LAW AND ECONOMICS

A VERY BRIEF INTRODUCTION

Jaap Hage

e-mail: jaap.hage@maastrichtuniversity.nl

homepage: http://www.jaaphage.nl

1 EX POST AND EX ANTE

1. An armed robber enters a bank, takes one of the clients as a hostage, and threatens to shoot the hostage if the bank servant does not hand him the contents of the bank's safe. The servant, being given strict instructions about cases like this, refuses to give the robber money. The robber shoots his hostage, leaves the bank, and is never caught. The husband of the shot client, who was being maintained by his wife, sues the bank for the alimony he will be missing. What should the court decide?[1]

2. The traditional way of legal reasoning about this case might be something like the following. The issue at stake is whether the bank, through its servant, acted unlawfully when it decided not to hand in the money to the robber. Apart from not saving the hostage, the bank's behaviour was obviously lawful, as the robber was not entitled to the money. However, since a hostage was being taken, the bank might have a duty of care towards this person, who was, after all, a client of the bank. One might ask what has more worth, the money that the bank saved, or the life of the hostage. Framed in this way, the question is easy to answer. However, it was not the bank who killed the hostage; that was the robber.

But there is another argument line. By not handing over the money to the robber, the bank saved a lot of money, probably more money than the alimony claimed by the surviving husband. Is not it fair, then, that the bank at least pays the alimony to the husband? Why should the husband 'pay' for the money that the bank (or its insurance company) saved?

Again another argument would be that the bank, by keeping so much money at a single place, created the risk of armed robberies. The bank makes a profit through its risk creating business. Would not it be fair, then, that the bank also pays the costs of the risks it has created?

3. It is also possible to consider the case from a less traditional perspective. Suppose that the court awards damages to the husband. What would be the effect on the bank's future behaviour. It may give its staff different instructions for potential future robberies. If there are human lives in danger, as will often be the case, bank employee's should do everything to save these lives, including giving

[1] This example was adapted from Ward Farnsworth, *The Legal Analyst*, chapter 1.

the robbers the money they are after. At first sight this may seem a good development, because it values human lives above monetary gain.

But before drawing this conclusion, one may wish to consider the effect on bank robbers. From now on they know that they will easily get the money if they takes hostages and threaten to shoot them. There will hardly be a robbery anymore without hostages being taken. Even robbers who do not want to kill innocent bystanders will take hostages, because they know there will not actually need to shoot the hostages; they will have their money before it comes to that. Moreover, that development makes the 'profession' of bank robber more attractive. Now it has become possible to make a lot of money without having to do too nasty things, such as shooting people. One may expect that the number of armed robberies in which innocent bystanders are taken as hostages will increase.

Does the new bank policy to save the lives of persons still look attractive? And does the court decision to award damages, which encourages banks to introduce this new life saving policy, still seem right? The answers to these questions may not be obvious, but before considering the future effects of the damages awarding court decision, they might have looked obvious. The effects which are to be expected of rewarding damages provide at least some reasons not to award the damages.

4. Traditional legal thinking tends to look backward, to what happened. It asks what is the proper, the fair reaction to the events that have taken place. From a law and economics (Law and Economics) perspective, this is called *ex post* reasoning, after the Latin word 'post' which means 'after'.

Reasoning about the compensation for incurred damage nicely illustrates this. Somebody has caused damage to somebody else, and to restore the imbalance that results from this, *retributive justice* requires that the damage is compensated. We encounter retributive justice which asks for monetary compensation of damage on a large scale in both contract and tort law. A similar approach can be found in criminal law, where the punishment allotted to a convicted criminal should reflect the seriousness of the crime and in that sense should 'compensate' the damage to society which the crime constituted. Retributive or compensatory justice plays a central role in both criminal law and the law of obligations, and it is a typical example of ex post reasoning. We find this style of ex post reasoning back in the formulation of many legal rules, including the central rules of the law of contracts and tort law which deal with the compensation of damage in cases of contractual default and unlawful behaviour.

