal law, and when there should be a role for administrative law. More particularly, the goal was twofold: first, to determine what the economic criteria for criminalization are as opposed to relying on private
Economic Criteria for Criminalization

and administrative law remedies, and two, to establish whether there is a scope for administrative law sanctions, namely administrative fines, and if yes, under which conditions. Thus, the main task of this research was to investigate whether there is an economic justification for having two enforcement instruments, criminal and administrative, and under which conditions one enforcement instrument should be preferred to another. The application was made to the enforcement of environmental violations.

METHODOLOGY

To answer these research questions, three theoretical perspectives were discussed: the criminal legal theory (Chapter 2), criminology (Chapter 3) and particularly the economic theory (Chapter 4). The main focus was on the economic theory, principally the law and economics approach, based on which the economic criteria for criminalization were developed and summarized in Chapter 4. The different enforcement instruments were evaluated according to the normative criterion, efficiency. Efficiency means that a certain enforcement mechanism is effective in reducing social harm in question and at the same time it does so at the lowest possible cost. This approach allowed for the assessment of instruments and their impacts according to a structured framework, the so-called cost-benefit analysis. The analysis in this research was normative, as it tried to suggest when criminal law enforcement should be applied, but it showed some positive elements as well.

This normative framework was then applied to environmental harms in Chapters 5 and 6. In Chapter 5, a comparative analysis of four jurisdictions, namely the Flemish Region, the United Kingdom, the Netherlands and Germany, was made with regard to their enforcement practices of environmental law. Some enforcement data was collected and analyzed to suggest whether enforcement through criminal law alone is sufficient, or whether there is a role for administrative law remedies, such as administrative fines, which were not available in all jurisdictions until recently. The data availability was limited and not comparable across jurisdictions, however, it still offered important insights into the analysis. Whether this complementarity of criminal and administrative sanctions makes sense from an economic perspective was analyzed in Chapter 6. Using a simple model, conditions were specified under which the use of administrative fines would be welfare enhancing, and hence would have an economic justification.
FINDINGS

The analysis conducted in this research lead to several findings:

- *The enforcement through criminal law should be used only in limited circumstances.*

The comparative analysis of the criminal legal theory, criminology and the law and economics approach showed that each approach had different aims, which reflected in the diverging focus of the theories. Criminal legal theory discussed in Chapter 2 set up the legal and philosophical background for criminal law, presenting the four distinguishing elements of a criminal act, the main goals of criminal law, and the legal criteria for criminalization, namely the principle of individual autonomy, the principle of welfare, the principle of harm and the principle of morality. From the discussion in this literature, it could be implied that the role of criminal law should be limited to where absolutely necessary, i.e. only to protect the society/individual from harm or to symbolize some common values and norms (declaratory function).

On the other hand, criminology portrayed criminalization as a power struggle among various groups in the society. The so-called victimized-actor model discussed in Chapter 3 pictured the offender as a victim of a social conflict, where the powerful groups in a society imposed criminal sanctions upon the less powerful groups. The labeling theorists argued that a certain behavior itself was not inherently criminal, that it is the society that labeled it so. Critical theorists tried to bring attention to the ‘white-collar’ crime, as a way of showing that crimes were not committed only by the poor, but also by those who were wealthy and powerful. The aim of these theories was to explain and maybe to bring attention to the fact that criminal law was a powerful tool, which could be misused. Thus what could be implied from this discussion is that similarly as argued in the criminal legal theory, criminal law should be used cautiously and fairly (when justified).

