The Mirage of Efficiency

Mario J. Rizzo
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In recent times economists have typically attempted to make clear the distinction between normative and positive economics. Nevertheless, since economic efficiency has frequently been hailed as a normative ideal, studies that show the efficiency properties of certain activities are sometimes interpreted as endorsing those activities. This, unfortunately, has occurred in the economic analysis of common law. To demonstrate that many aspects of the law can be explained as if some simplified notion of efficiency were the goal need not amount to advocating that goal. However, because the precise mechanism by which the law might have become efficient is far from clear, some theorists have sought to demonstrate the desirability of efficiency. If this could be shown, it would then be plausible to assume that judges seek, at least implicitly, to create efficient law.

The purpose of this Article is to show that if the normative case for common law efficiency has any validity at all, it can only be for concepts of efficiency for which the information requirements are exceedingly high. This is true not only in the usually analyzed partial-equilibrium context, but even to a greater extent in a general-equilibrium framework. In fact, partial efficiency is insufficient as a basis for constructing any persuasive normative argument. If, for example, a liability rule is efficient as between two potential litigant-classes, it can be inefficient once third-party or spillover effects are taken into account. Clearly, if there is to be a

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1. By “partial equilibrium” economists mean the equalization of planned supply and demand in a single (small) market so that there are neither surpluses nor shortages. Furthermore, a state of affairs is efficient from a partial-equilibrium standpoint when there are no opportunities for improvement in the single market under discussion. By “general equilibrium” economists mean the simultaneous clearing of all markets in the entire economic system. Accordingly, efficiency in this sense means the absence of opportunities for improvements anywhere in that system.

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social basis for the efficiency norm these indirect effects must be considered. Any attempt, however, to incorporate such factors into the analysis raises the information requirements of the system to such an extent as to make the whole enterprise unmanageable.

An illusion of manageability has been created by the overly simple models within which much of the economic analysis of law takes place. Even if the desirability of overall efficiency or wealth maximization were uncontroversial, it would not follow that pursuit of a simplified partial-efficiency norm is also desirable. Under many circumstances such a restricted efficiency criterion is not an approximation to its general-equilibrium counterpart but, rather, may lead us farther from it. While in principle all of the spillover effects of alternative legal rules might be totaled and the socially value-maximizing set of rules specified, the information requirements for such an achievement are well beyond the capacity of the courts or anyone else. Therefore, if we cannot determine with any reasonable degree of accuracy when an overall efficiency improvement has occurred, the normative attractiveness of that goal must be thrown into serious doubt. Unless the empirical counterpart to a theoretical standard can be identified, advocacy of the latter cannot lead to any change in or validation of existing law.

The focus of this Article will be on elucidating the tremendous information requirements that make pursuit of the efficiency norm impractical. The first section concentrates on the dangers of tautological reasoning in the efficiency analysis of common law, and the second section demonstrates the impossibility of assigning basic rights on the basis of their ability to maximize wealth. Next the difficulties of making even marginal changes in the law in accordance with this criterion are explored. Finally, the notion of ex ante com-

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2. Which it is not. See, e.g., Dworkin, Is Wealth A Value?, 9 J. LEGAL STUD. 191 (1980).

3. There are, however, many situations in which the efficiency or wealth-maximization criterion will fail to give an answer, even in principle. See pp. 646-47 infra.

4. This ought not to be construed as an argument against all uses of partial-equilibrium analysis in positive economics. In such contexts the appropriateness of ignoring economy-wide interdependencies can be tested by reference to the explanatory power of the hypothesis. If a partial-equilibrium theory can explain much of a phenomenon, then perhaps the interdependencies are not quantitatively significant. In normative analysis, on the other hand, we are frequently trying to deduce, or "predict," something different from the current state of affairs. Hence we need independent evidence as to the significance of the general-equilibrium effects. For more on the difference between normative and positive analysis, see pp. 644-48 infra.
pensation is analyzed and shown to be an insufficient ground for inferring consent to the wealth-maximization principle.

TAUTOLOGIES AND MORALISMS

Both the normative and positive efficiency analysis of law must answer two closely related questions: (1) What ought to be included in wealth? and (2) What are the appropriate shadow prices of the various components of wealth? Answers to these questions are the source of falsifiable content in the efficiency hypothesis. Any instance of behavior is “explicable” in terms of a maximization process if the commodity space and shadow prices are judiciously postulated. This, of course, is just an example of the purely formal character of the maximizing framework. Falsifiability, on the other hand, requires both economy in the postulation of goals and measurement of the relevant costs and benefits in a way that is independent of the phenomenon under investigation.

