

Northwestern University School of Law
Law and Economics Papers

Year 2004

Paper 22

What'd I Say?: Coase, Demsetz and the
Unending Externality Debate

Fred S. McChesney*

*Northwestern University - Kellogg School of Management, f-
mcchesney@kellogg.northwestern.edu

This working paper is hosted by The Berkeley Electronic Press (bepress) and may not be commercially reproduced without the permission of the copyright holder.

<http://law.bepress.com/nwwps-lep/art22>

Copyright ©2004 by the author.

What'd I Say?: Coase, Demsetz and the Unending Externality Debate

Fred S. McChesney

Abstract

Economists study various problems referred to as “market failure” - situations that, at least potentially, justify government intervention to solve them. Externalities (or “social costs”) are viewed as perhaps the greatest market failure problems. The externality issue has also occasioned much re-thinking of fundamental economic principles, particularly in the context of Ronald Coase’s article on “The Problem of Social Cost.” Coase explained that externalities manifested a more fundamental issue in economics, the costs of transacting over rights to affect other’s welfare. Following Coase’s work, economists almost reflexively consider social costs problematic only when transaction costs are relatively high. Yet, Coase’s analysis has resulted in much confusion, even disagreement. For example, Harold Demsetz has recently objected to aspects of the Coase approach, as a matter of both economics and of government policy. As economics, Demsetz says, Coase’s focus on transactions costs is not helpful in resolving questions concerning externalities. Even if transaction costs were zero, externalities would still exist. Moreover, Demsetz objects that focus on transaction costs to explain persistent externalities furnishes spurious reasons for undesirable government intervention in markets. This paper summarizes and evaluates Demsetz objections, maintaining that Demsetz sometimes ignores points that Coase has made. At the same time, Demsetz adds new insights to the Coase Theorem.

What'd I Say?:

Coase, Demsetz and the Unending Externality Debate

Fred S. McChesney*

Abstract

Economists study various problems referred to as “market failure” -- situations that, at least potentially, justify government intervention to solve them. Externalities (or “social costs”) are viewed as perhaps the greatest market failure problems.

The externality issue has also occasioned much re-thinking of fundamental economic principles, particularly in the context of Ronald Coase’s article on “The Problem of Social Cost.” Coase explained that externalities manifested a more fundamental issue in economics, the costs of transacting over rights to affect other’s welfare. Following Coase’s work, economists almost reflexively consider social costs problematic only when transaction costs are relatively high.

Yet , Coase’s analysis has resulted in much confusion, even disagreement. For example, Harold Demsetz has recently objected to aspects of the Coase approach, as a matter of both economics and of government policy. As economics, Demsetz says, Coase’s focus on transactions costs is not helpful in resolving questions concerning externalities. Even if transaction costs were zero, externalities would still exist. Moreover, Demsetz objects that focus on transaction costs to explain persistent externalities furnishes spurious reasons for undesirable government intervention in markets.

This paper summarizes and evaluates Demsetz objections, maintaining that Demsetz sometimes ignores points that Coase has made. At the same time, Demsetz adds new insights to the Coase Theorem.

* Northwestern University: Class of 1967 / James B. Haddad Professor of Law; Professor, Department of Management & Strategy, Kellogg School of Management. Acknowledged with gratitude are conversations with Terry Anderson, David Haddock and Bobby McCormick; comments from Harold Demsetz, Roger Meiners; and especially assistance from Ronald Johnson. Comments in presentations at the Georgetown University Law Center and the Southern Economic Association also were very helpful. Support from the Seder Corporate Research Fund is gratefully acknowledged.

**What'd I Say?:
Coase, Demsetz and the Unending Externality Debate**

Fred S. McChesney*

*I'm just a soul whose intentions are good
Oh Lord, please don't let me be misunderstood.***

I. Introduction

Economists, trained in the study of markets, learn early of various problems grouped under the heading of “market failure” -- situations that, at least potentially, justify government intervention to solve them. Cartels and monopolies, for example, are thought by many to require government antitrust action; optimal production of public goods like national defense or national highways likewise are frequently said to necessitate government intervention in otherwise private markets.

Almost certainly, however, externalities (or “social costs”) are perceived as the greatest market failure problems.¹ Harold Demsetz recently described by example the fundamental economic issue:

* Northwestern University: Class of 1967 / James B. Haddad Professor of Law; Professor, Department of Management & Strategy, Kellogg School of Management. Acknowledged with gratitude are conversations with Terry Anderson, David Haddock and Bobby McCormick; comments from Harold Demsetz, Roger Meiners; and especially assistance from Ronald Johnson. Comments in presentations at the Georgetown University Law Center and the Southern Economic Association also were very helpful. Support from the Seder Corporate Research Fund is gratefully acknowledged.

** Bennie Benjamin, Gloria Caldwell & Sol Marcus, “Don't Let Me Be Misunderstood,” (Bennie Benjamin Music, ASCAP). The song, originally recorded by Nina Simone, was popularized by The Animals, reaching #15 on the Billboard Charts in March 1965.

The short-hand description for this [externality problem] is that private costs (or benefits), which do influence a resource owner, are not equivalent to the total of social costs (or benefits) associated with the way an owner uses his resources. An example...concerns the use of soft coal by a steelmaker. The soft coal produces soot. The soot descends on a neighboring laundry, making it more difficult for the laundry to clean its customers' clothes, but this cost is not faced by the owner of the steel mill when he decides to use soft coal to fuel the steelmaking process.²

Perceptions that externalities are ubiquitous have helped produce a generation of large-scale governmental intervention in the form of national environmental legislation and related regulations.

The externality issue has also occasioned much re-thinking of fundamental economic principles, particularly in the context of Ronald Coase's celebrated article on "The Problem of Social Cost."³ As is now well understood, Coase explained that externalities were themselves manifestations of a more fundamental issue in economics, the costs of transacting over rights to undertake actions that affect other people. Low transaction costs allow internalization of social costs, and so reduce the incidence of externalities; as those costs rise, so does the extent of externalities. Coase's analysis of the problem of

¹ The term "externality" is used here with full recognition of economists' imprecision as to what constitutes an "externality" in the first place: "[R]igorous definitions of the concept itself are not readily available in the literature." Buchanan & Stubblebine, *Externality*, 29 *Economica* 371, 371 (1962). Buchanan and Stubblebine specify a taxonomy by which an "externality" may be technological or pecuniary, marginal or infra-marginal, Pareto-relevant or -irrelevant. For an enlightening discussion, see Haddock, "Irrelevant Internalities, Irrelevant Externalities, and Irrelevant Anxieties" (manuscript). Haddock points out that many phenomena labeled as "externalities" are really related to the production of public-goods.