5. Law and Economics prefers the *ex ante* style of thinking.('Ante' is the Latin word for 'before'.) Judicial decisions and potential rules should be evaluated, not by considering whether they treat past cases in a just way, but by asking whether they produce the best, the most efficient, future consequences.

This preference for the future above the past has an underlying reason. The past is the past and cannot be influenced anymore. If one person is to compensate the damage of another person, this is nothing else than shoving around a certain amount of money. The world as a whole does not become any better from it, although the recipient of the money may profit at the cost of the person who must pay it. By adopting the ex ante style of reasoning, by looking at the future rather than the past, the Law and Economics tradition tries to make the world as a whole a better place. Preventing bank robberies diminishes the amount of damage in the world; compensation of the damage merely moves the damage from one person to another.

2 EFFICIENCY

6. The idea that the prevention of damage is better than shoving around damage relates to a central notion in Law and Economics, the notion of *efficiency*. According to Law and Economics, the more efficient legal rules are, the better. This is the *evaluative* aspect of Law and Economics. A rule that prevents bank robberies would from this perspective be better than a rule which organises the compensation of the damage.

The other, *explanatory* aspect holds that the existence legal rules can be explained through their efficiency. The law would aim to be efficient, and that explains why some legal rules exist rather than other rules.

> For example, legal systems tend to have a fixed age for majority. The alternative would be to determine for each individual person and for each juridical act whether the mental capacities of this person were sufficiently developed to count this juridical act as a valid one. This latter approach might lead to much more litigation about the validity or avoidability of juridical acts than the former approach. Since this litigation creates additional costs, it is cheaper to fix an age for majority and thereby to prevent 'unnecessary' and costly litigation.

7. According to Law and Economics, legal rules and judicial decisions can be explained and evaluated at the hand of the efficiency criterion. To give this position hand and feet, it is necessary to be more precise about the nature of efficiency. In the Law and Economics literature, there are two main competitors for the proper interpretation of efficiency. Depending on the context, the one competitor may be more adequate than the other.

Nicholas Kaldor (1908-1986) and John Richard Hicks (1904-1989)

The one criterion for efficiency is the *Kaldor-Hicks* criterion.[2] According to this criterion a transaction is efficient if it has more advantages than disadvantages, and a state of affairs (e.g. a distribution of goods) is efficient if it cannot be changed in an efficient way.

> Monetary examples are the most easy to provide. An example of an efficient decision would be to take the car from A, for whom the worth of the car is €3000, and give the car to B, for whom the worth is €4000. The

[2] Cf. John Hicks, 'The Foundations of Welfare Economics'. *The Economic Journal*, 49 (1939), 696–712 and, Nicholas Kaldor, 'Welfare Propositions in Economics and Interpersonal Comparisons of Utility'. *The Economic Journal* 49 (1939), 549–552.

net gain of this operation is €1000, and since there is a net gain, the operation is efficient. It does not matter that A has a loss of €3000 because this loss is compensated by a bigger gain for B. That it may be unfair towards A to take his car away is not important for the issue of efficiency.

Suppose, moreover, that the same car has a worth of €4500 for C. If the car is moved from A to B, this step is in itself efficient, because the gain for B outweighs the loss of A. But the resulting allocation of the car is not efficient yet, because it can still be changed in an efficient way, namely by moving the car from B to C. If C has the car, the resulting allocation is efficient, because any move of the car would lead to losses which are bigger than the gain for the person who gets the car.[3]

If we only consider the monetary aspects of the compensation of damage, it is clear that it is not efficient to compensate damage. The gain of the party who gets compensated equals the loss of the compensating party, and the net result equals zero. Moreover, if some legal procedure is required to bring the compensation about, the costs of this procedure make the net result negative. From a Law and Economics perspective, compensation of damage is prima facie an inefficient and therefore bad thing!

8. The other criterion for efficiency that is current in Law and Economics is the *Pareto* criterion, after the Italian economist Vilfredo Pareto. A transaction is Pareto-efficient if nobody becomes worse off because of the transaction, and at least one person becomes better off. Such an efficient transaction is called a *Pareto improvement*. A state of affairs which does not allow of any Pareto improvements, that is a state of affairs in which every potential transaction would make at least one person worse off, is a *Pareto-efficient* state of affairs.

