Coase Minus the Coase Theorem— Some Problems with Chicago Transaction Cost Analysis

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ABSTRACT: In law as well as economics, the most well-known aspect of Coase's "The Problem of Social Cost," is the Coase Theorem. Over the decades, that particular notion has morphed into a crucial component of Chicago law and economics—namely, transaction cost analysis.

In this Article, I deliberately bracket the Coase Theorem to show that "The Problem of Social Cost" contains far more interesting and unsettling lessons—both for law as well as for economics. Indeed, while Coase's arguments clearly target the Pigouvian attempts to "improve on the market" through government correctives, there is, lurking in those arguments, a much more profound critique of neoclassical economics generally.

This broader critique has been all but eclipsed by the focus on the Coase Theorem and its main offshoot—namely, Chicago transaction cost analysis. Here, based on a close reading of "The Problem of Social Cost," I retrieve Coase's broader critique from its current obscurity to show its relevance and bite for contemporary law and economics. In particular, I deploy Coase's thought to show that Chicago transaction cost analysis is, on its own terms, compromised.

Chicago transaction cost analysis has no theory capable of distinguishing transaction costs from production factor costs. It is accordingly incapable of delineating the circumstances when it is (or is not) efficiency-enhancing to "economize on transaction costs." The surprising upshot is that despite its stated commitment to enhance efficiency, Chicago transaction cost analysis is instead engaged in a selective subsidization (or penalization) of various markets based on criteria that are at best opaque and quite possibly, incoherent.

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BEFORE COASE—THE STAT	US QUO ANTE 181
ENTER COASE	
A. THE MISTAKEN PIGOUV	IAN APPROACH 184
1. A Tale of Not Just	One But Two Hypotheticals
	ature of the Harm186
3. The Feedback Lo	op187
4. Information Defi	its
5. Idealized Frames	
0	ether
	ECONOMICS: COMPARING A NON-EXISTENT
ACTUAL TO AN UNATTA	INABLE IDEAL192
C. RECONCEPTUALIZING FA	ACTORS OF PRODUCTION 194
D. THE NATURE OF THE DA	FFICULTY
RETHINKING NEOCLASSICA	L ECONOMICS (BUT MOSTLY NOT) 202
A. THE ECONOMISTS	
B. THE LAWYERS	
C. THE COASE THEOREM	
D. CHICAGO TCA	
	ICA—SHOULD WE ECONOMIZE ON
TRANSACTION COSTS?	
A. DISTINGUISHING TRANS	ACTION COSTS—THE SHORTCOMINGS OF
OPERATIONAL CATEGO	<i>EES</i>
B. DISTINGUISHING TRANS	ACTION COSTS—THE LIMITS OF
C. The Reciprocal Natu	RE OF TRANSACTION COSTS 214
D. THE NESTING PROBLEM	
	FROM TRAIN SPARKS TO THE INFORMATION
AGE	
CONCLUSION	
	 ENTER COASE

What I wanted to do was to improve our analysis of the working of the economic system. Law came into the article because, in a regime of positive transaction costs, the character of the law becomes one of the main factors determining the performance of the economy.

R.H. Coase, Law and Economics at Chicago, 36 J.L. & ECON. 239, 250–51 (1993) (writing about The Problem of Social Cost).

Economists commonly assume that what is traded on the market is a physical entity, an ounce of gold, a ton of coal. But, as lawyers know, what are traded on the market are bundles of rights, rights to perform certain actions. Trade, the dominant activity in the economic system, its amount and character, consequently depend on what rights and duties individuals and organizations are deemed to possess—and these are established by the legal system. An economist, as I see it, cannot avoid taking the legal system into account.

Ronald H. Coase, *The 1987 McCorkle Lecture: Blackmail*, 74 VA. L. REV. 655, 656 (1988).

Forget the Coase Theorem. Ditch transaction costs. And keep Kaldor– Hicks at bay. But do hold on to *The Problem of Social Cost*. We are going to try to read the article anew. As if George Stigler had never formulated "The Coase Theorem" or even coined the expression.¹ As if Coase had never

^{1.} The Coase Theorem was first formulated not by Coase, but rather by George Stigler and first found its way in print in GEORGE J. STIGLER, THE THEORY OF PRICE 113 (3d ed. 1966). In *The Problem of Social Costs*, the closest Coase ever comes to articulating the Theorem is early in the article where he writes:

It is necessary to know whether the damaging business is liable or not for damage caused since without the establishment of this initial delimitation of rights there can be no market transactions to transfer and recombine them. But the ultimate result (which maximises the value of production) is independent of the legal position if the pricing system is assumed to work without cost.

R.H. Coase, *The Problem of Social Cost*, 3 J.L. & ECON. 1, 8 (1960) [hereinafter Coase, *Problem of Social Cost*] (emphasis added). For an earlier statement by Coase that approximates the Theorem, see R.H. Coase, *The Federal Communications Commission*, 2 J.L. & ECON. 1, 27–28 (1959). [hereinafter Coase, *Federal Communications Commission*]. Coase attributes the articulation of the "Coase Theorem" to George Stigler. RONALD H. COASE, THE FIRM, THE MARKET, AND THE LAW 14 (1988) [hereinafter COASE, THE FIRM, THE MARKET, AND THE LAW 14 (1988) [hereinafter COASE, THE FIRM, THE MARKET, AND THE LAW]. Coase has affirmed that at the time he wrote *The Problem of Social Cost*, he was not aware of the Theorem. Instead, he believed himself to be doing something altogether different—namely, demonstrating "basic defects in the current approach to the problems of welfare economics." Coase, *Problem of Social Cost, supra*, at 42. These problems will be discussed below. *See infra* text accompanying notes 25–89.

recognized the Theorem as his own.² As if Chicago law and economics had not turned the idea of "economizing on transaction costs" into the prototypical "go to" move for the economic analysis of law.³ As if we were concerned with the actual substance and tenor of the arguments Coase advanced in *The Problem of Social Cost*.

This late in the day? Really?

Yes.

Why?

Three reasons.

First, if we can bracket the Coase Theorem and approach *The Problem of Social Cost* anew, we may be able to see that Coase's article is much deeper than is commonly perceived. Right off, I concede that it's a bit odd to try to read Coase as if Chicago Law and Economics ("Chicago L&E") had never happened. But I aim to do that (or nearly that) in order to recuperate a series of challenges that Coase uncovered and that have gone unrecognized.

Second, bracketing the Coase Theorem will position us to see how the widespread fixation on the Theorem has yielded a cramped and formulaic reading of Coase's work. In turn that cramped reading—one promoted by Chicago L&E—has helped steer vast swaths of economic analyses of law down the wrong paths, sometimes to reach the wrong conclusions. These analyses consist of the widespread efforts to tweak legal regimes so as to economize on transaction costs.⁴ I will call this, "Chicago TCA."

Third, it's time. In the past decade or so, a number of commentators have, in a variety of different substantive doctrinal contexts, come to the conclusion that the effort to economize on transaction costs is sometimes

^{2.} COASE, THE FIRM, THE MARKET, AND THE LAW, *supra* note 1, at 157 (noting that Stigler's formulation is based on Coase's own work, which contains the same idea albeit expressed in different terms).

^{3.} In the early days (the 1960s and 1970s), Guido Calabresi also played a crucial role in developing this approach. For a thorough account of Calabresi's contributions to Chicago L&E, see Steven G. Medema, Juris Prudence: Calabresi's Uneasy Relationship with the Coase Theorem (Dec. 8, 2012) (unpublished manuscript), *available at* http://papers.srn.com/sol3/papers.cfm?abstract_id=2188702; *see also* Alain Marciano, *Guido Calabresi's Economic Analysis of Law, Coase and the Coase Theorem*, 32 INT'L REV. L. & ECON. 110, 112–13 (2012).

^{4.} Economizing on transaction costs by tweaking legal regimes is still viewed as generally efficiency-enhancing. *See, e.g.,* WILLIAM M. LANDES & RICHARD A. POSNER, THE ECONOMIC STRUCTURE OF INTELLECTUAL PROPERTY LAW 21, 92–93, 111 (2003) (explaining a variety of copyright doctrines as efficient responses to a need to keep transaction costs low); JONATHAN R. MACEY, CORPORATE GOVERNANCE: PROMISES KEPT, PROMISES BROKEN 22 (2008) ("[B]usiness law, including corporate law, exists to economize on transaction costs by supplying sensible 'off-the-rack' rules that participants in a business can use to economize on the cost of contracting."); Anthony Niblett et al., *The Evolution of a Legal Rule*, 39 J. LEGAL STUD. 325, 326 (2010) ("[W]hen negotiating explicit contracts is costly, efficient resource allocation may require that the law create rules that give parties incentives to act efficiently—rules that steer parties to outcomes that mimic those that the market would produce if transaction costs were low.").

contraindicated.⁵ The growing accumulation of these anomalies makes this an auspicious moment to interrogate the underlying paradigm that might be giving rise to these vexations.

What I propose here then is a close reading of Coase's article—close less in a literary than in an economic sense. Admittedly, in what follows there will be more *explication de texte* than is common in either economics or law, but I can see no other way to dislodge the received understanding. Still—make no mistake—it is not literary acuity or intellectual history that is my primary aim here: it is the economics.

To avoid misunderstanding, I should note at the outset that I am quite aware that Coase is generally believed to have a "pro-market" penchant, that he is quite skeptical of government solutions, and that, as things have played out, his work has played a formidable role in launching the neo-liberal critiques of the welfare state.⁶ None of this is in contention. Again, I am concerned with the economic arguments advanced. Moreover, even if Coase has a "pro-market" penchant, he is quite careful not to let his own inclinations skew his own analysis.⁷

The itinerary:

Part I, *Before Coase—The Status Quo Ante*, will quickly describe the state of neoclassical economics before Coase in order to highlight his contributions. Before Coase, neoclassical economics had little to offer law—except in a few juridical precincts.

^{5.} See infra notes 148-50 and accompanying text.

^{6.} Just to put a fine point on it, in 1975 Coase wrote that an economist who "is able to postpone by a week a government program which wastes \$100 million a year (what I consider a modest success) has, by his action, earned his salary for the whole of his life." Thomas W. Hazlett et al., *Radio Spectrum and the Disruptive Clarity of Ronald Coase*, 54 J.L. & Econ. S125, S125 (2011) (quoting R.H. Coase, *Economists and Public Policy, in* LARGE CORPORATIONS IN A CHANGING SOCIETY 169, 180 (J. Fred Weston ed., 1974)) (internal quotation marks omitted).

^{7.} As Coase put it: "All solutions have costs and there is no reason to suppose that government regulation is called for simply because the problem is not well handled by the market or the firm." Coase, *Problem of Social Cost, supra* note 1, at 18–19. At the same time:

there is no reason why, on occasion, such governmental administrative regulation should not lead to an improvement in economic efficiency. It is my belief that economists, and policy-makers generally, have tended to over-estimate the advantages which come from governmental regulation. But this belief, even if justified, does not do more than suggest that government regulation should be curtailed. It does not tell us where the boundary line should be drawn. This, it seems to me, has to come from a detailed investigation of the actual results of handling the problem in different ways.

Part II, *Enter Coase*, will advance a new articulation of the economic significance of *The Problem of Social Cost* and of the challenges Coase's article poses for economic analysis of law. Coase's article has great depth. The conventional takeaways (e.g., the Coase Theorem and transaction cost analysis) are the shallowest and easiest to grasp. They have also been the most influential.⁸ The deeper insights are found in Coase's actual arguments. There, we find nothing less than a sweeping critique of neoclassical economics—one that impeaches the model for its flawed understandings of markets, its misconceptions of factors of production, and its disregard of the economic implications of law. This broad critique may well be of special interest to neoclassical economists. But the critique also extends (and please pay attention here, you lawyers) to all those who deploy the flawed neoclassical model. Included within this group, most topically, are those other thinkers centered in Chicago (Posner, Landes, Easterbrook, Fischel, and many others) who created what we now know as Chicago L&E.⁹

Part III, *Rethinking Neoclassical Economics (But Mostly Not)*, allows the Coase Theorem into the picture in order to discuss its role and value in light of Coase's deeper insights. The Theorem was the main takeaway from *The Problem of Social Cost* for both economists and lawyers. Fascination with the Theorem and the conditions of its validity (and invalidity) siphoned a great deal of interest away from Coase's deeper insights. Based upon the Coase Theorem, Chicago L&E developed a fully operationalized normative approach counseling judges and other officials to economize on transaction costs—to wit, Chicago TCA.¹⁰

Part IV, Problems with Chicago TCA—Should We Economize on Transaction Costs?, shows that the basic approach is fundamentally flawed—that the concept of transaction cost, as currently conceptualized, cannot fulfill its function as a theoretical pivot for deciding when tweaking the legal regime is or is not efficiency-enhancing. Indeed, even as Chicago TCA claims to fine-tune legal regimes ostensibly on efficiency grounds, it is, in effect,

^{8.} See Peter H. Schuck, Legal Complexity: Some Causes, Consequences, and Cures, 42 DUKE L.J. 1, 18 n.69 (1992) ("[T]he . . . analysis of how transaction costs affect legal rules is a pillar of modern legal scholarship."); see also Herbert Hovenkamp, Coase, Institutionalism, and the Origins of Law and Economics, 86 IND. L.J. 499, 542 (2011) ("Every economic event becomes a study in transaction costs.").

^{9.} For a number of reasons, I will not attempt to define or conceptualize Chicago L&E here. Chicago L&E has a relatively well settled meaning in American legal thought. Certainly, it is readily identifiable herein by the axioms, methods, and beliefs that I attribute to it. For those who are not familiar with Chicago L&E, a helpful introduction can be found in Steven G. Medema, *Chicago Law and Economics, in* THE ELGAR COMPANION TO THE CHICAGO SCHOOL OF ECONOMICS 160 (Ross B. Emmett ed., 2010); *see also* Edmund W. Kitch, *The Fire of Truth: A Remembrance of Law and Economics at Chicago, 1932–1970, 26* J.L. & ECON. 163 (1983) (lively roundtable discussion by many of the early contributors to the school).

^{10.} See infra text accompanying notes 103–115.

engaged in a subsidization and penalization of selective markets based upon different, as yet unidentified, criteria. This flaw is directly traceable to the failure to assimilate Coase's deeper insights.