² Demsetz, *Ownership and the Externality Problem*, in *Property Rights: Cooperation, Conflict, and Law* (T. Anderson & F. McChesney, eds., 2003). A brief foreshadowing of some of the points made there appears in Demsetz, *Toward a Theory of Property Rights II: The Competition between Private and Collective Ownership*, 31 *J. Legal Stud.* S653 (2002).

³ Coase, *The Problem of Social Cost*, 3 *J. L. & Econ.* 1 (1960) (hereinafter "Social Cost").

social cost has been so powerful that economists, almost automatically, think of social costs as a problem only when transaction costs are perceived to be relatively high. In the limit, if there were no transaction costs, there seemingly would be no social costs.

Yet, Coasean analysis of externalities has been the subject of much confusion, even disagreement. Demsetz in particular has recently pointed to aspects of the Coase approach that, as a matter of both economics and of government policy, he finds problematic. As a matter of economics, Demsetz says, Coase's focus on transactions costs is not helpful in resolving questions concerning externalities. Even in a hypothetical world of zero transaction costs, externalities would still exist. Moreover, Demsetz fears, focus on transaction costs as the reason for the persistence of externalities furnishes spurious reasons for undesirable government intervention in markets.

The recent Demsetz objections to the Coase approach to externalities are considered further in the next section. Section III then evaluates those objections. To a considerable extent, it is maintained here, Demsetz ignores points that Coase has made. At the same time, Demsetz adds new insights to the Coase Theorem. At points, the present paper may read like a literary *explication de texte*, but in fact the Demsetz critique raises fundamental economic issues, some new and others worth revisiting.

II. Demsetz on Coase re Internalizing External Costs

“The Problem of Social Cost” sought principally to dispel economists’ unquestioning acceptance of the A.C. Pigou’s claim that the imposition of costs on one person (or firm) by another was reason for government intervention in the otherwise-private or-

dering of economic affairs.⁴ By this “Pigovian tradition,” as Coase refers to it, intervention might take various forms, such as the imposition of liability on the party creating the costs, or taxes to align private with social cost, or zoning-like expulsion of the offending party to a place where no costs could be imposed on others. Contrary to Pigou, Coase argued that these “suggested courses of action are inappropriate in that they lead to results which are not necessarily, or even usually, desirable.”⁵

The essence of what is now known as the “Coase Theorem” is familiar; only its essential points need emphasis here. Coase assumes that the rights to use a resource are (or will be) well defined and enforced. Coase typically refers to the definition of rights as the result of a judicial process.⁶ But his analysis applies just as well to non-judicial definitions of rights.⁷

Once rights to use a resource are defined, the ultimate use of the resource need not depend on who owns the rights. Although “the delimitation of rights is an essential prelude to market transactions...the ultimate result (which maximizes the value of production) is independent of the legal decision.”⁸ Regardless who owns the rights initially, negotiations between owners will move resources to the highest-valued use. Let the right

⁴ That refuting Pigou was Coase’s objective is clear from Coase’s definition of “The Problem to Be Examined,” the title of the first section of his 1960 article, and the titles of the final two sections: “The Pigovian Tradition” and “A Change of Approach.” Coase notes that the Pigovian model was an “oral tradition,” but one embraced by nearly all economists at the time.

⁵ Coase, *Social Cost*, at 2.

⁶ Coase’s prototype case is *Sturges v. Bridgman*, 1 Ch. D. 852 (1879), which he discusses, not only in “The Problem of Social Cost,” but in Coase, *The Federal Communications Commission*, 2 J. L. & Econ ___ (1959) (hereinafter “Federal Communications Commission”) and in Coase, *Notes on the Problem of Social Cost*, in *The Firm, The Market and the Law* (1988) (hereinafter “Notes”).

⁷ For discussion of various extra-legal ways that property rights are defined, as a matter either of community contract or sheer might, see generally T. Anderson & F. McChesney, eds. *Property Rights: Cooperation, Conflict, and Law* (2003).

⁸ Coase, *Social Cost*, at 27.

negotiations between owners will move resources to the highest-valued use. Let the right to clean air belong to the laundry. If the value of emitting smoke exceeds the costs to the laundry, the steelmaker will pay to pollute the laundry. Alternatively, let the steel mill possess the right to pollute the air. Because the value of polluting is worth more to the mill than the costs to the laundry, pollution again will occur. Correspondingly, if the relative cost-benefit magnitudes are reversed – that is, if the cost of pollution to the laundry exceeds the benefits to the mill – there will be no pollution, regardless which firm owns the right to the air.

However, this proposition holds only when there are zero (or trivial) transaction costs. Whether ownership is irrelevant for the ultimate use of resources is “dependent on the assumption of zero transaction costs... That is to say, with zero transaction costs, the value of production would be maximized.”⁹ But with important transaction costs, resource use may not be optimal. High transaction costs mean that the definition of rights may affect the use to which resources are put. Transaction costs preclude negotiations between the steelmaker and the laundry. Judicial definition of rights to emit or not to emit smoke therefore determines whether the smoke will be emitted, regardless of the relative benefits and costs of pollution. Thus, judicial determination of rights may result in economic loss.

Harold Demsetz has recently challenged the Coase construct concerning externalities. Demsetz raises two objections. He posits that Coase’s arguments concerning

⁹ Coase, Notes, at 158. The construct of zero transaction costs must be understood as applicable in a specific situation only after property rights have been defined. As Cheung points out, the definition of property rights is itself a process necessarily entailing positive transaction costs. Cheung, *The Transaction Costs Paradigm*, 36 *Econ. Inq.* 514 (1998). See also Allen, *What Are Transaction Costs?* 14 *Res. in L. & Econ.* 1 (1991).

transaction costs, while not erroneous, are neither necessary nor sufficient to resolve issues concerning social cost. Moreover, Demsetz claims, inherent in the Coase approach is the potential for mischief, in the form of unwarranted government intervention when social costs present themselves.

A. Transaction Costs

Demsetz rejects the centrality of transaction costs to the existence of externality problems. Regardless whether transaction costs are high, low or non-existent, externalities will exist, i.e., resource owners will not take into account the full social costs of their activities.

