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by

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Fairness in Urban Land Use: An Evolutionary Contribution to Law & Economics

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Abstract:
Markets for complex, multi-faceted goods normally require a complex institutional framework to function properly, i.e., to lead to patterns of outcomes that are deemed acceptable by the individuals involved. This paper examines the institutional underpinnings of the market for urban land use rights, taking both German and U.S. public and private land use law as a case in point. Apart from efficiency considerations that have been discussed in the literature, the individuals' preferences regarding the fairness of (i) the contents of urban land use rights and (ii) the distribution of costs and benefits induced by innovative land uses have been largely neglected. It is argued that investigating the impact of these preferences (and the underlying informal fairness norms) on the legal treatment of land use rights provides a key opportunity to construct an alternative Law & Economics approach that is compatible with an evolutionary perspective on economic land use decisions.

Key words: externalities, takings, land use law, distributive fairness, procedural fairness

JEL Classification: K11, R13, R14

1. Introduction

The question of how to regulate bilateral land use conflicts has been a classic homeground of orthodox Law & Economics theorizing since Coase' (1960) seminal contribution, where he proposed to view conflicts between neighboring cattle ranchers and wheat farmers or between urban confectioners and dentists as cases of reciprocally produced harm, indicating ill-specified and inefficiently allocated property rights as the actual economic or rather *institutional* (as opposed to purely physical) causes of 'externalities'(Papandreou 2003: 285). While his contribution revolutionized the way economists regarded these sorts of conflicts and paved the way of economic analysis into lawyers' home turf, it left essential questions open. In this particular case, the gaps in the Coasean treatment of land use issues not only raised theoretical concerns, but also impeded the practical use of the economic insights on the part of lawmakers and judges, a use that any Law & Economics approach naturally aims at.

These gaps can be attributed to two key aspects of the mainstream approach to land use conflicts: First, it is concerned exclusively with the efficiency characteristics of alternative economic states, thereby excluding any dynamic perspective as well as the question of how costs and benefits induced by land uses are distributed among the parties involved. In a nutshell, one can say that questions of (procedural and distributive) *fairness* are excluded. Second, the mainstream approach does not account for the deeper role of institutions as both a motivating and constraining factor. By institutions we mean in particular informal social norms, i.e., normatively expected, locally enforced and generally known behavioral dispositions that not only shape the individuals' fairness perceptions but also have an influence on the judicial regulation of land use conflicts.

This paper attempts to show ways how these two gaps may be closed. Moreover, it will advocate a general *evolutionary* perspective that may help to clarify the issues involved, thereby contributing to the construction of a conceptual framework within Law & Economics that is based on an evolutionary view of economic behavior. The need to take such a perspective is obvious if we take into account (i) the fact that the regulation of land use conflicts represents an intervention, based on necessarily imperfect knowledge, into the ongoing process of endogenously changing land use patterns, as well as (ii) the problem that this ongoing process generates patterns that are partly regarded as

"undesirable" in light of the fairness perceptions of the parties involved. Both observations have until now largely been neglected by mainstream Law & Economics contributions, starting, as they do, from the basis of static and exclusively efficiency-focused neoclassical methodology.

The paper is organized as follows: Section 2 briefly describes the mainstream instrumental Law & Economics approach to land use conflicts and takings decisions. Section 3 then shows where important theoretical and practical gaps remain and introduces the distributive and procedural fairness considerations on the background of an evolutionary-institutional perspective on the economy. Section 4 sketches some normative implications, while section 5 concludes.

2. Urban land use conflicts – the orthodox view

> There is perhaps no more impenetrable jungle in the entire law than that which surrounds the word 'nuisance'.
>
> (William Lloyd Prosser)[1]

2.1. The Coasean perspective

Economists typically view land use conflicts within densely populated urban areas as manifesting either materially ill-specified or inefficiently allocated property rights. This perspective differs from both the (maybe more intuitive) classical Pigovian welfare view as well as from the traditional lawyer's perspective – the difference not only being of theoretical interest, but also resulting in markedly diverse legal policy implications.

It is based on Coase' powerful insight on the reciprocal nature of externalities. To recapitulate, Coase (1960; see also 1988) argued that thanks to decentralized bargaining, with negligible[2] transaction costs[3] and in the absence of wealth or income effects, the initial legal allocation of property rights is irrelevant with respect to the rights' final

[1] as quoted in SWANSON and KONTOLEON (2000: 382).

[2] 'negligible' is to be understood as relative to the expected surplus that the Coasean bargaining may yield.