Vilfredo Pareto
(1848-1923)

Let us assume again that A has a car which is worth €3000 to him, and that the same car is worth €4000 to B. Taking the car away from A to give it to B would not be a Pareto-efficient transaction, because this transaction would make A worse off. However, If B would pay €3500 for her car to A, the transaction would be a Pareto improvement, because A received €3500 for a car which is worth €3000 to him , while B 'only' pays €3500 for a car which is worth €4000 for her. Both A and B gain a worth of €500 on this transaction.

Notice that if the car is worth €4500 to C, the division in which B has the car is not Pareto-efficient either, because if C would buy the car from B for €4250 or for any other price in between €4000 and €4500, both B and C would profit from this transaction.

The major difference between Pareto-efficiency and Kaldor-Hicks efficiency is that the former requires in situations like the ones discussed above that transactions involve *actual* 'payment', while the latter does not require payment, but merely that payment would be *possible* so that everybody would be better off.

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[3] This example assumes that only A, B and C are interested in the car and that the allocation of the car is the only thing that counts for the efficiency of the state of affairs.

9. Characteristic for a Pareto-efficient transaction is that at least one person will be better off, and no person will be worse off. Usually Pareto-efficient transactions make all involved persons better off. Contracts in which parties engage freely will normally involve such Pareto-efficient transactions.

> The contract in which A sells his car to B for €3500 nicely illustrates this point. Both parties are better off, because A prefers €3500 over the car, while B prefers the car over €3500.

If participants in a market are fully rational and have full knowledge about what everybody has and what it is worth to them, there will be sales and barter agreements between them until the allocation of goods, including money, is Pareto-efficient. The reason is that as long as the allocation is not Pareto-efficient, a Pareto-improvement is still possible. Since the participants have, ex hypothesi, full knowledge and are fully rational, they will perform this Pareto-efficient transaction, and they will continue to do so until no Pareto-efficient transactions are possible anymore. Then the exchange of goods and money will come to an end, because the participants, fully rational as they are, will not perform transactions which are not Pareto-efficient.

10. A market which satisfies the ideal conditions of free trade, perfect information and no other hindrances of trade such as costs to bring the transactions about, will 'automatically', that is through voluntary transactions, lead to an efficient state of affairs. The initial distributions of goods and money over the participants in the market does not stand in the way of this movement towards efficiency. This thesis has become one of the most famous ones in Law and Economics. It goes under the name of the *Coase-theorem*. [4]

3 AN EXAMPLE: BENTHAM'S THEORY OF PUNISHMENT

11. Law and Economics has a lot in common with the ethical theory of utilitarianism. According to utilitarianism, an act is right if it maximises happiness, where a loss of happiness of some persons can be compensated by the bigger gain in happiness for other persons. This is quite similar to the Kaldor-Hicks criterion for efficiency. A consequence of this close parallel is that the utilitarian theory of criminal punishment, that was given by Jeremy Bentham, illustrates the Law and Economics style of thinking.

In his book *An Introduction to the Principles of Morals and Legislation*, the 18th century English lawyer/philosopher proposed a theory for rational punishment. Punishment as such decreases the amount of happiness in the world, and is therefore prima facie wrong. However, it may have positive effects too. In particular the threat of punishment may lead potential criminals to reconsider their plans and therefore to less crimes. Crimes diminish the amount of happiness too, and therefore the threat, and – if necessary – the execution of punishment may on the balance lead to more happiness, because punishment prevents crimes.

Bentham did not leave it at this simple idea; he continued to elaborate it to determine how severe the punishment should be. Since punishment is inherently bad, there should not be more of it than necessary to prevent the crimes. No more than necessary, but no less either, because if the amount of punishment would be too small, the threat of punishment would not work and we would end up with both the crimes and the punishment, the worst of all possibilities.

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[4] Cf. Ronald H. Coase, "The Problem of Social Cost". *Journal of Law and Economics* 3 (1960), 1–44.

