KALDOR-HICKS EFFICIENCY AND THE PROBLEM OF CENTRAL PLANNING

EDWARD STRINGHAM

Kaldor-Hicks efficiency is widely accepted by the economics profession and is gaining ground in the area of law. Modern law and economics is almost entirely based on Kaldor-Hicks, and judges such as Richard Posner advocate using the standard to decide cases (Posner 2000). Bryan Caplan (1999) defends Kaldor-Hicks efficiency and argues against Austrian economists who reject this neoclassical welfare theory. Caplan (p. 835) states,

> [T]his criterion of efficiency has many advantages over Rothbard's approach. In particular, it actually allows one to make efficiency judgments about the real world–to judge, for example, that Communism was inefficient or rent control is inefficient or piracy was inefficient.

Supporters of Kaldor-Hicks believe it useful to have a quantitative measure to assess the efficiency of different situations.

Although it may appear convenient to be able to judge policies using such an efficiency standard, I will argue that no such measures can be constructed. Contrary to Caplan (p. 834) who states, "Rothbard's own theory strips him of the ability to call any act of government inefficient," I will argue that the neoclassical standard itself cannot be used to judge different states of the world. As Gerald O'Driscoll (1980, p. 359) wrote, Kaldor-Hicks advocates such as Posner are "actually grappling with the calculation problem." This article will follow up on this point and discuss whether Kaldor-Hicks-efficient policies can be calculated. There are a number of criticisms of the wealth-maximization standard on both positive and normative grounds.[1] The focus here

EDWARD STRINGHAM is a Ph.D. candidate in economics at George Mason University. He would like to thank the editor, Peter Boettke, Bryan Caplan, Tyler Cowen, Thomas DiLorenzo, and Mario Rizzo for useful comments and discussion.

[1]Chipman and Moore (1978) and Sen (1979) survey the criticisms of new welfare economics, including Scitovsky's (1941) critique that says implementing a policy that is

will be on the positive pitfalls of Kaldor-Hicks efficiency to argue that it is an unusable standard.

MEASURING KALDOR-HICKS EFFICIENCY

To review, the approach pioneered by Kaldor (1939) and Hicks (1939) judges outcomes efficient when monetary wealth is maximized. Posner (1980b, p. 243) explains, "Resources are allocated efficiently in a system of wealth maximization when there is no reallocation that would increase the wealth of society." This is, in Posner's words (1980a, p. 491), "the Kaldor-Hicks or wealth-maximization approach." Kaldor-Hicks efficiency does not measure utility or happiness; it solely looks at willingness to pay in dollar terms. By measuring effects in dollars, it avoids the problems of other traditional welfare economics because it does not rest upon the implausible assumption that different individuals' utilities are measurable and comparable (Robbins 1952).

The key requirement for conducting Kaldor-Hicks analysis is the ability to gather and sum up people's willingness to pay attached to different outcomes. Since we are dealing with the common unit of dollars, this task may appear tractable, but it is a lot easier said than done. For even in the most basic cases, it is not clear how to find people's willingness to pay. One method used is to look at market prices, but the problem with using observed prices is that they merely represent prices from times gone by. Ludwig von Mises (1998, p. 327) noted:

> All the prices we know are past prices. They are facts of economic history. . . . The experience of economic history never tells us more than that at a definite date and a definite place two parties A and B traded a definite quantity of the commodity *a* against a definite number of units of the money *p*.

Merely observing a trade at a given price does not enable us to extrapolate that this price will be applicable to the future.

We know that a trade took place at a given price and we know the price was desirable for both parties at the moment of trade, but we cannot infer that this price will be desirable forever for trading partners. A past price represents how much the buyer was willing to pay only in the moments leading up to the transaction and nothing more. "Cost is that which the decision-taker sacrifices or

---

efficient from today's perspective may be inefficient from tomorrow's perspective (once changes that endowments, and relative prices brought about by the new policy are taken into account), which in the end shows the incommensurability of efficiency levels. For the sake of argument, this paper will ignore the Scitovsky double-switching problem and focus on judging efficiency levels using today's viewpoint; it will be argued that even under the simplest conditions, the problems of Kaldor-Hicks efficiency are still intractable. For some of the normative problems, see Block (1977, 1995, 1996, 2000), Hoppe (1993), and Rothbard (1974).

gives up when he makes a choice" (Buchanan 1999, p. 41). Seconds after a transaction, the buyer, who has satiated his demand at that price, will be unwilling to pay the same price. From that point forward, the buyer has a different amount of money and goods, and will have a different willingness to pay.

