

## Economic Analysis of Legal Rules: Some Conceptual Issues

Satish K. Jain<sup>a</sup>

*The paper discusses some conceptual issues which arise in the context of economic analysis of legal rules. It is argued in the paper that there does not seem to be any appropriate justification for the almost exclusive preoccupation of economic analysis of law with the normative criteria of efficiency. The paper also argues that on the basis of the results of law and economics literature which have been obtained regarding the efficiency of laws, rules and doctrines of common law the claim that efficiency constitutes a unified explanation for common law is not easy to maintain.*

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### 1. Introduction

The method that economists have developed for analyzing rules in general, and legal rules or laws in particular consists of asking, for every specification of relevant conditions, what actions purposive individuals would undertake within the framework of the rule in question; and of determining what outcome would result as a consequence of the totality of actions undertaken by the individuals. Once such an exercise has been done for every possible specification of relevant conditions, one knows the set of all outcomes which are possible through the interaction of rational individuals within the framework of the rule in question. In the economic analysis of rules and institutions the most important question that one asks is whether the rule or institution has the property of invariably yielding efficient outcomes. Thus when one uses the expression 'economic analysis' in the context of study of institutions or rules, one usually has in mind both the method mentioned above, which can be called the economic method as a shorthand expression, as well as determination of efficiency or otherwise of outcomes generated under different specifications of the relevant conditions. It is important to note that the two elements of economic analysis are logically distinct and separable. There is no reason why the set of possible outcomes cannot be analyzed from the perspective of values other than efficiency.

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<sup>a</sup> Centre for Economic Studies and Planning, School of Social Sciences, Jawaharlal Nehru University, New Delhi 110 067. Email: [satish.k.jain@gmail.com](mailto:satish.k.jain@gmail.com)

When one analyzes legal rules by the economic method as outlined above, where they are treated as rules of the game, one is necessarily taking an approach whose focus is on consequences. Legal rules of course can be, and are, analyzed from other perspectives. One important way in which legal rules or laws can be normatively analyzed is to determine which values are reflected or embodied in the text of the rules. For instance, if a law specifies as punishment a monetary fine for one group of people and imprisonment for another group of people for the same crime, most people would have no hesitation in terming the law as unjust. In this connection it is important to note that the existence of a rule which specifies unequal treatment for different sets of people does not necessarily imply existence of legal cases involving unequal treatment. This can happen for any number of reasons. Suppose for instance, the punishment of imprisonment is so harsh compared to the likely benefits of the activity proscribed by the legal rule in question that it proves to be an absolute deterrent; and consequently the legal rule is violated by no person belonging to the category for which imprisonment is the punishment for transgressing the provisions of the rule. Thus all violators would be from the category of those for whom the punishment is levying of a fine. Thus as far as the actual outcome is concerned all violators of the rule would have been treated equally. In this example it is evident that the absence of cases with unequal treatment would not make the rule in question any less unjust. For the purpose of determining which values are reflected and embodied in legal rules the textual analysis of a body of laws would have to look at not only individual rules, subsets of rules and the entire set of rules but also their interrelationships. For instance, each of the two legal rules dealing with transgressions of similar gravity taken singly may be fine; but together may be objectionable on the ground of disproportionate punishments for crimes of more or less similar magnitude.

This paper is almost entirely concerned with some of the conceptual issues which arise in the context of economic analysis of legal rules. The paper is divided in three sections. The first section focuses on the normative aspect of economic analysis of legal rules; and discusses various efficiency criteria, possible reasons for almost exclusive preoccupation with them in the economic analysis of laws, and normative significance of efficiency or otherwise of legal rules. The second section is concerned with the positive aspect of the main results which have been arrived at in the law and economics literature concerning the efficiency of common law; and discusses questions of interpretation and significance of these results. The concluding section contains some remarks on the relationship between law and values.