[3] COASE (1960: 15) defined transaction costs simply as the "costs of carrying out market transactions", such as the costs "to discover who it is one wishes to deal with, to inform people that one wishes to deal and on what terms, to conduct negotiations leading up to a bargain, to draw up the contract..." (ibid.). See also the definition by COOTER (1982: 16): "the cost of communicating among the parties..., making side payments..., and the cost of excluding people from sharing in the benefits exchanged by the parties".

allocation. In other words, under these conditions law matters only for the way the surplus is distributed among the parties involved. Put differently, the 'Coase Theorem' (Stigler 1966: 113) defines the sphere where law is relevant for allocative issues (hence, relevant for the orthodox economist), viz. the sphere of positive transaction costs. Notice that while most neoclassical 'Coaseans' were fascinated by the characteristics of a world of costless transactions, Coase himself was rather interested in the real world where judges and policy-makers have to cope with the implications of positive frictions. While already most pages of his seminal piece (Coase 1960) dealt with the world of positive transaction costs, he argued in (Coase 1988: 15), referring to the neoclassical textbook setting, that "it would not seem worthwhile to spend much time investigating the properties of such a world...[A] situation in which transaction costs...are assumed to be zero...is in any case but a preliminary to the development of an analytical system capable of tackling the problems posed by the real world of positive transaction costs."[4]

Since it is potentially highly relevant for many kinds of legal policy issues, the Coase Theorem has initiated an enormous amount of theoretical and (more recently) empirical research and been an object of fierce criticism from many angles. The arguably most important one concerns the problem that in a bilateral bargaining situation the distribution of the surplus is indeterminate, since the parties cannot be assumed to act like passive price-takers (Cooter 1982). We will come back to that issue below. First, however, we will stick to the original theorem in order to prepare the ground for the discussion of the *instrumental* implications that have been derived from it. 'Instrumental' statements are those that start from a given policy goal and describe the most effective means ('instruments') to reach this goal. Hence they do not question the quality of the proposed goal itself. Instrumental statements serve as the main base from which concrete legal policy advice can be derived – a key concern of Law & Economics research from its inception.

According to the Coase Theorem, with negligible transaction costs and in the absence of wealth or income effects, "the outcome of the bargaining process will be efficient, regardless of who is initially assigned the right" (Medema 1999: 213). Hence, efficiency or social welfare maximization is at least implicitly postulated as

[4] see section 3, below, for first steps toward the construction of such an 'analytical system'.

the relevant goal to be pursued by legal policy-makers and judges. Coase (1960) himself referred to the maximization of the 'total social product', but the mainstream of Law & Economics scholars (with the important exception of Posner 1979; Posner 1998a: 13-16) has not reduced the relevant goal to one that is measurable in monetary terms. Rather, utility remains the essential maximand in normative Law & Economics[5].

The outcome of an ideal transaction cost-free bargaining process is thus generally taken to be the normative reference point for the efficient solution of land use conflicts. Starting from this insight, Calabresi and Melamed (1972) have established an instrumental rule that can guide legal practitioners in coping with this sort of conflict. This rule is based on two sub-rules that Cooter and Ulen (2003: ch. 4) have called the *normative Coase Theorem* and the *normative Hobbes Theorem*, respectively. According to the former, law should "develop a set of rules that promotes the closest possible approximation to the world of zero transactions costs" (Epstein 1993: 556), i.e., any impediment to bargaining should be removed in order to allow the parties involved to engage in a decentralized solution to the use conflict. According to the latter theorem, if transaction costs are prohibitively high, the legal policy-maker or judge should herself attempt to allocate the relevant property rights in a welfare-maximizing way, by simulating the ideal bargaining (Posner 1998a: 15, 93).

According to Calabresi and Melamed (1972), the policy-maker or the judge can facilitate decentralized bargaining under the normative Coase Theorem by clearly assigning the property right bundle in question to one of the parties involved and making it (i) tradable as well as (ii) protecting it with a *property rule* or injunctive remedy that prohibits any infringement by a third party. In this context, differing costs of collective action should be taken into account: Realistically, parties may consist of many single members (neighbors of a chemical plant, say) who first have to organise themselves and aggregate their individual preferences before being able to engage in a bargaining with another party. In other words, 'internal transaction costs' may be asymmetric (Mishan 1971: 23). If transaction costs turn out to be too high initially, the property right bundle

[5] for a forceful defense of this, see Kaplow and Shavell (2000).

should simply be assigned to the party who, according to the observer's assessment, values it the most. In this case, the property right bundle should however only be protected by a relatively weak *liability rule*, making sure that the other party can indeed obtain the rights if (and only if) her willingness to pay (damages) for the rights is higher than the first party's willingness to pay. Thus, the parties' subjective valuations may be revealed and the initial assignment may be corrected ex post, on the basis however of an implicit price (reflected in the damages) set by the policy-maker or the court. Notice that this price of course determines the distribution of the surplus that has been realised by the property rights reallocation.

Based on Calabresi and Melamed's proposal, Posner (1998a: 55ff.) has proposed a rule that serves as an incentive-compatible revelation mechanism also under conditions of asymmetric information, as Kim and Kim (2004) have recently shown. Let A_d and A_p denote the avoidance costs of parties D ('defendant') and P ('plaintiff') and let V and H be the valuation of the relevant property right by D or P. Both parties inform the court about these values, i.e., party D reveals A_d and V, while party P reveals A_p and H. If transaction costs are prohibitively high, the court should first compare these four values with each other and assign the entitlement to P if V turns out to be the lowest value. If however H proves minimal, then party P should be held liable for any harm, with the value H defining the damages. If on the other hand A_d is the smallest value, then the court should hold party D responsible for avoiding the harm and vice versa for party P if A_p turns out to be minimal[6].