The theoretical definition of wealth as “the value in dollars or dollar equivalents . . . of everything in society” is unfortunately inadequate for either positive or normative empirical analysis. So broad a definition would not foreclose inventing new goals or commodities to “explain” any discrepancy with the efficiency hypothesis. Hence it is necessary to work with a more restricted notion of wealth. One possibility is to use that notion which is most successful in explaining the law. Similarly, when implicit or shadow prices are difficult to measure independently, there is an understandable tendency to be satisfied as soon as they are measured sufficiently to rationalize the phenomenon in question.

5. In this context “shadow prices” refer to the prices society would assign in perfect markets to commodities for which, in reality, no market exists.
6. The first question logically collapses into the second, because “items” with a zero shadow price ought not to be included as part of wealth. For heuristic purposes, however, it is useful to separate these questions.
7. A “commodity space” is the set of all commodities deemed relevant for the purpose of analysis.
10. This bears an obvious similarity to Milton Friedman’s defining the empirical counterpart to theoretical money in a way that best predicts nominal income. Friedman & Schwartz, Money and Business Cycles, in THE OPTIMUM QUANTITY OF MONEY 189, 208 n.16 (M. Friedman ed. 1969).
11. On strict positivist grounds the proper procedure would be to test the ade-
method of giving specific content to the wealth-maximization hypothesis will, at the very least, enable us to "predict" those common law doctrines already known. The data will reveal whether the goals or shadow prices have been postulated correctly and indicate any adjustments that need to be made in the model. Under certain conditions, the apparatus may predict some common law doctrines not yet known (either those of the future or those hidden from the analyst's sight). In any event, the wealth-maximization model would be tied to the law as it exists. It would not permit us to stand outside of it and recommend changes or make any normative judgments.

Perhaps mindful of the need to maintain falsifiability, William Landes and Richard Posner use a restricted notion of "efficient" in their positive analyses. In a recent article they define an efficient liability rule as one that induces potential injurers and victims to undertake "efficient levels of care—i.e., the levels that minimize L [the sum of expected accident and accident-avoidance costs]."\(^\text{12}\) This definition is more interesting for what it ignores than for what it includes. First, all relational and distributional goals,\(^\text{13}\) or what Calabresi and Melamed call "moralisms," are excluded. Moralisms refer to public goods, the costs or benefits of which "do not lend themselves to collective measurement which is acceptably objective and nonarbitrary."\(^\text{14}\) Suppose, for example, ex post compensation

\(^{12}\) Landes & Posner, Joint and Multiple Tortfeasors: An Economic Analysis, 9 J. LEGAL STUD. 517, 522 (1980). This definition implicitly assumes that the parties are risk neutral because only mathematically expected costs matter and not the dispersion or variance around the expectation. Another example of the narrow view of efficiency can be found in Shavell, Strict Liability versus Negligence, 9 J. LEGAL STUD. 1, 1 (1980).

\(^{13}\) These terms are borrowed from Michelman, supra note 8, at 1036. My use of the word "distributional" here does not imply that, for example, the tort system ought to be used to effect changes in wealth distribution that are unrelated to corrective justice. If it is merely desired that the poor be provided with better housing, medical care, etc., then the tax system is a better tool to accomplish that. "Distributional" refers in this context to making plaintiff whole after, say, a tort has been committed; "relational" refers to the desirability of requiring the defendant, rather than someone else, to compensate the victim. Posner does not distinguish between these two senses of distributional goals and hence concludes that the common law is not well-equipped to serve such goals. See Posner, The Ethical and Political Basis of the Efficiency Norm in Common Law Adjudication, 8 HOFSTRA L. REV. 487, 504-05 (1980).

of victims, regardless of whether defendant had been negligent, is a public good; then the exclusion of this consideration from decisions about the proper liability arrangement would ensure an inefficient outcome. One cannot arbitrarily limit the goods that enter into the domain of social wealth and then proclaim an outcome as efficient or inefficient. Second, Landes and Posner streamline the form of the litigants’ utility function by assuming risk neutrality (because only expected costs are taken into account). This permits them to deal with the simpler notion of expected wealth rather than the more complex expected utility. Third, the theory of second best is completely ignored. In the presence of other economic distortions, especially those produced by legislatively enacted policy, the creation of “efficient” liability rules may well decrease overall efficiency. In other words, there can be negative spillover effects into other sectors. The hypothetical markets that incorporate such effects are apparently not to be counted.

