

Institutions and Land-Use Conflicts: Harm, Dispute Processing, and Transactions

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Land-use conflicts arise from clashing beliefs about the social role of land and the ends to which land shall be put. These conflicts are then situated in socially constructed contexts, such as growth management, farmland preservation, tax assessment, and nuisance. For instance, farmers at the urban fringe view conflicts in terms of urban sprawl, development restrictions, and differential tax treatment; western ranchers challenge federal grazing restrictions on public land; urban property owners object to zoning and historical site designations; and developers see conflicts as jurisdictional disputes and struggles over impact fees. One senses that these conflicts share essential attributes beyond the obvious connection to the use of land, but analytically useful characteristics remain elusive and the scholarly debate has not begun to approach consensus. The principal claim in this paper is that each dispute, from any of the assorted categories of land-use conflicts, may be reframed as an analytically analogous series of economic transactions, referred to as land-use transactions.

The analysis of disputes is frequently framed as a struggle between private property owners and government. This also is thought to inform differing perceptions of freedom as opposed to “oppressive” government. As such, a land-use conflict is perceived to be a zero-sum game at best and a purposeful, ideological crusade over fundamental moral beliefs at worst. This framing of the issues at hand, together with the special place of land in the American psyche, usually leads to an emotional battle that obscures the central issues at stake and precludes appropriate dispute processing.

Framing conflicts as a landowner versus the government is wrong on at least two counts. Disputes involve conflicting claims about what institutions should be in place

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rather than disputes about whether it is justified for the government to take something from a private party. If the relevant institutions already existed—and private property rights thus were duly assigned—then there would be no conflict beyond one of enforcement. This paper seeks to clarify this distinction by more carefully defining the harm in actual conflicts (rather than enforcement conflicts) and then studying the processing of disputes about such harms. Second, private-property-owner-versus-government framing also fails to recognize that the true conflict exists between among landowners rather than government versus a single party. The government's role in restraining one party liberates others. Once again, at a most basic level, land-use conflicts are about assigning rights through institutions.

The inappropriate framing of land-use conflicts lies at the root of much lingering incoherence in American land policy. Far too frequently, disputes are assessed topically, so that a wetlands conflict is analyzed as if distinct from a farmland preservation conflict. Rather than regard such conflicts within their usual contexts—zoning, regulatory takings, urban sprawl—it is more useful to view land-use conflicts as a metaphor for an underlying problem: the actions of one landowner hold perceived implications for others who may be, but need not be, owners of nearby parcels of land. In essence, this land-use “externality” captures the problem of cost being borne beyond the nominal boundary of the decision-making unit responsible for the actions under scrutiny. There is a divergence between costs borne privately and costs borne socially. In other words, the domain of unwanted implications transcends the socially legitimate domain of choice (Bromley 1989, 1991).

Unfortunately, the traditional economic explanations obscure as much as they reveal. This may be seen in their failure to offer resolution programs that adequately address the political side of land-use conflicts. For instance, the Pigovian solution does not consider political concerns and instead proposes that the land-use externality must always be resolved by altering “polluter,” rather than “victim,” behavior. In contrast, the Coasean solution may be taken to mean that the political dimension is irrelevant, for, in a world of zero transaction costs, it does not matter who gets the right since costless trading results in the maximization of total economic value. Although the two solutions result in resource allocation efficiency subject to the prevailing institutional structure and several weighty assumptions, both views stumble methodologically by disregarding the strategic behavioral incentives faced by actual and potential disputants, i.e., the endogeneity of institutional choice. At the same time, the Pigovian and Coasean views take inflexible normative stances toward harm in land use that appear naively incomplete in political debates. Because the real world is not one of zero transaction costs and because effective policy must address the behavior of all disputants, it matters very much who gets the rights. This is why land-use conflicts are pervasive, persistent, and protracted.

The objective of this research is to enhance the clarity of the social thought process about land use by offering a new framework for the analysis of conflict resolution and to show that many conflicts incorrectly seem intractable because of a misplaced, and persis-

tent, focus on single-resolution processes. The problem of land-use conflict resolution is addressed in three sections. The first section provides an intellectual context by deriving a working definition of harm in land use from perspectives in the economic, legal, and philosophical literatures. Harm will then be limited to an institutionally based definition, thereby minimizing judgments about what harm should or should not be. The second section reviews the institutions of dispute processing by identifying the five major types of resolution processes and previous work assessing their performance. Drawing heavily on the work of John R. Commons (1931, 1990, 1995), the third section covers the theoretical ground necessary to reframe land-use conflicts as economic transactions. Analogies are applied so that a nonmarket land-use transaction has the constituent elements of the market transaction. Buyers, sellers, prices, and stakes are derived in terms that conform to economic theory. A statement about the path dependence of dispute processing is used to synthesize the results of the three sections.

Harm in Land Use

“Social life inevitably leads to harm to individuals,” wrote Derek Roebuck (1990, 81). A. Allan Schmid (1987, chapter 1) echoed this sentiment by noting the ubiquity of externalities. Indeed, it is such ubiquity that makes harm—broadly construed—a poorly chosen candidate for a tool by which to construct an inquiry.¹ Harm in land use must be operationalized, and the way in which this is done involves important normative judgments that not only give meaning to the analytical tool but also reveal its fundamental limitations.

Schmid (1987) derived analytical conclusions about harm by assessing institutional performance given human interdependence and power. Accordingly, the ways in which society processes conflicts answer questions about what is efficient and “whose interests count”; at the same time, many optima were possible and all of these varied in terms of their distributional impacts and their power implications (p. 4 and chap. 11). In this paper, normative judgments are minimized and existing institutional definitions of harm are taken as given. Thus, the analytical task is to develop accurate explanatory models. This section first reviews endogenous and exogenous definitions of harm and then positions harm in a presumptive rights context.

Defining Harm in Land Use

Endogenous harm is defined by a set of evaluative criteria, which catalogs actionable harms ad hoc. For every instance of harm that crosses a moral threshold of acceptability, endogenous harm requires that institutions be established to protect the winners and to restrain the losers. This rule may be restated as:

$$\text{Moral Precepts} \Rightarrow \text{Harm} \Rightarrow \text{Institutions.} \quad (1)$$

Hence, identifying harms under rule 1 requires a political determination of what actions are harmful. Although this task continually evolves with social norms, endogenous harms may share several of the following characteristics: (1) frequency; (2) intensity; (3) aborted steps toward resolution because of high costs in transacting, lobbying, or litigating; (4) socially expensive resolutions of petty conflicts; and (5) certain parties consistently bearing unequal social burdens. The neoclassical-economic approach to harm is a special case of this first approach. Specifically, when efficiency is the only moral precept, then harm becomes any action by Alpha that lowers Beta's utility.

Identifying exogenous harm requires only that the investigator examine prevailing institutions, which reveal what harms are expressly proscribed. The analytical task therefore becomes a search for an optimal set of rules—based upon a set of moral precepts about what makes rules optimal—to protect winners and restrain losers. The second rule is:

Moral Precepts \Rightarrow Institutions \Rightarrow Harm. (2)

Under rule 2, data collection requires the identification and explanation of conflicts in which an institution proscribes a behavior. For instance, state legislatures might prohibit or limit the development potential of wetlands, thereby identifying land-use harm in behaviors that destroy the ecological capacity of wetlands. Exogenous harm allows the course of history to reveal the moral precepts that define the institutions to identify the harm. Analytically, institutional performance is judged by how effectively the institutions restrain harmful behavior.

Harm in Presumptive Rights Regimes

This subsection clarifies the rights structure from which exogenous harm emerges—presumptive rights regimes. In presumptive rights regimes, harm arises from a conflict of interests, whereby disputing parties make claims for society to protect their interest as a right and formalize their opponent's interest as a duty. Institutions order social relations and thus define, among other things, what Alpha may legitimately do to Beta (Schmid 1995; Bromley 1989, chap. 3). What Alpha may and may not do is constrained and liberated by institutions, while socially sanctioned resolution processes provide procedures for institutional change (Bromley 1989, 43). Therefore, the legal literature's "comparative institutional analysis"—as used by, say, Neil Komesar (1994)—is more correctly termed "comparative dispute processing analysis." The analysis requires one to compare the success of differently situated parties, distinguished by their interests, in obtaining desired rules at the various resolution processes in terms of means or consequence.