[W]hat I have to say, because I deny the importance attached by Coase to transaction cost, allows us to reject the externality problem in cases in which transaction cost is positive as well as those in which it is zero....The elements I stress differ from Coase's, but they also serve to restrict the set of economic activities described as exhibiting policy-relevant externalities.¹⁰

Externalities will persist because phenomena other than transaction costs are relevant to solving the problem of social cost. Demsetz focuses in particular on firm ownership and the gains from specialization. If a single firm owns both the steel mill and the laundry, there are by definition no external effects from smoke; all costs are internalized. However, let the mill and the laundry now be owned separately, reflecting gains from specialization in operating two very different sorts of business. Even if transaction costs are positive, in such a hypothetical Coasean world there still would be no external costs.

The two firms could always merge, and costs that had been external would be internalized. But a merger would result in a conglomerate firm operating both a steel mill

¹⁰ Demsetz, at 284.

and a laundry, producing what Demsetz terms “management costs.” Greater management costs may arise when a single facility is “devoted to different purposes,” i.e, there are costs in foregone specialization.¹¹ Those who specialized in producing steel now must also operate a laundry, and vice versa. With unified ownership, the externality problem facing the mill and the laundry is solved, but only at the cost of lost specialization in producing only steel and only laundry. “It is increased reliance on specialization that is the source of costly interactions that bear the externality label,”¹² not transaction costs.

It costs something to engage in transactions, but it also costs something to complicate managerial operations in a unified ownership structure...[I]f ownership were unified, there also would be greater management cost in controlling the more complicated interface between the steel mill’s operations and the operations of many industries.¹³

So, Demsetz sees the externality problem as merely subsidiary to more fundamental issues involving ownership of rights: “optimal ownership rearrangement not only economizes on transaction cost, [but] it essentially undermines the very existence of the externality problem.”¹⁴ That, says Demsetz, is critical to one’s thinking about externalities: “Coase showed that resources are not misallocated in neoclassical theory’s competition model if transaction cost is zero....Coase is correct, since zero transaction cost al-

¹¹ Demsetz, at 284.

¹² Desmetz, supra note __, at 284.

¹³ Demsetz, supra note __, at 289. In addition to lost specialization, there is considerable support in the financial-economic literature for the proposition that conglomeration may reflect managerial empire-building at shareholder expense, that is, represents a sub-set of agency cost more generally. See Montgomery, Corporate Diversification, 8 J. Econ. Perspectives 163 (1994); Shleifer & Vishny, Management Entrenchment: The Case of Manager-Specific Investments, 25 J. Fin. Econ. 123 (1989). See also Matsusaka, Takeover Motives During the Conglomerate Merger Wave, 24 Rand J. Econ. 357 (1993).

¹⁴ Demsetz, supra note __, at 286.

lows coordination between two independently owned firms to substitute perfectly for unified ownership. However, this seems to imply that external cost ... does exist if transaction cost is positive.”¹⁵

Ownership is a dynamic concept; rights to resources can always be exchanged between firms, or combined in a single firm. “[S]ince there is no externality if ownership is unified,” then there is no relevant (non-self-imposed) externality if separate ownership is the chosen ownership arrangement.”¹⁶ Transaction costs are not an exogenous phenomenon. They exist because competitors (e.g., a steel mill and a laundry) for the same resource (e.g., air) choose to operate as different firms. Different firms performing separate functions bespeak gains from specialization. Unifying ownership of the two firms would by definition remove all transaction costs, but only at a cost of lost specialization.

In short, even if transaction costs were zero, and firms could costlessly combine to solve externality problems, management costs would arise. Those costs could be prohibitive, leaving the possibility of positive externalities in a zero-transaction-cost world. “There simply is no reason to proclaim a special role for transaction cost in the externality problem except for the fact that, if we insist on separate ownership, positive transaction cost creates the problem of choosing between two alternative assignments of ownership rights.”¹⁷ On the other hand, transaction costs could be positive, yet no externalities would arise as long as the costs of foregone specialization were relatively low.

B. The Political Sub-Text of Externality Problems

¹⁵ Demsetz, *supra* note __, at 290.

¹⁶ Demsetz, *supra* note __, at 287.

¹⁷ Demsetz, *supra* note __, at 296.

For Demsetz, Coasean analysis is problematic also because it gives rise to two unwarranted implications. Both relate to the role of government in a social-cost setting.

First, Demsetz complains that if resources are misallocated when transaction costs are high, that is not a problem of the economic system. It is a judicial or political problem, stemming from courts or legislatures awarding property rights to a lower-valuing user when subsequent negotiations are too costly to move those rights to higher-valued uses. The point, “overlooked by Coase,” is that the award of property rights is

not germane to a judgment about the efficiency with which the *economic* system works....[The assignment of rights] lies outside the price system in the legal system....Coase has confused issues by bringing the legal system into his evaluation of Pigou’s theory....Why should we claim an externality-associated inefficiency in the operations of the economic system because legal policy has reduced the value of the mix of goods produced?¹⁸

Moreover, when rights are accorded to the wrong owner, economically speaking, the resulting inefficiency in turn furnishes an excuse for government subsequently to step into the marketplace. When private cost does not equal social cost, the “result of this inequality” is the seeming fact that “the state can improve matters through taxes and subsidies that bring private cost into equality with social cost.”¹⁹ Again, because the problem really resides in the judicial-legislative system, not the economic system, the claimed desirability of government intervention is fallacious.

III. The Demsetz Critique of Coase

¹⁸ Demsetz, at 294-95.

¹⁹ Demsetz, at 296.

Criticism of a Nobel laureate by another economist of Harold Demsetz' eminence is noteworthy, and invites study. As one undertakes that study, it is worth recalling that, for all its seeming simplicity, the Coase Theorem has been the subject of much debate and even criticism among economists and lawyers.²⁰ Coase describes the criticisms as “for the most part, either invalid, unimportant or irrelevant,” adding that “[e]ven those sympathetic to my point of view have often misunderstood my argument.”²¹ The lack of agreement as to what Coase is saying has indeed been remarkable. “Is [the Coase Theorem] profound, trivial, a tautology, false, revolutionary, wicked? Each of these has been claimed.”²² It is remarkable how students of Coase manage to find in “The Problem of Social Cost” thoughts or claims that just are not there.²³

²⁰ For citations to relevant articles, see Coase, Notes, in which he addresses the various criticisms.