How much punishment suffices? That depends on the gain which the potential criminal expects to have from the crime, and his estimate of the chance the he will be caught and punished. If the expected gain is €100.000 and the estimated chance that he will be punished is 50%, then the punishment, expressed in money, should be a little more than €200.000.

Bentham's real calculations are a bit more complicated[5], but the above gives the gist of it.

12. It is worthwhile to pay some more attention to the style of reasoning which Bentham ascribes to the potential criminal. She would rationally calculate the advantages and disadvantages of committing the crime, multiply the expected gains and losses with the respective probabilities that they will occur, and balance the expected gains and losses to determine what is the rational line of action. Moreover, Bentham seems to assume that the ordinary criminal will act in accordance with this demand of rationality. In other words, Bentham assumes that criminals act fully rationally.

In reality, criminals are less rational than Bentham's theory seems to presuppose. There are theoretical reasons why human beings in general, and therefore also potential criminals, act less than fully rationally[6], but also the phenomenon of crimes of passion provides a vivid illustration that human behaviour is not always completely rational. This makes that Law and Economics style models of human behaviour are far from perfect and that Bentham's theory how crimes be prevented by threatening criminals with exactly the right amount of punishment does not work without exceptions.

4 EXTERNALITIES

13. Even if criminals would act fully rationally, Bentham's model of the calculating criminal has some shortcomings. Suppose that a brutal murder has been committed. According to Bentham's proposal, the murderer should be punished so severely as to withhold the murderer and other potential murderers from committing similar crimes. Let us assume, contrary to the facts, that murders generally act rationally, after balancing the expected costs and gains. According to Bentham's proposal the expected costs of a murder should be made just high enough to make them outweigh the expected gains. But this does not take into account that the relatives and friends of the victim, and society as a whole, also suffer under the murder. These 'costs' are not taken into account by the potential murderer who balances expected costs and gains. And yet these costs are real costs, which arguably should be taken into account in determining the amount of punishment that is required to obtain an efficient society.

14. Costs and gains of an act which do not fall upon the actor are called *externalities*. Examples of externalities are the savings of the health insurance company which benefits from the work of a good doctor, the benefits for society as a whole when one of its members pays his taxes, the negative health effects of the emission of a polluting industry, and the costs of police surveillance which is made necessary by a soccer match between two professional clubs.

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5 They can be found in the chapters XII-XIV of *An Introduction to the Principles of Morals and Legislation*.

6 Cf. Daniel Kahneman, *Thinking, fast and slow*. London: Allen Lane 2011.

Externalities are problematic for good decision making, including good rule making, because they make it rational for persons who take decisions to decide something which is not in the general interest. For instance, an industry may decide not to take expensive measures against pollution because the costs of these measures will fall on the industry only, while the benefits go to society as a whole. Or the members of Parliament may decide to raise their own salaries, because the benefits are for them, while the costs are for society as a whole.

15. Externalities lead to problems of a kind which are called *social dilemma's*, and the most famous example of such a social dilemma is the so-called *prisoners dilemma.* The following story represents a typical instance[7]:

> Two suspects, A and B, are arrested by the police. The police has insufficient evidence for a conviction, and, having separated both prisoners, visits each of them to offer the same deal: if one testifies for the prosecution against the other and the other remains silent, the betrayer goes free and the silent accomplice receives the full 10-year sentence. If both stay silent, both prisoners are sentenced to only six months in jail for a minor charge. If each betrays the other, each receives a five-year sentence. Each prisoner must make the choice of whether to betray the other or to remain silent. However, neither prisoner knows for sure what choice the other prisoner will make. So this dilemma poses the question: How should the prisoners act?

The dilemma can be summarised thus:

	Prisoner B remains silent	Prisoner B betrays
Prisoner A remains silent	Each serves six months	Prisoner A serves ten years Prisoner B goes free
Prisoner A betrays	Prisoner A goes free Prisoner B serves ten years	Each serves five years

The dilemma arises if it is assumed that both prisoners only care about minimising their own jail terms. Each prisoner has two options: to cooperate with his accomplice and remain silent, or to defect and betray his accomplice in return for a lighter sentence. The outcome of each choice depends on the choice of the accomplice, but each prisoner must choose without knowing what his accomplice has chosen.