Harm in this study arises in a presumptive state. This means that the prevailing rights structure is informal; two parties have an interest, but not a right, at stake and this interest is the channel through which the harm is transmitted. Wesley Hohfeld (1963)

revealed that misunderstandings in the legal relations among people arise from misapplications of the terms “right” and “duty” to situations in which legal relations are actually informal. Hohfeld derived a set of eight terms to describe the role of parties vis-à-vis one another (see also Bromley 1989, chap. 3; 1991, chap. 2; Commons 1995, chap. 4). The four terms describing the static jural correlates are reviewed here.

The formal correlates are a right and duty, wherein collective action may be brought to defend the right-holder’s access to, and to enforce the duty-bearer’s respect of, a benefit stream. The informal correlates are a privilege and no right, wherein the privileged party may—and the party without right may not—access a benefit stream. For example, in the absence of state and federal regulations for the protection of wetlands, a developer enjoys the privilege of filling wetlands as needed for development. When a developer acts upon this privilege, there are parties with interests in unfilled wetlands who suffer but who also have no right to prevent the developer from acting. Informal—or presumptive—rights regimes, however, may be formalized if one party brings collective action, typically through the state, to protect one’s claim as a right. In this formalization process within land use, parties compete at one of the resolution processes. Resolution processes render decisions, the outcomes of which formalize each winning party’s interest into a right and each losing party’s interest into a duty. For example, the presumptive rights regime in which wetlands could be filled with impunity is formalized by the Clean Water Act. By the late 1970s, developers had a duty to secure a Section 404 permit from the U.S. Army Corps of Engineers before filling wetlands, and the right to have controlled filling of wetlands is gained by the general public.

The land-use transaction reframing method offered in the third section requires that any conflict be traced back to its origins in a presumptive state. Indeed, conflicts persist from presumptive rights until all appeals are exhausted and fully formal rights prevail. Making this distinction requires that an intermediate-rights regime—appellate-rights—be defined between the static correlates that comprise presumptive and formal rights. Simply, the jural correlates in the appellate-rights regime are appellant and appellee. As disputes are processed, parties gain conditional rights, which become formal only if the losing party does not appeal. Once the right is solidified, it means that all parties agree, or are forced to accept, that Alpha is the right holder and Beta is the duty bearer.

A second requirement for the land-use transaction method is that relevant harms exist only in presumptive or appellate rights regimes. This excludes socially sanctioned harms, which are beyond the scope of this method. Daniel Hausman (1986) offered a classification scheme for three overlapping harms considered by philosophers: utility lowering, option limiting, and rights violating. Option-limiting harms involve Alpha’s action limiting Beta’s choice set. For example, Alpha may buy one of the last three houses in a new urban development thereby limiting Beta’s choice set to the two remaining houses or a house outside the development. Such harm does not violate a right of Beta and does not directly lower Beta’s utility unless Beta is considering buying a house

in this neighborhood. Option-limiting harm, therefore, is relevant to this study only if it coincides with the lowering of utility.

A departure from neoclassical externality theory occurs when utility-lowering harms, which are not right violating, are distinguished from those that are. Consider a regime of fully formalized rights. The only resolution process available to the duty bearer is the market.² As such, any right-violating harm merely involves enforcement, bringing collective action to bear on the harming party. Most of the right-violating harms are likely utility lowering, but there are many utility-lowering harms that are not right violating—such harms occur in a presumptive rights or appellate rights regime. So the developer who chooses how many acres of wetlands to fill harms the victims all the same, regardless if the developer has a right or a privilege to fill. This study, nevertheless, is only interested in wetlands filled by privilege, because wetlands filled by right are socially sanctioned. Note that the neoclassical externality construct does not recognize the distinction made here, treating all utility-lowering harms without regard for whether or not rights have been violated.

Third, the land-use transaction method maintains the distinction made elsewhere between the harm that is associated with a private good and that with a collective consumption good. Because of rivalry, parties in collective institutional arrangements harm one another with each unit of the resource consumed.³ This harm, which economists also discuss in terms of externalities, is of a different moral and institutional nature from the harm studied here. In fact, the implicit social sanctioning of the access rules to collective consumption goods may preclude its inclusion in this study simply because it may represent a formalized harm.

From Harm to Rights and Duties

This paper focuses on instances of harm which are revealed through their proscription by institutions. These harms may then be traced back to their origins in a presumptive rights regime through an appellate rights regime. Formal-rights regimes are not studied because the harm has been socially sanctioned. In addition, this paper addresses only harms that are utility lowering—but not right violating—and are not reciprocal—as seen in the collective consumption good context.

This is the fundamental economic problem that drives land-use conflicts. With scarcity and interdependencies, two parties with unaligned interests become disputants. In land-use conflicts, the party preferring the lower intensity use of land is disadvantaged in presumptive rights regimes. This disadvantage, in turn, manifests as a harm, which societal processes may resolve. The five main types of resolution processes that formalize this harm in a presumptive rights regime are described and assessed in the next section. However, one should recognize that this seemingly obvious perspective on harm is actually a startling departure from orthodox economic theory. Externalities of interest are no longer ubiquitous; they require scarcity, conflicting interests, and presumptive rights regimes. By severing many “harms” from the concept of externality, this

paper will be able to use the resolution processes in the second section to build a coherent theory of dispute processing in the third section.

Conceptualizing Resolution Processes

Land-use conflict resolution processes are social responses to conflicting interests, which engender different behavioral incentives and which employ various resolution rules. Judicial processes, for instance, often require substantial up-front investment in legal representation, which must be paid regardless of the strength of one's claim. Certain circumstances may further exacerbate unequal distributions of endowments and constraints among disputants, which means that disputants may not be similarly situated in all processes. At a rudimentary level, resolution rules embody the values that each process encourages and this section focuses on the way rules, which guide decision making, vary across processes. Following previous work, the resolution processes are divided into four generally recognized arenas of conflict: market, legislative, quasi-judicial, and judicial.⁴ This section also derives a fifth arena, the quasi-market, to represent the rather unique instances of bargaining in land use when one of the parties is a government body.

Market Resolution

Imperfections in the market for interests in land severely limit the practical use of bargaining as a means to address the harm in land use.⁵ There exist no formal rights in presumptive rights regimes, and Schmid (1999) persuasively argued that rights must precede markets. Nevertheless, much of the neoclassical economic literature on externalities assumes or advocates that such conflicts be resolved by assigning rights. For this reason, market resolution is reviewed. More importantly, many land-use conflicts are characterized by failed market resolution, i.e., externalities. Thus, it is important to review the circumstances giving rise to markets in land-use interests.

General market imperfections arise from two sources, which correspond to the assumptions in the Coase theorem. First, markets fail to resolve conflicts because rights are not fully specified.⁶ Both disputing parties want to be the seller, but there is no way to gain consensus as to which party plays the social role of buyer and which plays the social role of seller. Svetozar Pejovich (1998, 11) claimed that presumptive rights alone preclude bargaining. Second, market operation is impeded by transaction costs. Carl Dahlman (1979) argued that all true transaction costs reduce to information costs. In the extreme, impediments to land-use conflict resolution in the market such as free riding, holdouts, asymmetric information, contracting costs, and enforcement costs are condensed to a simple truism with little analytical bite: transaction costs preclude bargaining.⁷

These costs interact with and arise from the resolution rules that the market uses to address the harm in land use. The market is a decentralized resolution process that allows parties, voluntarily, to construct their own outcome based on their preferences and the prevailing institutional arrangements that socially define scarcity and permissible transactions. At least when compared with the centralized resolution processes, the market allows the parties to the conflict to define an outcome that ought to be a “win-win” situation—of course, this does not ensure that parties who are not involved in the transaction also “win.” Further complicating market outcomes is the fact that even parties to the transaction are not assured of a fair outcome—distributional inequities may arise in inefficient and efficient market transactions.⁸ Markets can generate efficiency but not necessarily fairness. In this context, winning is a consequence with both strict welfare implications and broader implications. Amartya Sen (1993), for instance, has raised concerns about the competitive market’s ability to ensure substantive freedoms, or opportunities to achieve. Such complications are exacerbated by the imperfect characteristics of the market for land interests.