The Calabresi/Melamed rule has been modified in order to account for cases of imperfect information on the part of the court. If the court knows the value of the total harm produced, but lacks reliable information on the parties' avoidance costs, then it should assign the property right to the plaintiff by using a liability rule approach. For the defendant, i.e., the party causing (physical) harm will reveal her private avoidance

[6] Kim and Kim (2004) have demonstrated that under asymmetric information the incentive-compatibility of this mechanism is only weakened in the following case: If revelations to the court are sequential and party D reveals first, then, after D having revealed her values, party P has indeed an incentive to exaggerate his own values if $H < V$ (i.e., if he values the property right lower than D values it). P will however locate his reported value (H') strictly within the range $H < H' < V$. For with $H' > V$ the court follwong Posner's rule would order party D to stop her harmful activities, an order that would reduce P's payoff back to the level of H! Therefore the reported ordinal ranking of the four values $\{A_d, V, H, A_p\}$ will not be biased.

costs by her own behavior after the plaintiff has received the entitlement in question. If on the other hand the court knows the avoidance cost functions, but not the harm produced, then it is efficient to assign the property right to the defendant and to protect it with a liability rule (Kaplow and Shavell 1996: 14 f.). That means that the plaintiff, if she wishes the harmful activity to be ceased, has to pay the defendant for this, hence has to reveal her true valuation of the property right in question.

Further problems of course arise if the court has only access to biased information on harm and/or avoidance cost functions. Mainstream Law & Economics, following Coase (1960: 15) did never really see good reasons to depart from this assumption, since, in the words of Swanson and Kontoleon (2000: 388), courts were generally regarded as having a comparative advantage in the collection of relevant information, because "judicial intervention... can be an efficient method for accumulating and applying information on previous similar conflicts to current ones."[7] We will return to this assumption below. Notice however that its *ad hoc* character is not as strong as it appears at first sight, since it is implicitly based on theoretical premises quite similar to those that underlie the 'efficiency thesis of the common law', according to which common law adjudication systematically selects for efficient over inefficient judgements (Aranson 1986; Posner 1998a: 271–275).

2.2. What is a 'fair' compensation?

Having described – in a nutshell – the central instrumental implication of the Coase Theorem regarding bilateral land use conflicts in general, let us now have a look at the second essential area, where the Coasean approach has been applied: the area of governmental *takings*, i.e., the complete physical appropriation of single land parcels by a state agency. In contrast to ordinary land use regulations, takings normally require compensation. Law & Economics has not only (i) examined the efficiency rationale of takings in general, but also (ii) the issue under which conditions compensation should be paid at all, and (iii) the question of the efficient level of compensation that should be paid to the private land owner.

[7] cf. on this also EHRLICH and POSNER (1974).

Concerning the efficiency rationale, most economists would certainly agree that (a) the risk of strategic behavior ('hold-out') and (b) the costs of collective action may justify regulatory state intervention. The 'hold-out' problem is a straightforward consequence of the bilateral monopoly characteristics of the ordinary Coasean bargaining situation (Cooter 1982; but see also Demsetz 1972). If party A has a higher willingness to pay for a set of land parcels, if this willingness refers to the whole set exclusively (think of some infrastructure project, say), and if the single parcels are initially owned by separate agents, then any of these agents has an incentive to hold back her consent as long as possible, in order to maximize her private share of the joint cooperative surplus. At the limit, this incentive may very well block bargaining results who, under lower transaction costs, would have increased the aggregate welfare of all parties involved. Hence it may be efficiency-enhancing to step in and to enforce a 'fair market price' by regulatory means. To be sure, principal-agent problems loom large here and may be at least partially solved by legal restrictions, such as the requirement that enforced takings are only allowed in order to realize a *welfare-increasing public* project[8]. The second rationale mentioned above, viz. the costs of collective action problem, again refers to the realistic setting where at least one party consists of a multitude of agents, each endowed with his own private interests. In this case, the agents may face prohibitive transaction costs for organising themselves and the state agency may intervene in order to act as the representative (the 'agent' in the parlance of principal-agent theory). Here again, public choice issues have to be solved, of course, which may prove to be a quite tricky task in its own right.

