



VALUE, EFFICIENCY AND RULES: THE LIMITS OF ECONOMICS

by

Louis DeAlessi
Professor of Economics
University of Miami
Coral Gables, Florida USA

The Twentieth International Conference on the Unity of the Sciences
Seoul, Korea August 21-26, 1995

© 1995, International Conference on the Unity of the Sciences

6/29/1995

VALUE, EFFICIENCY, AND RULES:

THE LIMITS OF ECONOMICS

Louis De Alessi*

I. Introduction

The failure to separate normative from positive economics continues to bedevil economists, leading to analyses and policy recommendations that are value-loaded and biased against open markets and individual liberty. John Neville Keynes (1890) was the first to stress that normative economics deals with what ought to be, and thus is embedded in moral and ethical values, while positive economics deals with what is, and thus—at least in principle—is value-free. Milton Friedman (1953) emphasized this distinction in his famous essay on methodology, and since then generations of economists have paid lip service to it. In practice, however, even highly theoretical explorations of alternative institutional arrangements typically rely on social welfare functions—often implicit—that tilt the results in favor of government intervention to reduce individual choices and limit open market processes based on private property rights.

Economic theory provides a powerful set of tools for examining the evolution and economic consequences of alternative rules, including the informal rules that arise from a society's customs and ethical values. Economic theory even allows economists to explain why certain norms of moral behavior have evolved and survived (Benson 1995). The conclusion that one institution is superior to another, however, rests on value judgments concerning the choice of information (i.e., variables and their measurement) taken into account (Hayek 1945, 1988) and of the

benchmark used in comparing alternative distributions of welfare. Economics does not provide objective criteria for determining which rules and ethical values are preferable.

Welfare economists sought a way out of this difficulty. Pareto criteria seemed to offer a possible solution: a rule change is an improvement if it makes someone better off without making someone else worse off. The choice of Pareto criteria as a benchmark clearly entails a value judgment, but one that—some argue—is relatively weak.¹ More damaging is the recognition that, in the absence of unanimity, any non-trivial change in a rule that makes some individuals better off typically makes other individuals worse off. Fundamentally, there is the knowledge problem when an exchange is involuntary. Assuming this obstacle away, Kaldor (1938) and Hicks (1939) proposed that a change would be an improvement if the gainers could fully compensate the losers—whether or not the losers were actually compensated. Kaldor and Hicks seemed satisfied, even if the uncompensated losers would not be. Scitovsky (1941), however, exposed a logical flaw in the argument: if the compensation was not paid, then the losers might be able to compensate the gainers to return to the initial situation, in which case the original change would not have been an improvement. In a futile subterfuge to resolve the impasse, many economists simply use a social welfare function that they judge suitable.

A social welfare function defines a set of ethical norms, and individuals who share these norms may find the analysis and recommendations based on it compelling. Other individuals, of course, may reject both the analysis and the recommendations. Unfortunately, the nature of the social welfare function used often is not made clear or, even worse, is masked by supposedly objective criteria of economic efficiency.

The failure to distinguish between normative and positive economics is abetted by the nature

of theory. Economic theory, like any scientific theory, abstracts from the many details of reality to focus on a few relationships that are relevant to its field of inquiry. Pure theory deals with the behavior of idealized variables under highly stylized circumstances, where the distinction between the axioms or initial hypotheses of the theory and the conditions ("if ... then...") that describe the actual state of the world is crucial but rarely understood or made clear. Not surprisingly, the solutions found under various idealized sets of conditions offer tempting standards of efficiency.² The choice of any such standard of efficiency as a benchmark for comparing alternative rules, however, is not value-free—like any other choice, it entails a value judgment. Implicitly, the perception of the world, including the ethical norms, embedded in the benchmark is substituted for the values of the individuals affected by the rule. The resulting analyses and policy recommendations ignore individuals' knowledge and values; not surprisingly, they favor the use of government employees or other third parties to impose rules and limit individual choices.