I. BEFORE COASE—THE STATUS QUO ANTE

Before Coase, both economists and lawyers understood neoclassical economics to offer very little to legal analysis. Its contributions were limited to a small number of discrete problems where the neoclassical economic model of markets failed—either because the model's basic conditions (e.g., decentralized markets, divisibility of goods) were violated or because the model otherwise did not apply.¹¹

The most significant instances fell under a small number of classic economic headings. Hence, economic analysis played a role in dealing with anti-competitive practices such as monopolization, price-fixing, and the like.12 In this context, the neoclassical assumption of decentralized markets was effectively negated and the model itself predicted restrictions of output relative to a competitive model and deadweight welfare losses.¹³ Economic analysis also played a role in dealing with rate-making in utilities and services like electricity and railroads.¹⁴ There we had so-called natural monopolies requiring, it was believed, public regulation and governmental oversight of rate-making. Likewise, economic analysis played some role in dealing with public goods, such as the national defense, roads, and so on.¹⁵ In this area, the goods at issue were thought to be non-excludable and non-divisible. Finally, economic analysis also played some role in dealing with negative externalities, where unpaid costs were ostensibly imposed on others.¹⁶ In all these instances, the neoclassical model predicted misallocation of resources and, in response, prescribed government correctives.¹⁷

^{11.} See Francis M. Bator, The Anatomy of Market Failure, 72 Q.J. ECON. 351, 363-71 (1958).

^{12.} See Herbert Hovenkamp, The Antitrust Enterprise: Principle and Execution 15-30 (2005).

^{13.} GEORGE J. STIGLER, THE THEORY OF PRICE 197 (3d ed. 1966).

^{14.} See RICHARD A. POSNER, ECONOMIC ANALYSIS OF LAW 456–85 (8th ed. 2011).

^{15.} Paul A. Samuelson, *The Pure Theory of Public Expenditure*, 36 REV. ECON. & STAT. 387 (1954) (discussing public goods).

^{16.} William J. Baumol, On Taxation and the Control of Externalities, 62 AM. ECON. REV. 307 (1972); James M. Buchanan & Wm. Craig Stubblebine, Externality, 29 ECONOMICA 371 (1962).

^{17.} DAVID L. WEIMER & AIDAN R. VINING, POLICY ANALYSIS: CONCEPTS AND PRACTICE 37 (4th ed. 2004) ("When is it legitimate for government to intervene in private affairs? In the United States, the normative answer to this question has usually been based on the concept of market failure—a circumstance in which the pursuit of private interest does not lead to an efficient use of society's resources or a fair distribution of society's goods."). For a brief review, see Matthew D. Adler, *Regulatory Theory, in* A COMPANION TO PHILOSOPHY OF LAW AND LEGAL THEORY 590, 595–96 (Dennis Patterson ed., 2010).

Viewed in terms of legal subject matter, economic analysis played its greatest role in antitrust law. Beyond that, there was some neoclassical economics work done in tax law, corporate law, public utility regulation, and patent law—but not much.¹⁸ The crucial point here in understanding the significance of Coase's *The Problem of Social Cost* is to appreciate that before Coase, neoclassical economic analysis of law was confined to a few discrete juridical precincts.¹⁹ Why so confined, one might ask? From our contemporary vantage—one where law and economics has something to say about nearly everything—the answer may be difficult to grasp, but it is crucial, so please indulge a little belaboring.

Prior to Coase, neoclassical economists held the view that law is exogenous to the model.²⁰ Law was assumed as a kind of background condition, much like air or language (both of which are necessary to the running of an economy but neither of which are seen as integral to the economic system).

It was indeed one of the signal contributions of Coase's *The Problem of Social Cost* to show that law—its basic architecture and regimes—played a crucial role in the performance of markets and that, accordingly, the neoclassical model had to take legal regimes into account. And not just with respect to the discrete juridical precincts designated as "market failures," but with regard to all markets shaped by law (which is to say, as a first cut, all markets).

But this is getting ahead of the story. Why then did neoclassical economics have so little to say about law and legal regimes? The short answer is the one mentioned above: neoclassical economics excluded law and its institutions from the model. In a recent dispute, Demsetz recently reminds us of exactly this point:

The neoclassical model of an economy and the conclusions drawn from it are confined to economic institutions, to firms,

^{18.} See generally POSNER, supra note 14.

^{19.} The qualification, "neoclassical economics," is crucial here. Among the institutionalists of the early twentieth century, the consideration of law and legal regimes was very much a part of economic analysis. Thus, for instance, John Commons made extensive use of Hohfeld's jural concepts in his work. JOHN R. COMMONS, LEGAL FOUNDATIONS OF CAPITALISM 89–118 (2012) (elaborating on Wesley Newcomb Hohfeld, *Fundamental Legal Conceptions as Applied in Judicial Reasoning*, 26 YALE L. J. 710 (1917)). For a full account of the institutionalist contributions to legal thought, see NEIL DUXBURY, PATTERNS OF AMERICAN JURISPRUDENCE 97–111 (1997); BARBARA H. FRIED, THE PROGRESSIVE ASSAULT ON LAISSEZ FAIRE: ROBERT HALE AND THE FIRST LAW AND ECONOMICS MOVEMENT (1998); Herbert Hovenkamp, *The First Great Law & Economics Movement*, 42 STAN. L. REV. 993 (1990).

^{20.} PAUL ANTHONY SAMUELSON, FOUNDATIONS OF ECONOMIC ANALYSIS 8 (1970) ("The things which are taken as data for that system happen to be matters which economists have traditionally chosen not to consider as within their province. Among these data may be considered tastes, technology, the governmental and institutional framework, and many others.").

buyers, sellers, markets and so on. It deduces no conclusions about the resource allocation that results from actions taken *by non-market institutions such as courts and legislatures.*²¹

The actions of the courts, as Demsetz sees the matter, are wholly exogenous to the economic system.²² And among the various conditions posited by the neoclassical model (e.g., perfect information, divisible goods, etc.) one of them is the stipulation that "all scarce resources are privately owned and that private ownership is both understood and respected."²³

This last assumption may seem perfectly sensible to a neoclassical economist. But for a lawyer (or at least a post-Hohfeldian lawyer) it is bound to raise eyebrows: What can it possibly mean to say that "all scarce resources are privately owned"? Indeed, the post-Hohfeldian lawyer is likely to find a world of vagueness and trouble in each word comprising that last quote. To start at the back end, "owned" is hardly a clear univocal concept: In Hohfeldian terms ownership is a variable admixture of different rights, privileges, duties, powers, etc. As for "privately"-it does not really mean privately in any pure sense since all private entitlements devolve in part from the state and are sanctioned as well as delimited by public reasons recognized by the state. "Are" is far too absolute an expression here: To the extent that things are privately owned, it is not just a question of yes or no, but a question of more or less-depending upon the law in action, the enforcement possibilities, social mores, and so on. "Resources" is likewise an ambiguous term-equivocating between use value and exchange value (the latter being explicitly a function of law). "Scarce" is ambiguous as wellequivocating between what is scarce in nature (e.g., gold) and what is made scarce by human institutions (e.g., law). In sum, for the post-Hohfeldian lawyer, the quoted phrase is a locus of serial equivocations.

Be all this as it may, the neoclassical model treated legal regimes as an unproblematic background for the operation of decentralized competitive

Id. at 9; *see also* HAROLD DEMSETZ, FROM ECONOMIC MAN TO ECONOMIC SYSTEM: ESSAYS ON HUMAN BEHAVIOR AND THE INSTITUTIONS OF CAPITALISM 113 (2008) ("[N]eoclassical economic theory implicitly assumes the existence of well-defined ownership rights.").

23. Demsetz, *supra* note 21, at 2.

^{21.} Harold Demsetz, *The Problem of Social Cost: What Problem? A Critique of the Reasoning of* A.C. Pigou and R.H. Coase, 7 REV. L. & ECON. 1, 8 (2011) (emphasis added).

^{22.} Demsetz states:

The proper role of courts in a society is a complex issue, one I do not propose to discuss here. Suffice to note that courts as presently constituted do not function as part of the economic system and do not (explicitly) behave as if they were owners of the resource whose control is being resolved. They are therefore irrelevant to an evaluation of the efficiency of the market-based economic system. The proper domicile of the efficiency calculus, as this was discussed by Pigou and the economics profession (before recent innovations in political economics), is wholly within the economic system.

markets. And thus it was that the identity and character of basic legal regimes were placed beyond examination.²⁴

II. ENTER COASE

If we are interested in figuring out the key contributions of *The Problem* of Social Cost, we could start by looking to its concluding sections.²⁵ There we do not find talk of anything like the Coase Theorem (that would be back on page 8) or transaction costs (that was on page 15). Rather, in the conclusion, the discussion is rather different. It is about three crucial matters: The mistakes of the Pigouvian approach, the fallacies of "blackboard economics," and the need to rethink factors of production in legal terms. In this Part, we will examine each of these matters in turn.

A. THE MISTAKEN PIGOUVIAN APPROACH

Most of *The Problem of Social Cost* is devoted to showing that the received Pigouvian approach to the problem of "harmful effects" (what others call "externalities") is mistaken.²⁶ According to Coase, the Pigouvian approach prescribes that where a party (e.g., a polluting factory) imposes unpaid costs (e.g., smoke damage) on another party (e.g., a neighboring residence), some sort of government corrective (e.g., a tax) should be imposed to compel the responsible party to internalize those costs.²⁷ Put more technically, where the private product and social product of an activity diverge, it would be advisable to restructure the legal regime so that the two are brought into accord.²⁸

What is wrong with this Pigouvian approach? According to Coase, it misapprehends the nature of the problem. In consequence, it performs the

^{24.} Perhaps neoclassical economists can be excused for this oversight. In one sense, without much exposure to the wide variation of legal regimes possible (the métier of lawyers) it was easy for the economists not to notice that variations, even slight variations, in legal regimes could well have significant effects on the operation of markets and economic performance. At the same time, had the neoclassical economists paid greater attention to their institutionalist forerunners, particularly John R. Commons, they would have recognized that even slight variations in legal entitlements can often yield significant effects on the operation of markets and economic performance. *See supra* note 19.

^{25.} Coase, *Problem of Social Cost, supra* note 1, at 42-44.

^{26.} Coase does not speak of externalities—a term which, for him, already harbors a wrongheaded form of analysis inasmuch as it already ascribes causal responsibility for the harmful effect to one party. *See id.* at 27.

^{27.} Id. at 40.

^{28.} In the conclusion, Coase summarizes his rather complex set of arguments against this Pigouvian approach by noting that the "current approach to problems of welfare economics . . . tends to nourish the belief that any measure [i.e., governmental correctives] which will remove the deficiency is necessarily desirable. It diverts attention from those other changes in the system which are inevitably associated with the corrective measure." *Id.* at 42-43.

wrong kind of analysis. And accordingly, it will yield, on occasion, the wrong conclusion.

In the Subparts below, I lay out Coase's several arguments against the Pigouvian approach. I then turn back to show that nearly all of these arguments share an underlying theme—namely, the failure of the neoclassical model to take law and legal regimes into account.

1. A Tale of Not Just One But Two Hypotheticals

Coase advanced several distinct arguments against the Pigouvian approach. These were delivered largely by means of two case hypotheticals (the rancher–farmer hypothetical and the train sparks hypothetical).²⁹

The cattle rancher–crop farmer hypothetical is designed to show that in cases of damage resulting from conflicting resource use, the choice of legal regime is irrelevant if the pricing market is assumed to work costlessly. In this example, a rancher's steers eat an adjoining farmer's crops. The question posed is who should bear the cost of this unfortunate encounter? Coase patiently shows that if the pricing market is costless, then it really doesn't matter whether the legal regime in place is liability or no-liability. Why not? Because if the pricing market actually works costlessly, then the parties (the rancher and the farmer) will, in accordance with the notion of opportunity costs, rearrange their entitlements (if necessary) to reach the optimal result.

This conclusion may seem counter-intuitive, but the economic logic, once articulated (i.e., opportunity costs), is not. Imagine that the pricing market is costless and that the law, for some reason, establishes the wrong regime (economically speaking). Say the law imposes a liability rule (rancher liability for crop damage), when in fact it would be preferable for the farmer to avoid or lump the harm. What will happen then? The rancher has several choices—among them: stop ranching, pay damages to the farmer, or pay the farmer to avoid the harm. Now, if the latter truly is the cheapest option for the rancher, the rancher will choose to pay the farmer to avoid the harm.³⁰ That result, in terms of the hypothetical, is the least costly option for the rancher, and so that is what he will do.

But now imagine that the transaction costs of rearranging the entitlements through private bargaining are prohibitive—which is to say, high enough to preclude bargaining. In that case, the law's poorly chosen regime (rancher liability for crop damage) remains the final one and the

^{29.} *Id.* at 2–8 (the cattle rancher–crop farmer hypothetical); *id.* at 29–34 (the train sparks hypothetical).

^{30.} And "cheapest option" here has to refer to the value, writ large, including whatever value the farmer places on his dignity, his refusal to lose face, give in, etc.

total value of production (the total value of production from ranching plus farming) will be less than optimal.³¹

It is this form of reasoning which leads to the famous Coase Theorem. And indeed, this is the point where many analysts call it a day. To put it another way: if all you want is the Coase Theorem, you can pretty much stop at page 8 and forego reading the rest of the article.³²

We will not do that, but will instead consider the second hypothetical discussed at length by Coase. This would be the "train sparks hypothetical" toward the end of the article.³³ Again we have a conflicting resource-use problem: the train locomotives give off sparks that create fires in the adjoining fields, thereby destroying crops. What to do? The two options up for discussion are to impose liability for crop damage or not. Coase describes Pigou's approach as requiring the adoption of a legal regime that will lead the private product and social product of train service to be equal. Coase then shows (I will forego the details) that if we take into account the total product of the two activities, a no-liability regime will *sometimes* be preferable to a liability regime.³⁴

Why is it that Pigouvian analysis leads us astray? Because, according to Coase, the Pigouvian analysis is fundamentally flawed in its understanding and resolution of the problem. It asks the wrong questions and then proceeds to answer them. The analysis is sufficiently flawed that it will, at least sometimes, lead to the wrong conclusions.

How then is the Pigouvian analysis flawed? As I have argued previously, Coase, throughout his article, offers four distinct, albeit related, arguments.³⁵ All four are targeted at the Pigouvian approach. The first—which pertains to the reciprocal nature of the harm—is specific to the Pigouvian approach. The last three arguments, however, have sweeping implications because they target the neoclassical model that underlies the Pigouvian approach. This is seldom noticed but nonetheless true: for Coase, the Pigouvian approach goes wrong, not just for reasons uniquely its own, but because, like the neoclassical model generally, it harbors a flawed view of the market.³⁶

2. The Reciprocal Nature of the Harm

^{31.} Coase, Problem of Social Cost, supra note 1, at 15–16.

^{32.} Actually, page 15, which contains Coase's listing of various transaction costs, is also helpful. Id. at 15.

^{33.} Id. at 29-34.

 $_{34}$. *Id.* In Coase's rendition of the hypothetical, he has selected numbers to illustrate that, indeed, this is sometimes the case. *Id.* at $_{33}$.

^{35.} These are elaborated at greater length in Pierre Schlag, *The Problem of Transaction Costs*, 62 S. CAL, L. REV. 1661, 1684–87 (1989) [hereinafter Schlag, *Transaction Costs*].

^{36.} See infra text accompanying note 50-52.