## 2. Efficiency Criteria and Legal Rules

The most important efficiency criterion<sup>1</sup> which is used in economics is that of Pareto-efficiency, which is based on the Pareto-criterion. An alternative  $x$  is defined to be Pareto-superior to another alternative  $y$  if and only if everyone in the collective considers  $x$  to be at least as good as  $y$  and at least one individual considers  $x$  to be better than  $y$ . The value-judgment of the Pareto-criterion declares  $x$  to be socially better than  $y$  if  $x$  is Pareto-superior to  $y$ . An alternative is defined to be Pareto-efficient if and only if there is no alternative which

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<sup>1</sup> On efficiency criteria see Kaldor (1939), Scitovsky (1941), Arrow (1963) and Sen (1970), among others.

is Pareto-superior to it. While at a first glance the appeal and reasonableness of the Pareto-criterion is immediate, it is important to note that from the value-judgment of the Pareto-criterion one cannot infer that any arbitrary Pareto-efficient alternative is better than any arbitrary Pareto-inefficient alternative. If  $x$  is Pareto-efficient and  $y$  is Pareto-inefficient then on the basis of the Pareto-criterion one can infer that  $x$  is socially better than  $y$  only if  $x$  is Pareto-superior to  $y$ . If  $x$  and  $y$  are Pareto-incomparable then from the Pareto-criterion alone no inference can be made regarding the social desirability of  $x$  vis-à-vis  $y$ .

If an institution or a rule invariably gives rise to Pareto-efficient outcomes, as a shorthand expression one often calls the institution or the rule itself as Pareto-efficient; and if the institution or the rule is such that it sometimes gives rise to Pareto-inefficient outcomes then one terms the institution or the rule as Pareto-inefficient. Now, one consequence of non-inferrability in general of  $x$  is socially better than  $y$  from  $x$  is Pareto-efficient and  $y$  is Pareto-inefficient' on the basis of the Pareto-criterion alone is that one cannot declare an efficient rule to be better than an inefficient rule simply on the basis of the Pareto-criterion. But then, the normative significance of the efficiency analysis of legal rules becomes unclear.

As the requirement for the applicability of the Pareto-criterion is rather stringent, it being based on unanimity, quite often other criteria are used whose domains of applicability are thought to be more extensive compared to the domain of applicability of the Pareto-criterion. One such criterion, and one of the most frequently used, namely the Kaldor-criterion (Kaldor, 1939), is based on the possibility of hypothetical compensation. Social state  $x$  is defined to be Kaldor-superior to social state  $y$  if and only if in case of a movement from  $y$  to  $x$  the gainers can compensate the losers and still be better-off. According to the value-judgment of the Kaldor compensation criterion  $x$  is socially better than  $y$  if  $x$  is Kaldor-superior to  $y$ . The difficulty with the Kaldor-criterion is that the notion of Kaldor-superiority fails to be asymmetric<sup>2</sup>. It is possible for two alternatives to be Kaldor-superior to each other. But this would make the Kaldor value-judgment inconsistent. The criterion suggested by Scitovsky (Scitovsky, 1941) which uses a double test, while free from the kind of difficulty encountered in the context of the Kaldor-criterion, suffers from a different problem. Social state  $x$  is called Scitovsky-superior to state  $y$  if and only if  $x$  is Kaldor-superior to  $y$  but  $y$  is not Kaldor-superior to  $x$ . It is immediate from the definition that it can never happen that of the two social states each is Scitovsky-superior to the other. Under the value judgment of Scitovsky compensation criterion,  $x$  is socially better than  $y$  if  $x$  is Scitovsky-superior to  $y$ . The difficulty with the Scitovsky criterion is that in general Scitovsky-superior relation is not transitive<sup>3</sup>. As the value-judgments of Kaldor and Scitovsky compensation criteria involve difficulties pertaining to violations of asymmetry and transitivity respectively, it is clear that the significance of efficiency notions which would be based on these value-judgments would be even less clear than in the case where the notion is based on the value-judgment of the Pareto-criterion.

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<sup>2</sup> See Scitovsky (1941).

<sup>3</sup> See Arrow (1963)

Even if the difficulties discussed above are disregarded the question still remains why the economic analysis of legal rules should almost exclusively be preoccupied with a single normative principle of efficiency<sup>4</sup>. If a value is non-conflictive, in an appropriate sense, with other values, then the preoccupation with the former can at least in principle be justified. But efficiency is not only not non-conflictive with socially relevant values, it can conflict with values which most individuals would regard as of fundamental importance. For instance, under certain conditions efficiency in the sense of wealth maximization can conflict rather seriously with basic rights of individuals.