Landes and Posner justify their particular variant of the utility-maximization hypothesis by reference to its alleged explanatory or predictive power. In principle, they cannot be faulted for claiming that the omission of moralisms, risk preferences, and second-best considerations is warranted by the hypothesis’ ability to explain the common law without them. This is just economy in the construction of hypotheses. On the other hand, there is no justification for using whatever degree of corroboration is gained for the positive hypothesis to lend credence to a normative variant of the wealth-maximization doctrine. Moralisms and risk preferences, for example, cannot be left out of a normative analysis merely because it is possible to generate corroborated predictions about common law doctrines without them. If they are omitted for that reason, then the principle of explanation—or, better, of prediction—would

15. To make the concept of expected utility operational it is necessary to know the precise form of the utility function.
17. For a more detailed discussion, see pp. 648-49 infra. See also Rizzo, Law amid Flux: The Economics of Negligence and Strict Liability in Tort, 9 J. Legal Stud. 291, 301-02 (1980).
18. Economy in the construction of hypotheses is a cardinal feature of the positivist methodology. It would be beyond the scope of this Article to enter into an evaluation of that notion here. For some of the author’s doubts about unflinching positivism, see Rizzo, Praxeology and Econometrics: A Critique of Positivist Economics, in New Directions in Austrian Economics 40 (L. Spadaro ed. 1978).
also be the standard of evaluation. Therefore, whatever is would also be efficient. Clearly, such a crude Panglossian fallacy could not be taken seriously.

From the normative perspective what is needed is an independent method of determining both the components of wealth and the shadow prices of these components. To the extent that, say, moralisms—by assumption or by hypothesis—reveal themselves and their prices mainly through the common law, an insoluble problem arises. There is no way, then, to stand outside of the law and see how it measures up against an external standard. Where is the price that reveals what people are willing to pay to avoid exposing children to pornography? How can the monetary value of corrective justice be measured? On what pseudo or implicit market is the societal distaste for voluntary slavery demonstrated? To my knowledge, efficiency theorists are not significantly concerned with the answers to these questions. Yet, unless we claim that whatever cannot be (easily) quantified does not exist, they are indeed crucial. Typically, moralisms reveal themselves in the writings of legal scholars, philosophers, and others, as well as in the opinions of the man-on-the-street. However, none of this is even remotely capable of revealing the willingness to pay. From the efficiency point of view, such expressions of preference have no weight. Our very inability to monetize the social value of moralisms serves effectively to deny their relevance. The problem is further compounded by the realization that even if we could discover a moralism's price it would have to be its general-equilibrium price. If a partial-equilibrium price is used, then the prices or weights of the various moralisms cannot be compared or added since they would be inconsistent with each other. A wealth-maximizing set of legal rules cannot be constructed on the basis of such inconsistent prices.

The difficulty in measuring what we have every reason to believe are relevant variables is not, however, an argument for disregarding them; rather, it demonstrates the essential limitations of the wealth-maximization criterion. Moralisms cannot be treated as a form of wealth without in practice making the hypothesized com-

19. This would hardly be a comfortable position for most of the efficiency-of-law analysts because their evidence of costs or benefits is rarely more than casual.
20. When we restrict attention to costs like the sum of accident and accident avoidance the task is easier. There are parallel markets (e.g., in car damage, brakes, repair, etc.) through which a better estimate of the relevant costs might be obtained.
ponents of wealth nonfalsifiable. Thus to the extent that moralisms are to be considered it must be within a framework other than wealth maximization. Attempts, then, to narrow the meaning of efficiency merely to make a model more tractable must be viewed suspiciously in a normative context. What appears to be an efficient outcome in a "streamlined" model might well be inefficient in the context of a more inclusive notion of efficiency (and vice versa). The former does not include everything valued by society and for which people would be willing to pay. Hence the ethical appeal of legal rules that are efficient in a narrow sense is considerably less than the appeal of rules efficient in a broader sense.