The first part of the paper examines the flaws and biases inherent in analyses purporting to show that, on economic grounds, one rule or institution is superior to another. The topics examined include the value judgments that are implicit in criteria of efficiency, the use of (antecedent) conditions that are empirically false, the failure to specify rules of correspondence for key theoretical terms, the implicit assumption that values can be measured objectively by outside observers, and the focus on equilibrium conditions that are never reached rather than on the process of adjustment and discovery. The paper then addresses the common law as a set of rules that provides order without imposing it. The conclusion stresses that economics offers a powerful set of tools for comparing the nature and consequences of alternative rules, including

the extent to which they are consistent with various ethical norms.

II. Comparative Institutions

Individuals compete for resources in a world of scarcity. Accordingly, the fundamental economic problem within any society is to establish a set of institutions for controlling competition.³ Different institutions embody different sets of property rights, which are the rights of individuals to the use, income, and transfer of resources. Thus, the system of property rights determines the boundaries of the choices that are permissible and how the consequences—the benefits and the harms—of a decision are allocated between the decision maker(s) and other members of society. In a world of private property rights and zero transaction costs, for example, individuals bear the full economic consequences of their decisions: there are no external effects.

Alternative systems of property rights provide individuals with different constraints, that is, with different structures of costs and rewards. Because changes in constraints affect choices systematically and predictably, economics can be used to analyze the nature and consequences of alternative institutional and contractual arrangements. The comparison of these alternatives, however, raises a number of difficulties.

A. Efficiency

Economists deal frequently and casually with the concept of efficiency. From the perspective of positive economics, efficiency can be defined as the equilibrium solution to an optimization problem given a specific set of constraints (De Alessi 1983). A position away from

an equilibrium is inefficient in the sense that it is not stable; the system predictably will shift away from it and move toward the equilibrium.⁴ For example, passage of a law that limits takings by the government yields a movement toward a new equilibrium that, given the new set of norms, is more efficient than the old one. On positive grounds, both the old equilibrium under the old rule and the new equilibrium under the new rule are efficient: economic theory does not provide a value-free basis for finding one equilibrium more efficient than the other.

The more common definition of efficiency, however, is value-loaded. Perhaps without fully realizing the normative implications involved, economists typically take the equilibrium solution associated with the purely competitive model in a world of private property rights and zero transaction costs as the benchmark of efficiency. The ideal equilibrium solution—by definition—must lie on the appropriate envelope (boundary); for example, an efficient output must lie on the production possibility surface. Alternative rules then are more or less efficient depending upon how closely they approximate this ideal.

This approach is flawed for two reasons. First, a rule is considered inefficient if it yields an interior solution. As Stigler (1976) noted, however, this cannot be: *all* equilibrium solutions, as implied by the positive definition of efficiency, must lie on the envelope. The apparently inefficient, interior solution arises simply because the analyst chooses to disregard the variables (e.g., outputs) measured along some other dimensions. The analyst has made the value judgment that some variables (e.g., leisure, liberty) do not matter.

Second, a solution is considered more efficient if it lies closer to the envelope. To make the comparison cleaner, suppose that one solution has more of every output except those along the dimensions that, for the sake of the argument, are being ignored. The assertion that the

solution closer to the production boundary is superior, however, requires the value judgment that possible changes in the distribution of income are irrelevant. There is the problem of the process for getting closer to the envelope. For example, suppose that B is less productive than A in all relevant dimensions so that a shift of resources from B to A would increase measured output. If the transfer is involuntary and B is not fully compensated, however, B is worse off. There is also the problem that the point closer to the envelope implies foregoing other points—with different combinations of outputs and different distributions of income—that are equally close to the envelope. A concept of efficiency that ignores these considerations must rest on some notion of social welfare distinct from the welfare of the individual members of that society. The conclusion that a rule is preferable if it is closer to the ideal masks the value judgment that the distribution of income does not matter. Although it may not matter to the analyst, it surely matters to the gainers and losers from a recommended change in the rules.