Wealth-maximization is an aggregative criterion and consequently it is not surprising that it can conflict with basic rights which are quintessentially non-aggregative in character. Whether in a particular social context efficiency in the sense of wealth-maximization would conflict with basic rights or not depends on the scope of the efficiency criterion. If the wealth maximization criterion is applied to only that subset of social alternatives which guarantee basic rights for all, there would not be any conflict between wealth-maximization and observance of basic rights. On the other hand, if it is applied over a set of social alternatives not all of which guarantee basic rights then it is clear that the wealth-maximization criterion can conflict with the requirement of universal observance of basic rights. Application of the criterion of wealth-maximization over the entire set of social alternatives is tantamount to relying on the criterion to the exclusion of all other normative considerations for evaluations of social states with differing total wealth<sup>5</sup>.

If one considers an activity with negative externalities but in the aggregate socially beneficial then under the wealth-maximization criterion undertaking of the activity would be socially better than not undertaking it. If individuals on whom the costs of negative externalities fall are not compensated for the harm then it would be a case of injustice as these individuals are made to bear the costs of harm without any fault of theirs. One may, however, condone it on the ground that the situation under consideration involves a trade-off between fairness considerations on the one hand and wealth considerations on the other and that in social contexts such trade-offs are inevitable. In the context of trade-offs between values, it is important to remember that by their very nature basic rights do not permit any trade-offs. Willingness to make a trade-off between wealth and fairness in some situations does not

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<sup>4</sup> In the law and economics literature the efficiency notion which is used most often is that of wealth-maximization based on the compensation criteria.

<sup>5</sup> A particularly explicit statement advocating the use of the criterion of wealth-maximization over the entire set of social states is to be found in Coase's enormously influential paper 'The Problem of Social Cost' (1960). The paper concludes with the following passage:

*'It would clearly be desirable if the only actions performed were those in which what was gained was worth more than what was lost. But in choosing between social arrangements within the context of which individual decisions are made, we have to bear in mind that a change in the existing system which will lead to an improvement in some decisions may well lead to a worsening of others. Furthermore we have to take into account the costs involved in operating the various social arrangements (whether it be the working of a market or of a government department), as well as the costs involved in moving to a new system. In devising and choosing between social arrangements we should have regard for the total effect. This, above all, is the change in approach which I am advocating.'*

imply willingness to make a trade-off between wealth and basic rights. This follows from the fact that while every violation of basic rights implies a violation of norms of justice; not every violation of justice is a violation of basic rights. One may countenance the losses of those suffering negative externalities for the sake of much bigger gains of those undertaking the activity if the losses are merely material losses without any serious consequences for those suffering harm. However, if those suffering harm have a precarious existence, bordering on starvation, where the harm on account of negative externalities can make a difference regarding survival, then obviously the situation is radically different and not at all appropriate for making any trade-off. One cannot make a recommendation for the activity to be undertaken in such a scenario.

This example makes it clear that in the absence of compensation the unmitigated pursuit of economic efficiency in a context like the contemporary context where large numbers of people live a marginal existence and where economic activities have varied negative externalities can seriously conflict with basic rights. If compensation is paid to the victims of negative externalities then it would seem that there cannot possibly be any conflict between basic rights and efficiency. While the possibility that there might not be any conflict between basic rights and efficiency when compensation is paid to the victims certainly exists, there is an important reason why even with full compensation for victims the conflict may still be there.

The rule under which the victim is always fully compensated for harm is called the rule of strict liability. If the optimal amount of care which should be taken by the victim from the perspective of wealth-maximization is zero then the rule of strict liability is an efficient rule; but not in general<sup>6</sup>. In the contexts of interactions involving negative externalities, efficiency in the sense of wealth-maximization generally requires that care be taken by both potential injurers and potential victims for minimizing social costs. To ensure that all individuals involved in the interaction take socially optimal levels of care the rule apportioning liability among parties must be designed appropriately<sup>7</sup>. Now, if an appropriate liability rule is used

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<sup>6</sup> The following example shows that the rule of strict liability can lead to inefficient outcomes. Consider an activity by the injurer which gives him a gain of 100 with harm of 10 for the victim. Suppose furthermore that the harm to the victim can be entirely eliminated if care is taken either by the injurer or by the victim. Also suppose that taking care costs the victim 1 and the injurer 2. From the point of view of efficiency, it is clear that it is better that the care be taken by the victim rather than by the injurer. Under the rule of strict liability the injurer is legally bound to fully compensate the victim; therefore it would be irrational on the part of the victim to spend anything on taking care. Knowing that a rational victim would not take any care under the regime of strict liability, the injurer in this example would take care to eliminate harm as it costs only 2 which is less than 10 that he would have to pay in case care is not taken and consequently harm to the victim of 10 takes place.