The economic perspective, particularly the law and economics, focused on deterrence as a goal of criminal law. According to this approach, potential offenders responded to incentives provided by the state, and violated criminal law if the expected sanction was lower than the expected benefit of violation. This so-called cost-benefit calculation rested upon the assumption that people were rational (do not make systematic mistakes) and weighed the costs and benefits of their actions. In addition, according to this perspective, the normative goal of criminal law was efficiency. According to this criterion, criminal law should be used only when it is the most efficient instrument to use in comparison.
Economic Criteria for Criminalization

to remedies offered by private or administrative law. Enforcement instrument was efficient if the social welfare was maximized, or alternatively, the social costs (harm and enforcement costs) were minimized. Because in general criminal law enforcement is the most expensive instrument to use, what could be implied from the economic analysis is that similarly as argued in the criminal legal theory and criminology, only under certain limited circumstances enforcement through criminal law should be used. The economic criteria for criminalization developed based upon this cost-benefit analysis formed the core of the framework used in this research.

♦ The normative economic criteria for criminalization are: (1) harm is large and/or immaterial and/or diffuse and/or remote; (2) stigma is desired (educative role of criminal offences); (3) the probability of detection is low; and (4) the criminal enforcement costs are sufficiently low.

Chapter 4 discussed the need for public law enforcement as opposed to private law enforcement, as well as the need for criminal law enforcement vis-à-vis administrative law enforcement. The normative criteria developed in this chapter showed the trade-offs between these three legal instruments, which all aim at reducing harm. There were six criteria identified justifying the use of public law enforcement: (1) intent, (2) imperfect detection and enforcement by private parties, (3) the level of harm, (4) low probability of detection, (5) punitive aim of law, and (6) if the public law enforcement costs were lower than those of private law enforcement. Under these conditions, it was argued that private law, namely tort law, did not suffice to decrease and to internalize the cost of harm efficiently, hence, the enforcement through public law would be needed and socially desirable.

Moving on to the criteria for criminalization as opposed to the criteria for using administrative law, four normative criteria were pointed out: (1) the availability of imprisonment, (2) stigma, (3) deterrence strategy (as opposed to compliance strategy), and (4) if the criminal enforcement costs are sufficiently low. Under these circumstances, it was plausible to argue that criminal law was needed, and hence, that it would be the most preferable instrument to use from a social welfare point of view. Based upon this analysis, the economic criteria for criminalization were summarized. It was argued that criminalization of an act should be used in areas where:

1. harm is large and/or immaterial and/or diffuse and/or remote
2. stigma is desired (educative role of criminal offences)
3. the probability of detection is low
4. criminal enforcement costs are sufficiently low.
Under these circumstances, *ceteris paribus*, it was argued that the use of criminal law was the most efficient instrument to internalize the social costs of harms, and hence was justified. As expected, these findings all pointed to the same conclusion: *the use of the criminal law should be limited only to the cases where it was really needed – where the benefits outweighed the costs and where the private or administrative sanctions did not provide sufficient incentives for compliance at a relatively low cost.*

There is definitely a role for administrative sanctions, namely for administrative fines, the degree of which depends on the distribution of abatement costs among firms, on the marginal enforcement costs and on the probability of detection and sanctioning.

Chapters 5 and 6 looked at the scope of criminal and administrative law in enforcing environmental regulations empirically as well as theoretically. In Chapter 5, from the data available and analyzed, it could be seen that the *dismissal rate of environmental crimes is relatively high*. In the Flemish Region, for example, the data showed that on average in around 60% of cases the prosecutor dismissed the case. Similar data was shown for Germany, during the 1980s. Hence, the prosecution rates were relatively low, in the Flemish Region around 7%, and in the UK around 3% (but the prosecution rate for serious violations was 63%). The Flemish Region and the UK until mid-2009 relied primarily upon criminal law to enforce their environmental violations. The purpose of this chapter was not to show that the prosecution rates were low, as this might have been the optimal range of violations for which criminal law would be the most efficient instrument to use. The problem lied in the fact that if only a small proportion of crimes were actually prosecuted, maybe the scope of criminalization should have been decreased. This would correspond well to the theoretical discussion presented in Chapters 2 to 4. One way of dealing with violations, which do not merit going through the criminal sanctioning process but still merit prosecution, was to apply administrative sanctions, particularly administrative fines, as was the case in Germany. The empirical assessment in Chapter 5 gave an indication that in practice this was the case, and hence, there should be a role for punitive administrative sanctions, particularly when talking about environmental violations. The data did not provide a clear indication about the relative effectiveness of these two systems on deterrence or compliance, but given that the current trend became to give environmental agencies the power to impose administrative fines, it could be implied that *an alternative to criminal law is needed to deal with this problem of 'under-enforcement' of environmental crimes*.

