

WHY LAW, ECONOMICS, AND ORGANIZATION?

Oliver E. Williamson

*Walter A. Haas School of Business, University of California, Berkeley,
California 94720; email: owilliam@haas.berkeley.edu*

Key Words governance, transaction costs, law school teaching

■ **Abstract** This review shows that a combined law, economics, and organization theory approach leads to different and deeper understandings of the purposes served by complex contract and economic organization. The business firm for these purposes is described not in technological terms (as a production function) but in organizational terms (as an alternative mode of governance). Firm and market are thus examined comparatively with respect to their capacities to organize transactions, which differ in their complexity, so as to economize on transaction costs. The predictive theory of economic organization that results has numerous ramifications for public policy toward business and for teaching and research in the law schools.

INTRODUCTION

Whereas law and economics began as the application of economic reasoning to antitrust and regulation, it has since been expanded to bring economic analysis to bear (in varying degree) on every facet of the law school curriculum. Occasional dissents notwithstanding, law and economics is widely regarded as a success story.

I concur with this favorable assessment but would observe that economic analysis comes in more than one flavor. As between the two main branches—the science of choice and the science of contract—law and economics scholarship mainly works out of the science of choice tradition. All well and good for many purposes but not, I contend, for all. Specifically, those parts of the law and economics enterprise that are centrally concerned with issues of economic organization ought to be informed, additionally or instead, by the science of contract perspective.¹

This involves, among other things, supplanting the neoclassical theory of the firm-as-production function (which is a technological construction) with the theory of the firm-as-governance structure (which is an organizational construction). A critical concession, which many law and economics scholars are loathe to make,

¹ Areas of the law that are most in need of a more veridical theory of economic organization include antitrust, regulation, corporations, labor law, corporate governance, agency, administrative law, property, contract, secured transactions, and torts. But the science of contract branch of economics has ramifications to the law quite generally.

is that the orthodox theory of the firm was never designed with reference to (and, hence, is often poorly suited to interpret) nonstandard and unfamiliar contractual practices and organizational structures.

I begin with a brief discussion of the sciences of choice and of contract and of the differing needs of each for a theory of the firm. I then turn in the next section to what I regard as the chief lessons of organization theory for a theory of the firm-as-governance structure. The comparative contractual approach to economic organization, of which the theory of the firm-as-governance structure is a part, is then sketched in the section on Comparative Contractual Analysis. Applications to public policy analysis are set out in the next section, and the lessons of the comparative contractual approach to economic organization for the teaching of contract law are developed in the final section. Concluding remarks follow.

CONCEPTUAL FRAMEWORKS

Choice and Contract

Although orthodox economic theory, with its emphasis on scarcity and efficient resource allocation, is widely regarded as an all-purpose theory, it is more properly regarded as the “dominant paradigm” (Reder 1999, p. 43). Plainly, dominant paradigms command more respect. Often, however, their uses are much more apt for some types of problems than they are for others.

Lionel Robbins captured the emerging consensus of what economics was all about in his description of economics as “the science which studies human behavior as a relation between ends and scarce means which have alternative uses” (Robbins 1932, p. 16)—or as Reder puts it, economics deals with “the allocation of scarce resources among alternative uses for the maximization of want satisfactions” (Reder 1999, p. 43). The theory of consumer behavior and the theory of the firm are the two key building blocks upon which this science rests: The consumer seeks to maximize utility subject to a budget constraint, and the firm is a production function that transforms inputs into outputs, with efficiency realized through the choice of optimal factor proportions. All well and good for the study of supply and demand, prices and output. The economist working out of such a setup decidedly does not, however, address himself to issues of firm and market organization except in narrowly delimited ways.² The firm, for all intents and purposes, is a “black box.”

James Buchanan has declared this science of choice perspective as a “wrong turn” (Buchanan 1975, p. 225), but I put it somewhat differently. Economics

²As Ronald Coase has put it, in the Robbins conception of economics, the economist “does not interest himself in the internal arrangements within organizations but only in what happens on the market” (Coase 1992, p. 714).

became unduly preoccupied with the science of choice to the neglect of the science of contract. Rather than deal with contract and exchange, economics became the science of constrained optimization.

As perceived by Buchanan, the principal needs for a science of contract are found in the field of public finance and take the form of social ordering: “Politics is a structure of complex exchange among individuals, a structure within which persons seek to secure *collectively* their own privately defined objectives that cannot be efficiently secured through simple market exchanges” (Buchanan 1987, p. 296; emphasis added). By contrast, I see the needs for a science of contract primarily with reference to the field of industrial organization and in the context of private ordering.

Compared with the politics of collective action, private ordering is accomplished through the individual efforts of the immediate parties to an exchange. Out of awareness of the limitations of spot-market contracting and the impossibility of comprehensive contracting, the immediate parties to an exchange craft governance structures that permit them to realize mutual gains.

The role of the courts, for such a purpose, is very different from that projected under the science of choice perspective.

Firms

“Any standard economic theory, not just neoclassical, starts with the existence of firms. Usually, the firm is a point or at any rate a black box. . . . But firms are not points. They have internal structure. This internal structure must arise for some reason” (Arrow 1999, p. vii). The contrast between the science of choice and the science of contract in this respect is fundamental. As Harold Demsetz has put it, “It is a mistake to confuse the firm of economic theory with its real-world namesake. The chief mission of neoclassical economics is to understand how the price system coordinates the use of resources, not to understand the inner workings of real firms” (Demsetz 1983, p. 377). By contrast, the science of contract is expressly concerned with the attributes of firms, especially in relation to the attributes of alternative modes of governance, as these bear on the management of transactions. As against a technological view of the firm, the firm (and other modes of governance) are described as governance structures. John R. Commons’s prescient conception of economics is broadly congruent with the science of contract perspective: “[T]he ultimate unit of activity. . . must contain in itself the three principles of conflict, mutuality, and order. This unit is a transaction” (Commons 1932, p. 4). Not only does transaction cost economics (TCE) concur that the transaction is the basic unit of analysis, but it views governance as the means by which to infuse order, thereby mitigating conflict and realizing mutual gains.

As developed below, implementing the private ordering branch of the science of contract is a much more microanalytic project than is the science of choice approach to economics. Hitherto neglected attributes of both transactions and governance structures now need to be uncovered and their ramifications worked

out. In the process, a whole series of public policy differences between the choice and contract perspectives emerge.

ORGANIZATION THEORY

Organization theory is a vast field to which sociology, psychology (cognitive, social, evolutionary), aspects of political science, economics, and cultural anthropology all relate. W. Richard Scott's (1987) influential text distinguishes three main branches: rational, natural, and open systems—where the rational systems approach places primary emphasis on formal structure, the natural systems approach features informal organization, and the open systems approach examines shifting coalitions within the organization and in relation to their environment. All have a role to play in understanding complex organization. Of these three, I place primary emphasis on the contributions of rational systems theory, although provision is also made for the spontaneous forces of informal organization and the intertemporal transformations that relate thereto. Chester Barnard [1962 (1938)], Herbert Simon (1947), and March & Simon (1958) are especially prominent to the rational systems tradition. Of the many contributions that originate with this tradition, the five that I regard as most relevant to the science of contract approach to economic organization are (a) human actors, (b) adaptation, (c) intertemporal transformations, (d) choice of the unit of analysis, and (e) discrete structural features.³

If, as I contend, organization theory is important to the study of economic organization in these five and other respects, the puzzle is why organization theory has not been more fully incorporated within economics. The chief reasons, I think, are these: (a) organization theory has less relevance to the science of choice than to the science of contract, and most economists have been content to work out of the “dominant paradigm”; (b) organization theorists mainly deliver a negative message (the science of choice is wrongheaded) rather than relate to the opportunities opened up by the incipient science of contract; and (c) leaders of the law and economics movement, such as Richard Posner, who were votaries of orthodoxy, were dismissive of organization theory: “[O]rganization theory. . . [adds] nothing to. . . economics that the literature on information costs had not added much earlier” (Posner 1993, p. 84).

Be that as it may, my sense is that a theory of economic organization that aspires to deal with real firms and, more generally, with economic organization in an uncontrived way cannot ignore or dismiss the contributions of organization theory named above—which are not the main issues with which the “literature on information costs” has been concerned (even now, to say nothing of “much earlier”).

³Other important contributions include (f) weak form selection, (g) informal organization, (h) cognitive specialization, and (i) bureaucracy.

