Two Notes on the Coase Theorem

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I. TESTING THE THEOREM

Ronald Coase taught us, what of course we should already have known, that when it is to the benefit of people to reach an agreement, they will seek to reach it. Reaching agreement can be costly in time and other resources, so many potential agreements will not be achieved, but these unachieved agreements will have been inhibited by the smallness of the benefits or the largeness of the costs of agreement.

Does the proposition require proof? One would think not. It is similar to a proposition in international trade: The prices of internationally traded goods in two national markets will differ by no more than the cost of movement of the goods between the markets. Suppose I started to test the proposition and found that a pair of prices differed by more than the costs of movement. I would immediately abandon the test and embark on lucrative arbitrage transactions. Similarly, if I found that Coase's famous grain farmer and cattle rancher were making foolish decisions with respect to the damage to grain from wandering cattle, I would buy the two enterprises and reap a capital gain from an efficient reorganization.

However, that cannot be the entire story; human behavior is not so rigorously deterministic as a multiplication table. There are people who do not care for wealth, more who do not reason well, and vastly more who are incompletely informed. These people will not necessarily achieve optimal agreements, and especially is this true in new circumstances. We do not believe that such people govern important markets: Others who love wealth, reason precisely, and buy information in optimal quantities will call the tune. So one set of empirical studies could be directed to the determination of the efficiency of small markets with special attention to short-run reactions to altered circumstances ("shocks"). Examples of such situations are (1) the reactions of wages of highly specialized people to large, unpredicted changes in the demand for their services, and (2) the structure of prices in markets for inexpensive antiques.

A second and much more interesting and important set of studies could be directed to the costs of achieving agreements ("transaction costs"). In fact such studies have been undertaken by Demsetz, Williamson, and many others, and much attention has been lavished upon the security

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markets.\textsuperscript{1} But neither this set of studies nor those of inefficient markets is directed to the logic of the Coase Theorem but instead to its domain. This is not to minimize the desirability of the studies—after all, it is the domain of applicability of a theory that determines its importance to a science.

\section{The Coase Theorem and the Distribution of Income}

Consider the following simple model of the Coase Theorem (in a regime of zero transaction costs). Kansas is about to be opened for settlement. The promise of the state is made—and believed—that the permanent rule will be that all grain farmers (or alternatively, cattle ranchers) are required to erect fences to protect crops from cattle. Both products will be sold in world markets at fixed prices. On a given day settlers are allowed to enter the state, and soon all the land has been settled.

I assert the proposition: Contrary to the received understanding of the Coase Theorem, with either assignment of fencing costs, the distribution of income among settlers will be the same.

Clearly the settlers as laborers will maximize their returns by allocating themselves between grain and cattle farms (whose numbers are fixed by endowments of the two kinds of land) so that the marginal products of homogeneous labor are equal. In the Homestead Act system, with each farm having 160 acres, there will in general be more laborers than farms (or land would be free), so some settlers will be only farm employees. This distribution of labor depends only upon the most profitable outputs of corn and cattle, which by the Coase Theorem is independent of the assignment of fencing costs.

Moreover, the net rent of each kind of land (after fencing costs) would be bid to equality by settlers if the initial sale of land were done by competitive auction. Hence the relative values of the two kinds of land would depend upon where fencing costs were assigned, but that would not affect the land wealth of settlers. Rents of both kinds of land would be capitalized at the same rate in the competitive auction.

If the land is sold to settlers at a fixed, almost nominal price, as was done with the Homestead Act, then windfall gains are obtained by the initial settlers—who would settle first on the kind of land with a higher net rental value. This difference in windfall gains would arise, not from the property or tort law, but from the method of allocating lands to settlers.

The Coase Theorem is of course consistent with the fundamental theorem of competitive markets, that homogeneous resources receive equal returns in all uses. The state may shift rights from one party to another and

\textsuperscript{1} See, e.g., Demsetz, The Cost of Contracting, 82 Q.J. Econ. 33 (1968); Williamson, Transaction-Cost Economics: The Governance of Contractual Relations, 22 J.L. & Econ. 223 (1979).
confer short-run gains and losses: for example, by unexpectedly transferring larger rights in intellectual property to artists or inventors. In the long run, however, the various parties will continue to earn only competitive rates of return, and even in the short run the Coase theorem allows the allocation of resources to be unaffected.

A stable property or tort law, to repeat, would not affect the distribution of income.