²¹ Notes, at 159. Coase ascribes the misunderstanding to “the extraordinary hold which Pigou’s approach has had on the minds of modern economists.”

²² De Meza, Coase Theorem, in *The New Palgrave Dictionary of Economics and the Law*, vol. I 270 (P. Newman, ed. 1998).

²³ For example, Robert Ellickson has done justly celebrated work on how social norms, rather than law, explain dispute resolution in some contexts. E.g., Ellickson, *Of Coase and Cattle: Dispute Resolution Among Neighbors in Shasta County*, 38 *Stan. L. Rev.* 623 (1986). But from Ellickson’s demonstration that people (particularly those in repeat-dealing situations) find ways cheaper than the law to solve their problems, it is difficult to tell whether Ellickson believes his findings support or contradict Coase.

Coase's Parable of the Farmer and the Rancher, like most writing in law and economics, implies that disputants look solely to formal legal rules to determine their entitlements. In rural Shasta County, California, residents instead typically look to informal norms to determine their entitlements in animal trespass situations. In open-range areas, the norm that a livestock owner should supervise his animals dominates the legal rule that a cattleman is not legally liable for unintentional trespasses on unfenced land. Trespass victims mainly employ negative gossip and physical reprisals against trespassing stock to discipline cattlemen who violate this norm.

In Shasta County, the law of trespass had no apparent feedback effects on trespass norms. In no instance did the legal designation of an area as open (or closed) range affect how residents resolved a trespass or estray dispute... [Various] findings suggest the unreality of other literal features of the Coasean Parable. Victims of stray cattle did not treat the formal legal rules as exogenous; they were aware that one way to use limited resources is to lobby for legal change. Victims' enforcement of their norm-based entitlements was far from complete; they ignored some trespasses altogether and used others to offset outstanding informal debts.

All this has led Coase himself to abjure anything called the Coase Theorem, stating that his work advanced a proposition “which has been transformed into the Coase Theorem...I did not originate the phrase, the ‘Coase Theorem,’ nor its precise formulation, both of which we owe to Stigler.”²⁴ It is submitted here that Demsetz’ criticism of Coase is in part unnecessary. It is based, in part, on issues that Coase himself recognized (and sometimes had already discussed earlier), but chose not to discuss in any detail in “The Problem of Social Cost.” At the same time, by discussing them more fully, Demsetz adds to one’s understanding of Coase.

A. Transaction Costs

In discussing the externality problem, it will be helpful to refer to a series of hypothetical situations, with assumed values describing the smoke externality example.

Hypothetical A:

Loss from Smoke to Laundry: 11

Gain from Smoke Emission to Mill: 5

Social Gain from Smoke Abatement: 6

Transaction Costs for Abatement: 8

Value of Specialization to Laundry and Mill: 3

Victims tended to shun monetary settlements and instead preferred in-kind transfers, including ones effected through self-help. Although these findings are at odds with the literal features of the Coasean Parable, they are fully consistent with Coase's central idea that, regardless of the specific content of law, people tend to structure their affairs to their mutual advantage.

The Shasta County evidence suggests that law and economics scholars need to pay more heed to how transaction costs influence the resolution of disputes. ... Law-and-economics scholars misdirect their readers and students when they invoke examples -- such as the Parable of the Farmer and the Rancher -- that greatly exaggerate the domain of human activity upon which the law casts a shadow.

38 Stan. L. Rev. at 685-86 (citations omitted).

²⁴ Notes, at 157.

That is, the laundry suffers greater loss (11) than the steel mill gains (5) from the mill's smoke emissions. There are net gains (6) from the mill's agreeing not to emit the smoke. But the transaction costs (8) of attaining this agreed on solution exceed the gains available.

This seems the sort of setting Demsetz has in mind. In this situation, does "ownership rearrangement," that is, unified ownership of the mill and laundry, "essentially undermine the very existence of the externality problem"? Clearly, it does. With ownership unified, the losses from lost specialization (3) are less than the gains from solving the social-cost problem (6). The fact that there are positive transaction costs in the mill and laundry negotiating their own solution to the externality is irrelevant, because those costs (8) are higher than the lost-specialization costs (3). The possibility of unified ownership of the mill makes transaction costs irrelevant, and itself solves any externality problem.

It does not follow, however, that the possibility of unified ownership solves the externality problem in all cases. The cost accounting might be different, as in this alternative set of costs:

Hypothetical B:

Loss from Smoke to Laundry: 11

Gain from Smoke Emission to Mill: 5

Social Gain from Smoke Abatement: 6

Transaction Costs for Abatement: 8

[Value of Specialization to Laundry and Mill: 15]

By hypothesis, the facts related to the externality itself are unchanged. The respective losses and gains to the laundry and the mill still leave room for a social gain (6) from smoke abatement, but less than the transaction cost (8) of negotiating the abatement.

However, the cost of removing the externality by unifying ownership of the two firms is prohibitive, as indicated by the brackets. The cost (15) exceeds the gains of internalizing the externality (6), meaning that the externality will remain, as long as any solution to the problem depends on private negotiations or rearrangement of ownership. Focus on ownership does not necessarily mean that one would “reject the externality problem in cases in which transaction cost is positive,” as Demsetz claims. True, transactions costs from negotiation between two separate entities could be reduced to zero by unifying ownership. But unification would not be the choice made by value-maximizing firms.

In short, Demsetz is correct that transaction costs are not sufficient for externalities to exist. In Hypothetical A, there are positive transaction costs but no externality because the cost of lost specialization is relatively low. Nor are the transactions costs necessary to the continued existence of an externality. In Hypothetical B, transaction costs could be reduced to zero, but firms will not do so.

But is what he is saying contrary to Coase’s own position? Seemingly not. Coase also recognized the possibility of the kind of solution to the externality problem that Demsetz highlights. Alluding to “The Nature of the Firm,” his 1937 classic that identified the firm as a sometimes superior way of organizing economic transactions,²⁵ Coase in “The Problem of Social Cost” points out that “an alternative form of economic organization” could solve externality problems. “[I]t would be hardly surprising if the emergence of a firm or the extension of the activities of an existing firm was not the solution adopted on many occasions to deal with the problem of harmful effects....I do not need to

²⁵ Coase, *The Nature of the Firm*, 4 *Economics* n.s. 386 (1937).

examine in great detail the character of this solution since I have explained what is involved in my earlier article”²⁶ Coase apparently would agree, then, that transactions costs are not sufficient for an externality to persist. However, they might – at least sometimes – explain a persistent externality. But – and this was Coase’s point – they would be problematic only in the event that rights were defined sub-optimally to begin with.