The world is constantly changing, so it would not make sense to base decisions on prices that no longer have relevance. Differing market conditions will lead to different market clearing prices. Boudreaux, Meiners, and Zywicki (1999, p. 783) point out, "Prices are not static and absolute. . . . There is no 'willingness to pay' for IBM stock; there is today's price for IBM stock." It would be a folly to take a snapshot of prices and think that we can continually make inferences from them (Salerno 1990, pp. 41–44). The fact that prices vary so much shows that the valuations change according to market conditions.

Even if exogenous variables were fairly constant, there is no reason to expect to see stable preferences over time. The rank ordering of goods by individuals can change from day to day. Murray Rothbard (1956, pp. 228–29) remarked:

> The prime error here is the assumption that the preference scale remains constant over time. There is no reason whatsoever for making any such assumption. All we can say is that an action, at a specific point in time, reveals part of a man's preference scale at that time. There is no warrant for assuming that it remains constant from one point of time to another.

It would be in error to assume that just because people acted one way in the past that they would prefer to act that same way in the future.

IMPLEMENTING KALDOR-HICKS EFFICIENCY

Market volatility and changing preferences certainly complicate matters, but even if there were no exogenous changes and constancy of preferences, prices would not provide the necessary information. Prices tell us about exchanges that people agreed to, but Kaldor-Hicks analysis requires us to consider hypothetical situations that have not taken place. Posner (1979, p. 130) believes that "[v]oluntariness is, however, too restrictive a condition and once the domain of the wealth-maximization criterion is expanded to include hypothetical markets, a problem of measurement arises." There may be interventions in the market that increase net wealth, so it is necessary for the government to find out when this would be the case. A policy of laissez-faire would not maximize wealth as much as the policy that approximates laissez-faire but intervenes when intervening increases wealth.[2]

---

[2]This is analogous to the point made by Smart (1973, pp. 9–12), who said rules that maximize utility are always ones that allow exceptions in the cases when violations increase utility; thus rule-utilitarianism collapses into act-utilitarianism.

Advocates of Kaldor-Hicks wealth maximization maintain government should take action when there is a positive net willingness attached to an outcome.[3] Posner (1980b, p. 244) explains, "Under the Kaldor-Hicks definition of efficiency . . . a reallocation of resources is efficient if it enables the gainers to compensate the losers, whether or not they actually do so. This is equivalent to wealth maximization." It is important to emphasize that the losers do not need to be compensated; the criterion is simply whether the winners' gains exceed the losers' losses as measured in dollars. For example, if teetotalers are willing to pay a billion dollars to have alcohol outlawed and the willingness of drinkers to pay in order to be allowed to drink is less than a billion, then the efficient policy would be prohibition. Likewise, if a rich person is willing to pay a million dollars to kill a penniless being, allowing the killing is efficient since the willingness to pay attached to that outcome exceeds that of allowing the poor person to live (Block 1996).[4]

Kaldor-Hicks requires judges who are adding up how much each party is willing to pay for a given outcome to determine what is efficient. For Posner, this task is within the capability of the government. Posner (1983, p. 62) writes:

> The purist would insist that the relevant values are unknowable since they have not been revealed in an actual market transaction, but I believe that in many cases a court can make a reasonably accurate guess as to the allocation of resources that would maximize wealth.