If rights are established, economists have much to say about the successful market transaction and justify bargaining for its efficiency properties. Despite complications in comprehensively modeling this efficiency loss—for instance, efficiency results from general equilibrium theory do not hold in the presence of externalities—economists continue to employ the externality construct because of its intuitive and methodological appeal in capturing the efficiency losses of harm (Baumol and Oates 1988, 9; Bromley 1991). Although it may be a stylized fact, one might say that economists treat the inefficiencies in the land-use externality as potentially being “resolved” through some type of internalization or bargaining. As such, most of the modern neoclassical-, institutional-, and neoinstitutional-economic treatments advocating the use of markets to confront the land-use externality stem from A. Pigou’s (1932, chapter 9) idea of internalizing the inefficiency or Ronald Coase’s (1937, 1960) work on bargaining, transaction costs, and institutions. The Pigovian solution is to bring the marginal private cost of behavior into line with its marginal social costs through taxes or subsidies. The Pigovian tax has methodological appeal but makes the aforementioned strict normative judgment about responsibility for causing conflict. The Coase theorem shows that if rights are well defined and transaction costs are negligible, then an efficient distribution of resources occurs regardless of the allocation of rights. The Coase theorem ought to be used to recognize the important role of transaction costs in conflict resolution. In rare cases, a Coasean bargain can have the practical effect of converting a privilege, by a transaction between two parties, into a right.⁹ One way in which this occurs is if there is some statutory intervention in the market, such as grandfathering, which dictates that privileged behavior becomes a right if exercised during a specified period of time. It is going too far, however, to argue that the Coase theorem justifies dismissing all nonmarket resolution processes as inefficient rent seeking, as the “hyper-Coaseans” do.¹⁰ Rather, as Daniel Bromley (1989, chapter 5) pointed out, efficiency is merely a function of the prevailing institutional arrangement.

Other types of market transactions do not require rights. Nonactivation occurs when the potential exists for an externality but costs are not shifted. Nonactivation is a successful market transaction because both parties had the opportunity to act on the harm but found that the private costs of activity exceed the private benefits. The option of future activity remains, however. This successful transaction is distinguished from an unsuccessful transaction: the externality. Another important market resolution method uses informal norms. Robert Ellickson's (1991) argument, in the case of land use, is that informal agreements between parties are powerful deterrents to conflicts and may be so strong that they are binding even when they run counter to existing law.

What resolution rules govern these successful and unsuccessful market transactions and what are the implications of these rules? The complications found in the imperfect market for land interests all stem from imperfect information: the parties are not able to decide whom the buyer is and whom the seller is. If a potential buying party consists of many people, free riding and organizational costs may preclude bargaining. If there are few sellers—which is likely with the uniqueness and fixed supply of land—then imperfect competition may preclude efficient bargaining. Bargaining may also be precluded if information about the interest is expensive to obtain, contracts are costly to develop, and enforcement is too expensive. Parties may have unequal bargaining power, as when wealth distribution is skewed, when one party is more sophisticated, or in the case of asymmetric information. The reasons for not bargaining also include moral preclusion and strategic preclusion. Moral preclusion occurs when one party believes that it is unfair, or otherwise morally objectionable, to bargain with the other party. Many would object, for instance, to paying a paper mill to stop dumping effluents in a river even if their own welfare would be enhanced in consequence. Strategic preclusion occurs when one party would willingly participate in a market transaction, except that it is less expensive, in expectation, to seek a right by a nonmarket resolution process.

Unsuccessful transactions represent categorical resolution since the party that shifts costs always wins. Presumptive rights regimes are biased toward the privileged party because that party makes a privately beneficial decision—whether or not to shift cost—even though the decision negatively affects other parties. The resolution rule, therefore, is a private calculation of net benefit. The resolution rule for the party with no right is some form of self-protection if costs are shifted. For example, one may avoid looking at the blight of a neighbor's littered yard by building a tall fence. Averting expenditures such as these are one of the ways in which parties with no right may confront the action of the privileged party if bargaining fails or is not attempted.

Quasi-Market Resolution

Unlike the market process in which conflicting claims are made in a presumptive rights regime, the quasi-market process may be reached only if there has been prior regulation, or zoning. As such, the quasi-market process resolves conflicts in a regime of appellate rights. Because the government's role in quasi-market transactions is one of

superior and because it is a formal resolution process, quasi-market transactions are rationing transactions. Yet, unlike many other rationing transactions, quasi-market resolution processes have some, but not all, of the characteristics of bargaining. For instance, the bargaining transaction involves two parties voluntarily reaching agreement on a contract. Each party to this conflict shares in the benefits and burdens of the transactions, and yet the successful, voluntary outcome indicates that both parties ought to be better off because of it. Quasi-markets also involve a sharing of benefit and burdens—in contrast to the often absolute outcomes of other rationing transactions—and yet these transactions are not voluntary.

In these instances, either the government is one of the parties in the bilateral relationship, or government, in its arbitrating role, mandates the terms of a bargain between disputing parties. There exist two types of quasi-market resolutions. Bilateral quasi-bargaining occurs between a developer and a public agency. Planning departments and developers may make offers and counteroffers using the currency of building permits for exactions, dedications of land and infrastructure, and impact fees. Bilateral bargaining is also represented by the concepts of site development review, subdivision controls, and planned development.¹¹ Bilateral bargaining may be distinguished as “conditional zoning” or “contract zoning”: “If the developer *unilaterally* makes design changes and inserts restrictions in his deed in favor of the municipality in the hopes of gaining its approval, there is ‘conditional zoning,’ while if the changes are pursuant to a *bilateral* agreement for modifications as a *quid pro quo* for approval, there is ‘contract zoning’” (Eagle 1995, 193–194). Shortcomings in quasi markets, and a lack of legislative circumscription, have compelled courts to look closely at the process.¹² The resolution rule is bargaining within a bilateral monopoly, so the fall-back position, or outside option, of the parties is paramount to modeling the process. The agency has the power to withhold permits, thereby allowing the governmental body to extract, in theory, all of the gains from trade. Yet theory also suggests that a municipality with a great need for development or a developer who places a high option value on the parcel may characterize instances where the balance of power is in favor of the developer. As such, the flip side of exactions is subsidies for development, such as differential tax treatment for commercial enterprises. Many see the power balance in favor of the municipality. Rutherford Platt (1996, 298) wrote that this power enables municipalities to “negotiate a variety of concessions” from the prospective developer. But one may characterize extreme examples as extortion.

The second category of quasi-market resolution occurs when a nonmarket process imposes a resolution on disputants, which in consequence appears to be a Coasean bargain. The notion here is that standards of efficiency and fairness clearly suggest a bargained outcome in which one party receives compensation and assumes a duty, while the other party receives a right and pays compensation. Judges sometimes construct rulings that force shared responsibility for the conflict. If a private party pays compensation for a right, then the outcome mirrors one of the emblematic cases: *Boomer v. Atlantic*

Cement Co., 275 NE2d 870 (NY 1970) or *Spur Industries v. Del E. Webb*, 494 P2d 700 (Ariz. 1972). In *Boomer*, a cement company paid permanent damages to neighbors as compensation for the decline in property value due to the dust and noise generated by the plant. In the other case, *Spur's* neighbors compensated the cattle feed lot for its relocation expenses when the court issued an injunction against its operation. Although these final, imposed resolutions are involuntary, they are also unlike most adjudicated solutions because conflict responsibility is shared and the remedy shows a sense of proportionality between what winners win and what losers lose.