From an economic standpoint, the implicit Pigouvian question, "Which activity caused the harm?" is fundamentally wrongheaded. Why? Because it is the conjunction of the two activities that creates the harmful effect. Remove either activity and the harmful effect goes away. Furthermore, the "Who caused what?" question has no demonstrable *a priori* relation to the determination of whether it would be economically more salutary to have one party, the other, both, or neither take steps to avert the harm. Now, this last question, as will be seen shortly, is not exactly the one we wish to ask, but nonetheless it already enables us to see that the "Which activity caused what?" question has put us on the wrong path—it has cut us off from the appropriate inquiry.

3. The Feedback Loop

Having failed to grasp the reciprocal nature of the harm, the Pigouvian approach proceeds directly to an identification of the activity whose behavior must be modified. The Pigouvian premise—it is captured in the very conceptualization of "externality" (a term Coase eschews)—is that there is an offending activity responsible for the harm to the other activity. The externality represents a divergence between the private and social product of the offending activity. The Pigouvian remedy is to try to eliminate the divergence and bring the private and social product into accord through some sort of government corrective, such as a tax, a regulation, or the like.³⁷

The difficulty, however, as Coase demonstrates elaborately in the train sparks hypothetical, is that the imposition of a governmental corrective (i.e., the liability rule) can be counted upon to affect the rates of production and costs, not simply of the offending activity, but of the harmed activity as well as other related activities.³⁸

In Coase's view, one of the ways in which Pigou goes wrong lies in the conflation of two very different questions. As Coase sees it, the question of whether one of the activities (railway service or farming) should take steps to avoid a harmful effect is not the same question as whether we should adopt a legal regime that effectively achieves that goal. The point is made quite clearly in the train sparks hypothetical. There, Coase shows that even if it would be salutary for the railroad to cut down on spark emission, it does not follow that a liability regime is economically desirable. The reason is that there is a key difference between deciding that it would be desirable to internalize an externality and adopting a legal regime that accomplishes such.³⁹ The problem is that the legal regime will always do more than simply internalize the externality. The legal regime will affect not just the rate of

^{37.} Coase, Problem of Social Cost, supra note 1, at 41.

^{38.} Id. at 33, 42.

^{39.} *Id.* at 42.

the ostensibly "harm-producing" activity (railway service), but the rate of the conflicting activity as well (crop farming). As Coase illustrates in the train sparks hypothetical, the move from no-liability to liability leads farmers to plant their crops closer to the railroad track and that in turn leads to greater crop damage. The problem lies once again in starting the analysis by asking the wrong question. As Coase puts it:

The question at issue is not whether it is desirable to run an additional train or a faster train or to install smoke-preventing devices; the question at issue is whether it is desirable to have a system in which the railway has to compensate those who suffer damage from the fires which it causes or one in which the railway does not have to compensate them. When an economist is comparing alternative social arrangements, the proper procedure is to compare the total social product yielded by these different arrangements. The comparison of private and social products is neither here nor there.⁴⁰

In terms more familiar to lawyers, the Pigouvian prescription for a government corrective will be overinclusive relative to its objective. The Pigouvian objective is to target the divergence between private and social product of the offending activity. Vexingly, the effects will necessarily sweep more broadly.

The upshot for Coase is that comparing the private product and social product of the offending activity is not the relevant inquiry. This comparison is too narrow to enable a decision as to whether a governmental corrective is appropriate, and if so which one.⁴¹ And as Coase shows, with his train sparks hypothetical, sometimes the Pigouvian focus on the divergence between private and social product will yield the wrong results—it will prescribe what is, from an economic standpoint, the wrong legal regime.

4. Information Deficits

Id.

41. *Id.*

^{40.} *Id.* at 34. Coase illustrates the point with the motorist running the red light example:

The comparison of private and social products is neither here nor there. A simple example will demonstrate this. Imagine a town in which there are traffic lights. A motorist approaches an intersection and stops because the light is red. There are no cars approaching the intersection on the other street. If the motorist ignored the red signal, no accident would occur and the total product would increase because the motorist would arrive earlier at his destination. Why does he not do this? The reason is that if he ignored the light he would be fined. The private product from crossing the street is less than the social product. Should we conclude from this that the total product would be greater if there were no fines for failing to obey traffic signals?

Another of Coase's arguments against the Pigouvian approach is that we do not have (and almost never have) the information required to make the analysis work. In order to decide whether to adopt a liability or no-liability regime in the train sparks hypothetical, for instance, we need to calculate, at the appropriate level of generality, all external effects (the "total social product"⁴²) on all the relevant markets (conflicting, competitive, upstream, downstream, and otherwise associated) to compare the total value of production. In the article, Coase actually works through the kind of information we would need to resolve his hypothetical. We need not recount the specifics here, but merely take note of Coase's general point that we almost never have that kind of information available.⁴³

5. Idealized Frames

Coase's last argument against the Pigouvian approach is that it rests on an ideal far too removed from our world to be of much use.⁴⁴ In part, he has already made the point with the feedback loop and the information deficits argument above.

But there is more to it than that: Coase's argument concerns the ideal of the market articulated in the Pigouvian approach. That ideal is a state of affairs where an activity's private and social products are brought into accord. Coase, in the arguments above, has already shown that, for purposes of constructing an optimal legal regime, this is the wrong analytical method. But in addition, he is also arguing that the equation of private and social product is the wrong *qua* benchmark ideal.

It is wrong as an ideal because, as a practical matter, it cannot be specified. The ideal is nothing less than a state of affairs where *all* divergences between the private and social product of *all* activities have somehow been eliminated. But what is this state of affairs? Well, this is a state of affairs where either: (1) there are no conflicting resource uses because all

Id. at 41-42; see also COASE, THE FIRM, THE MARKET, AND THE LAW, supra note 2, at 179-85 (clarifying his earlier view as against Baumol's defense of Pigouvian taxes).

44. Coase, Problem of Social Cost, supra note 1, at 43-44.

^{42.} *Id.* at 34.

^{43.} With regard to Pigouvian taxes, Coase seems to acknowledge that, given a sufficient enlightened and generous recognition of reciprocal causation and the feedback loop, a refurbished Pigouvian tax system that optimizes the total value of production might work. But Coase is nonetheless quite pessimistic about that possibility. In the smoke pollution context, for instance, he writes:

But to do so would require a detailed knowledge of individual preferences and I am unable to imagine how the data needed for such a taxation system could be assembled. Indeed, the proposal to solve the smoke-pollution and similar problems by the use of taxes bristles with difficulties: the problem of calculation, the difference between average and marginal damage, the interrelations between the damage suffered on different properties, etc.

individual markets are somehow independent of and isolated from each other, and thus the problem of harmful effects never arises; or (2) the pricing market is totally costless everywhere all the time (i.e., there are legal rights, but somehow these never produce transaction costs). Neither condition is possible. And each has additional disadvantages: The first makes the problem go away before the analysis can begin while the second is so wholly unimaginable that it provides no guidance as to how we might get from here to there.⁴⁵

Notice, ironically, that this ideal state of affairs in which *all* divergences between private and social product of *all* activities have somehow been eliminated can be described in another way: This is none other than the infamous world of zero transaction costs where *all* desired market exchanges can *all* be made costlessly *all* the time.⁴⁶

Needless to say, as ideal as this world may be, it is so wholly unimaginable as to be of limited value in figuring out how to improve economic performance. Indeed, imagining what would happen in a *truly* zero-transaction cost world is a non-starter. If one is rigorous about zero transaction costs, then one ends up with a world of contradictory conditions. Thus, for starters, such a world would simultaneously require and preclude a legal system. No doubt, this is in part why Coase counseled so forcefully against devoting ourselves "to a detailed study of the world of zero transaction costs, like augurs divining the future by the minute inspection of the entrails of a goose."⁴⁷ For Coase, however, that world of zero

^{45.} For an exploration of the idea that the zero transaction cost world implies the absence of time, see Jeanne L. Schroeder, *The End of the Market: A Psychoanalysis of Law and Economics*, 112 HARV. L. REV. 483, 534–36 (1998).

^{46.} In fact, so costlessly that presumably all these market exchanges have already been made. *See* COASE, THE FIRM, THE MARKET, AND THE LAW, *supra* note 1, at 15 (noting that in a zero transaction cost world, eternity can be experienced in a split second).

^{47.} R.H. Coase, *The Coase Theorem and the Empty Core: A Comment*, 24 J.L. & ECON. 183, 187 (1981). When Coase writes in 1988 about the reception of his work, he expresses dismay and disappointment that so much attention has been focused on the zero transaction cost world. COASE, THE FIRM, THE MARKET, AND THE LAW, *supra* note 1, at 15. More importantly, the zero transaction cost world is manifestly so unreal (for him and for us) that it is doubtful that anything much can be gained by trying to imagine what would happen in the absence of transaction costs. *Id.* If one is truly rigorous in making the zero transaction cost assumption, the resulting world is so fanciful, that no normative conclusions can be drawn about how to structure legal regimes. As Coase notes, "Cheung has even argued that, if transaction costs are zero, 'the assumption of private property rights can be dropped without in the least negating the Coase Theorem' and he is no doubt right." *Id.* at 14–15 (quoting Steven N.S. Cheung, *Will China Go 'Capitalist'?: An Economic Analysis of Property Rights and Industrial Change* 37 (Hobart Paper No. 94, 1982)) (internal quotation marks omitted).

transaction costs is the world in which neoclassical economists operate and it is the one whose hold on the profession he is so keen to dispel.⁴⁸

Coase has an additional argument about the neoclassical market ideal. He argues that, even if the ideal could be specified (if it had content), it would be useless as a guide. Coase insists that where the theoretical model departs too much from our own world, there are costs involved in actualizing the conclusions reached in the one to the other. One of those costs involves what might be called errors in translation—specifically, errors in translating theory into actuality. As to these errors, Coase puts it somewhat humorously: "[W]hatever we may have in mind as our ideal world, it is clear that we have not yet discovered how to get to it from where we are."49

6. Putting It All Together

It's quite clear that Coase's arguments above are aimed at the Pigouvian approach to the problem of "harmful effects," as Coase calls them. No one would dispute this.⁵⁰ But what is it *in the Pigouvian approach* that Coase's arguments ultimately target? At the deepest level, it is something that Pigou shares with the neoclassical model generally: the widespread assumption that pricing markets work costlessly.

This deeper critique is seldom noticed for two reasons. First, Coase's arguments tend to be (and not just in *The Problem of Social Cost*) directed at "government intervention" approaches like those of the Pigouvian tradition. Second, it's no secret that Coase believed (he said so) that economists and policy-makers are overly predisposed to government intervention, as opposed to market solutions.⁵¹ Both of these views, clearly held by Coase, easily lead the reader to think that the target of Coase's critique is an unthinking or reflexive predisposition to "government intervention." And it is. But not just.

^{48. &}quot;It is my belief that economists, and policy-makers generally, have tended to overestimate the advantages which come from governmental regulation." Coase, *Problem of Social Cost, supra* note 1, at 18.

^{49.} *Id.* at 43.

^{50.} Though some would dispute that Pigou is an appropriate or deserving target. Consider the fascinating account given by Herbert Hovenkamp suggesting that Pigou's thinking anticipated Coase's views. Herbert Hovenkamp, *The Coase Theorem and Arthur Cecil Pigou*, 51 ARIZ. L. REV. 633 (2009) (arguing that much of the Coase Theorem was "either stated or anticipated in Pigou's work"). Consider as well the arguments advanced by Roger Backhouse and Steven Medema that Pigou was well aware of the challenges confronting government efforts to "intervene" effectively in markets. Roger E. Backhouse & Steven G. Medema, *Economists and the Analysis of Government Failure: Failacies in the Chicago and Virginia Interpretations of Cambridge Welfare Economics*, 36 CAMBRIDGE J. ECON. 981 (2012).

^{51.} Coase, Problem of Social Cost, supra note 1, at 18.

The deeper critique sweeps more broadly. Indeed, the Coasean critique of Pigou shows that the latter goes wrong not simply because he has a flawed analysis of the effects of government regulation, but because that flawed analysis rests on an equally flawed understanding of the market. That flawed understanding of the market, in turn, is not unique to Pigou, but underwrites neoclassical economics generally.⁵²

For Coase, the Pigouvian misunderstanding of the market stems in part from a misapprehension of the relation of economic performance to law and legal regimes. This is clear if we look back at Coase's arguments above. We see that all these arguments (save the reciprocal nature of the harm) are predicated on the exploitation of a disjuncture between the neoclassical view of markets on the one hand, and Coase's introduction of the way in which law and legal regimes affect economic performance on the other. Thus, "the feedback loop argument" shows that the economic imperative of bringing private and social product of an activity into accord does not translate easily into legal regimes: the effects of the latter will almost always go beyond affecting solely the targeted activity. Likewise, the "information deficits argument" shows that in order to enable a reconstructed Pigouvian approach to work, a legal or policy analyst would need market information that is almost never available. And, finally, "the idealized frames argument" turns upon showing that even if the neoclassical ideal of the market were adequately specified (which it is not) we would still lack the ability to translate it into functioning legal regimes. In all cases then (save the reciprocal nature of the harm) Coase's arguments hinge on the attempt to reacquaint the neoclassical model with the law and legal regimes it has ab initio excluded. This is the deeper critique that runs through the Coasean arguments against the Pigouvian approach. And it is a critique, of course, that strikes at the entire neoclassical model-not just its Pigouvian variant.

Now, we turn specifically to the other arguments in *The Problem of Social Cost* that show why and how the neoclassical model needs to include law and legal regimes within its purview. These arguments are not limited to cases of "government intervention" nor even just to cases of "harmful effects." They too extend to the neoclassical model generally.

B. AGAINST BLACKBOARD ECONOMICS: COMPARING A NON-EXISTENT ACTUAL TO AN UNATTAINABLE IDEAL

In *The Problem of Social Cost*, Coase insists that it is necessary to specify legal rights in order to know what results the parties will reach in any market

^{52.} See STEVEN G. MEDEMA, RONALD H. COASE 80 (1994) (noting that the Pigouvian tradition adopts the neoclassical presumption that pricing markets are costless).

exchange.⁵³ There are two reasons this specification is required. The most commonly noticed reason is that without a specification of rights, the parties will encounter significant difficulties (e.g., transaction costs) in reaching an agreement and thus the outcome is in doubt. The less-frequently noticed reason is that without an initial delimitation of rights, economic analysis cannot even get started, let alone finish. This too is a point that Coase stresses in the conclusion:

A second feature of the usual treatment of the problems discussed in this article is that the analysis proceeds in terms of a comparison between a state of laissez faire and some kind of ideal world. This approach inevitably leads to a looseness of thought since the nature of the alternatives being compared is never clear. In a state of laissez faire, is there a monetary, a legal or a political system and if so, what are they? In an ideal world, would there be a monetary, a legal or a political system and if so, what would they be? The answers to all these questions are shrouded in mystery and every man is free to draw whatever conclusions he likes.⁵⁴

The point here is that the neoclassical approach to welfare economics is framed in an *actual-ideal dyad*. In other words, the model provides a theory that describes the actual state of affairs and then recommends steps to bring this actual closer to the model's stated ideal. Ironically, as Coase argues, neither the actual nor the ideal bears any strong relation to our world.⁵⁵ In the model's theoretical description of the actual and the ideal, legal regimes and their various effects have been left out. The result is that in the conventional effort to compare the actual to the ideal (with a view to adjusting the former to approach the latter) the resulting analysis never touches the ground.⁵⁶ The analysis consists of a comparison between an idealized (and wrongheaded) account of actual economic arrangements with an idealized (and unattainable) account of ideal economic arrangements.