Human Actors

Simon advised social scientists that “[n]othing is more fundamental in setting our research agenda and informing our research methods than our view of the nature of the human beings whose behavior we are studying” (Simon 1985, p. 303). The two attributes of human actors that are especially relevant to the economics of governance are cognition and self-interestedness.

Simon took early exception with the idea that human actors are supremely rational, and he proposed instead that human actors be described as boundedly rational, by which he meant that they are “intendedly rational, but only limitedly so” (Simon 1957a, p. xxiv). Human actors are thus neither nonrational nor irrational but are attempting effectively to cope.

TCE agrees that scholars’ view of the human beings whose behavior they are studying has profound ramifications for the research agenda. It also concurs that human actors are subject to bounded rationality. Rather than dwell on the lessons of bounded rationality for the science of choice (where the use of maximizing apparatus was contested), however, TCE turns to the science of contract and takes the chief lesson of bounded rationality for the study of economic organization to be that all complex contracts are unavoidably incomplete.

Contractual incompleteness by itself, however, does not a serious problem of contracting make. Governance problems are posed when incomplete contracts (to include unforeseen contingencies) are combined with opportunism. The conflicts to which Commons referred now appear, especially during contract execution and at the contract renewal interval.

Note that TCE does not dispute that most people will do what they say (and some will do more) without self-consciously asking whether the effort is justified by expected discounted net gains. But while accurate descriptions of what is going on “most of the time” are important, much of what is interesting about human behavior in general and contract in particular has reference not to routines but to exceptions. Faced with unanticipated disturbances for which an incomplete contract makes inadequate or incorrect provision (by reason of gaps, errors, and omissions), such disturbances will push the parties to an incomplete contract off of the contract curve. Strategic considerations now come into play if, rather than frailty of motive, opportunism is the operative condition.⁴ Contractual breakdowns by reason of defection from the spirit of cooperation and reliance on the letter of the contract are now in prospect.

Inefficiencies of all kinds nevertheless invite relief. Out of awareness of prospective hazards, parties to a contract have incentives to craft *ex ante* safeguards in a

⁴Interestingly, opportunism makes an appearance in the natural system treatment of sociologists. As Scott puts it, “there is frequently a disparity between. . . the professed or official goals that are announced and the actual or operative goals that can be observed to govern the activities of participants” (Scott 1987, p. 52). Whereas rational system theorists emphasize the normative structure of *ex ante* decisions, natural system theorists stress the behavioral structure of *ex post* outcomes (Scott 1987, p. 53).

cost-effective degree. Rather than postulate either myopia or omniscience, TCE assumes that human actors have the capacity for “feasible foresight,” which is a rational spirit construction. George Schultz speaks to the point as follows: “my training in economics has had a major influence on the way I think about public policy tasks, even when they have no particular relationship to economics. Our discipline makes one think ahead, ask about indirect consequences, take note of variables that may not be directly under consideration” (Schultz 1995, p. 1). But economists do not have a lock on this. As the evolutionary biologist Richard Dawkins (1976) observes, the “capacity to simulate the future in imagination. . . [saves] us from the worst consequences of the blind replicators” (p. 200). Practitioners, consultants, and public policy analysts who possess the skills for and practice the art of feasible foresight will look ahead, discern potential hazards, and fold these into the ex ante design.

Adaptation

Interestingly, both the economist Hayek (1945) and the organization theorist Barnard [1962 (1938)] are in agreement that adaptation is the central problem of economic organization. The adaptations to which they have reference, however, differ. Hayek had reference to the adaptations of autonomous economic actors who adjust spontaneously to changes in the market (mainly as signaled by changes in relative prices). By contrast, Barnard appealed to intentionality. He featured cooperative adaptation made by economic actors with the assistance of hierarchy within firms. Although adaptation of each type is important and can be studied separately, TCE is interested in markets and hierarchies (rather than markets alone, or hierarchies alone). TCE therefore deals with adaptations of both kinds (and mixtures thereof). Specifically, TCE holds that choice of contractual mode should be derived by recognizing that the adaptive needs of transactions (in autonomous and cooperative respects) vary with the attributes of transactions and that the adaptive capacities of alternative modes of governance also differ. The upshot is that efficiency gains are realized by aligning transactions with governance structures so as to effect an economizing outcome. Pushing the logic of autonomous and cooperative adaptation to completion thereby leads to a predictive theory of comparative economic organization (Williamson 1991).

Intertemporal Transformations

That internal organization has a life of its own has been evident to sociologists of organization for a long time. There is more to it, moreover, than simply being alerted to hitherto neglected regularities. Once disclosed, the ex ante organizational design ramifications of these regularities need to be worked out.

Robert Michels’ 1911 book on *Political Parties* focused on the intertemporal transformations that regularly attended democratic efforts at political organization. The most important such intertemporal transformation is summarized by the

famous Iron Law of Oligarchy: “It is [hierarchical] organization which gives birth to the dominion of the elected over the electors, of the mandatories over the mandators, of the delegates over the delegators. Who says organization, say oligarchy” (Michels 1962, p. 365). Michels traced the source of these oligarchical tendencies to “the nature of the human individual, . . . the nature of the political struggle, . . . and the nature of organization” (p. 6).

Michels, moreover, had a very farsighted view of his findings: “The sociologist should aim. . . at the dispassionate exposition of tendencies and counter-operating forces, of reasons and opposing reasons, at the display, in a word, of the warp and the woof of social life” (Michels 1962, p. 6). Unless we are alert to the intertemporal propensities of organization, we will be needlessly victimized by them: “[N]othing but a serene and frank examination of the oligarchical dangers of democracy will enable us to minimize these dangers” (Michels 1962, p. 370). Thus, although the oligarchical propensities of democratic organization may have been poorly understood by academics and some practitioners until Michels clarified the issue, the lurking hazards of oligarchy should no longer come as a surprise. Today’s organizational designers presumably take the Iron Law of Oligarchy into account in the initial design calculus.

Selznick characterized “Michels’ theory about democratic organization. . . as a *special case* of the general recalcitrance of the human tools of action. The tendency for goals to be subverted through the creation of new centers of interest and motivation *inheres in all organizations*” (Selznick 1950, p. 162; emphasis added). The study of unanticipated consequences of all kinds—of which oligarchy is but one example—thus describes the larger research agenda.

Akin to the discussion of feasible foresight in the section on Human Actors, above, TCE responds in a three-part way. First, be alert to all the significant, unanticipated consequences and bureaucratic propensities that students of internal organization uncover. Second, take the logic to completion. For each unanticipated effect, ask from where it arises, what are the mechanisms through which it operates, what are the effects on contract and organization, and what are the ramifications for ex ante design (thereby mitigating unwanted consequences and enhancing beneficial effects). Third, upon taking a farsighted view of contract and organization, do not rely entirely on the reports by organization theorists of unanticipated consequences. Given contractual incompleteness (by reason of bounded rationality) and the possibility of defection from agreements (by reason of opportunism), practitioners of TCE look ahead to ascertain whether and when predictable contractual hazards will accrue. If and as such hazards can be projected, the governance ramifications need to be worked out. [An illustration is the Fundamental Transformation, by which a large numbers bidding competition is (sometimes) transformed into a small numbers supply relation during contract execution and at the contract renewal interval (Williamson 1985, pp. 61–63). As developed in the section on Applications to Public Policy, below, contractual safeguards and (possibly) vertical integration arise to mitigate such hazards.]

Unit of Analysis

TCE adopts the purposive perspective of John R. Commons by naming the transaction as the unit of analysis. But that is merely the first step. Naming a unit of analysis needs to be followed by providing operational content. The proponents of many would-be units of analysis never undertake this second step or founder upon reaching it.

Identifying the critical dimensions with respect to which transactions differ is facilitated by asking which attributes, among the countless ways in which transactions differ, have consequential transaction cost effects. Some transactions are simple while others are complex. What are the distinguishing features? Older style institutional economics never asked, hence never answered, this question.

The obvious place to begin is with the ideal transaction in law and economics—namely, contracts that take place between faceless economic actors, where continuity is unimportant because the identity of the parties does not matter. Then ask the question, “What attributes of transactions are responsible for the breakdown of this contractual ideal?” Relevant attributes for describing transactions between parties where identity does matter include asset specificity in its various forms (which gives rise to bilateral dependency), uncertainty (for which consciously coordinated adaptations to disturbances may be needed), and frequency (which has a bearing on the future value of preserving a continuing relation and on the incentive to incur the cost of specialized governance).