The measurability of private or public goods' prices on hypothetical markets spans a continuum from the completely unmeasurable to perhaps the easily measurable. As such, can it not be claimed that efforts to use the wealth-maximization norm permit us to approximate more closely an efficient set of legal rules than would be the case if we used some other norm? As the analysis of subsequent sections will demonstrate the answer is no. In many situations wealth maximization cannot yield a determinant implication for the assignment of rights or liabilities. In other cases the theory of second best tells us that efficiency improvements in one sector might make us worse off overall. In fact, unless we can acquire a great deal of information about interrelations between markets, we cannot know if such improvements bring us closer or farther from optimality. Furthermore, even if it could be confidently claimed that despite measurement difficulties we could still attain a crude approximation of optimality by applying the wealth-maximization standard, it would not follow that we ought to do so. If the ultimate normative basis for efficiency is the inferred consent of potential litigants, this basis is seriously undercut by the inability of the courts to achieve a reasonable approximation of efficiency. It is not at all clear that individuals would give their consent to a system of liability that was efficient in a very crude or narrow sense in preference to one that embodied other important but difficult-to-measure social values.

23. It might be argued that as long as judges trade off one value against another there is an implicit price attached to that value. This is true. However, the issue under discussion in the text is whether we can determine the rates of trade-off of the potential litigants and not those of the judges.
In summary, an attempt to include in wealth maximization all goods for which people are willing to pay carries with it the problem of generating tautological reasoning. An attempt, on the other hand, to maintain falsifiability by restricting the commodity space reveals the inherent limitations of the efficiency criterion.

**The Allocation of Fundamental Rights**

This section elucidates the reasons why the wealth-maximization principle cannot be used to produce or validate a theory of fundamental rights or of nonmarginal changes in the law. None of the arguments advanced here are new in the context of welfare economics. However, their absence from discussion in the efficiency-analysis-of-law literature has led to many oversimplifications and misleading hopes. Perhaps a brief review of these issues will help remedy the problem.

**Pure Wealth Effects**

It has been long recognized that with respect to rights constituting a large fraction of an individual's full wealth, efficiency considerations may be unable to determine their proper allocation. For example, if A is assigned the right to determine when and where he can travel, he may be willing to pay up to $50,000 to retain it. If, on the other hand, it is assigned to his master B instead, A may be willing or able to pay only $25,000 to acquire it. This is because A's wealth is substantially increased or decreased depending on whether he has this right in the first instance. If we further suppose that B would be willing to pay $30,000 to acquire the right or would be willing to accept a minimum of $25,001 to part with that right, then the efficiency principle will not yield a unique allocation. When A is initially assigned the right it is wealth maximizing for him to retain it; when B is initially assigned the

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24. See, e.g., Calabresi & Melamed, supra note 14, at 1112 n.43.
25. See, e.g., E. MISHAN, supra note 16, at 133-38. For a recent reemphasis, see Demsetz, *Ethics and Efficiency in Property Rights Systems*, in *Time, Uncertainty, and Disequilibrium* 97, 98-100 (M. Rizzo ed. 1979). Although Posner seems to recognize this problem, see Posner, *supra* note 9, at 108, he proceeds as if it did not exist. *See id.* at 125, 127, 135; Posner, *Some Uses and Abuses of Economics in Law*, 46 U. Chi. L. Rev. 281, 291 (1979). However, he may have recently come to realize that the difficulties in assigning basic rights on economic grounds are indeed significant. *See Posner, supra* note 13, at 500-02.
26. Although we assume here that the right to travel freely is a normal good, wealth effects of the sort discussed here are possible even if the good were inferior.
right it is wealth maximizing for her to keep it. Thus whatever allocation of rights happens to exist will also be efficient.

Although most of the literature has concentrated on such wealth effects in a single hypothetical market, the impact of changes in wealth may spill over into other hypothetical rights markets. If, for example, a group of "perverts" has spent a fortune in a hypothetical market for the right to read child pornography, will it have enough wealth left over to buy the right to travel? The determination of an optimal set of rights requires that an individual's wealth constraints not be exceeded. While in principle a court could conceivably keep a running total of the wealth already "expended" on basic rights, it appears highly unlikely that such a problem would be manageable at reasonable cost.