Legislative Resolution

Regulation, often zoning, characterizes the legislative resolution of land-use conflicts. As with any legislative process, an outcome is determined by a vote among legislators after a procedurally formal debate and review of evidence. Still, the legislative process appears susceptible to some of the least formal resolution rules, including influence, lobbying, pressure, and vote trading. Since the procedures of local zoning are the most complex manifestation of the regulation of land use, state and federal zoning processes are not the focus of the following discussion. The complications found in the incentive effects of zoning, however, apply to regulation at the local, state, and federal level.

Local zoning refers to statutes and ordinances enacted by town, city, and county (municipal) councils. Actions by local planning boards may also be treated as legislative acts by courts, in certain cases. At other times, local planning boards are viewed as quasi-judicial bodies, which are addressed in the next subsection. Peter Salsich and Timothy Tryniecki (1998) offered a general classification: a local body operates in a legislative role if it is acting in a lawmaking capacity, while the role is quasi-judicial if the local body is applying existing law. Municipal councils enact comprehensive zoning ordinances, subdivision regulations, or other laws. These laws present one of the most difficult modeling challenges for this paper, which strives to be an examination of microeconomic behavior. Simply, the single enactment of a new zoning ordinance often creates many winners and many losers across a diverse set of land-use conflicts. Members of the losing parties may have little in common, beyond their unfortunate plight, and it is hard to frame the process of conflict resolution as the culmination of the actions of any individual winner and loser.

To mitigate the effects of this framing problem, one may draw on the information costs associated with the collective action problem. The notion that legislative enactments are susceptible to a "majoritarian bias" is explored in Komesar 1994, chapter 3. Local legislative bodies also perform rezonings. Rezoning is available to a party that lost at a preceding regulatory stage, and thereby differs from initial zoning in that the conflict has reached a regime of appellant rights. Typically, the appeal is first heard at a public hearing before the local planning board, which then reports to the municipal council. The final legislative ruling is then made at the council level, although both pro-

cesses are considered to be legislative (Salsich and Tryniecki 1998, 205). Before both bodies, formal procedural rules are followed, including notice, hearing, findings of fact, and conclusions of law (205). One expects, however, that the informal resolution rules strongly influence the outcome. As Salsich and Tryniecki (197) wrote, rezoning “is the most political and volatile of actions involving land development.”

The legislative resolution of land-use conflicts is often characterized—and complicated—by a low marginal cost of participation. The costs of attending a hearing, signing a petition, or contacting a legislator are many times lower than the costs of litigation. This access may be expanded by the use of catalytic subgroups, which is Komesar’s (1994, 74) term for a concentrated interest that can credibly claim to speak for a larger group of potential voters, with minimal action on their part. Indeed, Komesar (chapter 3) argued that the political process is susceptible to majoritarian and minoritarian influences. These influences become “biases” when a majority or minority wins even though social goals of efficiency or fairness suggest that the group should have lost.

Because the costs of influencing legislative decisions are relatively low and the potential for organized influence to bias the ultimate resolution is great, scholars are concerned about the incentives that parties face in using the legislative process, in particular, and all nonmarket resolution processes, in general. Not all nonmarket resolution arises from rent seeking in the pejorative sense. The motivation for a party to seek nonmarket resolution rather than market resolution may be evaluated in terms of its correspondence with the social intent underlying the processes. This means that the motivation of individual behavior ought to be in line with what society intended to be the use of the resolution processes. Previous work seems to accept generally that resolution processes, especially legislatures, may be used opportunistically rather than in accordance with social intent (Komesar 1994, 214–15).

James Buchanan (1980, 3, 4) defined *rent seeking* as when one party’s “efforts to maximize value generate social waste rather than social surplus.” In land-use conflict resolution, this might be interpreted to mean that society should condone resolution when the surplus accruing to the parties in the formal-rights regime is Pareto superior, given hypothetical compensation, to that of the presumptive rights regime. Such a perspective is inadequate for drawing conclusions about social intent because it is based solely on efficiency.

Moving beyond a single determining standard of social intent, legal precedent has attempted to balance resource allocation efficiency with considerations of fairness and justice. For instance, in resolving land-use conflicts, judges give credence to the determination of which party is first in time and tend to look more closely at the actions of parties that “come to the nuisance,” as in the *Spur* conflict. Another fairness concern is that one party is disproportionately bearing the burdens for a regulation that provides a public benefit. This is addressed in the legal literature using the concept of average reciprocity of advantage, a hybrid standard that addresses fairness and efficiency. Most forcefully articulated by Justice Holmes in *Pennsylvania Coal Co. v. Mahon*, 260 U.S. 393 (1922),

average reciprocity of advantage sanctions the imposition of disproportionate burdens of one regulation on one party in anticipation that, over time, the disproportionate burdens from many regulations will even out so that all parties are better off. This assumes that the regulations have net social benefits. However, the average reciprocity of advantage concept is too general for microeconomic modeling and does not sufficiently address the incentives to misuse the resolution processes in a search for more of the social surplus.

Bromley (1989, chap. 5) offered an escape from the complications of determining whether resolution accords with social intent. Specifically, Bromley (130) defined four types of institutional transactions, which one may interpret in terms of land-use conflict resolution and which have implications for the determination of socially intended behavior. First, institutional transactions may increase productive efficiency. If there are positive net benefits of resolution, then the productive efficiency increased. If there are nonpositive net benefits, however, then it is classified as an institutional transaction that redistributes income. Assuming that social intent hinges on net social surplus, then the distinction between productive and redistributive transactions reduces to an empirical question. Unfortunately, most of the constituent elements of social surplus are not easily observable.

Bromley (1989, chap. 5) also distinguished institutional transactions that reallocate economic opportunity from those that redistribute economic advantage. Transactions that reallocate economic opportunity are characterized by a purposeful social choice of institutional arrangements in response to changing conditions of scarcity and preferences (137). He argued that this raises a political question—selecting a social welfare function against which social efficiency conclusions may be drawn. In land use, for instance, wetlands were once viewed as impediments to progress. As social preferences toward wetlands have changed, however, conflicts have arisen centering on the use of wetlands. It follows that the socially designed purpose of resolution processes is to call upon one to determine which use of wetlands prevails when exigencies have created legitimate, conflicting claims. Of course, some claims may be made in spite of the socially designed purpose of resolution processes and these may be classified as institutional transactions to redistribute economic advantage. For example, a party may ask the state to take action against a competitor so that the petitioner's market share increases. Bromley (142) located the distinction between these transactions in the nature of the utility function. In Sax 1964 (63) one finds a distinction analogous to Bromley's that also raises the question of social intent. Writing on what characteristic of regulation implies whether or not compensation is due for diminutions in value, Sax argued that compensation is due when government regulates to enhance "its resource position in its enterprise capacity." This is illegitimate, in contrast to government regulating in an arbitral capacity.

Quasi-Judicial Resolution

The preceding subsection examines direct resolution of conflicts by legislative bodies, but this authority may be statutorily delegated to an administrative body. Administrative bodies apply general laws to specific cases. In land use, local boards of adjustment decide conditional-use cases and variances, while state and federal agencies issue permits. These administrative bodies are special mixtures of legislatures and courts, apply different standards of review, and tend to be more formal, procedurally, than legislatures. The quasi-judicial resolution of land-use conflicts is reviewed in terms of permits and variances.

At the local level, a board of adjustment reviews a proposed use of property to see if it conforms to the zoning ordinance. If certain standards are met, a conditional-use permit is granted. Salsich and Tryniecki (1998, 208) described this process: "The standards must be sufficiently definite to avoid charges of unlawful delegation of legislative authority, while at the same time flexible enough to provide sufficient discretion to the administering agency so that changes in land use can be accomplished without effectively amending the zoning code." As such, a board of adjustment walks a fine line between applying and creating law. State courts have addressed the role of quasi-judicial bodies in different manners.¹³ Local boards of adjustment may also allow a proscribed use of land by granting a variance. Variances are granted to parties that can demonstrate hardship under the zoning ordinance. The decision-making process at state and federal administrative bodies is analogous to the local conditional-use permit. The formal resolution rules employed by quasi-judicial processes include notice, hearing, and legal rules of evidence (203). Because administrators are not elected, the broader complications found in quasi-judicial resolution correspond with those found in judicial resolution.