Even as he mentioned the possibility that the emergence of a single firm might solve any relevant externality, Coase did not purport to provide a fully-specified, multi-variate model of the externality problem. He referred to his discussion of the social-cost problem when transaction costs are positive as “extremely inadequate.”²⁷ Other margins than unified ownership exist, and could be fit into a schema like that in Hypotheticals A and B, to show other possible ways of resolving externalities. Coase, for example, mentions in passing (though Demsetz does not) ways of avoiding social cost through unilateral self-help. Suppose that the laundry could unilaterally, at a cost of 2, purchase fans to blow away the soot that dirties the clothes it is trying to clean. If that cost (2) is lower than the laundry’s share of the total transaction costs (7) of negotiating a solution with the mill and of foregone specialization (3) in the event of unified ownership, it presumably would be the solution adopted.

Other possible solutions might also exist. The fact that only transaction costs are discussed systematically in “The Problem of Social Cost” is hardly reason to criticize that article, however. Coases’s aim, as noted above, was to counter the model of thinking about externalities that had been entrenched since Pigou. As Pigou did not consider the

²⁶ “Social Cost,” at 116.

²⁷ Coase, Social Cost, at 118.

possibility that unilateral self-help against externalities might be cheaper than taxation or regulation, Coase had no reason to take up that subject in any detail, either. But that hardly detracts from the accuracy of what he did have to say about Pigovian solutions to the problem of social cost.

B. Loss of Specialization in the Demsetz Model

Although Demsetz' interpretation of Coase may be unnecessarily narrow, thinking about externalities in terms of foregone specialization is useful. Two sorts of specialization are relevant. There is specialization in production, as in Adam Smith's pin factory. Specialization in production seems to be part of what concerns Demsetz, who refers to losses in specialization when a single facility is "devoted to different purposes," such as steel and laundry. However, it is not necessary for firms themselves to combine, losing the advantages of specialization, in order to resolve social cost problems. Rather, investors can construct a more complex corporate structure, such as a holding company, in which the steel mill and the laundry are maintained and operated as separate subsidiary firms, each with its own board of directors but subject to direction from a single holding-company board, which in turn is elected by a single group of shareholders.²⁸

In other words, unification of firms (with concomitant loss of the gains from specialization in production) is not required to solve externality problems. The gains from specialization may be maintained by operating separate firms, with specialized management and production in each. But adjustment of those firms' activities causing external-

²⁸ Although Demsetz does not specify the organization of the firms he is talking about in discussing foregone specialization, he seems to have in mind a "unitary firm," one in which the producer and owner are one. See McNulty, *On the Nature and Theory of Economic Organization: The Role of the Firm Reconsidered*, 16 *Hist. Pol. Econ.* 233 (1984).

ities so as to increase overall (holding) firm value would come from the unified board of directors and unified group of investors.²⁹

The holding-company structure alleviates any loss in the gains from specialization in production *between* firms. But what of lost specialization *within* a firm? Firms, of course, are not economic actors; it is the investors and managers of the modern firm who undertake the tasks necessary for the firm to earn profits. In the modern corporation, those tasks – investing and managing – are typically separate. By the “separation of ownership from control,” specialization allows those with capital to invest without having to manage, and those with management abilities to use them without having to invest. A single board now must learn about the costs to one firm (the laundry) inflicted by another firm (the mill), and decide what to do, increasing the amount of information required as compared to the situation when ownership is not unified. Management costs seemingly have increased.

In fact, the possibility of specialization within firms suggests that there are no necessary increases in management costs when externalities are internalized via rearrangement of ownership into a unified firm. In the Coasean model, there are two firms with two separate boards. In a setting with zero transaction costs, each board will need to learn what the costs (to the laundry) or benefits (for the mill) from pollution are, so as to

²⁹ The point is similar to that concerning diversification of risk in stock markets. Diversification of course can reduce risk. But does that mean that there is value to be had by merging the two firms, thus combining their returns? Ordinarily, there is no gain to be had by merging the two firms because investors can diversify their portfolios to obtain the same gains in reducing risk.

Diversification is undoubtedly a good thing, but that does not mean that firms should practice it. If investors were *not* able to hold a large number of securities, then they might want firms to diversify for them. But investors *can* diversify. In many ways they can do so more easily than firms. Individuals can invest in the steel industry this week and pull out next week. A firm cannot do that.

R. Brealey & S. Myers, *Principles of Corporate Finance* 165 (5th ed. 1996) (emphasis in original).

bargain knowledgeably. Under the same assumption of zero transaction costs, a unified holding company board also will have to learn what the costs and benefits are for its subsidiary corporations (the laundry and the mill), so as to make any desirable adjustments to the mill's smoke emissions. There is no necessary increase in management costs occasioned by the move to unified ownership, even when transaction costs are zero.

Similar reasoning shows that there is no necessary difference in costs when transaction costs are assumed to be positive. The analogue of positive transaction costs between two separate firms – the paradigmatic Coasean situation – is positive transaction costs within the single holding company. Adjusting the mill subsidiary's smoke emissions optimally in effect requires a rearrangement of the firm's internal pricing for smoke emitted. Smoke emissions would have to be priced according to the cost they impose on the laundry subsidiary. Transfer pricing within a single business entity is ordinarily a most information-costly and tendentious issue, requiring negotiation among buying and selling firms or divisions. Just as Coasean courts may err, choosing a sub-optimal allocation of ownership, so can Demsetzian firms with unified ownership err in transfer pricing and related resource allocations decisions within the firm.

In short, what Demsetz refers to as “management costs” are just internal transaction costs.³⁰ Negotiations between separate firms – the mill and the laundry – can be replaced by negotiations between the mill and laundry subsidiaries of a single holding-company firm. Whichever name is used, “transaction costs” or “management costs,” the only question is which is cheaper, negotiations in the market or within the firm – the very

³⁰ Likewise, what Demsetz calls “unified ownership” is a term that applies as well to the Coasean bargaining solution. The two parties are negotiating over ownership of the right to pollute (the steel mill) or to be compensated for any pollution (the laundry). The negotiation creates unified ownership of a property right.

point Coase made in “The Nature of the Firm” and repeated in “The Problem of Social Cost.” The distinction illustrated with respect to Hypotheticals A and B above remains: it all depends on the relative empirics of the two situations.³¹

Cheung makes the point more generally. “Transaction cost” refers to any cost of interaction between economic actors, any cost that would not exist in a “Robinson Crusoe economy.”