Relative Price Effects

Variations in wealth brought about by different assignments of a single right might affect the shadow prices of other rights. If, for example, a certain class is given the right to own the labor of others, then the relative value of freedom from arbitrary search and seizure may change. In such a world it may be optimal to place fewer restrictions on the government's ability to search homes, if only to make the hiding of slaves on their way to a free zone more costly. This may have effects on still other markets which, in turn, may then reverberate in the original market. There is thus no assurance that the system will converge to a unique set of rights. Even if this convergence does occur, however, there is every possibility that it will not be independent of the precise sequence in which the rights are affirmed.27 Suppose that first the government is prohibited from engaging in the search of homes under almost all circumstances. If the issue of slavery is decided after this assignment, then it may be optimal not to permit it. This is because the expected value of such ownership rights will be relatively lower because the freedom from search will increase the probability of successful escapes. Therefore, merely by changing the order in which issues of basic rights are decided the final outcome can be dramatically altered.

Relative prices of all sorts, not just those of other rights, may be affected by different assignments of fundamental rights. The

27. The probability of this is greater the more significant the changes in relative prices due to changes in wealth distribution.
most famous problem arising out of this phenomenon is the Scitovsky Paradox. On one set of relative prices right X ought to be granted to individual A. Once this is accomplished, however, relative prices may change as a result and, on the new set, right X ought to be given to B. Hence in any conflict between two classes of individuals, A and B, it can be efficient both to reassign a right from B to A and then, after having made that move, to allocate the right back to B.

Measurement

The final problem we shall discuss is the difficulty of comparing two alternative societies with different sets of rights. Even if there are no wealth effects of the type examined above, it is still not clear that one society can be viewed as unambiguously wealthier than another. Typically, wealth is computed on the basis of shadow or actual prices, which are marginal valuations. It is probably more accurate to make comparisons of large or nonmarginal differences in societies on the basis of total consumer surplus instead. Valuations at the margin ignore the importance of the inframarginal units, which are relevant when making "lumpy" comparisons. The problem here is that the measurement of consumer surplus throughout many different hypothetical and actual markets is an enormously more formidable task than the computation of shadow prices. In the former case the entire area under the relevant portion of an actual or hypothetical demand curve must be estimated; in the latter, only a value on the margin must be computed.

If relative prices differ between the two societies, then the comparison of consumer surpluses is even more difficult. It is then necessary to add or subtract portions of the areas under the rights-demand curves in accordance with the relative price differences among substitute or complementary goods.

29. For a diagrammatic exposition of the Scitovsky Paradox, see E. Mishan, supra note 16, at 395-96.
30. Consumer surplus is the difference between the maximum price people are willing to pay for a unit of a good and the actual price they must pay. Consumer surplus is zero on the last unit an individual buys (the marginal unit) but positive on all the others he or she has purchased (the nonmarginal units).
31. For more detail on how to perform calculations of this variety, see E. Mishan, supra note 16, at 40-45. The measurement problem discussed in this subsection is not the same as the problem of precisely determining which of two soci-
The preceding analysis indicates that the efficiency norm is incapable of uniquely assigning fundamental rights. Pure wealth effects make it possible to find that any existing allocation of rights will be efficient. The Scitovsky Paradox, moreover, means that both a given change and, later, its opposite may prove to be wealth maximizing. Even the order in which changes in rights occur may affect the final equilibrium set (if one exists). Finally, it is far from clear that nonmarginal changes in legal rules can even be compared in terms of their wealth-generating properties.

MARGINAL CHANGES IN LEGAL RULES

Although it is impossible to assign basic rights in accordance with the efficiency norm, it can be argued that such a norm is effective in prescribing small or marginal adjustments in the law. Indeed, since common law judges are constrained by precedent, all changes resulting from judicial decisionmaking will take place in small steps. Therefore, efficiency may not be a manageable goal for those concerned with major changes, such as legislatures and constitutional conventions, but it is a manageable one for the courts.

Unfortunately, it is not very clear what “marginal” means in this context. A change in the law can be marginal in the sense that it is perceived as deviating only slightly from precedent. It can also be marginal insofar as it changes the distribution of wealth, and perhaps relative prices, to a minor degree. The two senses need not coincide. Precedents from one area are sometimes applied in another with novel fact patterns through the use of analogous reasoning. Suppose this latter area is a new industry, such as atomic power, with highly undeveloped liability rules. A court decision in this context may be both marginal, because an entire body of established law is used, and nonmarginal, because it is used in an area that is unexpected. This may bring about significant wealth effects of the type discussed above.

Aside from the merely routine cases that face the lower courts on a daily basis, it is not evident which decisions ought to be considered marginal. The positive or descriptive efficiency literature has always emphasized its ability to rationalize the major or land-

eties is wealthier in an overall sense. Here we are concerned with determining which set of legal rules is more efficient. Therefore, we must be able to attribute the greater wealth of one society to the legal structure as opposed to physical capital, etc.