<sup>7</sup> On the relationship between liability rules, defined for one injurer and one victim, and economic efficiency, in the sense of wealth-maximization, the following general result holds: A liability rule invariably gives rise to socially efficient outcomes if and only if its structure is such that: (i) whenever the injurer is nonnegligent and the victim is negligent, the entire loss in case of accident is borne by the victim, and (ii) whenever the victim is nonnegligent and the injurer is negligent, the entire loss in case of an accident is borne by the injurer. An individual is called nonnegligent if and only if the level of care taken by him or her is greater than or equal to the legally specified level; otherwise he or she is called negligent. It is assumed that the legally specified due care levels are set at levels which are total social costs minimizing. See Jain and Singh (2002).

so that all individuals are induced to take socially optimal levels of care then in case no harm materializes the victims would end up paying the costs of care; and in case the harm materializes then the victims would end up paying at least the costs of care. Under the various negligence rules which are the most common tort rules the victims would end up paying for their losses as well as for the costs of care. Thus it is clear that efficiency at the very least requires from the victims socially efficient levels of care. If the victims in question are living a precarious existence, then the efficiency requirements would conflict with basic rights in an essential way.

Thus we see that the preoccupation of economic analysis of legal rules with a single normative principle cannot be justified on the ground of the normative principle being non-conflictive with other important social values. Another possible justification of the efficiency criterion namely it being more important than all other values also cannot be made as some of the values with which the efficiency criterion can conflict are not only fundamental but also crucial for the very survival of the society. In summary, all efficiency criteria are of a nature such that their normative significance is quite unclear. Furthermore, independently of the point relating to the normative significance of the efficiency criteria, the sole preoccupation with the efficiency criteria in the context of analysis of legal rules is unlikely to find an appropriate justification.

### **3. Interpretation and Significance of Efficiency Analysis of Common Law**

Efficiency analysis of common law has established that by and large laws, procedures and doctrines of common law are efficient<sup>8</sup>. This has prompted some scholars of law and economics to claim that efficiency provides a unified explanation for the whole of common law. In this connection, it has been argued that the explanatory role of efficiency is independent of whether efficiency is considered a compelling or even an appropriate value in the context of law<sup>9</sup>. This point regarding whether an idea constitutes an explanation for law being independent of acceptability or otherwise of the idea is certainly a valid one. The question that we examine here is whether on the basis of the results which have been obtained in the law and economics literature one would be justified in claiming that efficiency constitutes an explanation for the common law.

Suppose all rules of a legal system can be shown to satisfy a particular property; furthermore, it can also be shown that these rules are the only ones which satisfy the property. In this case it is immediate that the property in question constitutes a complete explanation of the rules of the legal system, as a rule is part of the legal system if and only if it satisfies the property in question. On the other hand, if all rules of the legal system satisfy the property but there are other rules, not part of the legal system, which also satisfy the property then it would not be accurate to say that the property constitutes a complete explanation of the rules of the legal system. The correct position is that the property in question constitutes only a partial

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<sup>8</sup> See Cooter (1985), Cooter and Ulen (2003), Landes and Posner (1987), Miceli (1997), Polinsky (1989), Posner (2007) and Shavell (1987), among others.

<sup>9</sup> See for instance Landes and Posner (1987).

explanation of the rules of the legal system. For a full explanation one would need to know the basis on which some rules satisfying the property are included in the legal system but others are not.