Judicial Resolution

There are three types of judicial involvement in the resolution of land-use conflicts. The common law of nuisance offers a direct process for resolving spatial land-use conflicts. Nuisance law was the predominant legal remedy available to disputants in a land-use conflict prior to the 1900s, during which much of nuisance law was codified. As a result, *ex ante* resolution occurs through zoning and the current influence of nuisance law is proportionately limited.¹⁴ Similar to nuisance, the resolution of temporal conflicts is available with the waste doctrine. Whenever an interest in property is less than fee-simple absolute, there is a future-interest holder and the common law of waste may apply. Waste and nuisance are of limited and decreasing importance to modern land-use conflict resolution.

In contrast, constitutional judicial review is the leading form of judicial resolution in land use. Judicial review is the process by which the state and federal courts may examine the decisions of other levels of government (*Black's Law Dictionary*). Legal scholars often take judicial reasoning at its face value, and their analyses attempt to rationalize

judicial standards and point out ways of addressing inconsistencies. Economists are generally more circumspect about judicial reasoning. Yet, legal scholars do influence judicial decision makers. For instance, Justice Scalia's majority opinion in *Lucas* draws inspiration from Epstein and Sax. With regard to land use, judicial standards are principally derived from an investigation of whether a party acted "reasonably." Specific standards or tests evolve over time, including average reciprocity of advantage, harm-preventing versus benefit-conferring regulation, and distinct investment-backed expectations.

Shortcomings in any type of judicial resolution are well known. Litigation is costly and time consuming. Komesar (1994) suggested that the participation of important actors is an important criterion for comparative institutional analysis, which is especially useful in assessing the performance of the courts. In the participation-centered approach, the performances of resolution processes are assessed by looking for shortcomings in the participation of consumers, producers, lobbyists, and litigants. Abnormally high or low participation costs among differently situated parties, relative to their average per capita stakes, may indicate problems. For instance, the stakes of actual losers from an adjudicated conflict must be high enough to signal effectively to potential losers, or there is a risk that an inappropriate level of participation will continue (167). Judicial resolution also may favor parties with sophistication and benefit parties with greater financial resources. Organizational costs rise with parties with large numbers, though class certification may reduce these costs in judicial resolution. Parties with concentrated, high-stakes interests are likely to tend to win in judicial resolution (128).

Implications of the Review of Resolution Processes

This assessment of the five key ways that society processes land-use conflicts reveals several commonalities, which involve economic behavior and which comprise the essential elements for a coherent reframing of conflict resolution. Each process is a set of institutions offering disputants incentives, including private benefits, private costs, and transaction costs, that may be compared when deciding how to channel the conflict. Yet behavioral interdependence prevails; each disputant may control to some extent the ways in which resolution will proceed. Institutions then liberate and restrain these interdependent choices. Thus, given the prevailing, disparate treatment in the literatures, an appreciation of institutions reveals that the various forms of land-use conflict resolution involve surprisingly similar economic behaviors. The next section builds a coherent method for modeling such economic behavior in commensurate terms.

The Land-Use Transaction: Reframing Conflict Resolution

Problems in land use have proven troublesome for comparative theoretical and empirical analyses because of inadequate methodological techniques, difficulties in

obtaining individual data on behavior, and a lack of an obvious method for distilling common elements from seemingly different conflicts. Reframing casts a land-use conflict as a series of transactions embodying common elements such as parties, stakes, and prices. The method hinges on treating the land-use transaction as the unit of analysis and thereby presenting market and nonmarket processes as instrumentally analogous. As such, the resolution processes become arenas where rights are contested and allocated and where the actual allocation method is different in procedure but similar in consequence.

Resolution processes are evolutionary responses to conflicting interests that, by rendering decisions about winners and losers, effect institutional change and formalize rights and duties. Nevertheless, the way conflicts channel through successive resolution processes can vary greatly. The land-use transaction has all the constituent elements, in actuality or by way of analogy, which transactions have in markets with imperfections. This section discusses the elements of the economic transaction and their adaptation to the idiosyncrasies of nonmarket conflict resolution, mainly by drawing on the work of Commons (1931, 1990, 1995).

At bottom, land-use conflicts are not about who has property rights; they are about who wants property rights. Land-use conflicts involve a party in a privileged position competing with a party, who has no correlative right, over an unallocated right in land. This accords with the legal analogy of an unallocated right as one stick in the bundle of rights associated with land. Accordingly, land-use conflicts involve disputants fighting over the same stick that both want in their respective bundles.

The unallocated right is the conduit through which costs are shifted from one disputant to another. In presumptive rights regimes, cost senders exercise their privilege to the unallocated right to shift costs to cost receivers. As Coase's (1960) reciprocity concept dictates, however, cost receivers may preempt cost senders' shifting by calling upon resolution processes to formalize their interests. Unallocated rights also closely parallel the concept of the "stake" in a conflict. A *stake* is defined here to be the value of the unallocated right in land for each disputant. One party may value the interest as a means of disposing of a pollutant, while another party may value the interest as a way to prevent damages from a polluter. By reciprocity, each party may also put a value on the interest not being used by the opponent. It is in this way that stakes vary across parties and time, particularly in the way that the disputants' property rights interact with the unallocated interest.

Bargaining and Rationing in the Land-Use Transaction

The resolution process represents a transaction for each land-use conflict. This is clear when the arena of conflict is the market, but the theory and the language that economists use to describe the bargaining transaction extends to nonmarket processes, too. For instance, disputants who bring their competing claims to civil courts exit with a distribution of formal rights that may be used, sold, or profited from in the same manner as

rights obtained through the bargaining transaction. This subsection argues that any market decision, political decision, or legal decision affecting unallocated rights in land is a transaction, which allocates rights and duties, and thus provides a resolution that is the same, in consequence, as the bargaining transaction found in markets. Of course, the distributional effects need not be the same, which in turn reinforces the need to explain the strategic incentives facing disputants. Although the procedures of the bargaining and rationing transactions differ greatly, the outcomes are substantially commensurate in terms of the allocation of rights and duties. It is this consequential similarity that drives the analysis; resolution processes divide land-use conflicts into sets of land-use transactions.

Commons (1990, 754) referred to rights allocated in the legal arena as a *rationing transaction* to distinguish it from the market's *bargaining transaction* and the *managerial transaction*, in which previously authorized rules are executed. Specifically, Commons (754–763) envisioned the rationing transaction as allocating burdens and benefits in five types of processes: logrolling, dictatorship, cooperation, collective bargaining, and judicial decision. Logrolling is also known as the process of vote trading but could be defined more formally as reconciling conflicting interests in a legislative organization. Whereas logrolling is a process of achieving agreement among equals, dictatorship consists of a superior compelling agreement among subordinates. Cooperation, as in a building and loan association or a credit union, pools individual interests to protect them from the vagaries of the market. But collective bargaining differs from cooperation in that competing interests are organized equally. Judicial decisions, as a final form of rationing, occur when an arbitrator weighs “the facts and arguments in light of custom, precedent, and statute” in order to ration wealth among disputants (763).

The bargaining and rationing transactions may be clarified by using the Hohfeldian language of rights. Assume two parties, a cost sender and a cost receiver. The cost sender and the cost receiver are disputants in a land-use conflict in which, say, the cost sender's nightly consumption of loud music imposes a substantive cost on the cost receiver. Thus, the cost sender has the *privilege* to consume loud music and the cost receiver has *no right* to be free from the shifted cost. Neoclassical economists view this conflict as a negative externality in which a missing market causes an inefficiency that, in principle, may be resolved if the gains from trade exceed the costs of bargaining. Political economists are more concerned with the problem of choice—the cost sender makes a suboptimal decision for the cost receiver—which may be resolved by realigning choice sets through institutional change. Legal theorists focus on norms, statutes, and precedent in determining whether the cost sender's behavior is reasonable. Elements of each of these perspectives are needed to reframe the problem.