Actual market solutions in a world of limited private property rights and positive transaction costs always appear to be inefficient relative to the ideal. The result is a bias toward government action to impose rules that, supposedly, move the system toward the ideal. As the application of economics to the analysis of public choices has shown, generations of economists have provided the rhetoric used by rent-seekers (both in the private and the public sector) to coopt government regulation and inhibit competitors.⁵

B. False Antecedent Conditions and Missing Rules of Correspondence

Neoclassical economic theory, which provides the purely competitive model used as a benchmark of efficiency, contains three kinds of theoretical statements that analysts

frequently—and, as shown below, inappropriately—lump together under the general rubric of assumptions (Nagel 1963).⁶ One type of theoretical statements consists of the axioms or initial hypotheses of the theory. These axioms describe the nature and relationship of the variables within the scope of inquiry of the discipline. Because the axioms abstract from reality, their validity generally can be determined only by testing the implications that they yield. If the theory works—that is, if it is not falsified by the evidence—then the axioms are accepted provisionally.

Another type of theoretical statements is the implications. Implications take the form of universal conditional statements ("if... then..."), and here the term "assumptions" refers to the antecedent conditions. These conditions describe the state of the world in which the theory is applicable: for example, the bundle of property rights that individuals hold to the use of resources. Because different antecedent conditions yield different solutions, the validity of the antecedent conditions must be determined empirically before the implications of the theory can be tested. If the antecedent conditions do not describe the existing state of the world, then the resulting implications and equilibrium solutions are not applicable to that world.

The third kind of theoretical statements concerns theoretical terms. These are terms that, by definition, have no empirical counterpart: they describe either the limits of processes that are theoretically endless (for example, elasticity at a point) or entities whose existence is postulated by some other theory. In order for the theory to yield testable implications, rules of correspondence must take those theoretical terms that appear in lower-level hypotheses and relate them to observable events.

Unfortunately, many economists do not seem to realize that the theoretical statements

lumped under the rubric of "assumptions" may differ and require different kind of treatment. For example, the validity of the assumption (axiom) that individuals maximize their own utility is determined by testing some of the resulting implications. In contrast, the validity of the assumption (antecedent condition) that the price of some commodity has increased or that all individuals have identical preferences must be established empirically *before* the implications can be tested. Similarly, remaining theoretical concepts, such as a "purely competitive market," must be related to appropriate observations *before* the theory can be applied.⁷

Failure to draw these distinctions results in analyses that are inapplicable to the real world and biased toward government intervention. For example, pure neoclassical economic theory contains the statement that transaction (including information) costs are zero. In contrast, transaction costs in the real world typically are positive and give rise to a wide range of contractual arrangements designed to reduce their impact. Resale price maintenance, termination at will, long-term exclusive dealings, and other seemingly unfair contracts can allow more aggressive competition by reducing transaction costs. Compared to the ideal benchmark, however, these contracts appear to be anti-competitive and continue to be proscribed by an array of antitrust and other government-imposed regulations.

C. Subjective versus Objective Values

In order to compare alternative rules, the analyst must be able to measure their economic (value) consequences. Although the use of market prices for this purpose suggests that the appropriate values are measured objectively, this is not the case; there is merely the pretense of knowledge (Hayek 1988).

Values ultimately are subjective. To the individual making a choice, the *value* of the option chosen is the value of the desirable attributes less the value of the undesirable attributes associated with that option; the *cost* of that option is the value of the next best alternative foregone (Alchian 1968). Because both value and cost depend upon the anticipations of the individual making the choice and upon the range of alternatives that the individual chooses to consider, they are purely private (Buchanan 1969).

More generally, an analyst simply does not—and cannot—know the circumstances of time and place that guide the choices of individual economic agents. Not only is much information subjective, but some (tacit) information simply cannot be communicated to others; and much information is lost in any process of aggregation.

Prices help reduce scarcity in private property systems by facilitating specialization and exchange. Prices transmit information cheaply and quickly while simultaneously providing individual consumers and producers—who have specific, often tacit, knowledge of their own circumstances—with the incentive to respond. Prices guide the allocation of resources to their highest-valued uses, as judged by consumers, because they reveal values at the *margin*: the price that a resource can command in each alternative use reflects the value of the *additional* output that the resource can yield in that use. Because the private owners of the (bundles of rights to the use of) resources bear the value-consequences of their choices, they have incentive to allocate resources where their prices are highest: resources flow to those uses in which they are most productive. Thus, in the absence of side conditions, equilibrium prices measure value at the margin. Precisely because prices are designed (whether by accident or by intent) to perform this function, they are less useful for other purposes, including the measurement of total values.