Discrete Structural

If alternative modes of organization differ in discrete structural ways, then marginal analysis can be supplanted by discrete structural analysis, which is purportedly easier to implement (Simon 1978, pp. 6–7).⁵ As a comparative contractual matter, however, the real import of the proposition that moving from one generic form of organization to another is attended by discontinuities is that alternative modes of governance have different strengths and weaknesses by reason of these discontinuities. As with the transaction, moreover, there is a need to go beyond this first step to ascertain the critical attributes with respect to which governance structures differ. The question to be asked and answered here is this: How do alternative modes of governance differ in contract implementation and enforcement respects?

One device for getting at this is to pose the puzzle of selective intervention: Can a firm replicate the market mode for all state realizations for which market procurement works well and intervene always but only when expected net gains can

⁵Because marginal analysis is actually easy to implement, economists can be thought of as analytical satisficers: They use workable apparatus that (often) is “good enough.” Also note that the use of marginal analysis and discrete structural analysis can be joined, as in Riordan & Williamson (1985), where discrete structural differences give rise to first-order effects and marginal analysis introduces second-order refinements.

be projected. If feasible, then large firms will always do as well as a collection of small firms (through replication) and will sometimes do better (by selective intervention). As I have developed elsewhere (Williamson 1985, chapter 6), such efforts are not only impossible but, if attempted, are attended by a series of unwanted effects. This is because efforts to preserve the high-powered incentives of markets within hierarchies give rise to asset dissipation losses and strategic distortions. The upshot is that the move from market to hierarchy is attended by a weakening of incentive intensity and, as a consequence, by an increase in administrative oversight and control.

A third discrete structural difference arises in contract law respects. The idea that each generic mode of governance is supported by a distinctive form of contract law can be traced to Karl Llewellyn's (1931) early distinction between contract as framework and contract as legal rules; to Ian Macneil's (1974) further distinctions among classical, neoclassical, and relational contract laws; to later treatments of private ordering (Galanter 1981, Klein & Leffler 1981); and to credible contracting (Williamson 1983, Gilson 1984).

Classical contract law of a legal rules kind applies to the ideal transaction in both law and economics, where large numbers of informed and "faceless buyers and sellers. . . [meet] for an instant to exchange standardized goods at equilibrium prices" (Ben-Porath 1980, p. 4). Such a legal rules regime gives way to contract as framework when long-term contracting with dependency relations sets in. The parties here have an interest in promoting continuity in the face of unforeseen disturbances, and hence move to a more cooperative and adaptable contracting form. Such neoclassical contracts are not, however, indefinitely elastic. When push comes to shove, the letter of the contract becomes the basis for "ultimate appeal" to the courts (Llewellyn 1931, p. 737)—wherein the written contract serves to delimit threat positions.

What then is the contract law of internal organization? As developed elsewhere (Williamson 1991), the implicit law of internal organization is that of forbearance. Thus, whereas courts routinely grant standing to interfirm disputes over prices, damages ascribed to delays, failures of quality, and the like, courts will refuse to hear disputes between one internal division and another over identical technical issues. If access to the courts is denied, hierarchy is its own court of ultimate appeal, whereupon firms have access to fiat that interfirm contracting does not.

Taken together, the lessons of organization theory for the science of contract (private ordering branch) are these:

1. All complex contracts are unavoidably incomplete (by reason of bounded rationality), and hence comprehensive contingent claims contracting is infeasible and once-and-for-all auctions (competition for the market) are often fraught with hazards.
2. Farsighted players to an incomplete contract have the incentive to look ahead, identify potential hazards, and attempt to provide *ex ante* relief for these hazards through the judicious choice of governance.

3. Adaptation is the central problem of economic organization, and autonomous and cooperative types of adaptation need to be distinguished and, as appropriate, provided for.
4. Because organizations have a life of their own, all significant intertemporal regularities need to be uncovered and the ramifications for economic organization worked out.
5. The key attributes of the transaction (which is taken to be the basic unit of analysis for the science of contract) need to be named and their ramifications worked out.
6. Because alternative modes of governance differ in discrete structural ways, the syndrome of attributes that defines each mode needs to be named and the comparative strengths and weaknesses of each generic form worked out.

The upshot is that, upon moving from the science of choice to the science of contract perspective, the contributions of organization theory for the study of economic organization come to life. The burgeoning study of the economics of organization thus holds that organizations matter (in the above-described way, as well as others) and that organizations are susceptible to analysis (especially when viewed through a comparative contractual lens in which economizing on transaction costs is featured).

COMPARATIVE CONTRACTUAL ANALYSIS

Discriminating Alignment

The discriminating alignment hypothesis out of which TCE works holds that transactions, which differ in their attributes, are aligned with governance structures, which differ in their costs and competence, so as to effect a (mainly) transaction cost economizing result. As indicated above, this requires that the attributes of both transactions and governance structures be identified and the relations between them worked out.

Going beyond the proposition that the transaction is the basic unit of analysis, TCE takes the next step and names asset specificity (in its various forms), uncertainty, and frequency as key attributes. Of these three, asset specificity is the most important and distinctive to the TCE enterprise.

As developed elsewhere, asset specificity is a measure of the degree to which the assets needed to produce a good or service can be redeployed to alternative uses and users without loss of productive value. Whereas identity is unimportant for generic goods and services, the identity of the immediate parties to an exchange are critical as asset specificity (of physical, human, site, dedicated, brand name, or temporal kinds) builds up. In that event, a bilateral dependency condition sets in and the parties are subject to opportunistic defection from the spirit of a contract

to insist on the letter where large gains are at stake. Maladaptation costs attended by costly bargaining are the result.

Put differently, contractual hazards arise when incomplete contracts that are supported by nontrivial investments in specific assets are beset by disturbances (uncertainty). Out of awareness of these hazards, parties to such contracts have incentives to take hazard-mitigating actions, such as by devising safeguards that serve to infuse order and thereby reduce conflict and realize mutual gains.

As discussed above in conjunction with discrete structural analysis, alternative modes of governance are defined as internally consistent syndromes with respect to the following attributes: incentive intensity, administrative controls, and contract law regimes. Because different modes of governance combine these attributes differently, alternative modes differ in their capacities to implement autonomous and cooperative adaptations. The details are developed elsewhere (Williamson 1991). By way of summary, the discrete structural differences by which firm and market are distinguished are

1. incentive intensity: the high-powered incentives of markets give way to low-powered incentives in firms;
2. administrative controls: compared with markets, firms are supported by a more extensive array of administrative rules and procedures, including accounting and auditing, as well as the supports of informal organization;
3. contract law: the contract law of markets is legalistic and relies on court ordering, whereas, as described above, the contract law of internal organization is that of forbearance.

Because of these differences, markets enjoy the advantage in effecting autonomous adaptations, whereas the advantage accrues to firms in effecting cooperative adaptations.

The Simple Contractual Schema

Upon adopting a comparative contractual approach to economic organization in which (a) the transaction is made the basic unit of analysis, (b) alternative modes of organization are described as governance structures to which discrete structural differences accrue, and (c) economizing on transaction costs is taken to be the main case, a very different concept of the firm and of the purposes served by nonstandard and unfamiliar contractual practices and organizational structures results. Note that the firm, in this scheme of things, is not a stand-alone concept but is examined in relation to alternative modes of governance. Always and everywhere the action resides in the microanalytics of transactions and governance structures.

Thus, assume that a firm can make or buy a component and assume further that the component can be supplied by either of two technologies. One is a general-purpose technology and the other a special-purpose technology. The special-purpose technology requires greater investment in transaction-specific durable assets and is more efficient for servicing steady-state demands. Steady-state,

however, is an analytical convenience: Most contracts are implemented under conditions of uncertainty for which adaptation to disturbances is needed. Because an incomplete contract between bilaterally dependent parties (that is, those for which continuity has value) is often silent on or makes incorrect or inadequate provision for some of these adaptations, contractual conflicts prospectively arise. Thus although mutual gains will always be realized upon costlessly restoring a position on the contract curve, each party may posture and make opportunistic representations over the division of gains. Costly delays and imperfect adaptations result.

Using h as a measure of contractual hazards, the transactions in Figure 1 that use the general-purpose technology are ones for which $h = 0$. Autonomous adaptation in a competitive market suffices because the parties are faceless. If instead transactions use the special-purpose technology, an $h > 0$ condition exists. Assets here are specialized, whence productive values would be sacrificed if $h > 0$ transactions were to be prematurely terminated. Such bilaterally dependent parties have incentives to promote continuity and safeguard investments. Cooperative adaptation thus comes to the fore.