Given that there is in principle a basic efficiency rationale for the existence takings, we now face the question where the line should be drawn between regulation and takings of land, i.e., under which conditions compensation should be paid at all. In the literature, four criteria have been proposed. First, it has been argued that compensation should be due if the initial use of the land has been 'harmful' ('injurious to public welfare') as opposed to 'reasonable', given the local

[8] on the "public use" requirement see the controversial arguments by FISCHEL (1995: 71–73) and EPSTEIN (1985: ch. 12).

circumstances. This position is reflected in the *noxious use doctrine* of U.S. land use law[9]. Fischel (1995: 154 f.) has proposed to model this doctrine as a ‚harm-benefit rule', according to which the state agency is allowed to prevent harmful activities, while it is not allowed to compel, without compensation, private landowners to contribute to local public goods by using their land in some specified non-harmful way. Hence, in the latter case, we are facing a genuine taking and compensation is due. From an economic point of view, this rule is not completely convincing, since any harm can of course be interpreted as a benefit foregone and vice versa. Who defines what is 'harmful'? In the end, without further information, we are back at the efficiency calculus: Any land use that is inefficient may be labelled 'harmful' and therefore be made subject to regulation without compensation.

Second, it can be argued that compensation should reasonably be restricted to those cases where the regulation-induced value restriction is 'excessive'. This 'Diminution of value test' has been introduced by judge Holmes in the case of "Pennsylvania Coal v. Mahon" (1922); later, it has been modified - in "Lucas v. South Carolina" (1992) – in ruling that the private landowner should be compensated if and only if she "has been called upon to sacrifice *all* economically beneficial uses in the name of the common good"[10]. An analogous rule recently applies in German land use law as well[11]. In the case of 'Penn Central v. City of New York', a similar rule has been introduced, according to which only those regulatory interventions should be classified as takings that "so frustrate *distinct investment-backed expectations* as to amount to a taking"[12]. Here the question becomes critical if the intervention has indeed affected expectations on whose basis legitimate investment decisions have been taken[13]. Compare this rule to the slightly bizarre principle in German property law which denies compensation if the land use in question is one that "a landowner who takes into account the public welfare (sic!) and the concrete geographical

[9] This doctrine has been made slightly more operational in the famous case of "Penn Central Transportation Co. v. City of New York" (1978), where the court defined 'public welfare' rather loosely as comprising aspects of "health, safety, morals, or general welfare".

[10] see "Lucas v. South Carolina Coastal Council" (1992: 2895, my italics), and BROMLEY (1997: 48).

[11] cf. PAPIER (1994: Rn. 352 ff.).

[12] see "Penn Central v. City of New York" (1978: 127), my italics.

[13] see MICELI and SEGERSON (2000: 344 f.).

situation and surroundings would not *reasonably* have chosen" (Wolf 2005: Rn. 68, my italics). Again, orthodox Law & Economics takes the shortcut in identifying the meaning of 'legitimate' and 'reasonable' with what is efficient.[14]

Third, it may be argued that compensation should only be due if the regulatory intervention affects some private landowners in a discriminating way.[15] The rationale of this rule may be most clearly shown from a contractarian perspective, where rules that restrict an individual's behavior can ideally be interpreted as a reciprocal exchange, generating a surplus for all parties who are voluntarily participating. Put differently, "each person whose property is taken by the regulation receives implicit benefits from the parallel takings imposed upon others" (Epstein 1985: 196). If rules have discriminating effects though, this reciprocity no longer holds and extra monetary benefits are due to the party that is negatively affected.

Fourth and finally, state agencies in both the U.S. and Germany have tried to go beyond statutory and judge-made law by making separate deals with private landowners in order to exchange land use restrictions against concessions. In other words, the state agency 'buys' private contributions to local public goods. The range of bargaining-induced (most often in-kind) 'compensation' has however been restricted by the courts:[16] According to the U.S. Supreme Court, a contract between state agency and a private landowner has to be based on a 'material connection' between the *quid* and the *quo*. There has to be a verifiable 'essential nexus' between the entitlements that are being exchanged. In a similar case – "Dolan v. City of Tigard" (1994) – the court ruled that there must be a 'reasonable relationship' between the restriction and the property rights that the state agency assigns in return.[17]. Again, we face the tricky question how a 'reasonable' relationship can be determined on the basis of economic logic. Notice that in most instances there is a

[14] see, for instance, MICELI and SEGERSON (2000: 344 f.).
[15] see PAPIER (1994: Rn. 342 f., 357 ff.) for the German land use law.
[16] The arguably most important decision is "Nollan v. California Coastal Commission" (1987).
[17] According to the court, "no precise mathematical calculation is required, but the city must make some sort of indidualised determination that the required dedication is related both in nature and extent to the impact of the proposed development", as quoted by HEALEY et al. (1995: 232). See GRIGOLEIT (2000) for an analogous rule in German law.

bilateral monopoly situation, hence no innocent market prices are available in order to determine the 'reasonable' price a private landowner can expect for his offer.

Finally, we have to determine the *amount* of compensation to be paid to the landowners affected by the taking. German property law (Article 14 of the German "Grundgesetz") stipulates that compensation has to be determined by a "fair balancing of the public's and the involved parties' interests"[18]. Analogously, the 5th amendment to the U.S. constitution requires that "private property [shall not] be taken for public use, without just compensation". Thus, we have two key notions – "fair" in the German and "just" in the U.S. case – whose meaning has to be identified before the level of compensation can be properly determined. Not surprisingly, Law & Economics views the meaning of these two notions in the light of efficiency considerations – its implications are however somewhat tricky in this case.