This broad definition is necessary, because it is often impossible to separate one type of transaction cost from another....I have suggested, with the full approval of Coase, that transaction cost should actually be called “institution cost.” An economy of more than one individual would necessarily contain institutions....These costs certainly cannot exist in a Robinson Crusoe economy. They arise only where there are institutions, or in a “society” in the plain sense of the term. But changing household terminology is nearly impossible, so “transaction costs” stays even though it is not strictly correct and may even be misleading.³²

Elusiveness of the term “transaction costs” doubtless explains the alternative evaluations of the Coase Theorem as “profound, trivial, a tautology, false, revolutionary, [or] wicked.” But defined as all costs arising from interactions among two or more economic actors, “transaction costs” per Coase include the “management costs” that Demsetz discusses (and which Coase himself had already discussed in “The Nature of the Firm”).

³¹ The analysis here could be extended to other sorts of cost, such as that of information. If, institutionally, the firm is now a holding company with the mill and laundry as subsidiaries, shareholders and management will still have to invest in learning the relative costs and benefits of smoke emissions by the mill. But there would seem no necessary increase in overall management costs. The sole difference would be that both the mill and the laundry were represented in the decision about smoke emissions by a group (shareholders and their management) bent on joint maximization rather than by separate managements bent on maximizing what was good for them individually. But two sets of information/valuation costs would be incurred, regardless.

³² Cheung, *supra* note ___, at 515.

C. Government and Externalities

There is potentially a third solution to the problem of social cost: government, if and when the cost of a government solution to the social cost problem is acceptably low. Suppose that the prior cost accounting were augmented to include the cost of a government solution, as follows:

Hypothetical C:

Loss from Smoke to Laundry: 11

Gain from Smoke Emission to Mill: 5

Social Gain from Smoke Abatement: 6

Transaction Costs for Abatement: 8

[Value of Specialization to Laundry and Mill: 15]

Cost of Government Solution: 4

The private-ownership solution is not cost-effective (as again indicated by the brackets). However, there is a government solution available at a cost (4) that is lower than the private solution, lower than the private transaction costs between the mill and the laundry, and lower than the social gain (6) achievable by the hypothesized government solution. Coase raises this possibility.

An alternative solution is direct governmental regulation. Instead of instituting a legal system of rights which can be modified by transaction on the market, the government may impose regulations which state what people must or must not do and which have to be obeyed....It is clear that the government has powers which might enable it to get some things done at a lower cost than could a private organization....³³

As noted above, Demsetz finds objectionable the role of government in the Coase model, for two reasons.

³³ Coase, Social Cost, at 117.

1. Economic vs. Political Failures

The possible importance of government in the Coasean model begins when it defines rights sub-optimally in a world of positive transactions costs that make private contracting unfeasible. As noted earlier, in discussing sub-optimal property rights, Coase typically refers to judicial definition of rights. Demsetz objects to claims of economic inefficiency when courts define rights sub-optimally, claiming that this is a governmental (judicial, legislative) problem, not an economic one. Coase, he says, “has confused issues by bringing the legal system’s problems into his evaluation of Pigou’s theory.”³⁴

But Coase would hardly disagree on this distinction between politics and economics. As he put it,

Judges have to decide on legal liability, but this should not confuse economists about the nature of the economic problem involved. . . . The reasoning employed by the courts in determining legal rights will often seem strange to an economist, because many of the factors on which the decision turns are, to an economist, irrelevant. Because of this, situations which are, from an economic point of view, identical will be treated quite differently by the courts. The economic problem in all cases of harmful effects is how to maximize the value of production.³⁵

It is difficult to see any difference in this respect between Coase and Demsetz.³⁶

³⁴ Demsetz, at 294.

³⁵ Coase, *Social Cost*, at 112, 114.

³⁶ It is likewise unclear to what, empirically, Demsetz objects to when he writes of Coase’s “bringing the legal system’s problems into his evaluation of Pigou’s theory.” Coase states repeatedly that he believes the legal system usually discerns correctly the higher-valued use for a resource when its ownership is disputed. E.g., Coase, *Social Cost*, at 120 (“the courts have often recognized the economic implications of their decisions are aware [as many economists are not] of the reciprocal nature of the problem”); at 123-34 (“it seems probable that in the interpretation of words and phrases like ‘reasonable’ or ‘common or ordinary use’ there is some recognition, perhaps unconscious and certainly not very explicit, of the economic aspects of the question at issue”); at 133 (courts “often make, although not always in a very explicit fashion, a

However, there is an important ambiguity in the externality literature that the Demsetz critique of Coase illuminates. What does “government intervention” mean? Coase was plainly concerned about intervention that actually weakened well-established, existing property rights, referring to “special regulations (whether embodied in a statute or brought about as a result of rulings of an administrative agency). Such regulations state what people must or must not do.” But some aspects of “government” *define* property rights, often at lower cost than is possible in a private ordering of affairs.³⁷ Other parts of government, notably courts, enforce property rights.³⁸

Coase refers only to judicial definition and enforcement of private property. The problems to which Demsetz refers are situations in which courts do not define or enforce rights, but rather redistribute them.³⁹ But no reading of Coase can suggest that he believes courts should redistribute rights. Weakening of property rights can only eviscerate Coasean solutions to the problem of social cost.

It is ironic, finally, that Demsetz omits discussion of perhaps the biggest distinction between his unified-ownership focus on externalities *versus* Coase’s transaction-cost model. The Coase system requires that property rights be well defined, as a condition (a “prelude,” as Coase called it) of negotiating an optimal allocation of resources. That

comparison between what would be gained and what lost by preventing actions which have harmful effects”).

³⁷ E.g., Libecap, *Economic Variables and the development of the Law: The Case of Western Mineral Rights*, 38 *Journal of Economic History* 338 (1978). For a general discussion, see McChesney, *Government as Definer of Property Rights: Tragedy Exiting the Commons?* in *Property Rights: Cooperation, Conflict, and Law* (T. Anderson & F. McChesney, eds. 2003).

³⁸ See Meiners & Yandle, *Common Law and the Conceit of Modern Environmental Policy*, 7 *Geo. Mason L. Rev.* 923 (1999). “Common law evolved to protect rights.” *Id.* at 956.