Judges can estimate people's willingness to pay and add these values up to make their decisions, but the important part is, Posner does not say how they will do so. As O'Driscoll (1980, p. 357) pointed out, "Judges are human agents, not ideal observers; they do not possess superior knowledge of the future, or of the operation of physical or economic laws." Is it reasonable to

---

[3]To clarify, it is possible to use Kaldor-Hicks analysis but not support the implementation of Kaldor-Hicks policies. For example, Caplan (1999, p. 834) believes, "Many, if not most, economists would agree with Rothbard that efficiency alone is an inadequate normative criterion." One may debate whether many economists agree with Rothbard (1997b,c) or whether it is constructive to use Kaldor-Hicks analysis, but Caplan's point of differentiating positive and normative uses of efficiency must be granted.

[4]This would be the case if transaction costs of negotiating are prohibitive or if we use Hicks efficiency, which technically is different from Kaldor efficiency. Matthew Adler and Eric Posner (2000, p. 1108) explain a project as, "Hicks efficient relative to the status quo if there is no hypothetical lump-sum redistribution in the status quo world, from project losers to project winners, such that this amended status quo is Pareto efficient relative to the project." In other words, a policy is efficient if the potential loser cannot offer the potential winner enough money that the winner prefers being paid over having the policy implemented and the potential loser prefers paying over having the policy implemented. Cowen (1998) brings up a plethora of problems for cost-benefit analysis, including the fact that willingness to pay and willingness to be paid can differ greatly. In the case of killing, a penniless person might not agree to be killed for billions of dollars, but since he has no money, his willingness to pay not to be killed is zero.

expect that judges can make reasonably accurate guesses to maximize wealth?[5]

The problem is that in the absence of trade, it is not apparent how an outside observer can know to what degree people value an outcome. Steven Littlechild (1978, p. 85) elaborates:

> In the case where no contract is made, we are considering a hypothetical choice and asking how attractive a hypothetical alternative would need to have been in order to be preferred (or how unattractive it could have been and still have been preferred).
>
> The first point to emphasize is that the proposed procedure does not involve choices, albeit hypothetical, by the person in question but rather by an outside observing economist, government official, judge, or politician.

Government officials would need to guess, not how they would value different choices, but how other people would value different choices. This is easier said than done; Rothbard (1956, p. 225) argued the only way an observer can know if someone values a good is by seeing him actually paying for it. Choice demonstrates preference, and without it, it is not possible to tell how much a person values a good. Judges in this situation are faced with making decisions based on costs and benefits that are unknowable. As Cordato (1992, p. 95) stated, "The arguments that were made in opposition to the Pigouvian tax assessor are equally applicable to the Coasian judge."

The problem is even more complicated than just figuring out the willingness to pay for the two parties involved in an exchange; to determine net willingness to pay the government needs to count the willingness to pay of every third party. Mario Rizzo (1980b, p. 641) pointed out, "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." For any given decision the government would need to determine the general equilibrium solution to take into account the affects on all people.

_____

[5]For the sake of argument, it is assumed that judges would actually act with good intentions, but clearly this need not be the case. Theorists such as Prendergast (1993) point to potential problems of employees not working in the interest of their employers, with companies being unable to monitor their performance and failing to maximize the value of the firm, but it must be realized that these problems would exist and may be greatly exacerbated in the judiciary. The private sector has devised many contracts to control performance problems (Brickley, Smith, and Zimmerman 1997) and ultimately has profits and losses that act to set limits (Mises 1990). In the public sector, on the other hand, these feedback mechanisms are all but absent, so there is little reason to expect that judges would do anything other than act in their own self-interest (Hasnas 1995; Stringham 1999). When the public-interested-judge assumption is dropped, Kaldor-Hicks becomes even less reliable.

EVALUATING ALL POSSIBLE STATES OF THE WORLD

Measuring the effects on every single person for one outcome is difficult enough, but matters get exponentially more complicated when we realize that we must consider the effects on all people for all potential outcomes. To accurately determine efficient policies, the government would need to figure out each person's willingness to pay under all possible states of the world. Boudreaux, Meiners, and Zywicki (1999, p. 791) write:

> Asking people to reckon their demand curves for all goods, services, and amenities under a welter of different conditions is to ask the impossible. . . . The impossibility of mapping a full schedule of preferences for every given survey respondent means that, by necessity, a certain number of alternatives must be excluded from the menu of options over which a person can hypothetically spend his or her money.