In the market, disputants transact rights and duties through the bargaining transaction. The cost receiver may offer to pay the cost sender to stop consuming loud music, or, in other words, the cost receiver offers to buy a right to be free from the action by the cost sender. This bargaining transaction also has a dual nature as Coase (1960) noted:

the cost sender can pay the cost receiver for the right to continue the action, thus compensating the cost receiver for the duty of enduring the cost.

If the bargaining transaction is not pursued, then the cost receiver can seek a redefinition of rights through other means. The cost receiver might try to enjoin the cost sender through political resolution processes, such as lobbying state lawmakers for a new law or appealing to a regulatory body to extend enforcement of a statute. Alternatively, the cost receiver might seek the help of the legal system with civil action for damages from, or an injunction against, the cost sender. Just as in the bargaining transaction, these nonmarket resolutions have dual natures: instead of waiting for the cost receiver to challenge the cost sender's privilege, the cost sender could presumptively seek to formalize the privilege by pursuing political or legal means of resolution. The rationing transaction has more in common with the bargaining transaction than just the consequential allocation of rights and duties, however. Disputants face prices in the form of resolution costs while competing in rationing transactions. Another price may arise if the resolution process requires the payment of damages along with the allocation of rights.

Commons (1990, 754–60) distinguished each of the five types of rationing transaction by focusing on how the processes differ, on power relations between disputants, and on the role of arbitrators. Judicial processes are the form of rationing, which is most similar to the types of dispute resolution assessed in this paper. A judicial arbitrator uses a formal set of procedures to weigh facts and arguments to transfer money or goods from one party to another (759). The transfer itself has some of the constituent elements of a bargaining transaction—what Commons (761) called the “economic consequences”—though the relations between the disputants and the process itself are mainly distinct. Perhaps the most important distinction is that of the power relations between disputants. Commons wrote that the rationing transaction is a “Struggle for Power,” while a bargaining transaction is a “Struggle for Wealth.” Once commenced, disputants in any nonmarket resolution process “compete” for the advantageous position vis-à-vis the bilateral harm.

Another form of power, however, exists in the processing of these conflicts and is less frequently acknowledged. The rationing transaction is peculiar because one party may force another to respond to a challenge at certain resolution processes. For example, the cost receiver can commence a nuisance suit in civil court that requires the cost sender to respond. Such an action is a decision by the cost receiver that shifts costs to the cost sender, and thus is analogous to the reciprocal nature of externalities commonly understood as a phenomenon of the bargaining transaction. This is a form of power, which formal resolution processes afford parties with no Hohfeldian rights.

Beyond power and process, another way in which the rationing and bargaining transactions differ is that disputants face much less certainty as to what they are buying or selling in the rationing transaction. Because the arbitrator's decision cannot be known a priori, disputants are unsure as to whether they will be assigned the role of buyer or seller. The rationing transaction requires an up-front investment of resolution

costs in anticipation of a favorable protection of interests, while bargaining can fail with almost no cost beyond that of waiting and preliminary negotiations.

These differences have led investigators to treat the bargaining and rationing transactions differently in analytical models. Bargaining models in game theory are usually finitely or infinitely repeated games with offers, counteroffers, outside options, and costs to waiting. Bargainers are also allowed to make binding contracts, which are costlessly enforced and which lead to a separate class of interactions called cooperative game theory. On the other hand, rationing transactions are one-shot games because, once a resolution process is called upon, the rights are exogenously determined with certainty and can only be altered if the losing party makes a timely challenge as allowed by the institutionalized appeal procedures. The land-use transaction reconciles the iterative distinction between the nature of bargaining and rationing by framing each resolution process in a conflict as individual interactions. When all appeals are exhausted, the exogenous determination of rights is solidified. The conflict thus ends because only market options remain. Clearly, the socially constructed ordering of appeals within resolution processes raises the notion of path dependence, and this will be addressed after a discussion of the roles of buyer and seller.

Winning and Losing as Buying and Selling

In presumptive rights regimes, bargaining is complicated by not knowing which party should buy the right and which party should sell the right. In this sense, the land-use conflict is fought over who will play the coveted role of seller. But nonmarket resolution processes do not choose the roles of buyer and seller explicitly. Instead, a winning party and a losing party are determined exogeneously. Winning a land-use conflict means that the one's claim to an interest is recognized as a right, which the loser has the duty to respect. Due to the appellate possibilities in resolution, however, there are really two types of winning—one inferior and one superior. A conditional win—winning a land-use transaction—is identified when the resolution process picks a winner, which if not contested by the loser within the institutionalized appellate processes would act just as a right. As such, conditional winning occurs in an appellate-rights regime. An unconditional win—winning a land-use conflict by winning the final transaction—occurs when appellate procedures are exhausted or the win can no longer be contested. Such a state is apparent if the only resolution process available to the loser is the market. In other words, rights are fully formalized.

How are the roles of buyer and seller assigned among winners and losers? Commons (1995, 65) realized that there were four parties to any transaction: actual buyer, actual seller, potential buyer, and potential seller. In a reasonably well functioning market, if Alpha's willingness to pay for Beta's house exceeds Gamma's willingness to pay for Beta's house and Alpha's willingness to pay for Delta's house, then Alpha ought to be the actual buyer, Beta is the actual seller, Gamma is the potential buyer, and Delta is

the potential seller. This assignment of roles applies only to that transaction and may be reassigned in future transactions.

The same logic may be extended to a rationing transaction. If the conflict reaches a nonmarket resolution process, then the process imposes the roles of actual buyer and actual seller. A winning party is the actual buyer because the price paid—costs of accessing the process—is accepted. A losing party is the potential buyer because the price paid is not accepted. At the same time, a winning party is also the potential seller and a losing party is the actual seller. It is not incidental that the purchase price was not refunded to the potential buyer and the actual seller is not actually paid anything. These are manifestations of nonmarket resolution processes, which clearly support the use of the value-laden appellations winner and loser. The market tends to make the actual buyer and actual seller into winners and, although the potential buyer and seller “lose,” they still have their investment. That nonmarket resolution produces such an extreme differentiation between winning and losing further explains why land-use conflicts are so contentious. This also reinforces the importance of the power appellants have to draw conditional right holders into further dispute processing. Once appeals are exhausted and rights are fully formalized, the winner’s role of actual buyer becomes that of potential seller in future market transactions and the loser’s role of actual seller becomes that of potential buyer in future market transactions.

The Path of Conflict

Given the burdens of losing in a land-use conflict, it is not surprising that the conditional wins at individual transactions are often appealed by the losing party. The path of conflict, and the dependencies it accords, poses a fundamental theoretical challenge to the land-use transaction method. One might suspect that the many resolution processes would hopelessly complicate efforts to deduce a meaningful pattern in conflicts. Within any one “class” of conflicts, however, there exists a surprisingly constrained choice set of resolution processes from which losing parties might appeal. For example, regulatory takings conflicts tend to channel from zoning to boards of adjustment to judicial review in similar manners. This subsection lays out the beginnings of a theory of path dependence in land-use conflicts.

The path of conflict does not only complicate nonmarket analysis. Although it is frequently glossed over, market transactions do not necessarily end with the transaction. Contract-enforcing institutions continue to “resolve” market transactions after they ostensibly conclude. A market transaction is a contract, the enforcement of which is a transaction cost that should have been accounted for when the transaction took place. The enforcement of contracts is not inconsequential. Consider that there are a “bewildering variety” of legal remedies for breach of contract, which suggests that the market transaction does not end with the exchange (Posner 1992, 117). Similarly, a land-use transaction may not end a conflict. Since the loser does not choose the terms of the

“contract,” it is reasonable to expect a loser to appeal. But there is also the analog of contract enforcement because a winner has to resist, actively, the losing party’s appeal.