³⁹ Demsetz, refers to a legal system that pursues a “wealth redistribution policy.” Demsetz, at 295.

definition is assumed to arise from a governmental (judicial or legislative) determination of who owns what, and is completely exogenous in the Coase model.

The advantage of Demsetz' approach is that no governmental definition of rights is required to achieve the gains of unified ownership. If the steel mill claims to own the right to pollute the laundry's air and the laundry believes the mill does not, they certainly can resolve their difficulties in court or in the legislature. But with ownership contested, neither side can be certain of success. The alternative is for one side to buy out the other. Avoiding the court or legislature guarantees that the sorts of governmental allocation worrying Demsetz will not occur. A unified-ownership solution makes definition of rights endogenous, and government-free, as opposed to the exogenous definition of rights by courts that Coase assumes as his point of departure in discussing social costs.

This point invites the question, why do disputing claimants to resources go to court, if self-solution of the problem is possible? Possibly they differ in evaluating their chances of success, precluding private resolution of their dispute.⁴⁰ But perhaps court resolution is less expensive than private negotiation.⁴¹ As with every other situation discussed above, it all depends.

2. Government Intervention When Rights are Defined Sub-Optimally

As noted in Section II, Demsetz objects to Coase's mention of government as a possible solution to the problem of social cost, because changes in ownership structure can solve externality problems and because government solutions through taxation or

⁴⁰ Priest & Klein, *The Selection of Disputes for Litigation*, 13 *J. Legal Stud.* 1 (1984); see generally Hay & Spier, "Settlement of Litigation," in *The New Palgrave Dictionary of Economics and the Law* vol. 3 (P. Newman, ed. 1998).

⁴¹ The fact that judicial resolution is financed by taxpayers may make this choice artificially inexpensive, but this is not Demsetz's quarrel with government definition of property rights.

regulation are likely to be more costly than ownership rearrangements. The externality issue, he indicates, “lies at the core of many problems of concern to environmentalists,”⁴² and by now the political side of “environmentalism” is well understood.⁴³

It is perhaps unusual to see the Coase Theorem criticized as furnishing a political agenda to those whose default option is government intervention without economic justification. Yet, Demsetz’ concerns along those lines is understandable. Among academics at least, the problem of social cost is viewed as central in attacking an economic approach to law and regulation. Proponents of critical legal studies like Duncan Kennedy anchor their criticism of law and economics scholarship on the externality issue: “the theory of the efficiency of perfectly competitive equilibrium required a response to the problem of externalities.”⁴⁴ Moreover, Kennedy continues, “There are political stakes in the problem of externalities,” because intervention to reduce social cost entails redistribution that reduces the value of existing property (including contract) rights.⁴⁵

Although Coase hardly approaches externalities from the perspective of a “left-wing political/academic movement,” to use Kennedy’s description of critical legal studies,⁴⁶ one can sympathize with Demsetz’ concerns. Government regulation, Coase does say, is not costless but may be desirable. “This would seem particularly likely when, as is normally the case with the smoke nuisance, a large number of people are involved and

⁴² Demsetz, at 283

⁴³ E.g., Kirchgassner & Schneider, *On the Political Economy of Environmental Policy*, 115 *Pub. Choice* 369 (2003); *Political Environmentalism* (T. Anderson, ed. 2000). [Also cite Pashigian and Viscusi book.]

⁴⁴ Kennedy, *Law-and-Economics From the Perspective of Critical Legal Studies*, in *The New Palgrave Dictionary of Economics and the Law*, vol. II 465 (P. Newman, ed. 1998).

⁴⁵ Kennedy, *supra* note __, at 467.

⁴⁶ Kennedy, *supra* note __, at 465.

in which case therefore the costs of handling the problem through market or the firm may be high.”⁴⁷ Earlier, he had accorded more space to this same point, stating that if “many people are harmed” by pollution, “the market may become too costly to operate.”

In these circumstances it may be preferable to impose special regulations (whether embodied in a statute or brought about as a result of rulings of an administrative agency). Such regulations state what people must or must not do. When this is done, the law directly determines the location of economic activities, methods of production, and so on. Thus the problem of smoke pollution may be dealt with by regulations which specify the kind of heating and power equipment which can be used in houses and factories or which confine manufacturing establishments to certain districts by zoning arrangements.⁴⁸

But this is just a restatement of the transaction cost issue illustrated in Hypothetical C. As with everything else, the issue is empirical and situation-specific; no categorical claims can be made.

Yet to Demsetz, passages such as this (and he quotes others) from Coase revitalize the Pigovian argument for government intervention. “Pigou, if he could have read and commented on this part of Coase’s social cost paper, after conceding that Coase has a point in the zero transaction cost case, would have said that a difference between social and private costs exists if transaction cost is positive,”⁴⁹ and thus that the case for government intervention was established.

⁴⁷ Social Cost, at 18.

⁴⁸ Coase, Federal Communications Commission, at 29.

⁴⁹ Demsetz, *supra* note ___, at 294.

But the question is not what Pigou would say posthumously about the Coase Theorem, but what Coase himself said. Particularly as Coase was one of the very first to analyze positively – and criticize -- government regulation, no one could confuse him with an unthinking interventionist.⁵⁰ He is careful to note that often the best solution to a “problem” of social cost is to do nothing. “It will no doubt be commonly the case that the gain which would come from regulating the actions which give rise to the harmful effects will be less than the costs involved in governmental regulation.”⁵¹ But, as in Hypothetical C above, the possibility remains that government intervention will prove beneficial because of high private transaction costs among externality victims.

Further, Coase refers to government solutions only in cases where the number of victims is large:

there is no reason why, on occasion, such governmental administrative regulation should not lead to an improvement in economic efficiency. This would seem particularly likely when, as is normally the case with the smoke nuisance, a large number of people is involved and when therefore the costs of handling the problem through the market or the firm may be high.⁵²

Demsetz’ solution by ownership unification by definition applies only when there are two (or few) perpetrators and victims of externalities. If the steel mill is polluting, not just one laundry, but hundreds of agricultural fields, the costs of ownership unification are measured not just in lost specialization. The costs of negotiating acquisition – Coase’s

⁵⁰ Coase, Federal Communications Commission.

⁵¹ Social Cost, at 118.