Let s denote the magnitude of any such safeguards. An $s = 0$ condition is one in which no safeguards are provided; a decision to provide safeguards is reflected by an $s > 0$ result.

Safeguards can take either of two forms. One form is to provide interfirm contracts with added support: Penalties to deter breach are introduced, added information disclosure is provided, and specialized dispute settlement machinery (e.g., arbitration) is devised. This safeguard is the credible interfirm commitment option. A second form is to take transactions out of markets and organize them under unified ownership where hierarchy (to include fiat) is used to effect coordination.

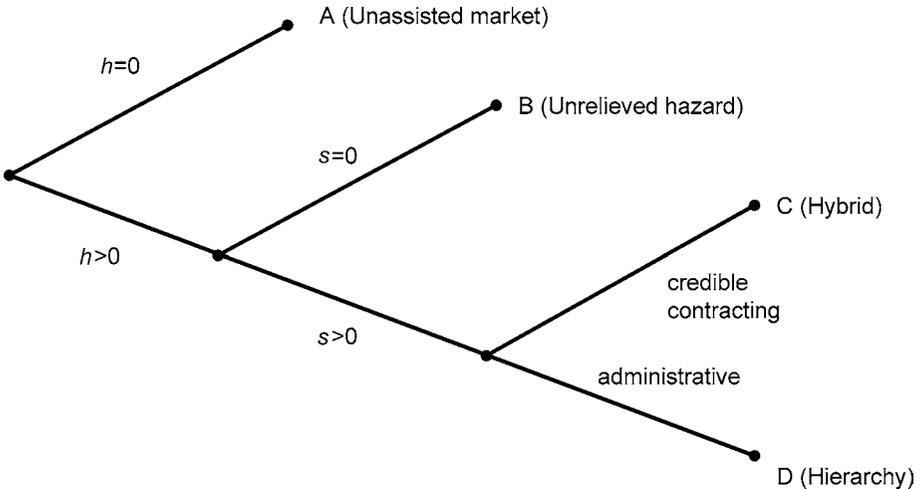


Figure 1 The simple contractual schema.

Node A corresponds to the ideal transaction in law and economics: With an absence of dependency ($h = 0$), prices are set competitively in the market (by supply and demand), and, in the event of contractual breakdown, the courts award damages. Node B poses unrelieved contractual hazards in that specialized investments are exposed ($h > 0$) for which no safeguards ($s = 0$) have been provided. Such hazards will be recognized by farsighted players, who will price out the implied risks. Nodes C and D are those for which additional contractual support has been provided ($s > 0$), either in the form of contractual safeguards (node C) or unified ownership (node D).

In the event that costly breakdowns continue in the face of best bilateral efforts to craft safeguards at node C, the transaction may be taken out of the market and organized under unified ownership (vertical integration) instead. Inasmuch, however, as added bureaucratic costs accrue upon taking a transaction out of the market and organizing it internally, internal organization is usefully thought of as the organization form of last resort: Try markets, try hybrids, and have recourse to the firm only when all else fails. Node D, the firm, thus comes in only as higher degrees of asset specificity and added uncertainty pose greater needs for cooperative adaptation.

APPLICATIONS TO PUBLIC POLICY

Node A excepted, which is the ideal transaction in law and economics to which I referred previously, the neoclassical and transaction cost approaches to firm and market organization plainly differ. These differences are due to the broader conception of economic organization out of which TCE works (where alternative modes of organization are described as governance structures, to which the lessons of organization theory apply), and these differences have ramifications for public policy toward business. Neoclassical and transaction cost interpretations of nonstandard and unfamiliar contracting practices and organizational structures are compared and contrasted here. The overarching difference is this: Orthodox economics is more imperial in that it imposes a price theoretic interpretation on the phenomena in question, whereas TCE is more curious and asks the question "What's going on here?" The TCE action is in the details of transactions on the one hand and governance structures on the other, which is closer in spirit to organization theory.

Vertical Integration/Vertical Market Restraints

Orthodox explanations for integration (backward, forward, or lateral) of the firm-as-production function kind invoke considerations of technology, inefficient factor proportions that result from double-marginalization (McKenzie 1951), and/or distortions that arise from government-imposed quotas or sales taxes.

Joe Bain's treatment of thermal economies, recently repeated by Daniel Spulber (1999, p. 270), is illustrative of technological reasoning:

[T]he cases of clear economies of integration generally involve a physical or technical aspect of the processes in a single plant. A classic case is that of integrating iron-making and steel-making to effect a saving in full costs by eliminating a reheating of iron before it is fed to a steel furnace. Where integration does not have this physical or technical aspect—as it does not, for example, in integrating the production of assorted components with the assembly of those components—the case for cost savings from integration is much less clear (Bain 1968, p. 381).

As a technological matter, however, the thermal economies to which Bain and Spulber refer actually require only that the two stages be located in close proximity to one another. That the two stages be placed under unified ownership is not implied. If, therefore, economies somehow accrue to the unified ownership of these two stages (that is, the relation between the two stages is better mediated by hierarchy rather than by market), this must be due to other, possibly transactional rather than technological, reasons.

TCE thus looks behind apparent explanations (such as price discovery or thermal economies) to see if they withstand comparative institutional scrutiny. It also asks whether outside procurement poses interfirm contractual hazards for which cost-effective relief will be realized upon taking the transaction in question into the firm (added bureaucratic costs notwithstanding). Specifically, the progressive buildup of contractual complications, as discussed in conjunction with the simple contractual schema in Figure 1, is mainly what explains successive moves from ideal market to hybrid to hierarchy.

So what about vertical market restrictions? How are these to be understood? For starters, vertical market restrictions can be interpreted as a decision to remain at node C rather than move to node D. The transaction in question is one to which hazards accrue ($h > 0$) for which cost-effective safeguards are needed ($s > 0$). If most of the hazards can be relieved at node C without incurring the added bureaucratic cost burdens (weakening of incentive intensity, added administrative costs) of unified ownership, then hybrid modes, of which franchising is an example, will be employed (provided that the contractual restrictions that accrue thereto are not treated as unlawful).

Vertical market restrictions often arise in the support of brand name capital (Klein 1980), where the concern is that such capital will be devalued by subgoal pursuit among independent or quasi-independent distributors (often franchisees), with the result that the integrity of the system is placed at risk. Depending on the particulars of the transaction, customer and territorial restrictions, exclusive dealing, or other franchise restrictions may be imposed. Absent strategic purpose, for which pre-existing monopoly power is a requisite, the choice of instruments for imposing vertical restraints will be discerned by examining where and how the contractual hazards originate.

Price theoretic explanations for nonstandard modes of contracting include the efficiency benefits that purportedly accrue to price discrimination, the benefits of

efficient risk bearing in the face of differential risk aversion, and the attenuation of free-rider hazards through the use of vertical market restrictions. The allocative efficiency benefits that accrue to price discrimination in a zero transaction cost world (which can be readily displayed in price theoretic terms) are much more problematic, however, if the costs of discovering customer preferences and of preventing arbitrage are positive. Invoking risk aversion to explain contracting practices among firms, moreover, is often second order in relation to more basic concerns with contractual hazards. Finally, unspecific free-rider claims are too often used as a shibboleth. The action, always and everywhere, resides in the details.⁶

The “New Economy”

Is there really a new economy? Yes and no. On the one hand, there is nothing new under the sun: real time responsiveness, innovation, outsourcing, and predatory behavior are not novel issues. Each of these has been magnified, however, by the deployment of new information technologies, by an increasing appreciation for relational contracting, and by the races for the commercialization and control of information age and biotechnology developments. A change in kind seems to describe competition in many high technology sectors.

Orthodox microtheory bears on some of these issues, but often in limited ways. TCE makes limited yet productive contact in the following respects: (a) Express provision for cooperative adaptation is congruent with the need for real time responsiveness; (b) innovation is examined in a systems context—in which firm size, incentives, and intertemporal transformations are featured (Williamson 1975, pp. 196–207); (c) crafting credible commitments to support outsourcing and the bureaucratic advantages of outsourcing over internal procurement are both TCE themes; and (d) tests for predation that exonerate behavior directed at less efficient competitors (Posner 1976, p. 193) are too static in that they fail to make provision for contingent predation—“now it’s there, now it isn’t, depending on whether an entrant has appeared or vanished” (Williamson 1977, p. 339), which introduces intertemporal considerations.