As we will see, however, it does not matter whether the prisoners know what the other one will choose. In deciding what to do in strategic situations, it is normally important to predict what others

[7] The description of this dilemma was to a large extent taken from the English Wikipedia-site http://en.wikipedia.org/wiki/Prisoner%27s_dilemma#The_classical_prisoner.27s_dilemma (last checked on May 10th, 2012).

will do. This is *not* the case here. If you know the other prisoner will remain silent, your best move is to betray as you then walk free instead of receiving the minor sentence. If you know the other prisoner will betray, your best move is still to betray, as you receive a lesser sentence than by silence.

Betraying is a so-called *dominant strategy*. This means that it is *the best strategy whatever the other player will do*. The other prisoner has the same dominant strategy, reasons similarly, and therefore also chooses to betray. Yet, if both prisoners betray they both get a worse outcome than they would get by remaining silent. So rational, self-interested behaviour results in each prisoner being worse off than if they had remained silent.

Notice that the paradox of the situation lies in the fact that the prisoners are not defecting in hope that the other will not. Defect is what they will do *no matter what*, even though they know fully well that the other prisoner will defect as well and that they will both be better off with a different result. They help each other to five years of imprisonment, they both know that they are doing that, they may even regret it, and nevertheless they continue on the 'wrong' track because that is the rational thing to do.

16. From the perspective of the prisoners, something goes wrong, and the reason that it goes wrong is that the decisions they must make lead to externalities. Part of the consequences of the decision of prisoner A are born by prisoner B and therefore these consequences are not taken into account by a rational A. For A the choice is between serving 6 months and going free, or – if B betrays, between serving 10 years or serving 5 years, and the latter options are to be preferred, even though B must be in prison for five or even ten years as a consequence. For B the situation is completely analogous: the costs of betrayal are born by A, while the benefits befall upon himself. The rational strategy for both A and B is to act in such a way that the consequences for themselves are optimal, even though the consequences for the other are bad. And since – ex hypothesi - they will both act rationally, they both suffer the bad consequences of the rational, but egoistic, behaviour of the other.

17. The prisoners dilemma is a special case of a social dilemma. Social dilemmas in general are situations where individual rational choices made by a set individual actors together amount to an irrational choice from the perspective of the group in which the actors participate. The reason why individual rational decisions can lead to irrational results on a group level is that the decisions lead to negative externalities, costs which must be born by others than the decision makers. Examples of social dilemmas other than the prisoners dilemma are the tragedy of the commons, the fisheries dilemma, and the problem of pollution.

The tragedy of the commons concerns an observation of what can go wrong with herders sharing a common parcel of land, on which they are each entitled to let their cows graze. It is in each herder's interest to put as many cows as possible onto the land, even if the quality of the common is temporarily or permanently damaged as a result of this through overgrazing. The herder receives all of the benefits from the cows he puts onto the land, while the damage to the common is shared by the entire group. If all herders make this individually rational economic decision, the common will be depleted or even destroyed to the detriment of all.

The fisheries dilemma is almost identical to the tragedy of the commons. The open seas are public domain and every individual fisher has an interest in getting as much fish out of it as possible. If all

fishers follow this strategy, however, the result will be an empty sea from which no fisher can profit anymore.

18. The problem of pollution is only slightly different. Suppose that we have a society in which holds that if everybody cooperates to conserve the environment, the payoff in the form of a healthy environment is higher for everyone than the costs involved in cooperation. Because of the low yield of individual contributions, the payoff of cooperation is almost imperceptible. Therefore it is possible for each individual to defect the cooperation without suffering noticeable environmental consequences. If only one person pollutes, the environment will remain quite clean, and the pollution appears innocent. At the same time, the costs of not polluting make themselves clearly felt to individuals who must choose whether to care for the environment, or not. In other words, for each individual the costs of cooperation are higher than the marginal environmental benefits. So if the other members of this society fulfil their ecological duties by cooperating, the free rider will harvest the benefits without paying the costs.

