# A NOTE ON LAW, PROPERTY RIGHTS, AND AIR POLLUTION

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### Introduction

Murray Rothbard (1982) fails to place the Coase theorem in its proper intellectual perspective as a contribution to economics and misses the power of Coase's observation. The ironic part is that his misrepresentation of this theorem helps to maintain an unfortunate and unnecessary rift between many whom, I believe, share a similar methodological approach to economics.

#### The Coase Theorem

Rothbard has failed to prove his point that there are "problems" inherent in the Coase theorem. In fact, the Coase theorem is true by definition. If transaction costs are lower than the gains from agreement and there are no wealth effects, then resource allocation will not be altered by the redistribution of property rights. If such conditions are not met, then resource allocation can be altered.

Let us start with Rothbard's example of the farmer and the railroad. Coase's point is that where the above conditions for transaction costs and wealth effects are met, the holder of the property rights (suppose it is the railroad) must take into account the reduced profits he is imposing on the other party. The opportunity cost to the railroad is the payment the farmer is willing to make to stop the pollution. Transaction costs need not be "zero," but only smaller than the gains that can be realized by agreement between the parties.

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<sup>&</sup>lt;sup>1</sup>In Rothbard's discussion, it is unclear whether he is thinking in terms of physical damage or in terms of foregone profit (p. 57).

Rothbard's reference to the theorem deliberately ignoring "psychological factors" is puzzling (p. 58). There are two possible things that he might mean by this. The first and most obvious interpretation is that these "psychological" costs the railroad is imposing on the farmer are in some way different from other pecuniary costs. If this is really what he meant, then he is incorrect. Whether we are concerned with the railroad reducing the farmer's profits by \$100,000 or \$100,000 plus an additional \$900,000 in nonpecuniary losses, the analysis is unaffected. The opportunity cost to the railroad producing smoke is now the \$1 million the farmer would be willing to pay to have him stop. If the resulting output from the smoke is not worth at least \$1 million, it is irrelevant to whom the rights are assigned since the railroad will not run in either case. If the railroad's profits from running are more than \$1 million, the railroad will run. Thus Coase's analysis is entirely consistent with the subjective nature of cost. There is only one point that I can think of that can be brought up in this regard. Supposedly, the subjective nature of these costs could lead to bluffing on the part of negotiators, but this is hardly the only source from which bluffing can arise. If this is the point, it should not be treated any differently.

This brings us to a second possible interpretation of Rothbard's objection to the Coase theorem. This second argument is advanced by Walter Block (1977) in a paper Rothbard cites.<sup>2</sup> The analogous argument to the railroad and farmer is that while the farmer places this additional \$900,000 value on the orchard, he neither "has the money" to pay the railroad up to \$1 million (if the railroad's foregone profits were that high) nor would he want to pay that much money, for if he did he would no longer want to own the orchard. If Rothbard meant either one of these points, then the response is simply that he has violated the zero wealth effects assumption of the theorem. That is, the level of his wealth does determine whether the farmer will purchase the nonpecuniary benefits he receives from running the orchard. Wealth effects do not exist in the case of a strictly profitmaximizing firm, but only where individual consumption is occurring as in the case Rothbard mentions.

## Ethics and the Legal System

Neither Ronald Coase nor Harold Demsetz would argue that transaction costs are always low enough or that wealth effects are always

<sup>&</sup>lt;sup>2</sup>Rothbard's statement (p. 59, n. 6), that "there may well be farmers so attached to their orchards that *no price* would compensate them," leads one to believe that, like Block, he is forgetting Coase's assumption of zero wealth effects.

unimportant enough so that resource allocation is invariant with respect to any given distribution of property rights. In fact, the Coase theorem gains a large part of its usefulness because it is still a useful policy tool even when these two conditions do not hold. The argument is that total wealth will be maximized if property rights are distributed so that we get the same outcome we would get if these two conditions were met. No one argues that "common-law judges will always arrive at the socially efficient allocation of property rights," but Demsetz does argue that it is likely that they will because any allocation of rights which does not maximize total wealth will be challenged more often than one that does. Thus, over time the "efficient" ones should predominate.

Rothbard does correctly point out that assigning property rights does create wealth transfers, but he is wrong to imply that those who mention the Coase theorem are unconcerned with this fact—Coase and Demsetz do see value judgments about who should receive this transfer playing an important role. What Rothbard should correctly criticize economists for is that they either explicitly or implicitly claim that everyone values a dollar equally. Ideally, economists would advocate lump sum taxes on those who gain the wealth transfers so that they could claim the change was Pareto optimal. But as with many assumptions by economists, this is not what we see in the real world. Economists must then make completely arbitrary assumptions about the valuation different people place on any given dollar in order to define "socially" efficient outcomes.

## Historical Importance of the Coase Theorem

The importance of the Coase theorem lies not only in its ability to explain why certain externalities are internalized (for instance, Demsetz 1967) or in explaining decisions by the courts, but primarily as a basis from which economists can begin to analyze and solve problems. Surely the defenders of the Coase theorem realize the assumptions are usually an oversimplification and any model must be gradually expanded from these restrictive assumptions, but it has proven very useful. Before Coase, many economists would argue that "market failure" existed in a certain context and then automatically argue for government intervention, because they implicitly assumed the costs of government action were zero. Coase's point was that if we make the same assumptions with regard to the costs of market transactions, there would be no reason for the government to intervene. It was a simple but very powerful observation.

#### Other Observations and Conclusions

Unfortunately, many of Rothbard's arguments in the rest of his paper are based on his misunderstanding of the Coase theorem. One interesting point that Rothbard raises, but does not defend, though I am sympathetic with him, is why the law should be concerned only with physical coercion and not with other types of costs you can impose on others (p. 60). After all, is not physical coercion just one type of cost we can impose? If I offer someone \$1 million to jump out a window, I am imposing a cost on him if he declines to jump. There is some offer at which the individual will be indifferent between losing the offer and the threat of physical harm.

In summary, Rothbard's piece is disappointing in that he misunderstands the opposing arguments. The whole debate is especially unfortunate since it is between natural allies (for instance, both stress the subjective nature of cost and that all costs are opportunity costs).<sup>3</sup> It would be indeed unfortunate if those who can benefit from such tools as the Coase theorem rejected them out of hand.

### References

Alchian, Armen A. "Cost." International Encylopedia of the Social Sciences, Vol. 3 (1968), pp. 404-15. Reprinted in Economic Forces at Work. Indianapolis, Ind.: Liberty Press, 1977, pp. 301-33.

Block, Walter. "Coase and Demsetz on Private Property Rights." Journal of Libertarian Studies (Spring 1977): 111-15.

Coase, Ronald H. "The Problem of Social Cost." Journal of Law and Economics 3 (October 1960): 1–44.

Demsetz, Harold. "Toward a Theory of Property Rights." American Economic Review 57 (May 1967): 347-59.

Rothbard, Murray. "Law, Property Rights, and Air Pollution." Cato Journal 2 (Spring 1982): 55–99.

<sup>&</sup>lt;sup>3</sup>For a clear statement on the UCLA-Chicago approach to "cost," see Alchian (1968, pp. 404–15).