Ordinarily, the classic way of remedying this sort of problem (at least in legal analysis) is to revise and improve the model's descriptions of the actual and the ideal. But Coase will have none of that. Instead, he abandons the actual-ideal dyad frame and moves to an opportunity cost notion that compares "the total product obtainable with alternative social

^{53.} Coase, Problem of Social Cost, supra note 1, at 8.

^{54.} Id. at 43.

^{55.} Id.

^{56.} Coase is a steadfast critic of "blackboard economics" and an ardent advocate for the study of actual economic phenomena. *See* R.H. Coase, *The Lighthouse in Economics*, 17 J.L. & ECON. 357 (1974); *see also* MEDEMA, *supra* note 52, at 134–37.

arrangements."⁵⁷ The idea is "to start our analysis with a situation approximating that which actually exists, to examine the effects of a proposed policy change and to attempt to decide whether the new situation would be, in total, better or worse than the original one."⁵⁸

Both the economist and the lawyer are likely to find this recommendation somewhat thin. The lawyer in particular may well wonder: Why doesn't Coase just simply revise the model to provide a more accurate description of the actual and a more useful account of the ideal? Why, in short, doesn't Coase do what he evidently thinks ought to be done—namely revise the neoclassical model to include the role played by law and legal regimes?

For the economist, the answer to that question will be readily apparent. The economist will likely appreciate the difficulties right away. The lawyer, unfamiliar with neoclassical economics, may well not. For now, we'll just leave things hanging and return to the question after considering the last of Coase's key arguments.

C. RECONCEPTUALIZING FACTORS OF PRODUCTION

Earlier, we encountered Demsetz's efforts to preserve the integrity of the neoclassical model by endorsing its original exclusion of law and legal regimes. Maintaining this exclusion is certainly a possible stance. But the cost of maintaining the exclusion lies in dramatically reducing the relevance or usefulness of the model for anyone interested in assessing or improving the performance of the economic system writ large. Indeed, if we are to try to improve economic performance by altering legal regimes (e.g., property, contracts, etc.) it will not do to operate with a model that effectively declines to recognize the relevance of law to economic performance.

Coase urges the same kind of point on economists when he notes that they should think of factors of production, not as physical things, but rather as legal rights to perform actions. This particular concept, "factor of production," has not played much of a role in Chicago L&E, but it is fundamental to economics, including neoclassical economics. Typically, the term refers to the input or resources required to produce other goods and services.⁵⁹

^{57.} Coase, *Problem of Social Cost, supra* note 1, at 40. Coase argues that it is "preferable to use the opportunity cost concept and to approach these problems by comparing the value of the product yielded by factors in alternative uses or by alternative arrangements." *Id.; see also id.* at 34 ("[T]he problem is to devise practical arrangements which will correct defects in one part of the system without causing more serious harm in other parts.").

^{58.} Id. at 43.

^{59.} Usually, production factors are classified within four broad categories: labor, land, capital and entrepreneurship. Sometimes, disagreements arise as to whether some category X (e.g., the environment) should be subsumed within an existing category or treated as an

Coase argues as follows:

A final reason for the failure to develop a theory adequate to handle the problem of harmful effects stems from a faulty concept of a factor of production. This is usually thought of as a physical entity which the businessman acquires and uses (an acre of land, a ton of fertiliser) instead of as a right to perform certain (physical) actions.⁶⁰

Here, Coase offers a profound indictment of neoclassical economics for its failure to recognize that legal regimes often play a crucial role in establishing *the identity* and *costs* of factors of production.⁶¹ This insight effectively retrieves law and legal regimes from near irrelevance in neoclassical economics to a leading role.⁶²

Within the context of neoclassical economics, Coase's proposed reconceptualization of factors of production is a huge contribution— effectively calling for a major revamping of the model. Outside neoclassical economics, the insight is not wholly novel: Robert Hale made roughly the same point decades earlier.⁶³ And similarly, John R. Commons as well as Richard T. Ely, both leading expositors of institutional economics, did as well.⁶⁴ And the insight found its way into the work of Felix Cohen.⁶⁵ But with

62. Coase makes the point trenchantly on the occasion of his acceptance of the Nobel Prize in economics:

I explained in *The Problem of Social Cost* that what are traded on the market are not, as is often supposed by economists, physical entities but the rights to perform certain actions and the rights which individuals possess are established by the legal system As a result the legal system will have a profound effect on the working of the economic system and may in certain respects be said to control it.

Ronald H. Coase, Prize Lecture: The Institutional Structure of Production (Dec. 9, 1991) [hereinafter Coase, Prize Lecture], *available at* http://www.nobelprize.org/nobel_prizes/economicsciences/laureates/1991/coase-lecture.html.

63. See Robert L. Hale, Coercion and Distribution in a Supposedly Non-coercive State, 38 POL. SCI. Q. 470 (1923).

64. COMMONS, *supra* note 19; RICHARD T. ELY, PROPERTY AND CONTRACT IN THEIR RELATIONS TO THE DISTRIBUTION OF WEALTH (1914). For a summary of their views, see Hovenkamp, *supra* note 19, at 1021–31.

65. Felix S. Cohen, *Transcendental Nonsense and the Functional Approach*, 35 COLUM. L. REV. 809, 815 (1935) (discussing legal protection as a source of value).

additional new one. Obviously, any number of other categories might be added. Recent candidates offered include not only the environment, but the state, knowledge, and education.

^{60.} Coase, *Problem of Social Cost, supra* note 1, at 43-44.

^{61.} As Coase says regarding *The Problem of Social Cost*: "What I wanted to do was to improve our analysis of the working of the economic system. Law came into the article because, in a regime of positive transaction costs, the character of the law becomes one of the main factors determining the performance of the economy." R.H. Coase, *Law and Economics at Chicago*, 36 J.L. & ECON. 239, 250–51 (1993).

respect to neoclassical economics in the last half of the twentieth century, Coase's insight is huge.

The scopic significance of Coase's insight here has not been fully appreciated—in large part because analysts have greatly underestimated the ubiquitous effect that the definition of legal entitlements has on the identity and costs of production factors. The first step would be to try to appreciate the nature of the problem. Here, a brief digression through the work of Wesley Newcomb Hohfeld might be helpful.⁶⁶

In his pathbreaking (and insufferably dry) article on jural conceptions, Hohfeld shows how basic legal entitlements (such as the fee simple) are *composites* of elements: rights, duties, privileges, powers, etc. Basic legal entitlements need not be conceived as wholes nor as "essential somethings," but can be seen as packages of different elements which can be added or subtracted (depending upon what one wants to accomplish).⁶⁷

Basic entitlements are divisible and can thus be decomposed and recomposed—albeit not in any which way: While there are certain structural tools and artifacts (e.g., legal concepts and distinctions) available to effectuate numerous permutations, the supply is far from infinite and the possibilities are not endless.⁶⁸ The law will, for a variety of reasons, at some point counsel against permitting further subdivision or differentiation.⁶⁹

Nonetheless, from a Hohfeldian perspective, it's clear the law can define entitlements in a wide variety of ways—some of which greatly facilitate (while others greatly restrict) the abilities of various users to transact, produce, or consume as they wish. The costs imposed upon the users in transacting, producing, or consuming will depend in part on how well the legal entitlements are attuned to the preferences of specified users and uses. This is an important point because it establishes that, with the

^{66.} Merrill and Smith show that Coase's view of property is very much steeped in the legal realist "bundle of rights" notion of property. Thomas W. Merrill & Henry E. Smith, *What Happened to Property in Law and Economics*?, 111 YALE L.J. 357, 359–60 (2001). This realist notion in turn derives from Hohfeld. *See generally* Hohfeld, *supra* note 19.

^{67.} See Hohfeld, supra note 19, at 746-47.

^{68.} And, unless one adheres to an ultra legal positivism (and even then), the character of the available decompositions and recompositions will be shaped by a "great variety of customs, . . . daily habits, practices and customs of the people." John R. Commons, *Law and Economics*, 34 YALE L.J. 371, 376 (1925).

^{69.} Thomas W. Merrill & Henry E. Smith, *Making Coasean Property More Coasean*, 54 J.L. & ECON. S77, S100 (2011) (noting that costs of delineating, understanding, and enforcing rights can help explain the stylization of property as an in rem right to a thing); *see also* Nestor Davidson, *Standardization and Pluralism in Property Law*, 61 VAND. L. REV. 1597 (2008) (discussing reasons for standardization in the construction of property rights); Thomas W. Merrill & Henry E. Smith, *Optimal Standardization in the Law of Property: The* Numerus Clausus *Principle*, 110 YALE. L.J. 1 (2000) (same); Henry E. Smith, *On the Economy of Concepts in Property*, 160 U. PA. L. REV. 2097 (2012) (explaining the cognitive and economic reasons for the simplifying stylizations of property entitlements and rules).

creation of a legal regime, even one designed to permit actual market exchanges, we are already affecting the identity and costs of production factors in ways that will vary depending upon the identity of the users and the uses. One way to think about this is to recognize that legal entitlements are formal while users and uses frequently are not: Users and uses frequently line up on a distribution curve that can be more or less in conformity with the formal legal entitlements. Accordingly, the conventional idea in American legal thought, that some legal entitlements create negligible transaction costs, must be revised and qualified as follows: Legal entitlements that create negligible transaction costs *do so* for *some* users and *some* uses (not all users and all uses). A "good match" between the relevant law on the one hand and certain given users and uses on the other will reduce production factor cost for *those* users and uses while a "poor match" will raise their production factor costs.

In addition, even modest Hohfeldian recompositions of legal entitlements can be counted upon to raise or lower the production factor costs.⁷⁰ Notice that the point here is not just that the definition of legal entitlements will affect "transaction costs" (that point is widely accepted). Rather, the point is much more fundamental: The definition of legal entitlements will affect the costs of exploitation and use as well. Why? Because legal entitlements are constructed in anticipation of certain imagined users and uses and not others. To the extent there is a poor match between the entitlement and the users and uses sought to be made of the entitlement, production factor costs rise. The user has to expend resources to conform his use to the entitlement or simply forego full exploitation of the entitlement. Chicago L&E analysts tend to avoid this difficulty by presuming a fairly homogeneous set of preferences across users (e.g., sellers and buyers) in any given context. That will work in some contexts (routinized and standardized users and uses) but not in all contexts.⁷¹

The point here is crucial: The ways in which law defines entitlements will have a great deal to do with raising and lowering the production factor costs of any given activity. It is also true that depending on how the law defines production factor costs, we can expect different uses (consumption and production) to thrive, survive, falter, or disappear. And this is true not only because of the ubiquitous wealth effects, but because the definition of legal entitlements effectively helps determine production factor costs.⁷²

^{70.} Duncan Kennedy makes the point relying on the work of Robert Hale and the idea of tipping points. DUNCAN KENNEDY, SEXY DRESSING ETC. 92-95 (1993).

^{71.} See infra text accompanying note 98.

^{72.} This line of argument has a longstanding history in the traditions of institutionalist economics, legal realism, and critical legal theory. *See, e.g.*, BERNARD E. HARCOURT, THE ILLUSION OF FREE MARKETS: PUNISHMENT AND THE MYTH OF NATURAL ORDER (2011); KENNEDY, *supra* note 70, at 83–125; NICHOLAS MERCURO & STEVEN G. MEDEMA, ECONOMICS AND THE LAW:

A simple way to summarize all this is that the creation of legal entitlements must be viewed as a kind of subsidization or penalization of factors of production. In part, what makes a factor of production expensive or not for a particular user or use is its legal definition. Once this point is recognized, the really interesting question becomes: What basis or principle does Chicago offer as to which activities to subsidize, which to penalize, and how much?⁷³

D. THE NATURE OF THE DIFFICULTY

Coase enjoined us to include law and legal regimes within the study of the economic system. He invited us to think of factors of production as legal entitlements to perform or inhibit this or that action.

But now we return to the question left dangling a few pages back: Just how in the world is neoclassical economics supposed to absorb and include law and legal regimes into its model?⁷⁴ Through what common language? According to what economic theory of the functions of legal regimes? By appeal to what common evaluative criteria?

Consider some of the difficulties:

1. Law provides no uncontested or uncontroversial theory as to the effects or ideals of various legal regimes. Law certainly does not arrive on the scene with any adequate theory of its own explaining its (economic) architecture or effects.

2. As a formal matter, legal regimes are highly differentiated. The possibilities for decomposing and recomposing any given legal entitlement (e.g., the fee simple, bankruptcy, etc.) are numerous and as variegated as Hohfeld's work intimates.⁷⁵

3. In practice, legal regimes are generally neither discrete nor additive in terms of their target domains. They are instead overlapping—and very often in variegated transaction-specific ways. Any given economic transaction might be susceptible to regulation by any number of bodies of law (e.g., property, tax, environmental,

73. See infra text accompanying notes 116-41.

FROM POSNER TO POSTMODERNISM AND BEYOND 116–23 (1997); Dan Danielsen, *Economic Approaches to Global Regulation: Expanding the International Law and Economics Paradigm*, 10 J. INT'L BUS. & L. 23 (2011); Justin Desautels-Stein, *The Market as a Legal Concept*, 60 BUFF. L. REV. 387, 461–84 (2012); Hale, *supra* note 63, at 470; Warren J. Samuels, *The Economy as a System of Power and Its Legal Bases: The Legal Economics of Robert Lee Hale*, 27 U. MIAMI L. REV. 261, 326–33 (1973). Interestingly, this line of argument has not had much effect on Chicago L&E.

^{74.} The institutionalists arguably provided a model. *See generally* COMMONS, *supra* note 19; *see also* Commons, *supra* note 68. But that doesn't mean that this model is *ipso facto* compatible with or collapsible into neoclassical economics.

^{75.} See Wesley Newcomb Hohfeld, Some Fundamental Legal Conceptions as Applied in Judicial Reasoning, 23 YALE L.J. 16, 58–59 (1913).

tort, etc.). Any ostensible violation, breach or non-compliance might be susceptible to restatement along several different causes of action with different remedies.

4. A proper identification of the function and optimization of any given legal regime depends upon the identity and functions of neighboring, overlapping, re-enforcing, competitive, and antagonistic legal regimes.