Consider first the intuitively appealing idea of using market prices (the "fair market value") as a proxy for the proper amount of compensation. Given that the owner's (unfortunately unobservable) subjective valuation of her land parcel tends to be significantly higher than the market price, this proxy would systematically underrate the welfare losses of takings and, consequently, their social opportunity costs. Hence the state agency, suffering from 'fiscal illusion', would tend to take land excessively, since it would underestimate the social costs of takings (Miceli and Segerson 2000: 331). If, on the other hand, the landowner gets a compensation that perfectly covers her losses, then again inefficient incentives would result, if the amount of compensation is made a function of market values. For in that case, the landowner could influence the amount of compensation by adapting her own behavior – a genuine case of "moral hazard", causing excessive private investment in the value of land parcels (Blume et al. 1984)[19]. The only way out of this trade-off between moral hazard on the part of private and state agents is to compensate in a lump-sum fashion; as Miceli and Segerson (2000) demonstrate, the amount of compensation is efficient if it depends directly on the *efficient* level of private investment on the parcel of land to be taken: "[A] compensation rule that pays landowners the full value of

[18] cf. PAPIER (1994: Rn. 344 f.).

[19] A similar problem obviously arises in the somewhat less likely case that the probabilty of takings depends on the parcel's value (MICELI 1991)

their land at the efficient level of investment results in both efficient investment in land and efficient takings decisions when the government has fiscal illusion" (ibid.: 335).[20] Here again, as in the case of the 'normative Hobbes Theorem' discussed above, the policy-maker or judge has to determine which level of investment is efficient under the given circumstances – a task that is again subject to the well-known information and motivation problems any state action is facing.

Leaving aside these informational and motivational obstacles for the time being, we can identify a common thread within Law & Economics' treatment of both bilateral land use conflicts and compensation decisions. In both cases, the instrumental rule guiding policy-makers and judges centers around the welfare-maximizing way to use the parcels of land in question. Coase' ideal (friction-free) bargaining results in exactly that property right allocation or land use constellation which a rational, integrated 'single owner' of all land parcels affected would have chosen. Efficient compensation is a function of efficient investments, i.e., welfare-maximizing land uses by the parties involved. It is then straightforward to examine the question if this 'single owner' rule is indeed a satisfactory answer to the legal policy issues involved. Hence, after having sketched the main instrumental implications of the Coase Theorem, let us now examine the theoretical and practical *lacunae* in the argument that will be the concern of the present paper.

3. Theoretical and practical gaps in the Coasean perspective

As has been outlined in the introduction, the present paper is concerned with essentially two gaps that weaken both the theoretical consistency and the practical relevance of the Coasean perspective on land use conflicts and takings decisions. While the former concerns the distributional zero-sum conflict that is inherent in any bilateral Coasean bargaining, the latter concerns the economic interpretation of key concepts in the legal resolution of land use conflicts and takings issues (such as 'reasonable', 'legitimate', 'just' or 'fair'). We will discuss these issues in turn.

[20] see also FISCHEL and SHAPIRO (1989).

From a game-theoretic perspective, Coase' Theorem is tantamount to the hypothesis that a one-shot cooperative 2-person game on the distribution of a surplus has a solution. This is however a rather optimistic hypothesis since the parties are typically involved in a bilateral conflict over the use of property rights (Cooter 1982; Demsetz 1972). There is typically exactly one party that demands and one that supplies the property right in question, i.e., we are faced with a bilateral monopoly situation[21]. Hence, rational agents have a clear incentive to strategically hide their true preferences, in order to maximize their own share of the cooperative surplus. As a consequence, the exchange gain dissipates, since both parties spend all their available resources to appropriate a maximum share of the cake (Mumey 1971).[22] Notice that this incentive even increases with decreasing transaction costs, because decreasing transaction costs decrease the costs of any delay in the bargaining process (Cooter 1982). This whole issue may be illustrated by three problems that my prevent successful bargaining and therefore the joint generation of the surplus in the first place.

Consider first the incentive to 'extort' the other party. Given two neighboring landowners, A and B, it may be rational for party A to propose an actually inefficient project that has the potential to harm party B, just in order to 'sell' the *non*-realization of this project to party B (Schlicht 1996). Party B may then rationally offer a price to obtain the property right in question. Second, consider the situation, already described in Coase (1960), of a liability rule regime where a farmer's corn fields are affected by a railroad's sparks. Let's assume that land is traded on a competitive real estate market, that the property right is now initially with the farmer, and that due to the reciprocal nature of the problem efficiency requires *both* parties to invest in avoidance techniques: the farmer, for instance, should face incentives that lead him not to grow corn just beside the railways. A rule that compensates him for any harm that the sparks cause him would however not establish these incentives, since it would make damages a function of action parameters the farmer himself can influence. It would lead him to invest excessively in his fields. A better rule would link the damages payable to the farmer to the loss in terms of market

[21] Compare this to Stigler's influential version of the Coase Theorem, according to which "under *perfect competition* any assignment of rights leads to the optimal resource allocation" (STIGLER 1966: 113, my italics). If there is no perfect competition, the Theorem may not be applicable.