32. This is the implication in Posner’s argument. See Posner, supra note 13, at 500-02.
mark cases in the common law. Presumably, from a normative perspective these are also the cases to which the efficiency stamp-of-approval would be given. It is not at all obvious that these decisions had only negligible wealth-altering effects. In so far as these effects were significant, the ability of the efficiency theory to explain or justify its own set of data is seriously compromised.

Second Best

Different, but no less serious, problems exist when we consider those decisions that produce insignificant wealth effects: decisions that are marginal in the economic sense. The general theory of second best\(^3\) demonstrates that if there are distortions from competitive equilibrium throughout the economy due to taxes or monopoly, for example, a change that can be viewed as value maximizing in one small sector may actually decrease value overall. Suppose, for example, that the price of X is raised to its true social marginal cost by the imposition of liability to internalize negative external effects in its production.\(^4\) Suppose, further, that Y and Z, each complements of X, have prices in excess of their true marginal costs because of taxes. Under these circumstances, the higher price of X may make matters worse from the general-equilibrium viewpoint. Consider that the prices of Y and Z are too high and hence their outputs too small. A lower price of X, on the other hand, would encourage (via complementarity relationships) more production of these commodities. Hence, although a price of X equal to marginal cost would maximize value in that sector, it may decrease value in other sectors by more. Therefore, the liability rule that maximizes overall value, subject to the tax constraint, may be no liability at all.

The problem of determining an efficient legal rule in a second-best context is even more difficult than the above illustration may indicate. It is necessary to know the degree of complementarity or substitution among goods, the value produced in each of the relevant sectors, the direction of the distortions elsewhere in the economy, and the sectors that ought to be viewed as constrained for the purpose of analysis. While in principle the necessary conditions for second-best optima can probably be derived (and have

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33. See generally E. Mishan, supra note 16, at 98-108; Lipsey & Lancaster, supra note 16.
34. Assume that the producer is the cheaper cost avoider of the negative externality.
been for simple models), the information needed in practice to make those conditions operational is extremely unlikely to be forthcoming.

If we assume, as it seems safe to do, that the courts cannot achieve wealth maximization in the general-equilibrium sense, then the normative case for common law efficiency must rest on partial-equilibrium maximization. However, the normative attractiveness of this is highly dubious. Of what value is partial efficiency when one of the major purposes of legal rules is to take account of third-party effects? If incorporating spillover effects in complementary and substitution markets decreases net value, it is small comfort indeed to know that value was maximized as between the two litigants.

Finally, it ought to be clear that failure to consider the problem of second best cannot be justified by claiming that we are only interested in “approximate efficiency” rather than mathematically precise results. Unless we have a great deal of information, the availability of which is doubtful, it is not possible to say whether pursuit of partial efficiency leads us closer to or farther from overall efficiency.

Myopia

Let us assume that A and B are two systems of basic rights which, as we demonstrated previously, cannot be compared on wealth-maximization grounds. Suppose, however, that it is feasible


36. The entire second-best argument decreases in importance as the sector affected by the particular common law decision becomes larger, i.e., the larger the unconstrained sector. However, if this is very large, then there are likely to be significant wealth effects, thus bringing into play the problems discussed in the section on the Allocation of Fundamental Rights, pp. 648-51 supra.

37. The second-best argument outlined in the text presupposes complementarity (or substitution) interconnections between output markets. However, even if these were zero, second-best analysis of a different sort would apply. Suppose again liability for negative externalities is placed on the producer of X. If more of A, a factor in the production of X, will be needed to produce with fewer externalities, liability will increase the utilization of A (assuming the plant does not shut down). Suppose further that B and C are complementary factors and that they are priced below their social marginal cost because of subsidies. Now increased use of A will cause still greater overutilization of B and C. Hence there will be a suboptimal mix of factors to produce X and higher marginal cost. The second-best optimum will be for the amount of A used to be less than the amount corresponding to full liability, the assumed first-best optimum.
to compare small changes in the system of rights on these grounds. In this context, common law adjudication may be making marginal adjustments away from A, the initial point, and towards B. While each marginal change is comparable in wealth terms with the prior state of affairs, the sum of these changes once we reach B cannot be so evaluated. There is no way in this framework of comparing the starting and finishing points. This produces a troublesome result: efficiency-motivated courts will, after a period of years, bring about systems of rules that cannot be judged desirable or undesirable on efficiency grounds. To the extent that people wish to evaluate changes in rights, therefore, recourse must be made to another principle. If, initially, rights were assigned in some nonarbitrary way, then, presumably, that principle ought to be used in evaluating the change. In any event, insofar as nonefficiency-based ideas are introduced into the analysis of nonmarginal changes, it would seem appropriate to use those same ideas to evaluate the marginal moves.\textsuperscript{38} The adoption of a dichotomized system of comparison must indicate the existence of some third principle by which efficiency is chosen over individual autonomy, for example, in the marginal case. Unless and until that principle is elucidated this two-stage normativity will fail to be persuasive.