Given these difficulties, there is no guarantee of even partial success. It may be that once the economic effects of legal regimes are included in the neoclassical model, the latter is deformalized and contextualized out of (theoretical) existence, leaving us with almost no model at all.⁷⁶

In *The Problem of Social Cost*, Coase does not broach these difficulties. He elides them by announcing an opportunity cost approach to the problem one which compares the existing social arrangement to proposed alternatives. But, what precisely is a "social arrangement" in Coasean terms? Coase never specifically defines the term, but it is evident from his analysis in the train sparks hypothetical that a "social arrangement" is a particular combination of law, market, and firms.⁷⁷

We are to look, according to Coase, at the alternatives. And moreover, we are to evaluate these alternative social arrangements in terms of their "total effect."⁷⁸ More subtly, as he recognizes, the question of which coordination mechanism to use, how, and when "has to come from a detailed investigation of the actual results of handling the problem in different ways."⁷⁹ Coase's adoption of this holistic approach is not surprising given his stated view that among the various coordination mechanisms (government, market, and firm) each will on occasion exhibit advantages over the others.⁸⁰

^{76.} This absence of theory is precisely Posner's complaint against the old institutionalist economics. Richard A. Posner, *The New Institutional Economics Meets Law and Economics*, 149 J. INSTITUTIONAL & THEORETICAL ECON. 73, 74 (1993).

^{77.} For the train sparks hypothetical, see Coase, *Problem of Social Cost, supra* note 1, at 30–34. Here I am offering a charitable interpretation. In *The Problem of Social Cost,* Coase still seems to be describing "the government" and "the market" as distinct coordination systems with apparently self-evident referents. *See id. passim.* This purist way of thinking—very common among neoclassical economists—is I think quite problematic. *See infra* note 147.

^{78.} As he puts it: "It would seem desirable . . . when dealing with questions of economic policy and to compare the total product yielded by alternative social arrangements." Coase, *Problem of Social Cost, supra* note 1, at 43.

^{79.} Id.

^{80.} See supra note 7.

Coase's approach bypasses some of the difficulties. In some ways, it seems to be an improvement over the Pigouvian approach.⁸¹ But it does pose a significant challenge: Just how, by reference to what criteria, are we to evaluate the "value of production" provided by the "alternative social arrangements"? Coase is surprisingly vague (at least for an economist) about this. One conceivable answer, of course, is that we are supposed to judge the results based upon what the market would have produced had it been working well. This arguably comports with the answer that Coase gave in the predecessor 1959 article *The Federal Communications Commission*, where he writes that "in principle, the solution to be sought is that which would have been achieved if the institution of private property and the pricing mechanism were working well."⁸² That particular bit of advice, however, is conspicuously missing from *The Problem of Social Cost.*

And with good reason. By the time Coase has finished presenting all his arguments in *The Problem of Social Cost*, that particular suggestion is no longer plausible. Not only has Coase abandoned the actual-ideal dyad in favor of a holistic opportunity-cost comparison of alternative social arrangements, but he has also committed to the idea that we cannot figure out what parties would agree to in the absence of a specification of their legal entitlements.⁸³

Indeed, it is impossible to figure out what a "well-working market" would have produced absent a specification of the legal entitlements. And if, in an effort to avoid this difficulty, we take existing legal entitlements as our specified baseline, then there is no reason to think that the market has not produced exactly what it should have produced given that particular baseline.⁸⁴ Indeed, it is only if, in a Thomas Reed Powell moment,⁸⁵ we hide from ourselves our tacit presumptions about the legal entitlements assumed to be in place that we can imagine what a well-working market would have produced independently of those entitlements.⁸⁶

^{81.} In fairness, Pigou also believed in the necessity of detailed inquiry, viewing a priori arguments for laissez faire or state action as inadequate. STEVEN G. MEDEMA, THE HESITANT HAND: TAMING SELF-INTEREST IN THE HISTORY OF ECONOMIC IDEAS 69 (2009).

^{82.} Coase, Federal Communications Commission, supra note 1, at 29.

^{83.} See supra note 1.

^{84.} This comports with Demsetz's argument earlier. *See* DEMSETZ, *supra* note 22, at 112–14. It also comports with Coase's analysis in the train sparks hypothetical which yields different results depending upon which baseline legal entitlement one uses (liability or no liability). *See* Coase, *Federal Communications Commission, supra* note 1, at 32–34.

^{85.} The Thomas Reed Powell reference is to one of his purported dicta: "If you think you can think about something which is attached to something else without thinking about what it is attached to, then you have what is called a legal mind." Thurman W. Arnold, *Criminal Attempts—The Rise and Fall of an Abstraction*, 40 YALE L.J. 53, 58 (1930).

^{86.} Remember, the ruling principle is: to each according to his or her threat advantage. Now, take any given situation and try to figure out what the various parties' threat advantages are without in any way relying upon any legal entitlement—i.e., no property law, no criminal law, etc. (Good luck.).

As we have just seen, Coase has been arguing against using the ideal of neoclassical model to evaluate government action because that model fails to include and account for law and legal regimes. It would be passing strange then to turn around and re-enlist precisely *this very same ideal, unmodified and unreconstructed*, in order to evaluate different "social arrangements."⁸⁷

These are some of the reasons that Coase insists that we engage in a comparison of "alternative social arrangements." And that makes sense—because if indeed we suspect that the market is not "working well" in a given context, there are, within the Coasean world view, not just three possible solutions or responses (government, market, and firm) but a much larger number of possible solutions (a multitude of *different combinations* of government, market, and firm). Or as Coase calls them: "alternative social arrangements."

Still and all, if the well-working market ideal is not to serve as the sole touchstone for evaluating different social arrangements (Coase makes this point explicitly at the end of his article), what then are the relevant criteria?⁸⁸ Here we come up against another truly difficult challenge. Coase says we should assess the total value of production of various social arrangements. What that means, how it can be assessed, and according to what criteria, are questions that beget no definitive answers. Moreover, these questions become more daunting as one takes note of Coase's admonition to examine "the total effect of [alternative social] arrangements *in all spheres of life*."⁸⁹ This all sounds like sage advice, but how to implement it is a matter that Coase in *The Problem of Social Cost* leaves unspecified and unresolved.

Just to be clear here: None of this is intended as criticism of Coase. Quite the contrary. Coase has just unleashed a series of telling critiques of the neoclassical model. He leaves us not with solutions, but rather with challenges. Along the way, he has done something extremely valuable. He has shown that a widespread and settled way of thinking in neoclassical

Coase, Problem of Social Cost, supra note 1, at 43 (emphasis added).

89. Id. (emphasis added).

^{87.} See generally Schlag, Transaction Costs, supra note 35, at 1696–97.

^{88.} Coase writes:

In this article, the analysis has been confined, as is usual in this part of economics, to comparisons of *the value of production, as measured by the market*. But it is, of course, desirable that the choice between different social arrangements for the solution of economic problems should be carried out in broader terms than this *and that the total effect of these arrangements in all spheres of life should be taken into account.* As Frank H. Knight has so often emphasized, problems of welfare economics *must ultimately dissolve into a study of aesthetics and morals.*

economics is fundamentally wrongheaded—at least for purposes of evaluating economic performance.

III. RETHINKING NEOCLASSICAL ECONOMICS (BUT MOSTLY NOT)

Given Coase's searing critiques of the Pigouvian approach and neoclassical economics, what might have been hoped for?

A. THE ECONOMISTS

If Coase was right, then it would have made sense for the neoclassical economists to reconsider their model in light of the effects of law and legal regimes on the identity and costs of production factors. The model is in disrepair. It is in the odd position of excluding the roles of law and legal regimes and yet requiring their inclusion for sound analysis—at least where we are concerned with economic performance.

The simultaneous dependence upon and yet axiomatic exclusion of law and legal regimes (already a problematic condition) means that it is not clear at all what *economic assumptions* are being made about the character of law and legal regimes in place. Not only are the basic legal regimes presumed to be working and enforced (whatever that means), but their specific identities, economic effects, and significance remain unarticulated. And of course, insofar as the effects and significance of the legal regimes are simultaneously consequential (they matter) and yet unarticulated (we don't know what they are or do, economically speaking), they have indeterminate effects on the results produced by specific economic analyses. To analogize to computers, it's like having an unknown daemon operating unnoticed in the background and yet running the model and the analyses (Law here being the daemon.).

Given this situation, one would have hoped that neoclassical economics would begin to take the character and effect of legal regimes into account. One would have hoped for some theorization of the relative virtues and vices of legal regimes in terms of optimizing production. By and large, it's safe to say, this did not happen.⁹⁰ The economists, as Coase noted, largely ignored this aspect of his article.⁹¹

B. THE LAWYERS

^{90.} Coase certainly doesn't think it happened. "[I]f I am right, current economic analysis is incapable of handling many of the problems to which it purports to give answers." R.H. COASE, THE INSTITUTIONAL STRUCTURE OF PRODUCTION, *reprinted in* ESSAYS ON ECONOMICS AND ECONOMISTS 3, 10–11 (1994) (noting that *The Problem of Social Cost* has not had immense influence on the field of economics though he believes, in time, it will).

^{91.} *Id.* Coase notes that economists have focused on sections III and IV of *The Problem of Social Cost*—in other words, no further than page 8. COASE, THE FIRM, THE MARKET, AND THE LAW, *supra* note 1, at 13. To Coase, this is the least important part of the article. *Id.*

As for the lawyers, it might have been hoped that they would try to develop an economic theory of law that would accord law its own constitutive role in the performance of markets. Having read Coase, they might have been expected to recognize that they could not simply import the neoclassical model and its efficiency ideals jot for jot to evaluate the construction of legal regimes.

So did the lawyers do any better than the economists?

Well, yes and no. Yes (at least on first impression): It seems the lawyers associated with Chicago L&E tried to follow some of Coase's admonitions. In one sense, Chicago L&E did attempt to show-with great sweep and manifest institutional success-the economic effects of law and legal regimes.92 But, on second thought: no. Chicago L&E offered no revision of the neoclassical model itself. Chicago L&E simply imported—and therein lies the genesis of many of its present difficulties-an unmodified and unreconstructed neoclassical model to analyze law and legal regimes. The model they imported was still lacking an understanding of the role of law and legal regimes for pricing markets. Most striking perhaps is that Chicago L&E managed to replicate structurally, at the level of form, precisely the errors that Coase detected in the Pigouvian approach.93 So ultimately? No: Chicago L&E did not have much of anything to offer neoclassical economics in terms of reconstructing its flawed model of pricing markets. For Chicago L&E, the pre-Coasean neoclassical model was introduced to law as a virtual plug-in. It was applied to law unmodified and unreconstructed.

Now, in one sense, this is strange. At least it is strange if the main Coasean lessons are that the neoclassical model is flawed inasmuch as it fails to consider the significance of law and legal regimes. Indeed, why would one borrow a flawed model to serve as the analytical touchstone for the explanation or evaluation of law and legal regimes? Isn't that to repeat exactly the mistakes that Coase just identified? Well, yes. But remember: it was never the deeper lessons that Chicago L&E gleaned from *The Problem of Social Cost*.

Let's be clear on the point here because it could easily be missed. Indeed, Chicago L&E analysts might readily respond in sheer disbelief: "How on earth can we be accused of forgetting the importance of law and legal regimes to economic performance when virtually our entire research

^{92.} See Jon Hanson & David Yosifon, *The Situation: An Introduction to the Situational Character, Critical Realism, Power Economics, and Deep Capture*, 152 U. PA. L. REV. 129, 144 (2003) (affirming that "law and economics is currently the undisputed champion of the putative legal-theoretic competition").

^{93.} This is demonstrated at greater length in Schlag, *Transaction Costs, supra* note 35, at 1676–99. *See* Deirdre N. McCloskey, *The Good Old Coase Theorem and the Good Old Chicago School:* A Comment on Zerbe and Medema, in COASEAN ECONOMICS: LAW AND ECONOMICS AND THE NEW INSTITUTIONAL ECONOMICS 239 (Steven G. Medema ed., 1997).

agenda consists precisely in showing at great length how law and legal regimes affect economic performance?" My answer is that, while this is indeed Chicago L&E's research agenda, nonetheless, this research agenda has been pursued with a model (the neoclassical model) that is ab initio flawed because it excludes one of the key variables-a crucial determinant of economic performance. The fact that this key determinant (to wit, law and legal regimes) happens to be precisely what Chicago L&E is looking to explain and evaluate does not help. The problem is that Chicago L&E is still looking for that missing piece with a model that remains incomplete and flawed—a model that will, so long as it is not revised, repeatedly fail to recognize the economic implications of the missing piece. One could liken this (please bracket the impoliteness of the analogy) to the old joke about the inebriate looking for his keys under the lightpost. When asked why he is looking there, he explains, "Well, the light is so much better here." Indeed it is. But, of course, there's no reason to suppose that the keys were lost under the lightpost. (I leave aside here the non-trivial retort that our protagonist might as well look under the lightpost because if he has to look for the keys anywhere else, then it truly is a hopeless situation.)

But to get back to the story: If Coase's deeper lessons were ignored, what did happen? There is a short answer:

C. THE COASE THEOREM

To suggest that the Coase Theorem completely supplanted *The Problem* of *Social Cost* as the focus of interest is an exaggeration. But not a very large one. Among the adherents of Chicago L&E, the Coase Theorem quite simply eclipsed Coase's article, his arguments, and his more interesting insights. How this happened historically (this would make an interesting dissertation) I will not address. But happen—it did.

So start where Chicago L&E started—namely, with the Coase Theorem. Here it is finally (one of the great many versions thereof)⁹⁴:

When transaction costs are zero, an efficient use of the resources results from private bargaining, regardless of the legal assignment of property rights.

^{94.} For a collection of various articulations of the Coase Theorem, see Steven G. Medema, *HES Presidential Address: The Coase Theorem Lessons for the Study of the History of Economic Thought*, 33 J. HIST. ECON. THOUGHT 1, 4–5 (2011). As many have noted, Calabresi contemporaneously came up with an argument structurally similar to the Coase Theorem in the context of liability rules and accidents. Guido Calabresi, *Some Thoughts on Risk Distribution and the Law of Torts*, 70 YALE L.J. 499, 505–06 (1961). For elaboration, see, Alain Marciano, *Guido Calabresi's Economic Analysis of Law, Coase and the Coase Theorem*, 32 INT'L REV. L. & ECON. 110, 112–15 (2012).