It is unclear how to figure out the willingness to pay for even one person under a myriad of different circumstances, and it is even less clear how to figure this out on a society-wide level.

The heart of the problem is that willingness to pay cannot be detached from actual circumstances of the market. One's demand is a function of existing policies, since existing policies affect endowments and relative prices. Tyler Cowen (1993, p. 254–55) notes how policy affects preferences:

> Endogenous preferences create problems for welfare economics when preferences (or metapreferences) are determined by the policies being chosen or evaluated. . . . Policy options can no longer be ranked unambiguously, because rankings depend upon the distribution of wealth, which in turn depends on policy.

Policies shape the world by determining who is in possession of resources, and since individuals differ, we would expect to see alternate demands depending on how property rights are assigned. If policy is altered, the willingness to pay for all goods is altered, so it would be a mistake to only look at the immediate effects of a policy.

The courts would need to know ahead of time all possible results of each policy and how they would interact with each other. Rizzo (1985, p. 873) elaborates, "There are also substantial interactive effects among decisions and rules that are often impossible to discern. Rules must therefore be applied in particular cases regardless of the hypothesized or 'guessed-at' consequences." The interconnectedness of the economy and uncertainty of the future will cause policies to have consequences that cannot be predicted. Without a crystal ball, it is unlikely that judges will be able to know whether a policy will be wealth-maximizing.

A related problem was pointed out by Herbert Spencer (1978, p. 198), when he criticized Bentham: When all underlying policies are up in the air, it

is unclear how to measure different states of welfare. He wrote, "For justice, or equity, or equalness, is concerned exclusively with quantity under stated conditions; whereas happiness is concerned with both quantity and quality under conditions not stated." Spencer believed that justice was easy to discern while happiness was not. There are parallels between maximization of happiness and maximization of wealth, since in both cases a nearly infinite number of different possible states of the world would need to be considered.

Without stated conditions, it is difficult to even know where to begin.[6] Posner (1979, p. 108) admitted this problem when he wrote, "In cases like this, where wealth effects are important, economic analysis does not predict a unique allocation of resources unless the initial assignment of rights is specified." One option would be to assign rights based on some notion of justice but, according to what is valued from today's viewpoint, this may be Kaldor-Hicks inefficient.

To truly advocate Kaldor-Hicks efficiency, all rights need to be assigned in a way that maximizes wealth. In an uncertain world, however, it is impossible to know which assignment of rights will produce the wealth-maximizing results. Even small policy changes can have large affects on society that cannot be predicted.[7] Posner (1983, p. 77) himself brings up an example that can be used to illustrate this point. He hypothesized, "We may be reasonably confident that the American people would be poorer if Henry Ford had decided to become a Trappist monk rather than an automobile manufacturer." If this is the case, it is imperative to wealth maximization that other would-be-Henry Fords are prevented from entering the wrong professions. Talented young people would need to be directed into the industry where they would produce the greatest impact on wealth.[8]

It may be true that the world would be a lot less rich if Henry Ford had not worked in the automobile industry, but who would have known that ahead of time? If Henry Ford had focused his efforts on religion, it is possible that he would have come to an important revelation that would increase wealth by more than he produced in the automobile industry. It is impossible to compare things to how they might have been ex post, and it is impossible to predict how things will be ex ante.

To determine the set of policies that will be wealth-maximizing the government must compare the outcomes of all possible property assignments. Rizzo (1985, p. 873) writes, "A utilitarian or balancing framework would require us to trace the full effects of each (tentative) judicial decision, and then evaluate it

---

[6]It is unclear what willingness to pay means when property rights are not held constant. How can people be willing to pay when the money is not theirs to give up?

[7]These points pose problems to other consequentialist theories as well.

[8]This would put the government in the position of the communist regimes that tried to do just that.

against the particular utilitarian standard adopted." To accurately choose which vector of policies is wealth-maximizing, the government would need to know how every person would act under these new policies—something which would require omniscience on the part of government agents.