In particular, market prices do not reveal the value that an individual—whether a consumer or an owner/manager of resources—attaches to the inframarginal units. As a result, the market price of a commodity times the quantity purchased by an individual underestimates the total value of the commodity to that individual by an amount equal to the gain from trade (consumer's surplus). To the extent that the potential gains from trade on the next best opportunity foregone are ignored, costs are underestimated as well.

An exchange typically involves other dimensions besides price. These dimensions affect the divergence between subjective values and market prices, further complicating the comparison of alternative institutions. First, most trades include side conditions that give rise to compensating differentials. The buyer acquires a bundle of rights to the use of one or more resources—and the bundle of rights may vary from one transaction to another—and pays compensation that may include the right to the use of some resources as well as some money. For example, an employee might agree to invest in firm-specific human capital and provide certain job-related tools while the employer might agree to provide more job security and the use of a company car. And changes in circumstances can yield systematic changes in the bundles of rights exchanged. For example, individuals who trade in a community characterized by wide fluctuations in nominal prices will attach more side conditions to an exchange than traders in a community characterized by stable nominal prices.

Second, the decision to trade is determined not by the structure of nominal prices but by the structure of full prices, which include all pecuniary and non-pecuniary sources of utility perceived by the choosers. For example, two grocery stores may offer the same goods at the same nominal prices. The full price of the goods sold by one store, however, will be lower to

those consumers who live closer to it than to the other store and thus incur lower travel costs. Or one store may sell the goods at a lower nominal price but have longer queues, so that the full prices may be the same or even higher than at the other store.

Earlier analysis focused on the inability of a third party observer to measure the subjective values confronted by an individual chooser. In addition to the inability of prices to measure the value of inframarginal units, however, the measurement of value at the margin also breaks down when side conditions and full rather than nominal prices are taken into account. If different institutional arrangements have different effects on the bundles of rights being exchanged and, therefore, on their full prices, comparisons using nominal prices disregard relevant information.⁸

The comparison of aggregates ignores distributional issues. Economists frequently conclude that a policy is preferable if they find that it yields a larger aggregate consumer surplus⁹. Setting aside the problem of measuring an individual's subjective values and various econometric difficulties, estimating consumers' surplus as the area under the aggregate demand curve less total expenditures raises the fundamental problem of interpersonal utility comparison. Using the size of the aggregate consumers' surplus as a measure of the gain implies the value judgment that the distribution of the gains is irrelevant. That is a very strong value judgment, and even a cursory look at the political process suggests that it has support largely (only?) within the community of analysts who find it convenient.

The implicit assumptions that a third party observer can measure values objectively and that the distribution of gains and losses does not matter allow analysts to ignore the individual. This approach clearly loads the dice toward intervention by government employees—implicitly assumed to be wholly dedicated to the view of the public interest chosen by the analyst—to

regulate the behavior of individual economic agents.

D. Relevance of the Process for Adjusting to Change

Analysts typically compare alternative rules on the basis of the static equilibrium conditions expected to exist. Although these equilibrium conditions may be relevant, they reveal only part of the story.

Individual decision makers live in a world of limited private property rights, positive information and transaction costs, and continuous change brought about by such events as the vagaries of nature, new knowledge, and population dynamics. If circumstances change, the economic system begins to gravitate toward a new equilibrium. Before that equilibrium is reached, however, new unanticipated changes yield a movement toward yet another equilibrium solution. Because equilibrium solutions—whether static or dynamic—based on a given set of initial conditions are seldom attained, the process for coping with unanticipated changes in circumstances becomes critical.

In a private property system, individuals have the incentive to respond quickly and accurately to the opportunities for gain created by changes in circumstances. Moreover, they have incentive to discover new and more productive ways to use resources by introducing new goods and services, new production techniques, and new organizational forms. Focusing on equilibrium conditions at the expense of the process for adjusting to changes in circumstances ignores the responsiveness to change provided by individual producers and consumers in open markets and biases the comparison of institutions in favor of bureaucratic solutions.