When transaction costs are high enough to prevent bargaining, the efficient use of resources will depend on how property rights are assigned.⁹⁵

What is the value of the Theorem to the neoclassical economists *over and above* the prior Coasean lessons? What does the Theorem add? Well, in its zero-transaction cost world variant, it adds a caveat or qualification—one that goes like this: When transaction costs are zero, then never mind.⁹⁶ The law is irrelevant. Why? Because no matter how the law designs and allocates the legal entitlements, the parties will be able to rearrange their entitlements on the market costlessly.⁹⁷

One reason that transaction costs are almost never zero is that legal entitlements (e.g., nuisance rules, property entitlements) are composed of *stylized or formal rules* while users and uses are generally (not always) plural and best conceived *in terms of a distribution*. If we think about it this way, then it is obvious that legal entitlements are generally but a stylized or formalized approximation of the relevant users and uses. That is to say, that legal entitlements anticipate the performance (or non-performance) of certain kinds of economic actions by certain parties. Such anticipation is at once salutary and not surprising. It does, however, mean that we are already in the realm of positive transaction costs—at least for all those users and uses that are a "poor match" relative to the definition of the entitlement.⁹⁸

If one wanted to be rigorous about it all, one would speak here of transaction costs being higher or lower along a distribution of different users and uses. It is only in some circumstances (think here of repeat, market-disciplined business transactions where the parties, the products, and uses at issue are relatively standardized) that there is relative uniformity of uses and users.

The upshot (subject to the qualification about standardized users and uses) is that no legal entitlement is perfectly suited to all potential users and uses. Even when law constructs "permissive defaults" or establishes systems of "private orderings," it does so according to certain stylized formalities. In turn, this unavoidable stylization already implies positive transaction costs.⁹⁹ And if here we can recall Hohfeld for a moment, it's easy to see that even a slight tweaking of a legal entitlement would be better for *some* (not all) users

^{95.} ROBERT COOTER & THOMAS ULEN, LAW & ECONOMICS 85 (6th ed. 2011).

^{96.} More accurately: When transaction costs are sufficiently negligible that they fail to inhibit potential gains from trades for all relevant parties, then never mind.

^{97.} Stigler *initially* emphasized the zero-cost variant of the Theorem—namely, that law is often irrelevant in terms of affecting efficiency. *See* STIGLER, *supra* note 13.

^{98.} See supra text accompanying notes 71–74.

^{99.} Note that whether a given modification of law results (relative to some stipulated baseline) in a *net increase or decrease* in transaction costs is a different question.

and uses than whatever legal entitlement is already in place. It's likely, of course, that such a slight tweak would also make others worse off.

The main point here is that during the formative years of Chicago L&E, the Coase Theorem effectively eclipsed Coase's article, his arguments, and his insights. Two major kinds of academic projects based on the Coase Theorem took off. One project involved disputes about the validity of the Coase Theorem and its conditions of validity. This often led to disputes about what should or should not be included under the heading of transaction costs.¹⁰⁰ This was not a useless project: it brought some useful insights into the variety of costs that can impede gains from trade. Lessons were learned—categories refined.¹⁰¹

The second kind of project, one pursued vigorously by Chicago L&E, was the deployment of the Coase Theorem as a theoretical pivot on which to hinge prescriptions for the improvement of legal regimes (often under the aegis of Kaldor-Hicks efficiency). It is that project, Chicago TCA, that we will focus upon for the remainder of this Article. My argument here is that Chicago TCA is flawed and that its flaws can be traced to the neglect of Coase's deeper critiques.¹⁰²

D. CHICAGO TCA

The lawyers seized on the Coase Theorem, and they accorded transaction costs a pivotal role in the selection and fashioning of legal regimes. More specifically, they formulated a series of normative prescriptions (some more plausible than others) for the construction of legal regimes, doctrines, regulations, and the like.¹⁰³

The general imperative was to improve market performance by designing legal regimes so as to reduce transaction costs or otherwise circumvent their noxious effects.¹⁰⁴ Roughly speaking, "reducing transaction

^{100.} See generally Robert D. Cooter, *The Coase Theorem, in* THE NEW PALGRAVE: ALLOCATION, INFORMATION, AND MARKETS 64, 67–69 (John Eatwell et al. eds., 1989).

^{101.} At the same time, there is little doubt that this project siphoned away interest from Coase's more important insights. Indeed, as between a reading of Coase that called for a radical revision of the neoclassical model (i.e., a reconceptualization of production factor costs in legal terms) or instead a reading that counseled a more modest modification (the Coase Theorem), both the economists and the lawyers not surprisingly latched onto the latter.

^{102.} I distinguish here the genre of transaction cost analysis performed in the New Institutional Economics pioneered by Oliver Williamson and Douglass North. For a brief summary, see Peer Zumbansen & Gralf-Peter Calliess, *Law, Economics, and Evolutionary Theory: State of the Art and Interdisciplinary Perspectives*, 6 OSGOODE L. SCH. RES. PAPER SERIES, 2010, at 1, 13–19, *available at* http://papers.scrn.com/sol3/papers.cfm?abstract_id=1595158. I do not address this kind of transaction cost analysis here.

^{103.} Pierre Schlag, An Appreciative Comment on Coase's The Problem of Social Cost: A View from the Left, 1986 WIS. L. REV. 919 [hereinafter Schlag, Appreciative Comment].

^{104.} MACEY, *supra* note 4, at 22.

costs" involves facilitating markets by creating legal entitlements that yield low transaction costs, thereby allowing the parties to rearrange those entitlements. The obverse "circumventing transaction costs" strategy is used when transaction costs are prohibitive. The strategy involves the creation of legal regimes that impose forced exchanges consonant with Kaldor–Hicks efficiency. ¹⁰⁵ These normative principles can be crudely summarized as follows:

Reduce Transaction Costs: When the market in question seems to be working well enough, leave it alone or try to reduce transaction costs further.

Circumvent Transaction Costs: When the market does not seem to be working because transaction costs are prohibitive, adjust the legal regimes in accordance with Kaldor–Hicks efficiency.¹⁰⁶

As between the two strategies, Chicago L&E has a stated preference for the first approach—namely, reducing transaction costs.¹⁰⁷ This approach enables actual market-registered transactions (and these are generally considered the best evidence of willingness to pay). Moreover, ostensibly

^{105.} A forced (i.e., juridical/governmental) reallocation of resources is Kaldor-Hicks efficient if the winners receive an increase in value sufficiently large so that they could fully compensate the losers. Jules L. Coleman, *Efficiency, Exchange, and Auction: Philosophic Aspects of the Economic Approach to Law*, 68 CALIF. L. REV. 221, 239-42 (1980); J.R. Hicks, *The Foundations of Welfare Economics*, 49 ECON. J. 696, 706 (1939); Nicholas Kaldor, *Welfare Propositions of Economics and Interpersonal Comparisons of Utility*, 49 ECON. J. 549 (1939). This is the notion of efficiency that most Chicago L&E analysts use in making normative recommendations. Pareto optimality, as Calabresi shows, is simply not a plausible standard to guide the construction of a legal regime given that just about any change in a legal regime can be counted upon to make someone worse off. Guido Calabresi, *The Pointlessness of Pareto: Carrying Coase Further*, 100 YALE LJ. 1211, 1218-19 (1991).

^{106.} POSNER, *supra* note 14, at 20, 316. In *The Problem of Social Cost*, Coase does not mention Kaldor–Hicks efficiency. He talks of "efficiency" *simpliciter*, or of "maximizing the value of production." Coase comes closer to adopting the Kaldor–Hicks standard in the precursor article to *The Problem of Social Cost*. Coase, *Federal Communications Commission, supra* note 1, at 29. There he states that where the market is too costly to operate, "in principle, the solution to be sought is that which would have been achieved if the institution of private property and the pricing mechanism were working well." *Id.* By the time he writes *The Problem of Social Cost* one year later, however, this last bit has dropped out. And when he writes in 1988 about the reception of his work, he expresses dismay and disappointment that so much attention has been focused on the zero transaction cost world. COASE, THE FIRM, THE MARKET, AND THE LAW, *supra* note 1, at 15.

^{107.} The basic bifurcation approach, and its connections (or absence thereof) to Coase's work, is developed in Duncan Kennedy, *Law-and-Economics from the Perspective of Critical Legal Studies, in* 2 THE NEW PALGRAVE DICTIONARY OF ECONOMICS AND THE LAW 465 (Peter Newman ed., 1998); *see also* Steven G. Medema, *Legal Fiction: The Place of the Coase Theorem in Law and Economics,* 15 ECON. & PHIL. 209, 220–23 (1999); Schlag, *Appreciative Comment, supra* note 103.

consensual transactions are easier to justify politically than the "forced exchanges" of Kaldor–Hicks regimes.¹⁰⁸

The two strategies in turn are broken down into several (occasionally overlapping) formulaic imperatives. These imperatives are also extremely familiar to American legal analysts. Here, in no particular order, are some of the more frequently invoked imperatives used in the economic analyses of legal regimes:

1) Try to define initial legal entitlements and legal regimes so that transaction costs are low enough to allow consensual rearrangement by private bargaining among the parties.¹⁰⁹

2) Assign initial legal entitlements to those uses that place the highest value on the entitlement.¹¹⁰

3) Forbear from enacting laws that would hinder parties in a private rearrangement of their entitlements.¹¹¹

4) Where transaction costs are high enough to prevent rearrangement through private bargaining, try to establish a legal regime that would replicate or approximate what the parties would have agreed to if transactions were zero or negligible.¹¹²

5) Where transaction costs are high enough to prevent rearrangement through private bargaining, establish a legal regime (e.g., forced exchange) that accords with Kaldor–Hicks efficiency or cost benefit analysis.¹¹³

^{108.} Posner articulates the economist's preference for voluntary exchanges registered on an actual pricing market relative to Kaldor–Hicks forced transfers on a hypothetical market. POSNER, *supra* note 14, at 20–22.

^{109.} Guido Calabresi provides an early version of this imperative. Guido Calabresi, *Transaction Costs, Resource Allocation and Liability Rules—A Comment*, 11 J.L. & ECON. 67, 72–73 (1968); COOTER & ULEN, *supra* note 95, at 11, 97.

^{110.} POSNER, *supra* note 14, at 66. Coase does say in his Nobel Prize lecture that, optimally, property rights would be allocated to "those who can use them most productively." Coase, Prize Lecture, *supra* note 62.

^{111.} See LANDES & POSNER, supra note 4, at 92–93, 111 (explaining a variety of legal doctrines as efficient responses to a need to keep transaction costs low).

^{112.} POSNER, *supra* note 14, at 20; Niblett et al., *supra* note 4 at 326 ("[W]hen negotiating explicit contracts is costly, efficient resource allocation may require that the law create rules that give parties incentives to act efficiently—rules that steer parties to outcomes that mimic those that the market would produce if transaction costs were low."). This formula might be seen as essentially the same as the Kaldor–Hicks formula. Nonetheless, I mention the "mimic the market" formula separately here because on occasion it seems to invite a certain looseness of thought—namely, trying to figure out what the market would have produced without first specifying the legal entitlements.

^{113.} But see COOTER & ULEN, supra note 95, at 231–32. Cooter describes this strategy as the strict opposite of the Coase Theorem and ascribes it to Hobbes. Robert Cooter, *The Cost of Coase*, 11 J. LEGAL STUD. 1, 18–20 (1982); see also COOTER & ULEN, supra note 95, at 103.

While commentators routinely cite Coase's *The Problem of Social Cost* as the source for these prescriptions, not one of them is to be found in Coase's article. Each is a contribution elaborated by others. And each is arguably informed by a misinterpretation of *The Problem of Social Cost*.¹¹⁴

In the general legal literature (i.e., not just among champions of law and economics), these formulae are applied with great frequency. Indeed, it has been taken as virtual gospel (at least until recently) that adjusting or constructing legal regimes to economize on transaction costs is generally a desirable or an efficiency-enhancing thing to do. And this gospel has been spread far, wide, and often: transaction cost analysis may well be the single most significant aspect of Chicago L&E and its most successful export to orthodox legal analysis.¹¹⁵

IV. PROBLEMS WITH CHICAGO TCA—SHOULD WE ECONOMIZE ON TRANSACTION COSTS?

In terms of the main Coasean lessons described above, Coase had no need to theorize transaction costs. Even the Coase Theorem needs no theorization of the concept of transaction costs—at least so long as we accept the notion that a transaction cost is anything that would prevent a costless pricing market.¹¹⁶ Of course, to try figuring out what is or must count as a transaction cost for purposes of the Theorem might be interesting. But the point remains: Such inquiries are not required. Neither *The Problem of Social Cost*, nor the Coase Theorem fall apart if the concept of transaction costs remains undertheorized.

The same cannot be said of Chicago TCA. Once the Coase Theorem morphs into Chicago TCA, a theory of transaction costs becomes necessary. One might ask: Why? There are several reasons—only one of which I want to

Within law and economics, the initial assignment of property rights and the transaction costs of bargaining are responsible for the creation of all economic agents larger than the single individual. Every economic event becomes a study in transaction costs. Transactions costs explain why the person who prefers the new Toyota to her Chevrolet might nevertheless choose to stay with the car she already has. They explain how large the business firm, the family, or some other institution will become and how many activities it pursues internally rather than on a market. In its most formal mode, transaction costs explain why people marry rather than purchase sexual or domestic service, why they have children rather than hire outside help, why sports teams are organized into conferences and how large the conferences are, and why the common law is more efficient than legislation.

Hovenkamp, supra note 8, at 542.

116. Gideon Parchomovsky & Peter Siegelman, *Selling Mayberry: Communities and Individuals in Law and Economics*, 92 CALIF. L. REV. 75, 94 (2004) (noting that transaction costs can be conceived as "anything that impedes private bargaining between two or more parties").

^{114.} The argument is made at length in Schlag, *Appreciative Comment, supra* note 103, at 933-43.

^{115.} Herbert Hovenkamp put it this way:

address here.¹¹⁷ Specifically, Chicago L&E needs a theory of transaction costs that will enable a distinction between transaction costs (eligible for reduction or circumvention through the tweaking of legal regimes) from production factor costs (presumably not so eligible).¹¹⁸

Now, even though Chicago TCA needs such a theory, it does not have one. More interestingly, it cannot have one. And more interestingly still, it cannot have one for precisely the reasons articulated by Coase in *The Problem of Social Cost* and described earlier in this Article. If those lessons had been assimilated we (you and I) would not be here and neither would Chicago TCA.

Why do Chicago L&E analysts need to be able to distinguish between transaction costs and production factor costs? Because their theoretical commitments require such a distinction. Consider: Chicago L&E analysts are not at all indifferent about the use of law, law reform, or government correctives to reduce any and all costs. One could, after all, use the legal system to socialize or reduce all manner of costs: transportation costs, ¹¹⁹ communication costs, the costs of steel, or indeed, lots of other costs.¹²⁰ Presumably, Chicago L&E is not interested in going down this road. At least not too far for this way lies the supplanting of markets in favor of the socialization of costs and production. This will do, but only up to a point. Chicago L&E has certain theoretical commitments and imperatives. Among them are the following:

<u>First imperative</u>: Do not interfere with competitive markets by altering production costs (i.e., subsidizing or penalizing private economic activities).¹²¹

^{117.} In prior works, I argued that the Chicago L&E appropriation of the Coase Theorem to perform transaction cost analysis hinged upon a misinterpretation of Coase's article (as well as the Theorem). One principal argument was that Chicago L&E had reified and naturalized the Theorem in ways that misunderstood its import and ultimately led to a form of analysis, not only flawed in and of itself, but also ironically replicative, at the level of form, of precisely those mistakes that Coase detected in the Pigouvian approach. *See* Schlag, *Transaction Costs, supra* note 35. A second argument was that Chicago TCA needed (but did not have) a cogent theory of transaction costs that would enable a sound determination of when to strive to *reduce transaction costs* and when to attempt to *circumvent transaction costs* via a forced Kaldor–Hicks exchange. *See* Schlag, *Appreciative Comment, supra* note 103.