**Ex Ante Compensation**

Both Richard Posner\textsuperscript{39} and Gordon Tullock\textsuperscript{40} argue that while individual decisions in an efficiency-based common law will ex post make at least one party worse off, ex ante, efficient rules benefit everyone. Posner then goes on to claim that such ex ante compensation (for the ex post loss\textsuperscript{41}) provides the ultimate basis for the

\begin{itemize}
  \item \textsuperscript{38} In a pure corrective justice system initial rights are assigned on the basis of some principle, and then causal analysis is used to identify the source of the rights violation. Causal analysis does not introduce an independent principle for making marginal adjustments or fine tuning the system to cope with conflicts. See generally Epstein, *Nuisance Law: Corrective Justice and Its Utilitarian Constraints*, 8 J. Legal Stud. 49, 50-65 (1979).
  \item \textsuperscript{39} See Posner, supra note 13, at 492-97.
  \item \textsuperscript{40} See Tullock, *Two Kinds of Legal Efficiency*, 8 Hofstra L. Rev. 663 (1980).
  \item \textsuperscript{41} If negligence is more efficient than strict liability and the negligence system is in effect, the ex post loss is the failure to compensate victims when defendants take due care. If, however, strict liability is more efficient and this is in effect, then the ex post loss falls on the defendant who must compensate plaintiff. Defendant is worse off ex post than under the alternative system. Posner discusses only the first case. See Posner, supra note 13, at 492-96.
\end{itemize}
wealth-maximization norm. If each individual had to choose between an efficient legal rule and an inefficient one he would, under allegedly reasonable conditions, choose the former. Hence efficiency is attractive as a norm in common law adjudication because it rests on the inferred^42^ consent of the litigants.

This section will analyze the extremely rigid and arbitrary assumptions necessary to conclude that efficient rules compensate individuals ex ante. Furthermore, the previously discussed difficulties in identifying an efficient rule make it unlikely that such compensation will occur even if the necessary assumptions are made about potential litigants.

**Pure Ex Ante Compensation**

In a world in which there is neither first-party accident nor liability insurance, everyone would choose a more efficient tort-liability rule if each person were (1) risk neutral, (2) identical to all others, and (3) symmetrically distributed in defendant-plaintiff roles. ^43^ In the more efficient system the sum of expected accident and accident-avoidance costs will, by definition, be lower. In addition, there will be no distributional considerations because all individuals are identical and symmetrically distributed. For each person, then, the choice comes down to a rule with higher expected costs versus one with lower expected costs. If everything worth considering is included in these costs, and if people are risk neutral, they will unhesitatingly choose the more efficient rule.

Although a more efficient system of liability will be characterized by a lower sum of expected accident and accident-avoidance costs, it is not necessarily true that the number of accidents will be smaller. Expected losses through accidents could be larger as long as there was an overcompensating fall in accident-avoidance costs. Since accident costs are the risky component of the total and accident avoidance is the certain component, a rise in accidents implies a trade-off between risky and certain costs. ^44^ If people are risk averse they may not choose the rule with lower expected total costs because the amount of risk they will have to bear is now

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^42^ We are abstracting from the question of whether inferred consent is as good as actual consent.

^43^ In this subsection we abstract from the issue of identifying the more efficient rule.

^44^ If the individual will face a very large number of the same kind of accidents, ex ante and in the aggregate he will be certain about his accident costs.
greater. Hence under such conditions, risk-averse potential litigants will choose the more inefficient rule.