CONCLUSION

While Caplan (1999, p. 836) recognizes that "applying the standard neoclassical Kaldor-Hicks criterion in practice is often difficult," he underestimates the problem. Applying the Kaldor-Hicks criterion is not just difficult in practice; it is impossible. It is unreasonable to assume that judges can figure out what policies are wealth-maximizing. As Rizzo (1980a, p. 291) concluded, "The law cannot and should not aim toward the impossible. Consequently, both the normative and positive justifications for the efficiency approach to tort law must be rejected." If it is impossible to determine what set of laws is most efficient, then surely efficiency should not be the aim of law. In the words of Chipman and Moore:

> After 35 years of technical discussions, we are forced to come back to Robbins' 1932 position. We cannot make policy recommendations except on the basis of value judgments, and these value judgments should be made explicit. . . . When all is said and done, the New Welfare Economics has succeeded in replacing the utilitarian smoke-screen by a still thicker and more terrifying smoke-screen of its own. (1978, p. 581)

Kaldor-Hicks efficiency is an unusable standard. To implement Kaldor-Hicks-efficient policies, government would require wisdom beyond its grasp. Prices only provide evidence of past willingness to pay and cannot be used for formulating future policies. To truly figure out willingness to pay, the government would need to read minds to determine how much every single person would value every possible state of the world, a feat that can never be attained. For these reasons, Kaldor-Hicks should be rejected as a means of judging policy.

REFERENCES

Adler, Matthew, and Eric Posner. 2000. "Implementing Cost-Benefit Analysis When Preferences Are Distorted." *Journal of Legal Studies* 29:1105–47.

Block, Walter. 1977. "Coase and Demsetz on Property Rights." *Journal of Libertarian Studies* 1(2): 111–16.

——. 1995. "Ethics, Efficiency, Coasian Property Rights and Psychic Income: A Reply to Harold Demsetz." *Review of Austrian Economics* 8(2): 61–126.

——.1996. "O.J.'s Defense: A Reductio Ad Absurdum of the Economics of Ronald Coase and Richard Posner." *European Journal of Law and Economics* 3:265–86.

———. 2000. "Private-Property Rights, Erroneous Interpretations, Morality, and Economics: Reply to Demsetz." *Quarterly Journal of Austrian Economics* 3(1): 63-78.

Boudreaux, Donald, Roger Meiners, and Todd Zywicki. 1999. "Talk is Cheap: The Existence Value Fallacy." *Environmental Law* 29(4): 765-809.

Brickley, James, Clifford Smith, and Jerold Zimmerman. 1997. *Managerial Economics and Organizational Architecture*. Chicago: Irwin.

Buchanan, James. [1969] 1999. *Cost and Choice: An Inquiry in Economic Theory*. Volume 6. *The Collected Works of James M Buchanan*. Indianapolis, Ind.: Liberty Fund.

Caplan, Bryan. 1999. "The Austrian Search for Realistic Foundations." *Southern Economic Journal* 65(4): 823-38.

Chipman, John, and James Moore. 1978. "The New Welfare Economics." *International Economic Review* 19(3): 547-84.

Cordato, Roy. 1992. *Welfare Economics and Externalities in an Open Ended Universe: A Modern Austrian Perspective*. Boston: Kluwer Academic Publishers.

Cowen, Tyler. 1993. "The Scope and Limits of Preference Sovereignty." *Economics and Philosophy* 9:253-69.

———. 1998. "Cost-Benefit Analysis." Working Paper. Department of Economics. George Mason University.

Hasnas, John. 1995. "Back to the Future: From Critical Legal Studies Forward to Legal Realism, or How Not to Miss the Point of the Indeterminacy Argument." *Duke Law Journal* 45:84-132.

Hicks, J.R. 1939. "The Foundations of Welfare Economics." *Economic Journal* 49(196): 696-712.

Hoppe, Hans-Hermann. 1993. *Economic and the Ethics of Private Property: Studies in Political Economy, and Philosophy*. Boston: Kluwer Academic Publishers.