^{118.} Schlag, *Transaction Costs, supra* note 35, at 1684–86; Schlag, *Appreciative Comment, supra* note 103, at 929–30.

^{119.} Carl Dahlman, *The Problem of Externality*, 22 J.L. & ECON. 141, 144 (1979) (analogizing transaction costs to transportation costs).

^{120.} I leave aside for the moment the ironic "reality-based" recognition that the widespread differential subsidization of different industries, professions, and activities through legislation and regulation is, at least in the United States, the current state of affairs.

^{121.} As in Coase's article, I deal with production costs, setting aside consumption.

<u>Second imperative</u>: If it is possible to improve competitive markets by reducing transaction costs or circumventing their effects (e.g., Kaldor–Hicks), then do so.¹²²

The obvious potential conflict between these two imperatives is no problem so long as each imperative remains confined to its proper scope (whatever that may be). But should the potential conflict materialize, the coherence of the entire approach is threatened. The stakes here are large. So just to drive home the point, let me be unreservedly blunt about it all. In Chicago L&E:

<u>Subsidizing an Economic Activity's Production Factor Costs</u> = bad (this is called a supplanting of and interference with competitive markets);

whereas

<u>Economizing on Transaction Cost Effects</u> = good (this is called facilitation or replication of competitive markets).

To appreciate the deep significance of the problem here, one needs to look at it the way Chicago L&E analysts do and imagine what is at stake from their perspective in terms of their theoretical commitments. So, just to belabor the point a bit more: from their perspective, economizing on transaction costs in actual pricing markets is generally a good (efficient) thing called facilitating markets.

Conversely, subsidizing an activity's production costs and accordingly penalizing competing or substitute activities is generally a bad (inefficient) thing called government interference with the market.¹²³ Honoring that distinction between the "facilitation of markets" and "interference with markets" in turn depends crucially on the availability of a theoretically cogent distinction between transaction costs and production-factor costs. ¹²⁴

^{122.} See supra text accompanying note 115.

^{123.} In this regard, realize that where activity X is competing with Y, another name for "subsidizing" activity X is "penalizing" activity Y. In short, subsidies in the market are every bit as much an interference as penalties.

^{124.} The general distinction lurking in the background here is the hoary "free market" vs. "governmental intervention" notion typically deployed to distinguish a "laissez-faire state" ostensibly free from government interference from some sort of government regulation regime. For a rigorous and extended critique of the distinction, see HARCOURT, *supra* note 72. Earlier critiques in American law are to be found in the work of Robert Hale in the 1930s. Hale eviscerated conventional distinctions between the "free market" and "government intervention" by showing that the government necessarily exercises power on both sides of the distinction. *See* Samuels, *supra* note 72, at 326–33 (elaborating on Hale's thoughts); *see also* Kennedy, *supra* note 107.

Why is there so much at stake here as a theoretical matter? The answer is simple.¹²⁵ In this context, it is the transaction cost/production factor cost distinction that keeps the two potentially conflicting imperatives from running into each other and producing nonsense. To put it trenchantly: If you do not have a theoretically cogent transaction cost/production factor cost distinction to work with, and if you are still trying to facilitate or replicate free markets *without* simultaneously subsidizing and penalizing productive activities, then you quite literally have no idea what you are doing.¹²⁶

This is not good news for Chicago L&E. Indeed, not only is it currently lacking a cogent theory of transaction costs *to do the work required*, but worse, it can have no such cogent theory.¹²⁷ Now, to be sure, there is nothing talismanic about the term "transaction costs." Certainly, Chicago L&E analysts can use another term (or many other terms) to perform the pivotal function played by transaction costs in their analyses. The semantics is theirs for the choosing. But the theoretical grammar is not: What they must provide is some theoretically cogent criterion capable of application to serve as the conceptual pivot for deciding when to economize on the cost in question by tweaking the legal regime and when to instead leave the market and the firms to adjust on their own.

A. DISTINGUISHING TRANSACTION COSTS—THE SHORTCOMINGS OF OPERATIONAL CATEGORIES

^{125.} In turn, as Bernard Harcourt demonstrates, the latter distinctions are simply not tenable. Harcourt, *supra* note 72, at 123–25.

^{126.} Calabresi, supra note 105, at 1218–19; Schlag, Transaction Costs, supra note 35, at 1686; see also, Dahlman, supra note 119, at 145. In a previous article, I argued that given the use made of transaction cost by Chicago L&E analysts, they needed to produce a theoretically cogent account of the concept. I argued that, for a variety of reasons, they had not (and could not) do this. One of these reasons, of course, is that there is nothing in principle that distinguishes transaction costs from other kinds of costs (most notably production factor costs). Schlag, Transaction Costs, supra note 35, at 1686. Following along these lines, and relying on the work of Guido Calabresi, Jeanne Schroeder more recently argued that transaction costs are just costs (and that there is no point in distinguishing them from other costs). Schroeder believes this is the opposite of my argument but it is not: One of the reasons there is no point in distinguishing transaction costs is because, as I argued in the prior article, there is no theoretically cogent way to do so. Compare Schroeder, supra note 45, at 549 n.234, with Schlag, Transaction Costs, supra note 35, at 1684–87. Be that as it may, there is a very important point that should not get lost in all this-and it explains the difference in approach between Schroeder and I. Even if one thinks that the effort to distinguish transaction costs from other costs is fundamentally wrongheaded, it nonetheless remains a necessary and unavoidable task for Chicago L&E analysts who propose to hinge the choice and design of legal regimes on the presence or absence of transaction costs. That they cannot do so as a theoretical matter (my argument as well as Schroeder's) does not mean they are reprieved of the obligation.

^{127.} See infra text accompanying notes 129-41.

Why does Chicago L&E have a problem at all defining transaction costs? Don't we already have identified categories of such costs-search costs, valuation costs, negotiation costs and so on? Well, yes those costs are usually classified as transaction costs, but the problem is that identifying a cost as a "search cost" for example cannot be relied upon to conclude that therefore it should be eligible for subsidization by the legal regime. Indeed, consider that firms have all sorts of costs that look like search costs (e.g., finding willing customers, reliable suppliers, accessing the right knowhow, etc.) and yet which presumably Chicago L&E would not want to subsidize (or at least not fully). We could say the same for any number of other operational transaction cost categories. The problem here is that the identification of a cost as falling within a transaction cost category is simply not sufficient to decide the functional issue—to wit, whether or not that cost should be subsidized through a tweaking of the legal regime. Indeed, no amount of deep reflection on whether something truly is or is not a "search cost" can be expected to yield a determination on the functional issue. The two sets of distinctions we are dealing with here-search cost/not a search cost and transaction cost/production factor cost-are transverse to each other. The search cost/not search cost distinction may well have some operational content-that is to say, we can tell what a "search" for customers or suppliers looks like. But that operational content does not coincide *ipso facto* with the functional issue at hand—whether the law should subsidize the cost or not (and if so how and how much).

B. DISTINGUISHING TRANSACTION COSTS—THE LIMITS OF FUNCTIONALISM

A different way of dealing with the production factor cost/transaction cost distinction is to go straight to the functional issue: Are we dealing with the kind of cost that should be borne by the legal regime (nominally, we will call those transaction costs) or are we instead dealing with the kind of cost that should be borne by firms or the market (nominally we will call those production factor costs)? This seems promising until we realize that this functionalist framing of the issue does not so much help resolve the problem as restate it and thus ironically, reveal its intractability: Chicago L&E has no functional theory to allow us to make this allocation. Indeed, it is precisely the intractability of the functional issue that explains why Chicago L&E has so often relied on the proxy of labeling something a transaction cost as the pivot for tweaking the legal regime: It is precisely because Chicago L&E does not have a theory to address the functional issue.¹²⁸

^{128.} If the category (or categories) of transaction costs are not sufficiently perspicuous from a functional standpoint, then what about approaching the issue from the other side? In other words, instead of asking whether *X* falls within a recognized transaction cost category, why not ask whether *X* falls within a recognized production factor cost category? The quick answer is

C. THE RECIPROCAL NATURE OF TRANSACTION COSTS

Why can't Chicago L&E offer a theory that would enable a determination whether a cost is eligible for tweaking by the legal regime or must instead be borne by the market and firms? One answer is that transaction costs stem from the conjunction of law, market, firms, product, and uses.¹²⁹ There are simply no general (or specific) criteria through which one could decide which of these agencies is or ought to be held responsible for creating the transaction cost.¹³⁰ Transaction costs are seldom *intrinsic* to a given (legal) setting or (economic) activity. Instead, transaction costs are the joint product of law, market, firms, uses, and product. Change the character of any of these main terms and chances are the magnitude of the transaction costs that seem nearly universal—that is to say, present regardless of the firms, the market, the product, and the uses. But this can hardly be taken as the general case.

The reciprocal nature of transaction costs is a reprise of Coase's causal agnosticism (i.e., the reciprocal nature of the harm) at a different level of abstraction. It yields the same lesson: Simply because transaction costs seem high or prohibitive in any particular context does not mean that the law should be changed to economize on those costs. It may well be that the best thing to do is let the firms, the market, the product, or the uses change and adapt. Moreover, as Demsetz and Calabresi pointed out early on and Fennell recently reminds, reducing transaction costs by tweaking the legal regime itself involves costs which, in any given situation, may well exceed the

that production factor costs do not exclude the sorts of costs identified under the heading of transaction costs. And this is not surprising because the concept of production factor costs was never designed to perform such a role.

^{129.} Demsetz and Fennell see transaction costs as arising from the law's allocation mechanism and thus outside the economic system (as Demsetz defines it). Demsetz, *supra* note 21, at 8–9; Lee Anne Fennell, *The Problem of Resource Access*, 126 HARV. L. REV. 1472, 1481 (2013). As an analytical matter and on pain of repeating the Pigouvian mistake as well as hypostatizing users or uses, I just don't see this as the appropriate analytical starting point. It may be that on some occasions, we will be dead sure it's the law that needs to be changed. And occasionally, we will be right. But this kind of analysis is, a structural replication of the Pigouvian error. Schlag, *Transaction Costs, supra* note 35, at 1684–97; *see also supra* text accompanying notes 22–88.

^{130.} Demsetz argues (against Coase) that externalities are due to specialization by firms (i.e., an unwillingness to incur the management costs associated with overseeing two different uses). Harold Demsetz, *Ownership and the Externality Problem, in* PROPERTY RIGHTS: COOPERATION, CONFLICT, AND LAW 282, 285–89 (Terry Anderson & Fred S. McChesney eds., 2003). No doubt this is, *in part* true. It is, of course, also *in part* true that the externalities arise because the parties are, for a variety of reasons, incapable of making the market work. And it also *in part* true, that externalities arise because somehow the law has structured the relevant regimes so as to hinder firm or market solutions.

2013]

benefits to be gained.¹³¹ As Fennell notes, simply because we find that transaction costs are high (or even prohibitive) in some context does not *ipso facto* mean that we have an inefficient under-production of private transactions.¹³²

How is it that analysts go wrong in this regard? The answer is that they hypostatize the market, the firms, the products, and the uses (these become a baseline for analysis) and that leaves the law as the only variable left to tweak.¹³³

D. THE NESTING PROBLEM

Our difficulties here are not made any easier by the fact that the determination of what counts as a transaction cost in actual pricing markets depends upon a specification of the market in question—a determination of what goods are sought and of the relevant parties involved.¹³⁴ In turn, that particular determination is not made any easier by the lack of any robust theoretical conception of the market in neoclassical economics.¹³⁵ If one

132. Fennell, *supra* note 129, at 1502–03.

^{131.} Calabresi, *supra* note 109, at 69 (explaining that the non-production of a good or service due to high transaction costs *may well be* consistent with efficiency—the reason being that the creation of a market and the provision of prices is itself costly); Harold Demsetz, *The Exchange and Enforcement of Property Rights*, 7 J.L. & ECON. 11, 13 (1964) (same); Fennell, *supra* note 129, at 1503 (same).

^{133.} Unfortunately for Chicago L&E, this modus operandi (hypostatization) is not an accident and not dispensable without untoward consequences. Chicago L&E can prescribe determinate legal solutions for particular market contexts only by hypostatizing the markets, firms, parties and/or uses in question. Without the hypostatization, the prescriptions would be much more tentative and indeterminate. Schlag, *Appreciative Comment, supra* note 103, at 933–36 (describing the hypostatization of Coasean insights by Chicago L&E).

^{134.} For an extended elaboration of the point, see Schlag, *Transaction Costs, supra* note 35, at 1676–87.

^{135.} Schroeder, *supra* note 45, at 513–15; *see also* Eckehard F. Rosenbaum, *What is a Market?* On the Methodology of a Contested Concept, 58 REV. SOC. ECON. 455, 457 (2000) (criticizing KENNETH J. ARROW & F. H. HAHN, GENERAL COMPETITIVE ANALYSIS (1971) for failing to offer a substantive account of what is a market and instead simply taking it for granted). Rosenbaum states:

The need for a more detailed specification of the market concept is thus particularly pressing in a normative context. Economists or politicians who endorse markets must specify where and when a market does in fact exist and where and when it is absent. Unless they are able to do so, their policy recommendations could neither be evaluated in relation to the purported objectives of market creation nor tested with respect to the empirical implementation of a market. In fact, much the same goes for economic theory. Hypotheses about the functions and the properties of markets (e.g., establishment of prices, allocation of resources, efficiency) which claim to have empirical validity presuppose that the researcher outlines the characteristics of the social object "market" for which the hypothesized relationship or property is to hold.

thinks about the matter, what counts as a transaction cost from one perspective will simultaneously count as a production factor cost from another perspective. 136

Indeed, transaction costs are not acontextual. They are not natural kinds. Hence, the ways in which one specifies the identity of the product market at stake will affect what does or does not count as transaction cost. What looks to be a transaction cost from the perspective of one kind of market can look very much like a production factor cost from the perspective of another kind of market.¹³⁷ Consider here, by way of example, one of the traditional Coasean categories for transaction costs-namely, figuring out with whom one wants to deal.¹³⁸ There are, of course, lots of industries that specialize in providing such services: brokerage services, legal counseling, transactional lawyering, financial advising, online dating services, employment agencies, advertising agencies, etc. So, do these industries represent transaction costs? Or do they represent production factor costs attributable to the firms seeking out specific information in order to negotiate? Or are they (quite problematically for Chicago L&E) both at once? Would we be automatically better off if the legal system were restructured to reduce or circumvent these costs?¹³⁹

Now, of course, as a matter of jurisprudential realpolitik, no one (at least not in the near future) is likely to counsel the wholesale replacement of brokerage services, legal counseling, or the like through law. But that is not the interesting question. The interesting question is Coasean and Hohfeldian in character: To what degree and to what extent should we incrementally modify the legal regime (think: by legal provision of information or technological services) to economize on brokerage services, legal counseling, etc.?