The path of land-use conflicts begin in a state of nonactivation, a default resolution process, in which a cost sender is not transmitting cost via the unallocated right and a cost receiver is not trying to preempt a cost sender. At this time, the unallocated right is not scarce. The second stage of conflict is either a state of externality or one of the preemptive resolution processes. In a state of externality, a cost sender’s decisions transmit costs that a cost receiver absorbs or confronts with self-protection measures—averting and avoidance costs. Even if a cost receiver does not challenge the offending use immediately, a cost sender may be enjoined at a future period by a cost receiver lobbying for zoning or challenging the externality using litigation in common law. If the externality is anticipated, a cost receiver may choose to preempt the cost shifting by lobbying for zoning so that the potentially offending use is banned *ex ante*.

Whether or not costs are shifted in the second transaction, the conflict will encounter zoning in the second or third transaction. Zoning is the first example of how the party bearing harm—i.e., the inferior party in the bilateral dispute—gains a measure of power from the existence of formal resolution process. Specifically, cost receivers in presumptive rights regimes have the power to bring their conflicts (and others with similar characteristics) into formal resolution. In effect they hold a procedural right to request formalization of the presumptive rights regime in their favor by seeking zoning protection for their low-intensity use of land. This power remains at the disposal of the inferior party (the party losing at any resolution process) as the conflict channels through different resolution processes. Moreover, this power provides an incentive for the party who wins at each stage to find some settlement in order to prevent the further appeal of the rights allocation.

After the initial zoning transaction, the cost sender may then seek rezoning from a local legislative body. Whether or not rezoning is sought, losing sending parties may seek administrative relief. At the local level, variances and conditional use permits are the available relief, while permits or other forms of review from agencies are sought at the state and federal level. Conflicts at this stage may repeatedly cycle through various resolution processes as administrative appeals are exhausted. There is no set rule for how many times sending parties have to attempt quasi-judicial resolution, but there is a guiding judicial principle: ripeness. Specifically, existing precedent at the state and federal courts requires that administrative remedies be exhausted for a constitutional challenge to be considered ripe. Since ripeness is indistinct in application, however, savvy sending parties ensure that the record demonstrates several clear and distinct attempts to secure administrative approval of the proposed development.

Once quasi-market (if available), legislative, and quasi-judicial resolution have been attempted, losing sending parties may make one or more of several constitutional arguments in a state or federal court. Sending parties may argue that the regulation is unconstitutional because the refusal to grant the desired permits denies the plaintiff due process or violates equal protection. These and other procedural arguments are trig-

gered by the denial of permits. Some receiving parties also challenge the granting of permits. Sending parties may also argue that the regulation constitutes a regulatory taking because it has lessened property value to the extent that it effects a taking of private property without just compensation. Generally, the regulatory takings argument is labeled an as-applied taking if the plaintiff acknowledges the validity of the regulation and only challenges it with regard to the individual parcel in question. The argument is called a facial taking if the plaintiff claims that the effect on his or her land invalidates the entire regulation. The facial argument is more difficult to prove, and the remedy may also include compensation for a temporary taking. The remedy for an as-applied taking, however, is typically compensation from the state and transfer of title for the property from the sending party to the state. Other legal arguments are possible.

The court of first instance establishes the facts of the case and makes a decision, which may be appealed. In the state courts, appeals go to a state appellate court—if there is one—and then to the state's highest court. In the federal system, the first appeal is to one of the federal appeals courts, which depends on the location of the conflict, or to the federal appeals court for the federal circuit. The U.S. Supreme Court may, at its discretion, review the decision of a state high court or a federal appeals court. Under the reframing method, the denial of certiorari from the Supreme Court is treated as a loss because it is the court of last resort. Appellate court decisions typically select winners and remand or remit the conflict to a lower court or quasi-judicial body. The importance for path dependence, therefore, is that although a conflict may eventually reach all the land-use resolution processes, the actual choice of resolution process for an appeal is generally quite limited. The greatest freedom for disputants is choosing their legal arguments, since pre-judicial and appellate court decisions are basically binary. The losing party either appeals a decision or does not.

Conclusion

The intent of this paper has been to start a new dialogue about land-use conflict resolution by reframing conflicts using their essential elements rather than their type of resolution process. A greater appreciation of institutions produces a model of dispute processing, which has greater clarity and coherence. Starting from the familiar notion of the land-use externality, a refinement of the definition of harm in a regime of presumptive rights is offered. This perspective on harm is extended to include appellate-rights regimes, although it stops short of addressing the harm one finds in a regime of formal rights. Society has evolved five main types of processes to resolve these harms: markets, quasi-markets, legislatures, quasi-judicial bodies, and judicial bodies. All of these processes engender incentives that affect disputant behavior and the social success of the outcome. Using insights from institutional economics, the key to the reframing method is to envision the conflicts as a series of land-use transactions. The economic transaction provides a standardized perspective by casting disputants as buyers and sellers, prices as

resolution costs, and resolution processes as the units of analysis. A possible complication associated with the unbounded channeling of conflicts is minimized by the path-dependent nature of most classifications of land-use conflicts.

Land-use policy is about institutional change—selecting institutions through resolution processes to dictate how much winners win and losers lose. This is the “normative content of institutions,” according to Bromley (1989, 57), who identifies this as a rationalization for deciding which party may “disregard . . . certain costs that attend particular economic activities.” Herein lies the fundamental political choice that makes land use a domain for such contentious debate. The land-use debate, however, is not couched in simple terms about winners and losers, which is a shortcoming attributable to an under-appreciation of the property interests that disputants bring to a conflict. Rather, the debate is convoluted by a long list of parochial terminology and indistinct constructs. These terms exert inordinate control over the way the debate is conducted. We are told conflicts are about (1) nuisance, zoning, arbitration, mediation, or judicial review; (2) regulation, taxes, subsidies, or transferable permits; (3) exactions, dedications, purchase of development rights, variance, or rezoning; and so on. The breadth and content of these ideas suggest why the process of making land-use policy is contentious and why—if one dwells on the incongruous nature of these concepts—prevailing land-use policy is incoherent. Undoubtedly, parties to the land-use debate are talking past one another. Using the reframing method and the transaction as the unit of analysis, policy relevant conclusions about the social processing of disputes may be drawn. Policy may then better address the true underlying incentives created by institutions rather than trying to make sense out of the political debates about what should and should not be land-use harm.

Notes

1. Consider a legal definition of harm from *Black's Law Dictionary*: *Harm* is “the existence of loss or detriment in fact of any kind to a person resulting from any cause.”
2. Strictly speaking, the duty bearer might be able to convince the government to confiscate the property of the right holder, although such condemnation may violate the constitutional prohibition on property taken for private use. Even if this passed the constitutional test, compensation would be required under the Fifth Amendment and thus it represents a (forced) market transaction.
3. Partha Dasgupta (1993) referred to this distinction as unidirectional externalities in the private property context and reciprocal externalities in the collective context.
4. Alternative dispute resolution and moral suasion are two other ways that society may resolve land-use conflicts. Alternative dispute resolution is mainly characterized by arbitration and mediation as alternatives to litigation. Strictly speaking, mediation might be classified as a special case of market resolution in which the bargaining, or contracting, is facilitated. Yet, in arbitration, the process may be thought of as a special case of quasi-judicial resolution because the arbitrator makes binding decisions and states have statutorily circumscribed the process.
5. This statement is somewhat imprecise in that failures in one resolution process are merely relative to the performance—under similar conditions—of other processes. Indeed, that compara-