To be sure, new economy issues pose strategic and knowledge creation challenges that go beyond TCE (Shapiro & Varian 1999). Also, concepts such as “disequilibrium contracting” (Williamson 1991) boggle the mind. That TCE is more responsive to many of the pressing needs of public policy in the new economy than is received price theory is noteworthy but scarcely grounds for complacency.

⁶Although Posner (1979) contends that “the proper lens for viewing antitrust problems is price theory” (p. 932), Alan Meese (1997) observes that, “[d]espite references by Chicagoans to ‘price theory,’ Chicago’s approach to vertical restraints has never rested upon. . . price theory. Instead, the Chicago approach to vertical restraints is an application of [NIE/TCE reasoning]” (p. 203). Also see Joskow (1991, pp. 567–57).

Regulation/Deregulation

FRANCHISE BIDDING⁷ Posner's sanguine assessment of the efficacy of franchise bidding for natural monopoly begins with the claim that to "expound the details of particular regulations and proposals. . . would serve only to obscure the basic issues" (Posner 1972, p. 98). In the imperial tradition, all of the relevant action is concentrated in the *ex ante* bidding competition for the contract. This is consonant with Posner's dismissive view of organization theory, to which I referred at the outset, and illustrates the pitfalls of doing public policy analysis heedless of process transformations. Upon going beyond *ex ante* bidding competition to include *ex post* contract implementation, the attributes of the good or service to be franchised turn out to be crucial to an informed assessment. Specifically, if the good or service is to be supplied under conditions of uncertainty and if nontrivial investments in specific assets are involved, the efficacy of franchise bidding is highly problematic. The upshot is that franchise bidding for natural monopoly is not an all-purpose but rather a conditional solution.⁸

RESTRUCTURING ELECTRICITY SUPPLY IN CALIFORNIA Efforts to promote efficiency by creating markets for electric power have been implemented in a number of countries with varying degrees of success. California is a recent example where the efforts to restructure have been incompletely worked through. Again, the imperial view (this is the law here) trumps the process view (what's going on here?). This shows up in two respects. First, "good theories" were naively expected to be implemented without making provision for the realities of the political and regulatory process. Failing to make *ex ante* provision for these realities, politics and regulation are conveniently made the *ex post* scapegoats for behaving in perverse or unanticipated ways that, in large measure, were foreseeable and should have been factored into the calculus (Williamson 1996, chapter 8). Such lapses in realpolitik aside, Paul Joskow (2000) observes that too much deference was given to the (assumed) efficacy of smoothly functioning markets and insufficient attention was given to potential investment and contractual hazards and appropriate governance responses thereto. As Joskow puts it:

⁷This subsection is elaborated in Williamson (1996, pp. 84–85).

⁸Examples in which franchise bidding for goods and services supplied under decreasing cost conditions can possibly supplant extant regulation or public ownership with expected net gains include local service airlines and, possibly, postal delivery. The winning bidder for each base plant (terminals, post office, warehouses, and so on) can be owned by the government, and other assets (planes, trucks, and the like) will have an active secondhand market. Franchise bidding is not totally lacking in merit, therefore; on the contrary, it is a very imaginative proposal. TCE maintains, however, that all contracting schemes—of which franchise bidding for natural monopoly is one—need to be examined microanalytically and assessed in a comparative institutional manner.

Many policy makers and fellow travellers have been surprised by how difficult it has been to create wholesale electricity markets. . . . Had policy makers viewed the restructuring challenge using a TCE framework, these potential problems are more likely to have been identified and mechanisms adopted *ex ante* to fix them (Joskow 2000, p. 51).

THE INSTITUTIONAL ENVIRONMENT The New Institutional Economics operates at two interrelated levels: the institutional environment (or rules of the game) and the institutions of governance (or play of the game). The study of privatizing telecommunications by Levy & Spiller (1994, 1996) examines the institutional environment (rules of the game) in five countries through a comparative contractual lens in which contractual hazards and credible contracting, or the lack thereof, are featured. This bottom-up approach reveals that the decision to privatize and the nature of privatization vary with the condition and quality of judicial independence, the division of powers between the executive and legislative branches, the competence of the regulatory bureaucracy, and contractual safeguards. Whether and how to privatize telecommunications should therefore be made conditional on these features.

Similar considerations arise in privatizing socialist economies. The “big bang” approach pays little heed to differences among industries, whereas those who are more concerned with cultivating institutions and the mechanisms of governance advise that a more gradual program be adopted in which the “easy cases” are privatized first. Because natural monopolies pose strains on deregulation and privatization alike (Arrow 2000, Williamson 2000), these are candidates to be privatized late (if at all) and then with the support of a fall-back regulatory apparatus.

Corporate Governance/Debt and Equity⁹

Price theory was long silent on the matter of corporate governance. Firms were simply assumed to maximize profits. The idea that managers might engage in subgoal pursuit that is contrary to profit maximization was inimical to the orthodox construction [although it can be and has been addressed in nearly orthodox terms by reformulating the objective function (Baumol 1959, Williamson 1964)].

TCE interprets the board of directors mainly as a security feature that arises in support of the contract for equity finance. Specifically, debt and equity are viewed not merely as alternative modes of finance, which is the law and economics construction (Easterbrook & Fischel 1986, Posner 1986), but also as alternative modes of governance. Thus, suppose that a firm is seeking cost-effective finance for the following series of projects: general-purpose mobile equipment; a general-purpose office building located in a population center; a general-purpose plant located in a manufacturing center; distribution facilities located somewhat more

⁹This subsection is based on Williamson (1996, pp. 184–85).

remotely; special-purpose equipment; market and product development expenses; and the like.

Suppose further that debt is a governance structure that works almost entirely out of rules. Specifically, assume that debt financing requires the debtor to observe the following: (a) Stipulated interest payments will be made at regular intervals; (b) the business will continuously meet certain liquidity tests; (c) sinking funds will be set up and principal repaid at the loan-expiration date; and (d) in the event of default, the debt-holders will exercise preemptive claims against the assets in question. If everything goes well, interest and principal will be paid on schedule. But debt is unforgiving if things go poorly. Failure to make scheduled payments thus results in liquidation. The various debt-holders will then realize differential recovery in the degree to which the assets in question are redeployable.

Because the value of a pre-emptive claim declines as the degree of asset specificity deepens, the terms of debt financing will be adjusted adversely. Confronted with the prospect that specialized investments will be financed on adverse terms, the firm might respond by sacrificing some of the specialized investment features in favor of greater redeployability. But then a lower cost of capital comes at an added production cost. Might it be possible to relieve the trade-off by inventing a new governance structure to which suppliers of finance would attach added confidence? In the degree to which this is feasible, value-enhancing investments in specific assets could thereby be preserved.

Suppose *arguendo* that a financial instrument called equity is invented, and assume that equity has the following governance properties: (1) It bears a residual-claimant status to the firm in both earnings and asset-liquidation respects; (2) it contracts for the duration of the life of the firm; and (3) a board of directors is created and awarded to equity, a board of directors that (a) is elected by the pro rata votes of those who hold tradeable shares, (b) has the power to replace the management, (c) decides on management compensation, (d) has access to internal performance measures on a timely basis, (e) can authorize audits in depth for special follow-up purposes, (f) is apprised of important investment and operating proposals before they are implemented, and (g) in other respects bears a decision-review and monitoring relation to the firm's management (Fama & Jensen 1983).

The board of directors thus evolves as a way to reduce the cost of capital for projects that involve limited redeployability. Not only do the added controls to which equity has access have better assurance properties, but equity is more forgiving than debt. Efforts are therefore made to work things out and preserve the values of a going concern when maladaptation occurs. Thus, whereas the governance structure associated with debt is of a very market-like kind, that associated with equity is much more intrusive and is akin to administration. The correspondence to which I referred earlier between outside procurement/debt and vertical integration/equity therefore obtains. In effect, debt is the market form of finance, and equity (the administrative form) appears as contractual hazards build up. Equity is the financial instrument of last resort.

Other Variations on a Theme

TCE maintains that any issue that arises as or can be posed as a contracting problem can be examined to advantage in transaction cost economizing terms. Accordingly, the reach of transaction cost reasoning is virtually endless. I briefly sketch two additional applications here (without bothering with price theoretic explanations).