[22] see also WITT (1996: 121–124), but also COASE (1960: 8) and COASE (1988: 162), trying to deny this argument's relevance.

value that the sparks cause. This rule is better, because the farmer cannot directly influence the market prices through his behavior. Hence, the implicit price for the property right in question (viz., the right to harm the farmer's corn fields) is set *exogenously*, making both parties price-takers.[23] The bilateral monopoly problem can thus be overcome by cutting the link between, on the one hand, the involved parties' action parameters and, on the other hand, the price of the relevant property right (i.e., the amount of damages to be paid). Third and finally, think of the hold-out problem that has already been mentioned above: Again, on one side of the bargaining table, several parties have the incentive to try to hide their true valuations of the property right in question in order to redistribute shares of the surplus. This behavior may be expected if the other party (the one that demands the entitlement) needs the approval of every single property right holder, making every single one effectively a monopolistic supplier. Again, strategic behavior may eventually block the bargaining process – a solution would need to provide for the exogenous determination of the property right's implicit price.

Given these theoretical problems, it is straightforward that most of the practical issues involved in land use and takings decisions refer to the problem of how to provide for an exogenously set price for the property rights involved in the bargaining. Moreover, given that many real-world bargaining processes do indeed suffer from obstacles that can be explained by the bilateral monopoly nature of the situation – while it is obvious that in some real-world settings these obstacles have been successfully overcome – we have to examine under which conditions successful bargaining can be expected. Real-world individuals are apparently better able to solve the problems involved than idealized *homines oeconomici*.[24]

First, however, we have to identify the set of practical problems where the solution to the 'price problem' would presumably play a systematic role. Since we are concerned with both land use conflicts and takings decisions, we have to investigate these two spheres in turn. Let us begin with the land use conflicts issue: According to the Calabresi/Melamed rules described above, liability and property rules should be allocated

[23] Due to nonconvexities real estate market values will probably not reflect true social costs, but we will not take this problem into account here; see however BAUMOL and BRADFORD (1972) and PAPANDREOU (2003).

[24] for some experimental and field evidence, see, e.g., HOFFMAN and SPITZER (1986) and ELLICKSON (1995).

in such a way as to either induce or reconstruct the outcome of a friction-free bargaining process. As a heuristic to achieve this, the 'single owner' thought experiment plays a decisive role (see section 2.1, above).

Practical problems start when it comes to 'selling' the concrete policy implications of this heuristic to (i) the legal community and (ii) to the public at large. The sharp criticism by Canaris (1993) against the 'single owner' approach is representative for a position most legal scholars in Germany and the U.S. share: The Calabresi/Melamed approach systematically neglects the intrinsic value of peoples' *rights*. If for instance two adjoining landowners, when involved in a bilateral use conflict, have to accept a decision that is based on what a single owner of both parcels would have decided, then the parties' initial endowment of rights and entitlements has a highly limited function only: it defines initial threat points in a bargaining game, i.e., a set of minimum (monetary) payoffs each party will be sure to obtain. This however runs counter to the actual meaning, rationale and social function of rights which mainly consists in guaranteeing and securing a minimum sphere of privacy where the agent can behave as she deems fit, regardless of the efficiency of this behavior[25]. The social function of individual rights is reflected not only in the codified text of statutory and judge-made rules, but also in the informal social norms that people hold and that reflect widely held perceptions of 'fair' patterns of behavior, but also of 'fair' distributions of legal rights and economic resources (Ellickson 1995; Frey et al. 1996). This observation is highly relevant for the economic assessment of law as informal social norms seem to be extremely significant for the degree of legitimacy legal rules are perceived to possess and thus for their acceptance by the individuals and their enforcement in society at large (Tyler 1990).

An analogous problem arises with respect to the efficiency calculus that underlies the orthodox answer to the double question of (i) under which conditions (ii) how much *compensation* should be paid to the agent whose land has been taken. As regards question (i), we have seen that the law proposes essentially four ways to determine the boundary between normal land use regulation and takings (see section 2.2. above). The first option is based on the concept of 'harmful' as opposed to 'reasonable' land uses. Sticking to the narrow 'single owner' approach, Law & Economics scholars typically define the meaning

[25] see also COLEMAN and MURPHY (1990: 71–82).

of these terms by resorting to some efficiency calculus. If this however no longer works, it is necessary to identify the terms' meaning with the help of some 'benchmark of neutral conduct' (Miceli and Segerson 2000: 340) which depends on the local circumstances and can be found relying on the epistemic resources of local 'community standards for 'normal' land use' (Fischel 1985: ch. 8; Fischel 1995). This would arguably not only increase the adjudication's perceived legitimacy, but also stabilize expectations by making sure that the costs, biases, errors and contingencies involved in any judge-made efficiency calculus are avoided.