- tive institutional analysis intends to locate the best institutional response to harm among imperfect alternatives is the essence of Neil Komesar's (1994) thesis.
6. This does not necessarily imply that there is a problem or shortcoming in rights specification. Social relations evolve over time, which is a purposeful response to the changing exigencies of economic conditions. The teleological argument is that conflict resolution requires a formalization of the status quo distribution of informal rights. Special cases of this argument include Richard Epstein's (1985) call for formalization subject only to a statutorily defined nuisance exception and policy prescriptions of hyper-Coaseans, who believe that formalization is necessary to reduce transaction costs.
 7. One may argue that the effect of presumptive rights on bargaining is just an information cost—the seller is unknown—and thus the only assumption necessary for the Coase theorem to hold is zero transaction costs.
 8. Fairness and distributional issues arising in market transactions are widely studied. Such issues are cast in terms of procedural fairness and substantive fairness or in relation to justice, egalitarianism, rights, and freedom (Hausman and McPherson 1996). For instance, departures from pure competition may hold moral implications, as with situations in which one party has bargaining power. All instances of externalities involve a privileged party making a decision for a party with no right. Beyond the basic moral problem of choice, market resolution is biased against the party with no right because the privileged party has no incentive to alter his or her behavior. This bias is often referred to as the “polluter's bias.” Two veins in the literature suggest analytical starting points for addressing the fairness dimension. Komesar's (1994) participation-centered approach allows one to make moral conclusions about institutional performance based on the ability of important parties to have their voices heard in resolution. Also, the contractualist theory of John Rawls (1971) is positioned to conceptualize goals in the functioning of resolution processes.
 9. This procedure may even be less formal than this statement implies, as if it is an analogy for adverse possession. If a party exercises a privilege over time in an actual, open, notorious, exclusive, and hostile manner for a statutorily prescribed period of time, then society may regard the behavior as a right (*Black's Law Dictionary*). Such a perspective may be used to explain why large coal-burning power plants were allocated transferable discharge permits when the Clean Air Act Amendments of 1990 took effect during the mid 1990s. The plants were allocated a right to pollute in amounts proportional to their privileged historical emissions during the early 1980s. Yet a firm that wants to enter the coal-burning power generation market now has to buy a right from one of the grandfathered plants.
 10. Ronald Coase (1960) actually offered a comparative view on resolution. But his main influence on many economists—who use Coase out of context—has been to provide a justification for dismissing political resolution as rent seeking in favor of market resolution. Warren Samuels (1974) offered an assessment of this hyper-Coasean position. In the last two decades, the hyper-Coasean position has been attenuated and refined by neoinstitutional economists. Neoinstitutional economists tend to focus on the role of transaction costs, yet their models are not explicitly comparative (see Eggertsson 1992, 12).
 11. Daniel Mandelker (1993, 401) noted that subdivision controls are independent from zoning ordinances. This provides an additional rationale for distinguishing the quasi-market processes from the legislative processes.
 12. The major steps at judicial review are the “essential-nexus” test of *Nollan v. California Coastal Commission*, 483 U.S. 825 (1987) and the “rough-proportionality” test of *Dolan v. City of Tigard*, 512 U.S. 372 (1994).
 13. The leading cases are *Fasano v. Board of County Commissioners*, 507 P.2d 23 (Or. 1973) and *Arnel Dev. Co. v. City of Costa Mesa*, 620 P.2d 565 (Cal. 1980). The Fasano rule states that quasi-judicial decisions are not afforded the “presumption of constitutionality” that legislative actions receive (Mandelker 1993, 246). As such, states that adopt a Fasano rule place the

- burden of justifying the zoning change on the party seeking the change (246). The Arnel rule, however, portrays at least some zoning changes as legislative acts (247).
14. Epstein (1985) called for a return to resolution based upon nuisance principles.

References

- Baumol, William J., and Wallace E. Oates. *The Theory of Environmental Policy*, 2d ed. New York: Cambridge University Press, 1988.
- Bromley, Daniel W. *Economic Interests and Institutions: The Conceptual Foundations of Public Policy*. Oxford: Basil Blackwell, 1989.
- . *Environment and Economy: Property Rights and Public Policy*. Oxford: Basil Blackwell, 1991.
- Buchanan, James M. "Rent Seeking and Profit Seeking." In *Toward a Theory of the Rent-Seeking Society*, edited by James M. Buchanan, Robert D. Tollison, and Gordon Tullock. College Station: Texas A&M University Press, 1980.
- Coase, Ronald H. "The Nature of the Firm." *Economica* 4 (1937): 386–405.
- . "The Problem of Social Cost." *Journal of Law and Economics* 3 (1960): 1–44.
- Commons, John R. "Institutional Economics." *American Economic Review* 21 (1931): 648–57.
- . *Institutional Economics: Its Place in Political Economy*. New Brunswick, N.J.: Transaction Publishers, 1990.
- . *Legal Foundations of Capitalism*. New Brunswick, N.J.: Transaction Publishers, 1995.
- Dahlman, Carl J. "The Problem of Externality." *Journal of Law and Economics* 22 (1979): 141–162.
- Dasgupta, Partha. *An Inquiry into Well-being and Destitution*. Oxford Univ. Press, 1993.
- Eagle, Steven J. *Regulatory Takings*. Charlottesville: Michie Press, 1996.
- Eggertsson, Thrainn. *Economic Behavior and Institutions*. New York: Cambridge University Press, 1992.
- Ellickson, Robert C. *Order without Law: How Neighbors Settle Disputes*. Cambridge: Harvard University Press, 1991.
- Epstein, Richard A. *Takings: Private Property and the Power of Eminent Domain*. Cambridge: Harvard University Press, 1985.
- Hausman, Daniel M. "Liability, Responsibility, and Harm." *Ethics* 97 (1986): 263–269.
- . "When Jack and Jill Make a Deal." *Social Philosophy and Policy* 9, no. 1 (1992): 95–113.
- Hausman, Daniel M., and Michael S. McPherson. *Economic Analysis and Moral Philosophy*. New York: Cambridge University Press, 1996.
- Hohfeld, Wesley Newcomb. *Fundamental Legal Conceptions as Applied in Judicial Reasoning*, edited by Walter Wheeler Cook. New Haven: Yale University Press, 1963.
- Komesar, Neil K. *Imperfect Alternatives: Choosing Institutions in Law, Economics, and Public Policy*. Chicago: University of Chicago Press, 1994.
- Mandelker, Daniel R. *Land Use Law*, 3d ed. Charlottesville: Michie Press, 1993.
- Pejovich, Svetozar. *Economic Analysis of Institutions and Systems*, 2d ed. Norwell, Mass.: Kluwer, 1998.
- Pigou, A. C. *The Economics of Welfare*, 4th ed. London: MacMillan and Co, Limited, 1932.
- Platt, Rutherford H. *Land Use and Society: Geography, Law, and Public Policy*. Washington, D.C.: Island Press, 1996.
- Posner, Richard. *Economic Analysis of Law*, 4th ed. Boston: Little, Brown, 1992.
- Rawls, John. *A Theory of Justice*. Cambridge: Harvard University Press, 1971.
- Roebuck, Derek. *The Background of the Common Law*, 2d ed. Oxford Univ. Press, 1990.
- Salsich, Peter W., Jr., and Timothy J. Tryniecki. *Land Use Regulation: A Legal and Practical Application of Land Use Law*. Chicago: American Bar Association, 1998.
- Samuels, Warren J. "The Coase Theorem and the Study of Law and Economics." *Natural Resources Journal* 14, no. 1 (1974): 1–33.
- Sax, Joseph L. "Takings and the Police Power." *The Yale Law Journal* 74 (1964): 36.
- Schmid, A. Allan. *Property, Power, and Public Choice: An Inquiry into Law and Economics*, 2d ed. New York: Praeger, 1987.

- . “The Environment and Property Rights Issues.” In *The Handbook of Environmental Economics*, edited by Daniel Bromley. Cambridge, Mass.: Basil Blackwell, 1995.
- . “Government, Property, Markets . . . In That Order . . . Not Government Versus Markets.” In *The Fundamental Interrelationships between Government and Property*, edited by Nicholas Mercuro and Warren Samuels. Stamford, Conn.: JAI Press, 1999.
- Sen, Amartya. “Markets and Freedoms: Achievements and Limitations of the Market Mechanism in Promoting Individual Freedoms.” *Oxford Economic Papers* 45 (1993): 519–541.