PUBLIC BUREAUS According to Douglass North, “Political markets are. . . prone to inefficiency” (North 1990, p. 365) and “high transaction cost issues gravitate to the polity” (p. 372). That is worse than a paradox. That is perverse. Bad enough that political markets are inefficient. But surely the appropriate lesson is for high transaction cost issues to flee from rather than be attracted to the polity?

Maybe, but then again, maybe not. High transaction cost issues, after all, are ones that are inherently difficult to organize. As set out in Figure 1, such transactions are ones for which node A governance (in the market) is poorly suited compared with node D governance (in the firm). If still additional contractual hazards build up, might some of these transactions be candidates for governance in the public bureau? That is precisely the argument that I advance elsewhere (Williamson 1999). Specifically, the many disabilities of the public bureau notwithstanding—very low-powered incentives, very costly administrative procedures, very protective employment relations—there are some transactions (of which foreign affairs is an example) for which the public bureau comes off best judged, as it should be, comparatively. There is a place for each generic form of organization, yet each needs to be kept in its place.

LABOR ORGANIZATION The organization of labor reflects many purposes, monopsony power and political purposes included. What about efficiency? Again, the action resides in the details. Those labor transactions that pose greater contractual hazards ($h > 0$) will benefit from governance efforts to mitigate the hazards ($s > 0$), whereas it will be less cost-effective to supply these same safeguards to generic labor (of a node A kind), which is a recurrent theme. As developed elsewhere (Williamson et al. 1975; Williamson 1985, chapter 10), the observed organization of labor tracks an efficiency rationale.

CONTRACT AND ECONOMIC ORGANIZATION

Alternative Approaches

If the contractual approach to economic organization has the reach that I ascribe to it, then the systematic application of TCE to legal education and to legal and economic research on contracting holds out considerable promise. This will entail going beyond the “sort of contract law that has flourished in American law schools: the law embodied in judicial decisions and studied by analyzing these decisions” (Rubin 1995, p. 109). What Edward Rubin (1995) recommends instead is that the

law schools (and students of contract more generally) need a “theory of contract. . . that addresses the *contracting process itself*, rather than the judicial adjudication of that process,” whereupon a “nonjudicial domain of contracting behavior” will be given prominence (p. 108, emphasis added).

In principle, law and economics could have been applied to that purpose. That project, however, took a “massive wrong turn” by the argument advanced by Posner and others that “the contract law goal [of] economic efficiency. . . [was] achieved through common-law adjudication” (Rubin 1995, p. 113). By drawing attention away from contracts and the contracting process toward judicial adjudication, “law and economics became just another tool for analyzing judicial decisions” (p. 113). Rubin is nevertheless heartened that although the “law school curriculum continues to be relatively resistant to a transactional theory of contract, . . . legal scholarship has gradually begun to shift its focus as a result of the economic and sociological analysis of transactions” (p. 114).

So what does a combined law, economics, and organizations approach to the study of contract, broadly conceived, entail? As I see it, the overarching move is to bring the lens of transaction cost economizing assiduously to bear. The examination of incomplete contracting in its entirety will be facilitated by supplanting the academic concept of contract as legal rules by that of private ordering and by inquiring into the mechanisms through which transaction cost economizing is accomplished. Interestingly, Ronald Gilson (1984) made many of these same arguments earlier in his examination of corporate finance transactions.

The Economizing Perspective

The economizing perspective holds that, subject to the remediable criterion, inefficiency invites its own demise—where inefficiency is assessed in relation to feasible alternatives (rather than a hypothetical ideal) and provision is made for implementation costs. Because joint gains will always be realized by moving from a less to a more efficient mode, provided that implementation costs do not dissipate the gains, farsighted businessmen and their lawyers will eschew inferior outcomes (such as node B in the schema). In contrast to Machiavelli’s myopic advice to “get them before they get us,” the farsighted view of contracting is to “give and receive credible commitments” (Williamson 1983, 1993b)—by providing better information and added security features that serve to infuse confidence and realize mutual gains.

Gilson’s (1984, p. 255) description of business lawyers as transaction cost engineers is very much in this spirit. He thus urges that transactions be examined not in a one-sided way but “from the perspective of *both* clients” (p. 245; emphasis in original), whence mutual gain is the object. He furthermore adopts a transaction cost economizing approach to private ordering (Gilson 1984, p. 255), including express reference to credible commitments (p. 281). Also, he views departures from the assumptions of the (ideal) capital asset pricing model—namely, common time horizon, identical expectations, no transaction costs, and costless information

(Gilson 1984, p. 252)—as grist for the TCE mill: “[T]he unreality of these [ideal] . . . assumptions is not cause for despair. Rather, it is the very failure of these assumptions to describe the real world that I find the *potential for value creation* by lawyers” (Gilson 1984, p. 253; emphasis added). The institutions of governance arise precisely on account of these disparities (Arrow 1963).

Private Ordering

THE CONCEPT Marc Galanter (1981) takes exception with the usual academic/legal centralist approach to contract in which disputes purportedly “require ‘access’ to a forum external to the original social setting of the dispute [whereby] remedies will be provided as prescribed in some body of authoritative learning and dispensed by experts who operate under the auspices of the state” (p. 1). The facts disclose otherwise: Most disputes, including many that under current rules could be brought to a court, are resolved by avoidance, self-help, and the like (p. 2). This is because in “many instances the participants can devise more satisfactory solutions to their disputes than can professionals constrained to apply general rules on the basis of limited knowledge of the dispute” (p. 4). Gilson (1984) concurs: When business lawyers play the role of transaction cost engineer well, “the courts, and formal law generally, shrink dramatically in importance” (p. 294).

CONTRACT LAWS (PLURAL) Karl Llewellyn’s (1931) earlier dissent from the legal rules approach to contract introduces the concept of contract as framework:

[T]he major importance of legal contract is to provide a framework for well-nigh every type of group organization and for well-nigh every type of passing or permanent relation between individuals and groups. . . —a framework highly adjustable, a framework which almost never accurately indicates real working relations, but which affords a rough indication around which such relations vary, an occasional guide in cases of doubt, and a norm of ultimate appeal when the relations cease in fact to work (Llewellyn 1931, pp. 736–37).

This last point is important in that the prospect of ultimate appeal to the courts serves to delimit threat positions.

Related ideas have been advanced by others, including Clyde Summers (1969) who distinguishes between “black letter law” (which bears a likeness to black box economics) and a more circumstantial approach to contract. The former employs the counterfactual “illusion that contract rules can be stated without reference to surrounding circumstances and are therefore generally applicable to all contractual relations” (p. 566).

The TCE argument that each generic mode of governance is supported by a distinctive form of contract law is broadly in this circumstantial spirit. The ideal (node A) transaction in both law and economics is that of spot markets to which identity is unimportant and legal rules apply (Macneil 1974). This legal rules approach gives way to Llewellyn’s concept of contract-as-framework as the importance of continuity builds up and incomplete long-term contracting is adopted

(node C). That in turn undergoes change when transactions are taken out of the market and organized internally (node D), where the implicit law of contract now becomes that of forbearance. As previously noted, courts routinely grant standing to firms engaged in interfirm contracting should there be disputes over prices, the damages to be ascribed to delays, failures of quality, and the like, yet courts will refuse to hear disputes between one internal division and another over identical technical issues. Access to the courts being denied, the parties must resolve their differences internally (Rubin 1995, p. 117). Accordingly, hierarchy is its own court of ultimate appeal. That firms and markets differ in their access to fiat is partly explained by these contract law differences (Williamson 1991).

Mechanisms

CORPORATE ACQUISITION TRANSACTIONS TCE subscribes to the dictum that “explanations in the social sciences should be organized around (partial) *mechanisms* rather than general *theories*” (Elster 2000, p. 75; emphasis in original). That is evident in the way by which TCE examines the canonical make-or-buy decision and of contracting more generally. It is also evident in Gilson’s (1984) examination of efforts by business lawyers to perfect the acquisition agreement in the face of “deviations” from the ideal assumptions of the capital asset pricing model:

Earnout or contingent-pricing techniques respond to the failure of the homogeneous expectations assumption; controls over operation of the seller’s business during the period in which the determinants of the contingent price are measured respond to failure of the common-time-horizon assumption; and the panopoly of representations and warranties, together with provisions for indemnification and other verification techniques, respond to the failure of the costless-information (Gilson 1984, p. 293).