⁵² Coase, Social Cost, at 118.

transaction costs – will be large. In the large- number case, that is, the distinction blurs between Demsetzian lost-specialization costs and Coasean transaction costs.

Certainly, no one can accuse Coase of blind adoption of government solutions to the problem of social cost. Government intervention, he wrote, can be “extremely costly,” being subject to “political pressures and operating without any competitive check.”⁵³ Coase suspects that the relative cost conditions in Hypothetical C will not often hold: “It is my belief that economists, and policy-makers generally, have tended to over-estimate the advantages which come from governmental regulation.”⁵⁴ But he does not categorically rule out improvements from government intervention.

Demsetz is more categorical, in part because his model of government intervention is more dynamic. Once the externality problem is recognized in ownership (single vs. fragmented) terms, the possibility government intervention actually undermines the possible solution of social-cost problems. Government intervention, such as land-use regulations or emission restrictions, weakens property rights. Potential intervention means that the steel mill and the laundry no longer have full property rights to exchange so as to attain the optimal level of smoke discharge. Each side always has the alternative of turning to government to get what it wants, without having to compensate the other side. Any private exchange may be modified or overridden by later government action.

⁵³ Coase, *Social Cost*, at 117 & 118.

⁵⁴ Coase, *Social Cost*, at 119. Further, one should not evaluate statements about government intervention by the standards of economists’ understanding of intervention over forty years later, either. Even at the University of Virginia, where Coase wrote “The Problem of Social Cost,” public choice was in its infancy in 1960. Coase’s explanation of the Federal Communications Commission in 1959 has been forcefully challenged subsequently. Hazlett, *The Rationality of U.S. Regulation of the Broadcast Spectrum*, 33 *J. L. & Econ.* 133 (1990).

The relative benefits of unified ownership fall, and so the possibility of private solutions to externality problems fade.

Particularly important to Demsetz is the loss of incentives that separate private owners would have to reveal the true benefits and costs of resolving the externality situation. Coercion (or “control cost,” to use Demsetz’ term) replaces voluntary solutions. Beneficiaries of government intervention pay the losers nothing for their benefits, and so have every incentive to overstate the social costs they claim to be suffering. “Costs (or benefits) are, in part, unaccounted for in high control cost cases because the costs (or benefits) are *misrepresented* as part of strategic [political] maneuvering.”⁵⁵

Coase surely would not disagree with this point. Nonetheless, it is one not explored in “The Problem of Social Cost.” One cannot view the possibility of government intervention unrelated to private solutions to externality problems. The very existence of government and the specter of its intervention as an alternative to private ordering alter the incentives to reach negotiated solutions. Making the role of government endogenous to problems of social cost, as Demsetz does, provides a richer model of solution to the problems.

The Demsetz critique reveals, finally, a telling asymmetry in the analysis of government solutions to externality problems. The standard call for government intervention rests on numbers like those portrayed in Hypothetical C above, where -- but for the transaction costs of negotiating a private solution -- there are gains from pollution abatement, and where the cost of a coerced government solution are less than the gains from

⁵⁵ Demsetz, *supra* note ___, at 298 (emphasis in original).

abatement. But in lieu of Hypothetical C, suppose that the following set of figures applied.

Hypothetical D:

Loss from Smoke to Laundry: 11

Gain from Smoke Emission to Mill: 5

Social Gain from Smoke Abatement: 6

Transaction Costs for Abatement: 8

Value of Specialization to Laundry and Mill: 7

Cost of Government Solution: 4

Both the Coasean transaction costs (8) and the Demsetz management costs (7) exceed the gains from smoke abatement (6). As in Hypothetical C, the cost of a government solution to the problem is lower than either set of private costs and fall short of the gains from a solution.

But, Demsetz would point ask, of what does this cost consist? It could be the cost of substituting for private markets, avoiding Coasean transaction costs. But it could be the cost of overcoming private management costs. And yet, most economists would scoff at the idea of supplanting firm management with government direction of firms. Demsetz concludes,

Two firms exist only when this is the cheaper way to cope with the interaction between the two activities [steel and laundry]. Hence, what appears as a case of externalities is really a superior method of coping with the interaction. If we see no cause for the State to intervene in the case of [the] integrated firm, why do we see a cause for intervention if a better resolution of the problem is found by having a market separate the two activities? The implicit but important un-



stated (and un-defendable) assumption that must be recognized to rationalize the Coase view is that the State can do a better job of substituting for markets than it can do by substituting for management.⁵⁶

If intervention to solve management-cost issues seems patently unjustified to most, why does the efficiency of intervention to solve transaction cost problems strike many as justified?

IV. Conclusion

In the ongoing debate over externalities, Harold Demsetz objects to Coase's failure to appreciate the importance of specialization in production as a reason, separate from transaction costs, that externalities might exist. But a re-reading of Coase reveals his awareness of the possible importance of unified ownership in resolving the problem of social cost. Nonetheless, Demsetz treatment of specialization and ownership goes further into those aspects of the problem, and thus is a useful addition to the social cost literature. In particular, it elicits further thinking about other margins along which solutions to the problem of social cost might lie. Demsetz' own solutions, though, seem to be firm-internal versions of the transaction costs that Coase identified in external settings in "The Problem of Social Cost."

Demsetz also criticizes the opening to a political agenda that, he says, Coase has provided. True, some interventionists have seized on Coase as a reason for interference with markets. But Coase himself was aware that government solutions were fraught with their own problems, and not necessarily desirable. It is equally true, however, that

⁵⁶ Private correspondence from Harold Demsetz to the author.

viewed from an ownership perspective, government intervention is even less desirable than it might otherwise seem. Intervention weakens the very property rights that facilitate privately-negotiated resolutions to the problem of social cost. In making this more dynamic point, Demsetz broadens the more static Coasean model.

It should be remembered, finally, that Coase did not provide (nor intend to provide) a fully specified system for analyzing externality problems. He pointed out, though, that in his 1937 article he had already addressed the possibility of a single firm solving problems arising from high transaction costs. Likewise, he noted that unilateral, technological fixes might be the cheapest way out of social-cost problems, but did not devote any great space to the possibilities there.

“The Problem of Social Cost” sought to reverse the Pigovian perspective on externalities, and succeeded in doing so. Properly understood, the Demsetz critique emphasizes Coase’s main point, and fleshes out aspects of Coase only mentioned fleetingly in “The Problem of Social Cost.” Thus, it adds new points in the ongoing debate over externalities and government.