III. The Common Law

The rule of law in many countries, including the United States, is based on both statutory and common law within a fundamental statute, the constitution, that sets the rules of the game—including the rules for changing the rules. Statutory and common laws have some fundamental differences with respect to possible encroachment on individual liberty.

Statutes are rules imposed from above; accordingly, they depend on the political process and are binding. In the U.S., statutes are passed by the appropriate legislatures at the federal, state, and local levels. Thus, statutes reflect the political climate of their time and are open to logrolling and other rent-seeking activities. The judiciary, organized as an independent branch of government, is supposed to settle disputes between individuals or organizations and ensure that the laws are consistent with the constitution; in particular, it is supposed to protect minorities from the tyranny of majorities. Judges, however, are appointed by the executive and confirmed by the legislature; thus, they reflect the political climate at the time of their appointment (De Alessi 1985). Because the law is what the courts say it is, judges have the opportunity to stretch the constitution and uphold new and existing statutes that conform with their private beliefs or objectives and reject new and existing statutes that do not. For more than half a century, the congruence of political interests between more activist courts and the legislatures has resulted in a growing body of statutory law that has imposed progressively more detailed rules and extended the range of federal jurisdiction.¹⁰

Statutes are the outcome of a collective decision-making process. Because the state is a party to the "contract," statutes in general are binding.¹¹ Individuals who do not wish to comply with a statute but wish to remain within the law have two options: overturn the rule in the courts

or move to another jurisdiction. They cannot contract around the rule.

The common law, in contrast, is a set of rules that provides order without imposing it (De Alessi and Staaf 1991). The common law, which is intended to resolve disputes among individuals regarding their rights, is based on precedent. That is, a judge trying a case is supposed to render a verdict consistent with previous court decisions in similar cases. Here, too, activist judges have an opportunity to advance their own private beliefs by stretching precedents. Unlike statutory laws, however, individuals—at least in principle—have the opportunity to contract around those rules of the common law that they find unsuitable.

The right to contract around a rule effectively provides unanimity: in general, all those individuals who do not wish to be bound by a specific rule of common law can simply adopt any other rule that they find mutually agreeable. Common law rules pertaining to property, tort (for example, nuisance), corporations, remedies, and agency typically can be modified through contract. Even the rules to be used in settling disputes and other aspects of civil procedure can be modified through contract.

An illustration may be helpful. Suppose that an individual purchases a parcel of land with a house on it. Statutes impose constraints on the terms of the exchange: for example, local ordinances may have setback requirements and federal laws may prohibit the filling of wetland on a corner of the property. If the buyer and seller want to change these constraints, they must obtain the approval of the relevant government entity. Common law also imposes constraints on the terms of the exchange: for example, all the fixtures and appurtenances permanently attached to a house, such as doors, chandeliers, and built-in appliances, are held to be part of the real property being exchanged. The buyer and the seller, however, have the right to contract

around the rule and choose the items to include in the transaction. The seller may retain the right to remove all the chandeliers and the right (easement) to run utilities through the back yard while the buyer may acquire the right to all the furniture.

The rights of individuals to contract around the common law are limited by law. Constitutional and statutory law set one layer of constraints. For example, according to the U.S. Constitution some rights are inalienable—that is, they cannot be transferred to others. Thus, individuals cannot sell themselves into slavery.

The common law itself also limits the ability to contract around the rule. In recent years, activist judges have used vague notions of unconscionability and the public interest to disallow an increasing range of contractual clauses. For example, under the doctrine of unconscionability a judge may decide that the consideration paid by a party for some right is inadequate, conclude that the party had superior bargaining power, and not enforce the contract. This approach assumes that a third party can use market prices to measure values objectively, so that any significant divergence between the contract price and the market price is evidence of some unfair practice (De Alessi and Staaf 1989). Similarly, the courts have become increasingly reluctant to enforce specific performance—that is, to enforce the precise terms of a contract—and to grant "substantial" performance instead. Thus, a party who breaches a contract may be held to pay compensation that the court, using market values, considers adequate. Again, the court is substituting its own market-based measure of values for the subjective value of the party harmed by the breach.