On the other hand, if the expected number of accidents and accident costs are lower under the more efficient rule, risk-preferring individuals may actually choose the less efficient one. The trade-off for risk-preferrers favors giving up certain costs in exchange for risky costs in accordance with their degree of risk preference. Hence these individuals would rather face lower accident-avoidance costs even if it means higher expected accident costs.

Consequently, in order to determine the kind of rules to which people would give their consent ex ante it is necessary to know, among other things, the nature of people's attitude toward risk and whether a more efficient rule would result in higher or lower expected accident costs. Unless the requirement of risk neutrality is met, there is no assurance that the more efficient liability rule will be chosen. 45

**Ex Ante - Ex Post Compensation**

If people are risk averse and they fully insure against both first-person accidents and liability, then there is no reason to be concerned about the interaction between risk attitudes and expected accident costs. All of the relevant risk would be eliminated by insurance. 46 Therefore, each individual chooses on the basis of accident and liability insurance premiums and avoidance costs. The sum of these three will be lower under the more efficient system. Whether an individual would therefore choose the more efficient system depends on the presence of at least two crucial assumptions.

If an individual is asymmetrically distributed between his or her future defendant-plaintiff roles, he or she may never choose

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45. One can, of course, include in wealth "the dollar value (or cost) that people who are not risk neutral attach to uncertain outcomes." Posner, supra note 13, at 499 n.32. See generally Posner, supra note 9, at 105 n.11. This means that the wealth-maximizing solution will be different depending upon the degree of risk aversion or preference. Unfortunately, this is not a solution to our problem but merely a way of disguising it. To identify the efficient outcome would then require knowledge of the precise form of the utility function—merely adding to the complexity of an already difficult problem.

46. Not all risks are insurable, however, due to the problems associated with moral hazard, adverse selection, and disagreements between insurer and insuree about the relevant probabilities. For a good summary of the first two problems, see P. LAYARD & A. WALTERS, MICROECONOMIC THEORY 382-86 (1978).
the more efficient liability rule. Suppose, for example, that a negligence rule is more efficient than one of strict liability. Nevertheless, an individual who expected generally to be in the role of plaintiff might find that her costs were minimized by strict liability and hence would choose that system. The greater the asymmetry the more private and social costs will diverge.47

Individuals may have different accident-avoidance capabilities, just as they have different skills in ordinary market contexts. In general, there will be a different efficient solution for each level of avoidance capability. A rule that is optimal for the average individual may not be for any given person. Hence it may be perfectly rational to choose the rule that is on average less efficient because it is individually cost minimizing.

Even if these and other objections to the ex ante compensation doctrine are admitted, it may seem reasonable to assume that in the aggregate or over the long run many efficient rules will benefit everybody.48 While some people will lose on certain rules they will no doubt gain through others. The net result, then, will be a gain for everyone.49 Unfortunately, to the extent that the aggregation required for this result is relatively large, all of the problems discussed earlier will reappear. That analysis demonstrated that nonmarginal aggregations of legal rules cannot be unambiguously compared with one another on wealth-maximization grounds. Aside from this objection, the aggregation argument is seriously incomplete, even on its own terms. If we are going to say that the benefits of some legal rules will offset the losses arising from others, we are invoking a kind of general-equilibrium argument. In the same spirit, it would seem natural to examine the interrelation between efficient legal rules and constrained inefficient sectors. Here again the theory of second best applies. If the overall effect of an “efficient” set of common law rules is wealth reducing, then the normative case for the efficiency standard cannot rest on inferred consent. Unless potential litigants are deceived into thinking that the rules are efficient in the general-equilibrium sense, there is no reason for them to give their consent. The fact that people may

47. There may also be asymmetry over time. If all of the costs for particular individuals occur during the near future and the benefits during the more distant future the net present value of the rule may be negative for them.

48. See Tullock, supra note 40, at 663-64.

49. For the important assumptions necessary to achieve this result, see Polinsky, Probabilistic Compensation Criteria, 86 Q.J. ECON. 407 (1972).
choose to do something out of ignorance or deception ought not to be elevated to the status of an ultimate justification for crude efficiency notions.

CONCLUDING REMARKS
The purpose of this Article has been to demonstrate that the substantial information requirements that must be satisfied in order to identify efficient legal rules make efficiency impractical as a standard. Unless the efficiency theorists can show how courts can overcome the difficulties outlined here they will continue to argue for a norm that has little operational content. It is all too easy to show that efficiency leads to desirable results within simplified constructs; it is quite another thing to show what this has to do with the world in which we live.