However, if the other members of society do not fulfil their environmental duties by cooperating, the environment will be spoiled anyway. The small contribution of one cooperating individual cannot compensate the damage caused by the non-cooperative others. Therefore, it is unwise to spare the environment with the costs that this takes if the others do not do the same. So if the others do not cooperate, it is unwise to spare the environment yourself. This perspective may become even more lively if one takes the position of a businessman working in a competitive environment. Taking care of ecological interests where the competition does not may put him out of business.

The upshot of this is that it seems unwise to take care of the environment, *whatever the others do*. Environment-unfriendly behaviour turns out to be a dominant strategy for all the involved society members. Apparently it is therefore to be expected that no rational person will take care of the environment, with the final result that everybody is worse off than in the case that all would have cooperated to save the environment. Social dilemmas are really tragical.

5 THE COASE THEOREM

19. People do not always act rationally – sometimes they sacrifice their own interests on behalf of others - and in a sense this is good because in social dilemma situations rational behaviour leads to collectively disadvantageous behaviour. Nevertheless it seems wise to avoid social dilemmas if that is possible. A legislator who creates social dilemmas does not do her work very well, and legislation which overcomes social dilemmas is to that extent valuable. Happily, there seems to be a solution for social dilemmas which works generally, and this solution is to create a really free market. According to the Coase theorem social dilemmas will not occur in ideal markets. Rather than arguing this in abstract, the impact of the Coase theorem will be illustrated by means of an example.

A and B both live in luxurious houses downstream on the border of a beautiful river. They also both own factories upstream. They both consider to dump waste of their factories in the river, rather than pay €50.000 for waste management which spares the environment. Let us assume that there are no legal prohibitions against dumping the waste, so the decision to dump or not to dump is made purely

on the basis of a cost/benefit analysis.[8] Since both A and B live on the bank of the river, they will have damage if the industrial waste is dumped in the river. Let us assume that their situation are also in this respect similar: the costs of one industry dumping waste is €30.000 and the costs of both industries dumping is €60.000. Both A and B save €50.000 if they dump their waste in the river. This leads to the following decision matrix, which not accidentally looks very much like that of the prisoners dilemma:

	B dumps waste	B does not dump waste
A dumps waste	Both A and B gain 50.000 and lose 60.000. Net result: A and B lose 10.000	A gains 50.000, and loses 30.000. A gains 20.000 B loses 30.000
A does not dump waste	B gains 50.000, and A loses 30.000. B gains 20.000 A loses 30.000	Both A and B have no gain, but also no costs. Net result: A and B: 0

The rational strategy for both A and B seems to dump their waste, but if they follow it, they are in the end both worse off than before.

If there is a perfect market, however, both A and B know of the plans of the other. A might offer B €25.000 if he does not dump. Together with the €30.000 which B gains if he does not suffer under his own pollution, this makes a gain (lack of loss) of €55.000. That is better than the €50.000 which is gained by dumping. So if A offers B €25.000 for not dumping, it is rational for B not to dump. Moreover, it is rational for A to offer B this money, because the loss of €25.000 is less than the €30.000 which B's dumping would have cost him. In short, if A pays B €25.000 if B does not dump, this leads to a gain for both. So *in an ideal market*, A would pay B €25.000 (or a slightly different amount) and B would not dump.

The nice thing is that B has a similar reason to offer A €25.000 for not dumping, and A would have a similar reason to accept that offer. So *in an ideal market*, B would pay A €25.000 and A would not dump.

The upshot of this all is that in an ideal market neither A nor B will dump, and that neither one of them will have to pay, because their payments cancel each other out. This illustrates that the nasty

[8] A legal prohibition would also be a cost, but that is ignored to make the example easier.

effects of a social dilemma are taken away by an ideal market in which all parties have full knowledge and can negotiate about each other's behaviour.[9]

20. Regrettably, real markets are seldom or never ideal. Parties do not have perfect information about what others have on offer, or about what others intend to do. Moreover, transactions are seldom without costs, and if the so-called *transaction costs* are high, transactions which would be efficient if there were no costs turn out to be inefficient because of the costs and are therefore not carried out.