In the U.S., statutes take precedence over the common law. Thus, new statutes effectively repeal (replace) any common law that previously might have applied.¹² As a result of the

proliferation of statutes at all levels of government—and the increasing "federalization" of law—the role of the common law has been seriously eroded. In conjunction with the unwillingness of the courts to enforce contracts, the right of individuals to contract around the rule has been drastically reduced by rules imposed from above by legislatures and activist judges.

IV. Conclusions

Hayek (1948, 1988) emphasized that the specific circumstances of time and place relevant to the choices of individual members of a society simply cannot be known to a central bureau. Even if they were known, why would government bureaucrats have the incentive to behave according to the dictates of some ideal model? How is the benchmark chosen—and by whom? The failure to appreciate these observations keeps resurfacing under different guises. Within the context of this paper, it is reflected in the belief that economic efficiency can be defined to provide an objective benchmark for comparing alternative institutions—disregarding the value judgments involved and the unavailability of relevant (individual) information; that the conditions relevant to an application of the theory can simply be assumed to be true; that an outside observer can measure values objectively; and that only equilibrium conditions matter—disregarding the incentive and opportunity to discover new and more productive ways to use resources by introducing new goods and services, new production techniques, and new organizational forms. These beliefs and their related manifestations provide the basis for identifying a whole range of alleged "market failures" and justifying pervasive government involvement in open markets, an involvement coopted by rent-seeking individuals within the private and public sectors to advance their own welfare. As private property rights and

individual liberties are eroded, economies grow more slowly and may eventually fail (De Alessi 1995).

The common law provides a sort of unanimity by allowing individuals to contract around the rule. The common law, however, is being worn away by the growth of statutes that replace it and by the unwillingness of the courts, using vague notions of unconscionability and the public interest, to enforce contracts.

Although economics can indicate some of the consequences associated with alternative institutional and contractual arrangements, it does not provide a benchmark for deciding which rule is superior (preferable). That choice—like any other choice—requires a value judgment. It also requires specific knowledge of individual circumstances that simply is not available to a third party.

Regulations, statutes, and other government intervention in market processes allow groups with a comparative advantage in the use of political power to impose their values on others. The possibility of such political tyranny must be taken into account in choosing institutions.

REFERENCES

- Alchian, A.A. "Cost," *International Encyclopedia of the Social Sciences*, 3: 404-415, 1968.
Reprinted in A.A. Alchian, *Economic Forces at Work*, Indianapolis: Liberty Press, 1977, pp. 301-323.
- Benson, B. "Institutions and the Spontaneous Evolution of Morality," paper prepared for the Twentieth International Conference on the Unity of Sciences, Seoul, Korea, 1995.
- Buchanan, J.M. *Cost and Choice*, Chicago: Markham, 1969.
- De Alessi, L. "Efficiency Criteria for Optimal Laws: Objective Standards or Value Judgments?" *Constitutional Political Economy*, 3: 321-342, Fall 1992.
- De Alessi, L. "Institutions, Competition, and Individual Welfare," in *The Crises of Mature Welfare States*, Stockholm, Sweden: City University of Stockholm Press, forthcoming.
- De Alessi, L. "Nature and Methodological Foundations of Some Recent Extensions of Economic Theory," in G. Radnitzky and P. Bernholz (eds.), *Economic Imperialism: The Economic Method Applied Outside the Field of Economics*, New York: Paragon House Publishers, 1987, pp. 51-76.
- De Alessi, L. "Property Rights and the Judiciary," *Cato Journal*, 4: 805-811, Winter 1985.
- De Alessi, L. "Property Rights, Transaction Costs, and X-Efficiency: An Essay in Economic Theory," *American Economic Review*, 73: 64-81, March 1983.
- De Alessi, L. and Staaf, R.J. "The Common Law Process: Efficiency or Order?" *Constitutional Political Economy*, 2: 107-126, Winter 1991.
- De Alessi, L. and Staaf, R.J. "Subjective Value in Contract Law," *Journal of Institutional and Theoretical Economics*, 145: 561-577, December 1989.