CONTRACT LAW DOCTRINE A microanalytic examination of the mechanisms that arise in conjunction with contract law doctrines would also be illuminating. Ian Macneil (1974) describes the legal system’s “less than total commitment to the keeping of promises” as follows:

Contract remedies are generally among the weakest of those the legal system can deliver. But a host of doctrines and techniques lies in the way of even those remedies: impossibility, frustration, mistake, manipulative interpretation, jury discretion, consideration, illegality, duress, undue influence, unconscionability, capacity, forfeiture and penalty rules, doctrines of substantial performance, severability, bankruptcy laws, statutes of fraud, to name a few; almost any contract doctrine can and does serve to make the commitment of the legal system to promise keeping less than complete (Macneil 1974, p. 730).

The refusal by the courts to enforce stipulated damages clauses is especially puzzling. Because the parties to a contract can be presumed to know best what

contractual terms serve their interests, why should the courts refuse to enforce stipulated damages in the event of breach?

One possibility is that contract is a devious thing. Thus, although such a clause may frequently be the efficient way to settle a breach, it could also serve strategic purposes, of which induced breach is one.

The issue of contrived cancellation has been addressed by Kenneth Clarkson, Roger Miller, and Timothy Muris in their discussion of refusal of the courts to enforce stipulated damage clauses where breach has been deliberately induced (Clarkson et al. 1978, pp. 366–72). Induced breach could arise when a party intentionally withholds relevant information yet complies with the letter of the contract. Or it might involve perfunctory fulfillment of obligations where more resourceful cooperation is needed (pp. 371–72). In either case, induced breach is costly to detect and/or prove (p. 371). Transaction cost considerations are plainly operative.

Ramifications for Legal Education

Gilson (1984) advises that my observation that the legal centralism approach to contract relieves “lawyers and economists. . . of the need to examine the variety of ways by which individual parties to exchange ‘contract out of or away from’ the governance structures of the state by devising private orderings” (Williamson 1983, p. 520) is too sweeping. It should be restricted to academic lawyers and economists (Gilson 1984, p. 295). That is because “business lawyers have done an awfully good job at something the law schools did not and, for the most part, still do not teach: helping people arrange their relationships in the absence of governmental intervention: facilitating *private ordering*” (Gilson 1984, p. 303; emphasis in original). But then “why have law schools done so bad a job training business lawyers?” (p. 303). Gilson’s answer is that “There has been no theory. . . that dealt with private ordering” (p. 304) prior to the appearance of “two areas in economics—finance and transaction cost economics” (p. 305).

Twenty years later we find that the teaching of contract law has changed very little. What explains this continuing neglect?

One explanation is that mainline law and economics has remained comfortably ascendant. The relation between law and economics thus continues to be one in which textbook economic orthodoxy is the fount. The predilection to work out of a theory of the firm-as-production function setup is thus reaffirmed and the subject of organization remains disjunct. Reservations about the efficiency of common law adjudication notwithstanding, contract law teaching stays predominantly focused on legal rules and adjudication.

A second explanation is that the world of private ordering is impossibly complex. As good lawyers are quick studies, better that they learn about private ordering on the job rather than in the classroom.

The first of these arguments is a lame excuse for complacency, whereas the second overlooks the possibility that the economics of organization involves

variations on a few key themes. In that event, attention can be focused on canonical cases—of which credible interfirm contracting is one and vertical integration is another. The buzzing, blooming confusion of private ordering is thereby reduced to more manageable proportions. Because the classroom is the place to lay out the intuition, merits, and mechanisms of credible contracting (node C) and to examine the comparative strengths and weaknesses of the firm-as-governance structure (node D), to relegate the study of private ordering to on-the-job training is anachronistic.

Even, moreover, if the basic law school curriculum is unmoved by these arguments, it is noteworthy that a number of leading law schools have begun to offer an elective course on complex deals, many of them modeled after the course offered by Gilson and Victor Goldberg at Columbia Law School on “Deals: The Economic Structure of Transactions and Contracting.” If the demand for transaction cost engineers cannot be met by the law schools, the business schools could end up eating that lunch (Rubin 1995, p. 114).

CONCLUSIONS

There is growing agreement that “the objectives of firms, the reason for their existence and the manner of their decision taking. . . will require modes of analysis quite different from those which have dominated in this century” (Hahn 1991, p. 49). Not only does TCE hold that the way to think about contract and organization is to bring the purposive and farsighted lens of economizing to bear,¹⁰ but the existence and governance of firms are both the key TCE issues.

As developed herein, organization theory has massive ramifications for the TCE theory of the firm. Salient contributions from organization theory include the description of human actors in more veridical terms, the importance of intertemporal process transformations, choice of the unit of analysis, and the description of alternative modes of governance as syndromes of complementary attributes. The resulting theory of the firm differs greatly from the neoclassical (Kreps 1990, p. 96). Because “[a]ny standard theory, not just neoclassical, starts from the existence of firms” (Arrow 1999, p. vii), that is very basic.

To be sure, the proximate lessons (as advanced by organization theorists) and the ultimate lessons (as viewed from an economizing perspective) often differ—and that is consequential. But the more basic point is this: Someone needed to

¹⁰Farsighted contracting is more plausible in intermediate product market contracts than in final goods markets. Still, farsighted firms that are selling to consumers who lack the relevant expertise and foresight nevertheless can and do take steps to alleviate the hazards—through branding, warranties, guarantees, and the like. I do not mean to suggest, however, that there is never an occasion to craft additional relief (possibly with the aid of public policy) against residual hazards.

step up and offer trenchant critiques and identify relevant phenomena. Organization theorists were prepared to do that when others were complacent or held back.

The theory of the firm-as-governance structure that is sketched herein is an ongoing rather than finished construction.¹¹ Its evolving status notwithstanding, it has already served to deepen our understanding of many complex contractual and organizational phenomena and it operates as a check against overuses and misuses of orthodoxy. In that spirit, I suggest that mainstream law and economics stands to benefit by incorporating the lessons and some of the methods of law, economics, and organization—both as these bear on public policy and in relation to the law school curriculum.¹²

ACKNOWLEDGMENTS

This paper was originally prepared for the ceremony inaugurating the Program in Law and Economics at the University of Chile in August 2000. That program is a joint effort between the Faculty of Economics and Business and the Faculty of Law to “promote and develop interdisciplinary theoretical and applied research in the area.” It was subsequently presented at the opening session of the fourteenth annual conference of the International Society for New Institutional Economics in Tuebingen, Germany, at the Law and Economics Seminar at George Mason University, the Law, Economics, and Organization Seminar at the University of Southern California, and at the First Annual Symposium at the Center for Legal Dynamics of Advanced Market Societies at Kobe University. Useful questions and comments at all five sessions are gratefully acknowledged. An earlier version of this paper was published in the *Kobe University Law Review* (2004) 38:59–95.

¹¹Full formalization is the ultimate objective. The Grossman-Hart-Moore model (Hart 1995) qualifies as a fully formal model but is lacking in plausibility (Kreps 1999). The treatment of procurement by Bajari & Tadelis (2001), which focuses on the incentive and ex post adaptation differences between fixed price and cost plus contracting, is much closer in spirit to TCE.

¹²One of the comments that I have received on this review is that the basic message has not only been heard, but that it has registered and taken effect. That is gratifying, yet other readers remark that much of this is unfamiliar terrain and needs to be more fully spelled out. I come out somewhere in between. Thus, although many of the firm-as-governance structure ideas have taken hold, private ordering remains underdeveloped and organization theory is scanted by mainline law and economics—witness the leading textbooks (Cooter & Ulen 2000, Polinsky 1989, Posner 1998). Public policy inroads notwithstanding, the basic contract law course remains immune to the arguments in this paper.