The second option refers to the amount of value lost (on the part of the landowner) by regulatory interventions or to the frustration of 'investment-backed expectations'. Again, the relation to widely held social norms concerning questions of distributive and procedural fairness is quite obvious. To judge some diminution of value 'excessive' presupposes some assessment, however implicit, about the character of a reference solution that distributes the welfare surplus generated by a taking 'fairly' between the parties involved. On the other hand, the aim to respect 'investment-backed expectations' directly refers to questions of procedural fairness and to the general function of rights to allow individuals to build stable expectations.

The third option that has been proposed to solve the compensation issue is based on the principle not to act in such a way that single individuals are discriminated against. In this case, the reference to procedural fairness aspects is even stronger: As has been shown above, this discrimination test can be linked to a contractarian thought experiment (Epstein 1985: 196) which is in turn based on an 'original position' model that ideally reflects deeply held intuitions about the nature of 'fair' behavior (Binmore 2005; Cordes and Schubert 2007).

Finally, the fourth option refers to there being a 'reasonable' nexus between the *quid* and the *quo*, when a single landowner negotiates with the local community (representing neighboring landowners) about the reallocation of land use rights beyond what has actually been stipulated in the law. As this rule concerns the terms of bargaining, it is again directly linked to the question which way to distribute the cooperative surplus generated by the successful bargaining is considered 'fair'.

Hence, the narrow orthodox 'single owner' approach has to be complemented by taking into account the way real-world individuals think about rights, their function, allocation and distribution. Apparently, the simple model of the payoff-maximizing *homo oeconomicus* does not adequately capture these aspects. Notice that it is not only incomplete in a strictly positive sense, but also from an instrumental angle: Practical legal policy issues cannot be adequately resolved without taking into consideration aspects such as the agents' informal norms regarding the distributive and procedural 'fairness' of the way cooperative surpluses are shared among the parties involved. Since any bilateral land use conflict and any takings decision can be shown to imply (i) some jointly generated surplus that has then to be distributed among the parties and (ii) an interdependency between these two problems (i.e., there is no surplus without an agreement of how to share it), it should not come as a surprise that when attempting to solve the conflicts involved, the law has to resort to exogenous standards of fairness that cannot be reduced to the single standard of allocative efficiency. Rather, the epistemic resources necessary for defining the content of these standards have to be found within the given informal institutional background of society, i.e., the relevant 'social norms'.

Notice that these considerations can be argued to take up the methodological suggestion by Coase himself (in Coase 1988: 15) that "a situation in which transaction costs...are assumed to be zero...is in any case but a preliminary to the development of an analytical system capable of tackling the problems posed by the real world of positive transaction costs." This real world is one in which, among other things, agent hold specific beliefs about what constitutes a fair division of a jointly created surplus and what constitutes a fair treatment of individual rights in any instrumental legal policy advice. The following section will explore some of the normative implications that these insights bear.

4. Some normative implications

Given that there seems to be a need to incorporate informal social norms on fairness in the Law & Economics calculus, the double question immediately arises (i) where these social norms come from and (ii) how their incorporation can be achieved. While we

cannot dwell deeper on the first issue (but see Witt 1989 on an evolutionary account of how institutions evolve over time), we will tackle the second one from three different angles. For the sake of simplicity, we will proceed somewhat backwards and start with (i) a very brief remark on the way the court integrates social norms into its adjudication, continue with (ii) a proposal concerning the incorporation of fairness aspects into the court's decision calculus and proceed then (iii) to the most important problem, viz. the general legitimacy and the generation of adequate fairness norms by means of normative theorising.

4.1. The incorporation of fairness criteria

First, the instrumental advice that in order to solve land use and compensation cases courts should – at least *partly* – rely on society's informal fairness norms is quite contrary to the standard approach of orthodox Law & Economics. According to the latter, even imperfectly informed judges should attempt to gather all knowledge necessary to engage in the sort of efficiency calculus required to identify a welfare-maximizing rights allocation (as stipulated by the Coasean 'single owner' approach). If this task proves prohibitively costly, then there is a certain optimism that precedent is available that guides the judge in the correct (to wit, efficient) direction (Cooter and Ulen 2003).[26] However, as Ott and Schäfer (1994) show, adjudication cannot be reduced to the application of a pure efficiency calculus. It is rather typically based on the epistemic resources inherent in relevant social norms. On the one hand, in order to maintain his reputation among its peers, the single judge cannot depart too much from established precedent; on the other hand, he cannot afford to depart too much from widely held social norms, as that would jeopardize the perceived legitimacy of his (and his peers') rulings. To be sure, in order to serve as a basis for any adjudication, social rules are made subject to a multi-layered normative test. First of all, their consistency with supreme normative legal principles has to be checked; since efficiency is quite obviously not a very

[26] See ARANSON (1986) for the assumptions and hypotheses underlying the 'efficiency thesis of the common law' that are obviously pertinent here.

prominent value among law's highest principles, the 'efficiency check'[27] can only be one among several relevant tests. Given both (i) what has been said in section 3, above, and (ii) what legal consistency with basic normative principles demands, the court is rather in need of an adequate and economically rational *criterion of (distributive and procedural) fairness*. But how could such a double criterion possibly look like?