> If in our example of dumping waste in the river, neither A nor B would have known about the plans of the other, they could not have offered money to make the other abandon his plans. And then the social dilemma would take effect: both parties dump and they both suffer.
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> The same would happen if there were a tax on payments, with the effect that if A pays €25.000 to B, A will have to pay an additional tax of €10.000. Then it would not be rational anymore for A to buy B off (the real costs are €35.000, while the gain would only be €30.000), and B would dump. And for the same reasons B would not buy off A, and A would dump. And then both A and B suffer.

21. If markets are not ideal and if the consequences of this shortcoming are to be overcome, there are two main ways to do so. The first way is to *make the market better* by providing the participants with better information and by minimising the transaction costs. Measures taken by the European Union to take away trade barriers can be seen in this light.

The second way is to determine what an efficient state of affairs would be and then to arrange things in such a way that rational actors choose for this efficient arrangement. One way to do so is 'to internalise externalities' by law, rather than through the market.[10] Making polluters pay for the damage which they cause to others is a good example. If an industry must pay for a permission to pollute the environment, these costs of the pollution will be taken into account in deciding whether to produce in such a way that pollution is necessary. Raising the price of gasoline for car drivers has a similar effect: the costs of the pollution are not divided over society as a whole anymore, but are through the higher price allotted to the person who causes the pollution.

Another example would be to raise the price of judicial intervention in private matters to the level of the real costs. Persons or organisations who want to take legal action must then decide for themselves whether the action is worth to be taken. This example also illustrates the complications of the economic approach, though. Do we really want persons who feel that their rights are violated to balance the costs and benefits of taking legal action? Perhaps not, but that may be a signal that externalities are at stake. Possibly there is a public interest in giving people easy access to courts. Possibly we prefer a society in which people go to court rather than taking the law in their own hands, even if society as a whole must participate in the costs. If that is the case, state-financed courts fit in a Law and Economics approach, because apparently society profits from the operation of courts and making society pay for that only internalises externalities.

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[9] It is a useful exercise to consider why this 'solution' would not work in the case of the two prisoners.

[10] Strictly speaking this is a false opposition, because the law still uses the market. Internalising the externalities is a legal intervention in the market to make the market reach better results.

6 SUMMARY

The Law and Economics approach to legal rules and decisions aims at obtaining rules and decisions which have the best results in the future. They apply an ex ante, rather than an ex post approach to legal decision making.

This ex ante approach follows from the standard by which Law and Economics evaluates legal decisions. This standard is that decisions are the better the more they lead to efficiency. Two variants of efficiency are distinguished in this connection. Kaldor-Hicks efficiency is that the total benefits of a decision outweigh the total costs. A state of affairs is then efficient if there is no efficient change of it possible.

Pareto efficiency involves that a decision is efficient if it benefits at least one person, while it harms nobody. A Pareto-efficient state of affairs, or a Pareto-optimum, is then a state of affairs in which no Pareto-improvements are possible anymore.

According to the Coase-theorem, an ideal market in which there are no transaction costs and everybody has perfect knowledge leads to an efficient state of affairs. To that purpose it does not matter what the initial state of affairs was.

And neither does it matter whether there are any externalities involved in the decision making. Externalities to a decision are costs or benefits of a decision which do not fall on the person who takes the decision. The presence of such externalities makes that decisions which are rational for the person who takes them are not optimal for society as a whole.

Externalities may lead to so-called *social dilemmas* where behaviour that is individually rational is collectively irrational. The classic example of such a social dilemma is the prisoners dilemma.

Under ideal market circumstances, social dilemmas will not arise. Therefore, social dilemmas can be prevented by creating (nearly) perfect market circumstances. Where this is not possible – and that is often the case - the disadvantages of social dilemmas can be overcome by internalising the externalities. Or, in other words, to make sure that a decision makers experiences both the costs and the benefits of his decisions.

RECOMMENDED LITERATURE

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