Whether administrative fines were indeed a good alternative to use was discussed theoretically in Chapter 6. In this chapter a simple model was developed to show which factors were relevant to assess whether administrative fines were welfare
enhancing compared to using criminal fines. Administrative fines could act only as a complement to criminal sanctions in a sense that they substituted criminal sanctions for minor violations. For these violations harsh and expensive criminal sanctions were not needed and would not have justified the high criminal enforcement costs. Based upon this analysis, it was suggested that *administrative fines could indeed be a welfare enhancing* (meaning more efficient than criminal fines) *instrument for minor violations*, but this would have been true only under certain conditions. The relevant factors were the *probability of detection and sanctioning*, marginal enforcement costs and particularly the *abatement costs and their distribution among firms*.

One condition for administrative fines to be welfare enhancing was that (1) there was a sufficient number of firms committing minor violations for which an administrative fine would have applied. Another condition was that (2) administrative enforcement costs (defined in Chapter 6 as the squared probability of detection and sanctioning multiplied by the marginal enforcement costs) were sufficiently low compared to the criminal enforcement costs. Because of the expected higher probability of detection and sanctioning of administrative fines, marginal administrative enforcement costs must be low enough to provide efficiency gains, as compared to using criminal fines. However, it was also debated whether enforcement costs differ greatly between criminal and administrative fines. As administrative fines were considered within the meaning of Art 6 of ECHR, at least in Europe, similar safeguards applied to them as to criminal sanctions. The conventional wisdom argued that administrative enforcement costs were lower than criminal enforcement costs, but this should be proved by empirical estimation. Thus, it might not be so straightforward to claim that the availability of administrative fines for those violations that do not merit criminal prosecution was desirable from the social welfare perspective. Nevertheless, practice seemed to show otherwise, as the trend became to use administrative fines.

**IMPLICATIONS OF THE ANALYSIS**

Based upon the analysis, it could be implied that the differentiation between criminal and administrative sanctions made economic sense only with respect to the differences in procedure, stigma, and in the availability of imprisonment in criminal law. Imprisonment is available only under the criminal law with the primarily goal to incapacitate, which was economically justified under the condition that the costs of imprisonment were outweighed by the benefits from incapacitation and deterrence. This was the case when monetary sanctions did not provide sufficient incentives (as discussed in Chapter 4), and when harm was so large that a severe sanction was justified.
Another reason why there should be two distinct systems was the procedure. Even though the procedural differences seemed to decrease, there were still important differences between the imposition of a criminal and an administrative sanction. These differences reflected the costs that needed to be borne by the government. In addition, procedural differences also justified why stigma should come only from a criminal sanction. Therefore, one of the implications of this study was that in order to benefit from having two separate systems of laws, criminal and administrative, procedural differences should be maintained.

Stigma and the declaratory function of criminal law was another differentiating factor. Even though stigma as a signaling device is difficult to manipulate and to measure as it is a non-legal sanction imposed by the society, it could still have economic justification. This was argued because stigma was seen as an extra cost to the offender, which did not tap government's resources. In addition, signaling a norm through criminalization could be cost-reducing if it decreased the information costs in a society with regard to 'learning' about social norms. Hence stigma, with all the controversies about its effect, might justify the difference between criminal and administrative law from an economic perspective.

Based on the model developed in Chapter 6, the society should have two differing systems of laws to enforce environmental violations in order to take advantage of the inherent efficiency gains, mainly coming from the enforcement costs, and the decreased level of harm. This suggested that the economic explanation for the use of the criminal law also boiled down to the fact that it should be reserved for the most serious violations, and hence in a way applied as last resort mechanism.