- Demsetz, H. "Information and Efficiency: Another Viewpoint," *Journal of Law & Economics*, 12: 1-23, April 1969.
- Friedman, M. "The Methodology of Positive Economics," in M. Friedman (ed.), *Essays in Positive Economics*, Chicago: University of Chicago Press, 1953, pp. 3-43.
- Hayek, F.A. *The Fatal Conceit*, Chicago: University of Chicago Press, 1988.
- Hayek, F.A. "The Use of Knowledge in Society," *American Economic Review*, 35: 519-530, September 1945.
- Hicks, J.R. "The Foundations of Welfare Economics," *Economic Journal*, 49: 696-712, December 1939.
- Kaldor, N. "Welfare Propositions of Economics and Interpersonal Comparisons of Utility," *Economic Journal*, 49: 549-52, September 1939.
- Keynes, J.N. *The Scope and Method of Political Economy*, 1890. Reprints of Economic Classics, New York: Kelley & Millman, 1955.
- Nagel, E. "Assumption in Economic Theory," *American Economic Review, Proceedings*, 53: 211-219, May 1963.
- Scitovsky, T. "A Note on Welfare Propositions in Economics," *Review of Economic Studies*, 9: 77-88, November 1941.
- Stigler, G.J. "The Xistence of X-Efficiency," *American Economic Review*, 69: 213-216, March 1976.
- Yandle, B. (ed.) *Land Rights: The 1990s' Property Rights Rebellion*, Lanham, Maryland: Rowman & Littlefield Publishers, 1995.

ENDNOTES

*. The paper, which evolved from De Alessi (1992) and De Alessi and Staaf (1989, 1991), benefited from the legacy of discussions with Robert J. Staaf and helpful comments by Michael L. De Alessi, Raymond P. H. Fishe, William F. Shughart II, and Walter E. Williams.

1. Pareto criteria embody some strong value judgments (De Alessi 1992, pp. 336-8). For example, the welfare of individuals outside the set being analyzed (e.g., other than the parties to an exchange) does not matter.

2. Demsetz (1969) describes the use of such standards as the nirvana approach, which he finds particularly susceptible to three logical fallacies: the grass is always greener, the free lunch, and the people could be different.

3. A society's constitution provides the property rights that establish the range of formal and informal contracts that individuals may enter voluntarily with one another. Whether the constitution is achieved spontaneously or in some other way, typically it survives and evolves through various levels of collective decision making.

4. Interest would focus on the direction and size of the change in relative prices and the allocation of resources.

5. The evidence suggests that regulation of economic activity by utility-maximizing government employees is not likely to yield an improvement even by the standards of efficiency used to justify government intervention.

6. See De Alessi (1987) for a brief review of the methodological issues at stake.

7. Rules of correspondence cannot be avoided by "as if" statements (Nagel 1963).

8. In addition to the issue of subjective values, the measurement of an individual's gain from trade raises a host of econometric problems that usually are side-stepped by making rather

heroic assumptions about the nature of the antecedent conditions. For example, the area under the demand curve less total expenditures on the commodity measures consumer's surplus accurately only under Marshallian conditions: the marginal utility of the commodity in question is independent of the quantity of the other goods consumed by the individual and the marginal utility of expenditures is constant. Moreover, the information available about an individual's demand curve at best relates to points in the immediate neighborhood of the equilibrium; thus, the analyst must make some strong guestimates about the rest of the demand curve.

9. The limitations of aggregate output as a measure of improvement were discussed earlier.

10. For example, Yandle (1995) provides detailed documentation of the growth in regulatory takings of private property under various environmental laws.

11. Given the rational calculus of potential violators, statutes are "binding" up to the limits set by the probabilities of detection and conviction and the size of the penalty.

12. As Peter Aranson noted in a private conversation, however, the common law provides that "... statutes in derogation of the common law should be strictly (narrowly) construed" (De Alessi and Staaf 1989, fn. 33).

3-1 ve