There is, of course, an easy way out of all this and that is to simply abandon the transaction cost/production factor cost distinction altogether and simply allow any and all costs to be subsidized in an ad hoc pragmatic manner by various legal regimes.¹⁴⁰ But we have already been down this road before: it is not one Chicago L&E wants to pursue.

^{136.} Dahlman, *supra* note 119, at 145; Schlag, *Transaction Costs, supra* note 35, at 1683–86. Recently, Demsetz goes further and suggests that we simply view transactions as products like any other. HAROLD DEMSETZ, FROM ECONOMIC MAN TO ECONOMIC SYSTEM 109–10 (2008). Fennell extends the point by suggesting that we view transaction costs as products that the law can purchase. Fennell, *supra* note 129, at 1502. The questions as she suggests (rightly, it seems to me) are: when and why to do so. *See id.*

^{137.} Schlag, Transaction Costs, supra note 35, at 1683-86.

^{138.} Coase, Problem of Social Cost, supra note 1, at 15.

^{139.} The point is explored in more elaborate form in Schlag, *Transaction Costs, supra* note 35, at 1684–87.

^{140.} This might follow very loosely (if at all) from Guido Calabresi's "transaction costs are [just] costs" approach. Calabresi, *supra* note 105, at 1219.

E. RAISING THE STAKES—FROM TRAIN SPARKS TO THE INFORMATION AGE

One possible response (the always possible response) to all this lies in a sort of pragmatic approach to the difficulty. "Look," one might say, "surely, we can figure out *in context* when something should be seen as a transaction cost and economized by tweaking the legal regime and when instead the costs should be borne by the market and the firms."

Well, actually, no.

To start with, consider that the key move in the response above is the reference to "context," and that it was precisely the point of the last subsection to show that the "context" can be flipped around readily to make the same cost seem like a transaction cost or instead seem like a production factor cost. Consider as well that this pragmatic response is really a replay of the transaction costs *qua* operational categories and that these, as seen above, do not address the difficulty here.

But put these answers aside. There is a more telling reply to the pragmatic response. And it is this: In our information age economy, it is precisely those sorts of costs that are paradigmatically treated as transaction costs (i.e., search costs, information costs, detection costs, and enforcement costs, etc.) that are likely to appear to be production factor costs as well. Why? Because in the information age, a great deal of the productive (and non-productive) activity of firms consists precisely in the creation, maintenance, processing, filtering, and extraction of knowledge, information, knowhow, savoir faire, and so on. In this context, it will be particularly difficult to gain a pragmatic sense (let alone a theoretically cogent one) of whether a certain kind of cost ought to be characterized as a transaction cost (and thus eligible for legal subsidization). No doubt these theoretical problems help explain in part why the concept of transaction costs remains today highly contested.¹⁴¹

CONCLUSION

The life story of the Coase Theorem has been amazing. As it morphed into Chicago TCA, it became one of the main components of Chicago L&E and achieved widespread success.

But perhaps too much so. Through relentless application and rehearsal, the Coase Theorem eclipsed its argumentative entourage and obscured Coase's much more challenging and interesting critique of the neoclassical model.

^{141.} See, e.g., David M. Driesen & Shubha Ghosh, The Functions of Transaction Costs: Rethinking Transaction Cost Minimization in a World of Friction, 47 ARIZ. L. REV. 61, 68 (2005) ("[T]he literature uses inconsistent and widely varying definitions of transaction costs.").

The canonization of the Coase Theorem was a decisive turn. Once taken, that turn instituted a classic form of academic path dependence. The Coase Theorem served as a foundation—for both the champions *as well as* the critics of Chicago L&E—and the article itself was reduced to a citation, "*See* Coase, *The Problem of Social Cost, supra* note 1, at 8." Over time, we all became accustomed to thinking (despite repeated protestations from Coase) that it was one smooth glide from *The Problem of Social Cost* to *The Economic Analysis of Law.*¹⁴²

Not so.

Here I have argued that if we bracket the Coase Theorem, we find in Coase's article some profound critiques of the neoclassical model. The challenge was to revise the neoclassical model altogether, so as to better recognize the ways in which law and legal regimes help establish the *identity* and *costs* of production factors.

That did not happen.

Instead, as Chicago TCA flourished, economizing on transaction costs became the key imperative. But *what is* a transaction cost and *when* does it arise? At first, it seemed as if Chicago had an answer: search costs, collective action problems, and the like. But these are not answers. They are merely categories. Categories vamping as diagnoses—for ultimately, the identification of something as a search cost or a negotiation cost is in itself insufficient to guide policy prescriptions. We need to be concerned with whether it is worthwhile to use the law to economize these costs. Indeed, there is nothing intrinsic to something that looks like a "search cost" or a "negotiation cost," for instance, that warrants using the legal system to economize that cost. One would need a theory to support such an approach and Chicago TCA simply does not have one.

More problematically, Chicago TCA does not have a theory because it *cannot* have one: Indeed, Chicago TCA can articulate no criteria to establish when the kinds of costs characteristically described as transaction costs should be ascribed to firms, to the market, or to the law. That, in a fitting reprise (a structural replication) of Coase's reciprocity of harm argument, is because transaction costs arise from *a conjunction* of law, market, firms, products and uses.¹⁴³

^{142.} Neither Coase nor Posner likely suffer from such illusions, however. Ronald H. Coase, *Coase on Posner on Coase*, 149 J. INSTITUTIONAL & THEORETICAL ECON. 96, 96 (1993) (complaining of Posner's "highly inaccurate" account of his views).

^{143.} Schlag, *Transaction Costs, supra* note 35, at 1677–81. Here I forego the more advanced argument (it now seems obvious) that the categories of firm, market, and law are neither discrete nor distinct, but rather variably dedifferentiated. That argument follows straightforwardly from Pierre Schlag, *The Dedifferentiation Problem*, 42 CONTINENTAL PHIL. REV. 35 (2009).

This difficulty can manifest itself in acute form for Chicago L&E. Indeed, it has no theory to help discern when a cost should be counted as a transaction cost (and therefore qualify for subsidization by the legal system) and when, instead, it should be counted as a production factor cost (and left to be borne by firms or individuals.)

If the presence of such a theoretical black hole at the heart of Chicago TCA still seems somewhat surprising, then consider that this black hole helps make sense of a pattern of recently uncovered local anomalies in the basic approach. Just to give a few examples of these local anomalies, consider: the vexed recognition that, economically speaking, the imperative to reduce transaction costs in the design of property entitlements arguably overlooks that we must take into account not merely the costs of completing resource transfers, but the costs that might be involved in resisting such transfers;144 the recognition that transaction costs are sometimes functional and that minimization is, in some cases, economically undesirable;¹⁴⁵ the recent realization that technological advances (net-related technology) have so reduced transaction costs in some areas as to create new threats to valued interests such as privacy, reputation, and autonomy;¹⁴⁶ the observation that by making certain kinds of transactions easier (e.g., speculative stock trading) technological or legal reductions of transaction costs can lead to net welfare losses.147

We might have seen this coming. After all, if we reduce transaction costs for these parties over here, shouldn't we, as a general matter, immediately be on the lookout for a rise in costs (perhaps transaction costs) for parties over there? Isn't it Chicago *par excellence* who taught us this?

Let's cut to the chase: the recent articulation of these localized vexations can be seen as an economic version of the "return of the repressed"—attributable to the failure to attend to Coase's sweeping critique of neoclassical economics. Indeed, while I have focused only on Chicago TCA here, it seems that, as a general matter, without the introduction of law and legal regimes into the neoclassical economic model, Chicago L&E is without the economic theory to say much of a specific character about how

^{144.} Abraham Bell & Gideon Parchomovsky, *Of Property and Antiproperty*, 102 MICH. L. REV. 1, 5–6 (2003); Fennell, *supra* note 129, at 1477 ("[B]oth the costs of completing resource transfers and the costs of resisting them must be taken into account, along with the costs of thing-misallocations that occur when either set of costs becomes prohibitively large.").

^{145.} Driesen & Ghosh, supra note 141, at 105.

^{146.} Harry Surden, *Structural Rights in Privacy*, 60 SMU L. Rev. 1605, 1612 (2007) (noting that transaction costs sometimes inhibit unwanted conduct in ways functionally similar to legal regimes).

^{147.} Lynn A. Stout, Technology, Transactions Costs, and Investor Welfare: Is a Motley Fool Born Every Minute?, 75 WASH. U. L.Q. 791, 808–10 (1997).

to structure legal regimes.¹⁴⁸ This is particularly so, if one believes (as I do) that Chicago TCA has in effect served as a kind of unconscious frame for other kinds of Chicago L&E analyses.

So then, what should be done?

Let's start small.

It would be salutary if the classic operational transaction cost categories (e.g., search costs, valuation costs, and so on) were viewed as a kind of heuristics—occupying the same sort of modest methodological or epistemic status as the list of cognitive errors and biases compiled by behavioral law and economics. In other words, the classic categories could be treated as useful, worth thinking about, but understood to be problematic and, as a general matter, relatively indeterminate as to both domain and implications.¹⁴⁹

Second, it would be salutary as well if whenever there was an inclination to tailor legal entitlements to economize on transaction costs, we viewed it as a kind of legal subsidy to particular users and uses and ask: Why are we engaged in this subsidization? My guess is that sometimes this question will beget a pretty good practical answer. But sometimes not. And particularly not, if we also ask other questions that we should always ask (opportunity costs and all that): Who will bear the costs of this subsidy? The point here is that a modest change in terminology—from "economizing on transaction costs" to "subsidization"—might help highlight that any proposed action is not unqualifiedly welfare-enhancing.

These are very modest suggestions. They do not take care, of course, of the big difficulties described in this Article. Those difficulties can be expressed in a number of ways. A brief recapitulation might be useful here to underscore the linkages:

^{148.} This may seem like a passing, odd thing to say, given that Chicago L&E has said so much of an often highly specific character about how to structure a great variety of legal regimes. But that is no answer. The specificity of a prescription is hardly an indicator of validity. The key question is: How has this specificity been achieved? That in turn, would require a look at individual instances. Here is one general question to pose along the way: How much of the applied Chicago L&E work produced in *specific doctrinal or regulatory contexts* is actually performed by a kind of seat of the pants pragmatism or common legal sense which is then trimmed down by formalized economic categories and grammar? In short, how much of the work is in fact being done by conventional faculty workshop intuitions repackaged in a formal idiom that seems plausible to those having the intuitions? *See* David Campbell, *On What Is Valuable in Law and Economics*, 8 OTAGO L. REV. 489, 506–07 (1996) (explaining that a cogent economic approach to transaction cost analysis requires an understanding of the identity and function of these costs in social relations).

^{149.} The great limitation of behavioral economics is that, given the generous number of cognitive errors and biases (27? 35?), there are always at least three that apply in any given circumstance, plus at least two that apply to the analyst and that, of course, go unrecognized. See Richard A. Posner, Rational Choice, Behavioral Economics, and the Law, 50 STAN. L. REV. 1551, 1559–61 (1998) (noting that behavioral economics is undertheorized).

1) Coase showed convincingly that the neoclassical model is flawed insofar as it fails to take law and legal regimes into account. Chicago L&E ignored that critique and instead deployed the flawed neoclassical model (unrevised and uncorrected) to perform various economic analyses of legal regimes. But until and unless the neoclassical model *is itself* revised to take into account the economic effects and implications of law and legal regimes, it cannot be counted upon to give sound economic analyses. And, of course, it does not help to turn the neoclassical model on law (i.e., to analyze legal regimes) when the model itself remains deficient.

2) Another way of putting the point is that law and legal regimes, as Coase showed and the old institutionalists insisted, affect the identity and price of production factors. It follows that one cannot look simply at actual or conjectured market behavior as an unproblematic guidepost or ideal for the construction of legal regimes since that behavior is itself shaped by the law and legal regimes in place.

3) To put a fine point on it, if we follow Coase's deeper critique of the neoclassical model, there is a troubling circularity at the heart of Chicago L&E. On the one hand, we are to think of production factor costs as legal entitlements. On the other hand, following Chicago L&E orthodoxy, we are to construct law and legal regimes by reference to what an actual or conjectured market would have produced.

4) Chicago L&E ignored Coase's deeper critique, fastened onto the Coase Theorem and from there adopted a generalized approach aimed at economizing on transaction costs. But that approach, if it is to remain consistent with Chicago's preference for competitive markets as the coordination system of choice requires a theoretically cogent distinction between transaction costs and production factor costs. That—it does not have and cannot get. The reasons are several. First, what looks like an operational transaction cost from the perspective of one market, looks like a production factor costs are seldom attributable to law alone they most frequently arise as a function of the conjunction of law, market, firms, products, and uses.

Here these difficulties are stated separately. It should not, however, be lost on the reader that all these difficulties can be seen as expressions of the same structural problem manifesting itself in slightly different contexts or registers. That problem is what Coase adverted to repeatedly in *The Problem* of Social Cost—namely, the exclusion of law and legal regimes from the neoclassical model. $^{\rm 150}$

How might these big difficulties be addressed? Well, so far as Chicago L&E is concerned, it could try to reconceptualize factors of production in legal terms and try to fold legal regimes into the neoclassical model. The observation, offered earlier, that neoclassical economics may be incapable of doing this remains a distinct possibility. But that is neither here nor there. The intellectual need (i.e. what is required for sound analysis) does not go away simply because it cannot be fulfilled.

I realize, of course, that one way to summarize the orientation of my arguments here is to say that Chicago L&E should revise itself with a view to becoming a bit more like the old institutional economics. This, obviously, is not likely to be terribly persuasive in Hyde Park (or any of its affiliated outposts). Academics, in my experience, do not openly welcome invitations to revise the disciplinary bases of their knowledge and expertise. Still, I would make this point: I have tried here to be true to the paradigm of Chicago L&E at its best, and it is that paradigm itself that counsels revision.

^{150.} But what about Demsetz? *See supra* text accompanying notes 21–23. Isn't his position on the neoclassical model—that it not only does, but should, exclude law from its purview defensible? Certainly, it's defensible. The first part (the "does") is undeniable. As to the second part (the "should") that too is defensible, providing that one has rather restrained goals for deploying the neoclassical model. And in this regard, Demsetz's ambitions are considerably more modest than those of Coase. But so far as Chicago L&E is concerned, the disagreement between Coase and Demsetz is neither here nor there. The reason is simple: Where the goal is to try to improve the economic performance of markets writ large, then it will not do to use as one's polestar a neoclassical model that excludes ab initio one of the great determinants of that performance—to wit, law and legal regimes.