Consider for instance the results of economic analysis of tort law. While it has been shown in the law and economics literature that most of the liability rules used in practice are efficient, these rules are not the only ones which are efficient. For a correct and complete explanation one needs to know the basis on which the efficient rules used in practice can be isolated from the set of all efficient liability rules. In this connection it is important to note that the efficient liability rules which are used in practice differ widely in terms of incidence of liability when both injurer and victim are nonnegligent. Although in most contexts some version or the other of negligence rule is used, in some instances the rule of strict liability with the defense of contributory negligence is used. Under the various negligence rules when both parties take at least the due care the liability for loss falls on the victim; and under the rule of strict liability with the defense of contributory negligence, when both parties take at least the due care the liability for loss falls on the injurer. Thus, from the perspective of providing compensation to the victims various efficient rules used in practice differ widely. A complete theory of tort law must of necessity provide an explanation as to why in some contexts efficient liability rules are used which put the entire liability on the victim when both parties are nonnegligent; and in some other contexts put the entire liability on the injurer when both parties nonnegligent.

Although the results on the efficiency of liability rules are some of the most important results of law and economics literature, they are by no means without controversy. In the mainstream of law and economics the notion of negligence is defined as failure to take at least the legally specified due care. Thus, a party is defined to be negligent if and only if its level of care is less than the due care level; and nonnegligent if and only if its level of care is greater than or equal to the due care level. The efficiency of liability rules, with few exceptions, has been discussed using this mainstream notion of negligence; coupled with the assumption that the courts specify the due care levels appropriately from the perspective of minimization of total social costs. This way of defining the notion of negligence has, however, been questioned on the ground that the courts do not determine negligence or otherwise of a party in this way. Rather, whether a party is adjudged to be negligent or not depends on whether the opposite party is able to show the existence of some cost-justified precaution which was not taken. That is to say, a party is deemed to be negligent if and only if it can be shown that the party could have averted some harm by taking care which would have cost less than the loss due to harm<sup>10</sup>. If negligence is determined on the basis of existence of a cost-justified untaken precaution then the results on the efficiency of liability rules change radically; it can be shown that there is no liability rule which is efficient (Jain, 2006). If it turns out that the courts indeed determine negligence on the basis of existence of cost-justified untaken precautions, then it would seriously undermine even the thesis of efficiency as a partial explanation for tort law unless of course one can show that the rules used in practice are

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<sup>10</sup> This view has been most consistently, and cogently, articulated by Grady (1983, 1984, 1989).

among the least inefficient of all rules. No such demonstration has been made; and it is highly unlikely that such a proposition holds. To sum up, the results of law and economics literature pertaining to common law are not of a nature as to warrant the claim that efficiency provides a unified explanation for the whole of common law or even the claim that efficiency is a major explanatory idea for the whole of common law.

#### 4. Concluding Remarks

In the context of normative analysis of institutions and rules it is important to realize that in general there would be a multiplicity of independent values with their appropriate domains of applicability. No value belonging to a set of independent values can be reduced to another value in the set. Some scholars of law and economics, in view of the results which have been obtained regarding efficiency of common law, are of the opinion that 'justice' has no independent status and can be reduced to efficiency. If the arguments which have been put forward in this paper have validity then such a view is unlikely to be maintainable.

If all relevant values were reducible to a single value then a normative analysis conducted solely in terms of this overarching value would be perfectly comprehensible. When there is a multiplicity of independent values, then the only situation in which preoccupation with a single value might be justified is one in which the value in question invariably had precedence over all other values. But accordance of such a preeminent status to the normative criterion of efficiency would be unacceptable to most. Therefore, it is important that in analyzing institutions and rules the normative analysis must be done with respect to all relevant values, and not just with respect to efficiency.

In a societal context one would normally expect that for every important and independent value there would be a nonempty domain where the satisfaction of that value must take precedence over other values. Preoccupation with a single value would necessarily conflict with the objective of according preeminence to other values in their legitimate domains. Thus as a general proposition one can state that the exclusive preoccupation with the normative criterion of efficiency without any restrictions on the domains of applicability would in general conflict with other important and independent values. In the context of legal rules this point is particularly important as one of the main functions of law is to ensure that rights of individuals as well as groups of individuals are protected. If efficiency criterion is thought to be compelling, then it must be applied only over restricted domains. Otherwise, important values like basic rights, environmental rights etc. are bound to suffer attenuation.

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