Kaldor, Nicholas. 1939. "Welfare Propositions in Economics and Interpersonal Comparisons of Utility." *Economic Journal* 49(145): 549-52.

Littlechild, Steven. 1978. "The Problem of Social Cost." In *New Directions in Austrian Economics*. Louis Spadaro, ed. Kansas City: Sheed Andrews and McMeel.

Mises, Ludwig. [1920] 1990. *Economic Calculation in the Socialist Commonwealth*. Auburn, Ala.: Ludwig von Mises Institute.

———. [1949] 1998. *Human Action. A Treatise on Economics*. Scholar's Edition. Auburn, Ala.: Ludwig von Mises Institute.

O'Driscoll, Gerald. 1980. "Justice, Efficiency, and the Economic Analysis of Law: A Comment on Fried." *Journal of Legal Studies* 9:355-66.

Posner, Richard. 1979. "Utilitarianism, Economics, and Legal Theory." *Journal of Legal Studies* 8:103-40.

———. 1980a. "The Ethical and Political Basis of the Efficiency Norm in Common Law Adjudication." *Hofstra Law Review* 8:487-507.

——. 1980b. "The Value of Wealth: A Comment on Dworkin and Kronman." *Journal of Legal Studies* 9:243–52.

——. 1983. *The Economics of Justice.* Cambridge, Mass.: Harvard University Press.

——. 2000. "Cost-Benefit Analysis: Definition, Justification, and Comment on Conference Papers." *Journal of Legal Studies* 29:1153–77.

Prendergast, Canice. 1993. "A Theory of 'Yes Men'." *American Economic Review* 83:757–70.

Rizzo, Mario. 1980a. "Law Amid Flux: The Economics of Negligence and Strict Liability in Tort." *Journal of Legal Studies* 9:291–318.

——. 1980b. "The Mirage of Efficiency." *Hofstra Law Review* 8:641–58.

——. 1985. "Rules Versus Cost-Benefit Analysis in the Common Law." *Cato Journal* 4:865–84.

Robbins, Lionel. [1932] 1952. *An Essay on the Nature and Significance of Economic Science.* London: Macmillan.

Rothbard, Murray. 1956. "Toward a Reconstruction of Utility and Welfare Economics." In *On Freedom and Free Enterprise: Essays in Honor of Ludwig von Mises.* Mary Sennholz, ed. Princeton, N.J.: Van Nostrand.

——. 1974. "Justice and Property Rights." In *Property in a Humane Economy.* Samuel Blumenfeld, ed. LaSalle, Ill.: Open Court.

——. 1979. "Comment: The Myth of Efficiency." In *Time, Uncertainty, and Disequilibrium.* Mario Rizzo, ed. Lexington, Mass.: D.C. Heath.

——. 1997a. *The Logic of Action One.* Cheltenham, U.K.: Edward Elgar.

——. 1997b. "Praxeology, Value Judgments, and Public Policy." In Rothbard 1997a. Pp. 78–99.

——. 1997c. "Value Implications of Economic Theory." In Rothbard 1997a. Pp. 255–65.

Salerno, Joseph. 1990. "Ludwig von Mises as Social Rationalist." *Review of Austrian Economics* 4(2): 26–54.

Sen, Amartya. 1979. "The Welfare Basis of Real Income Comparisons." *Journal of Economic Literature* 17(1): 1–45.

Scitovsky, Tibor. 1941. "A Note on Welfare Propositions in Economics." *Review of Economic Studies* 9:77–88.

Smart, J.J.C. 1973. "An Outline of a System of Utilitarian Ethics." In *Utilitarianism: For and Against.* J.J.C. Smart and Bernard Williams, eds. Cambridge: Cambridge University Press.

Spencer, Herbert. [1897] 1978. *The Principles of Ethics.* Indianapolis, Ind.: Liberty Fund.

Stringham, Edward. 1999. "Market Chosen Law." *Journal of Libertarian Studies* 14(1): 53–77.