**The Annual Review of Law and Social Science is online at
<http://lawsocsci.annualreviews.org>**

LITERATURE CITED

- Arrow KJ. 1963. Uncertainty and the welfare economics of medical care. *Am. Econ. Rev.* 53(December):941–73
- Arrow KJ. 1999. Forward. In *Firms, Markets, and Hierarchies*, ed. G Carroll, D Teece, pp. vii–viii. New York: Oxford Univ. Press
- Arrow KJ. 2000. Economic transition: speed and scope. *J. Inst. Theor. Econ.* 156(March): 9–18
- Bain J. 1968. *Industrial Organization*. New York: Wiley. 2nd ed.
- Bajari P, Tadelis S. 2001. Incentives versus transaction costs: a theory of procurement contracts. *RAND J. Econ.* 32(3):387–407
- Barnard C. 1962 (1938). *The Functions of the Executive*. Cambridge: Harvard Univ. Press
- Baumol WJ. 1959. *Business Behavior, Value and Growth*. New York: Macmillan
- Ben-Porath Y. 1980. The F-connection: family, friends, and firms and the organization of exchange. *Popul. Dev. Rev.* 6:1–30
- Buchanan JM. 1975. A contractarian paradigm for applying economic theory. *Am. Econ. Rev.* 65(2):225–30
- Buchanan JM. 1987. The constitution of economic policy. *Am. Econ. Rev.* 77(3):243–50
- Clarkson KW, Miller RL, Muris TJ. 1978. Liquidated damages v. penalties. *Wis. Law Rev.* 1978:351–90
- Coase RH. 1992. The institutional structure of production. *Am. Econ. Rev.* 82(September): 713–19
- Commons JR. 1932. The problem of correlating law, economics, and ethics. *Wis. Law Rev.* 8:3–26
- Cooter R, Ulen T. 2000. *Law and Economics*. Reading, MA: Addison-Wesley. 3rd ed.
- Dawkins R. 1976. *The Selfish Gene*. New York: Oxford Univ. Press
- Demsetz H. 1983. The structure of ownership and the theory of the firm/comment. *J. Law Econ.* 26(June):375–93
- Easterbrook F, Fischel D. 1986. Close corporations and agency costs. *Stanford Law Rev.* 38(January):271–301
- Elster J. 2000. Arguing and bargaining in two constituent assemblies. *Univ. Penn. J. Const. Law* 2:345
- Fama EF, Jensen MC. 1983. Separation of ownership and control. *J. Law Econ.* 26 (June):301–26
- Galanter M. 1981. Justice in many rooms: courts, private ordering, and indigenous law. *J. Leg. Plur.* 19:1–47
- Gilson R. 1984. Value creation by business lawyers: legal skills and asset pricing. *Yale Law J.* 94(December):239–313
- Hahn F. 1991. The next hundred years. *Econ. J.* 101(January):47–50
- Hart O. 1995. *Firms, Contracts, and Financial Structure*. New York: Oxford Univ. Press
- Hayek F. 1945. The use of knowledge in society. *Am. Econ. Rev.* 35(September):519–30
- Joskow P. 1991. The role of transaction cost economics in antitrust and public utility regulatory policies. *J. Law Econ. Org.* 7(Special Issue):53–83
- Joskow PL. 2000. *Transaction cost economics and competition policy*. Work. Pap., MIT
- Klein B. 1980. Transaction cost determinants of ‘unfair’ contractual arrangements. *Am. Econ. Rev.* 70(May):356–62
- Klein B, Leffler K. 1981. The role of market forces in assuring contractual performance. *J. Polit. Econ.* 89(May):615–41
- Kreps DM. 1990. Corporate culture and economic theory. In *Perspectives on Positive Political Economy*, ed. J Alt, K Shepsle, pp. 90–143. New York: Cambridge Univ. Press
- Kreps DM. 1999. Markets and hierarchies and (mathematical) economic theory. In *Firms, Markets, and Hierarchies*, ed. G Carroll, D Teece, pp. 121–55. New York: Oxford Univ. Press

- Levy B, Spiller P. 1994. The institutional foundations of regulatory commitment: a comparative analysis of telecommunications regulation. *J. Law Econ. Org.* 10(October):201–46
- Levy B, Spiller P. 1996. *Regulations, Institutions, and Commitment: Comparative Studies of Telecommunications*. Cambridge, UK: Cambridge Univ. Press
- Llewellyn KN. 1931. What price contract? An essay in perspective. *Yale Law J.* 40:704–51
- Macneil IR. 1974. The many futures of contracts. *South. Calif. Law Rev.* 47(May):691–816
- March JG, Simon HA. 1958. *Organizations*. New York: Wiley
- McKenzie L. 1951. Ideal output and the interdependence of firms. *Econ. J.* 61(December):785–803
- Meese AJ. 1997. Price theory and vertical restraints: a misunderstood relation. *UCLA Law Rev.* 45(October):143–204
- Michels R. 1962. *Political Parties*. Glencoe, IL: Free
- North D. 1990. A transaction cost theory of politics. *J. Theor. Polit.* 2(4):355–67
- Polinsky AM. 1989. *An Introduction to Law and Economics*. Boston: Little, Brown. 2nd ed.
- Posner RA. 1972. The appropriate scope of regulation in the cable television industry. *Bell J. Econ. Manag. Sci.* 3(1):98–129
- Posner RA. 1976. *Antitrust Law*. Chicago: Univ. Chicago Press
- Posner RA. 1979. The Chicago School of antitrust analysis. *Univ. Penn. Law Rev.* 127(April):925–48
- Posner RA. 1986. *Economic Analysis of Law*. Boston: Little, Brown. 3rd ed.
- Posner RA. 1993. The new institutional economics meets law and economics. *J. Inst. Theor. Econ.* 149(March):73–87
- Posner RA. 1998. *Economic Analysis of Law*. New York: Aspen Law & Business. 5th ed.
- Rabin M. 1998. Psychology and economics. *J. Econ. Lit.* 36(March):11–46
- Reder M. 1999. *The Culture of a Controversial Science*. Chicago: Univ. Chicago Press
- Riordan M, Williamson O. 1985. Asset specificity and economic organization. *Int. J. Ind. Org.* 3:365–78
- Robbins L. 1932. *Essay on the Nature and Significance of Economic Science*. London: Macmillan
- Rubin E. 1995. The non-judicial life of contract: beyond the shadow of the law. *Northwestern Univ. Law Rev.* 90(Fall):107–31
- Schultz G. 1995. Economics in action: ideas, institutions, policies. *Am. Econ. Rev. Papers Proc.* 85(May):1–8
- Scott WR. 1987. *Organizations: Rational, Natural, and Open Systems*. Upper Saddle River, NJ: Prentice Hall
- Selznick P. 1950. The iron law of bureaucracy. *Modern Rev.* 3:157–65
- Shapiro C, Varian HR. 1999. *Information Rules: A Strategic Guide to the Network Economy*. Boston, MA: Harvard Bus. Sch.
- Simon H. 1947. *Administrative Behavior*. New York: Macmillan
- Simon H. 1957a. *Administrative Behavior*. New York: Macmillan. 2nd ed.
- Simon H. 1957b. *Models of Man*. New York: Wiley
- Simon H. 1978. Rationality as process and as product of thought. *Am. Econ. Rev.* 68(May):1–16
- Simon H. 1985. Human nature in politics: the dialogue of psychology with political science. *Am. Polit. Sci. Rev.* 79:293–304
- Spulber D. 1999. *Market Microstructure: Intermediaries and the Theory of the Firm*. Cambridge, UK: Cambridge Univ. Press
- Summers C. 1969. Collective agreements and the law of contracts. *Yale Law J.* 78(March):537–75
- Williamson OE. 1964. *The Economics of Discretionary Behavior: Managerial Objectives in a Theory of the Firm*. Englewood Cliffs, NJ: Prentice-Hall
- Williamson OE. 1975. *Markets and Hierarchies: Analysis and Antitrust Implications*. New York: Free
- Williamson OE. 1977. Predatory pricing: a strategic and welfare analysis. *Yale Law J.* 87(December):284–340

- Williamson OE. 1983. Credible commitments: using hostages to support exchange. *Am. Econ. Rev.* 73 (September):519–40
- Williamson OE. 1985. *The Economic Institutions of Capitalism*. New York: Free
- Williamson OE. 1991. Comparative economic organization: the analysis of discrete structural alternatives. *Admin. Sci. Q.* 36(June): 269–96
- Williamson OE. 1993b. Calculativeness, trust, and economic organization. *J. Law Econ.* 36(April):453–86
- Williamson OE. 1996. *The Mechanisms of Governance*. New York: Oxford Univ. Press
- Williamson OE. 1999. Public and private bureaucracies. *J. Law Econ. Org.* 15(April): 306–42
- Williamson OE. 2000. *Empirical Microeconomics: Another Perspective*. Work. Pap., Inst. Manag. Innov. Org., Univ. Calif., Berkeley
- Williamson OE, Wachter ML, Harris JE. 1975. Understanding the employment relation: the analysis of idiosyncratic exchange. *Bell J. Econ.* 6(Spring):250–80