This question brings us to the second issue raised above, viz., a proposal concerning the incorporation of fairness aspects into the court's decision calculus. Among the very few substantial contributions to this problem, Michelman's (1967) stands out. In the context of the compensations problem, he demonstrates that besides the traditional efficiency criterion, fairness criteria can play a certain autonomous role in the calculus underlying takings adjudication. Inspired by Rawls (1958), he operationalizes fairness as an extra cost category, namely 'demoralization costs', and integrates them into the quasi-utilitarian consequentialist calculus of Law & Economics by assuming that in the case of non-compensation not only the landowners directly affected by a taking but all other agents (*potentially* affected by similar takings) as well suffer from these extra costs. For in that case they will rationally deduce a positive probability that they are witnessing (and will suffer themselves in the future) a case of 'majoritarian exploitation' (see ibid.: 1214, 1217). Michelman's rule prescribes to compensate the landowner if it is simultaneously the case that demoralization costs (D) are higher than the administrative costs of compensation (S) and that the welfare gains generated by the taking (W) are higher than the minimum value of D and S. As regards the practical implications, this criterion stands right between the Kaldor Hicks criterion and the original Pareto criterion: It allows individual losses, but accords them a relatively high value in the social decision calculus (Miceli and Segerson 2000: 335 f.). While this middle range position indicates a certain superiority of Michelman's rule in terms of its consistency with widespread fairness intuitions, the proposed calculus form is however seriously deficient. It totally neglects the partly non-consequentialist nature of any plausible conception of rights: Their value cannot reasonably be reflected by a calculus that makes any individual right a perfect substitute to any other. Consequently, such a calculus effectively misses a key (namely, procedural) aspect of any fairness criterion. Rather, rights have an *intrinsic*

[27] see COOTER (2000) on a possible variant of this check.

value also, and this should be taken into account in any normative theory that underlies the instrumental applications discussed so far.

4.2. Two Rawlsian fairness criteria…

Having discussed one deficient way to conceptualize and incorporate fairness criteria, we now turn to the third issue raised at the beginning of this section, to wit, the general legitimacy and the generation of adequate fairness norms by means of genuine normative theorising. As regards the legitimacy issue, we can safely ignore most of the fierce polemics brought forward against fairness criteria by Law & Economics scholars such as Posner (1998b) by simply noticing (i) the strong empirical fact that real-world individuals do care about matters of procedural and distributive fairness in the sense of having their individual utility partly dependent on them[28], and (ii) the weak normative statement that any utilitarian calculus has to include all variables that influence individual utility. It is in this general utilitarian sense that we now consider fairness criteria to be relevant in the Law & Economics treatment of land use conflicts and takings decisions[29].

In what follows, we will introduce a contractarian approach that is capable of providing us with the set of plausible fairness criteria we need, including, as it does, one procedural and one distributive fairness criterion. It satisfies two essential conditions that have been identified in sections 2 and 3: First, it links the criteria to widespread social norms of fairness that have been argued to shape peoples' beliefs concerning the legitimacy of the law in general and court rulings in particular. It does so by embedding the contractarian model of the 'original position' within the informal institutional context of a given society. Second, it can be used to deliver appropriate clarification and definition of the 'tricky' legal terms such as 'reasonable' and 'just' that have been found to play such an important role in land use adjudication. But there is yet a third advantage: If interpreted in a proper way, the Rawlsian approach can serve as a model for a *deliberative* concept of the legal process, i.e. one that takes into account the function of

[28] among the vast amount of evidence for this, see GÜTH (1995) and FEHR and FISCHBACHER (2002).

[29] cf. KAPLOW and SHAVELL (2000: 8f., 17f.). They argue that if individuals have indeed internalized a social norm related to a notion of fairness, they may have a 'taste for fairness' and then this is extremely relevant from a welfare economic point of view.

court rulings to not only to attach implicit prices to alternative strategies (as the orthodox Law & Economics school argues), but also to signal normative expectations (Engel 2001). By performing the latter function, adjudication attempts to shape the involved agents' preferences. Thus we are now facing the theoretical challenge to depart from the neoclassical pet assumption of given and fixed preferences.

Let us have a look on Rawls' basic approach first. Rawls is widely referred to as the initiator of the renaissance of contractarian thought in the late 20th century (O'Neill 1998). By means of his concept of ´justice as fairness`, developed in his ´Theory of justice` (Rawls 1971), Rawls aims at deriving a set of fundamental principles of justice that shall govern the design of society´s ´basic structure`. The latter term encompasses all rules and procedures that regulate the distribution of basic resources, i.e. the principles of justice serve ´to assign basic rights and duties and to determine the division of social benefits` (ibid.: 11). Thus it is not the detailed distribution of dollars or euros that shall be regulated, but rather the distribution of multi-purpose goods like rights and entitlements. Moreover, it is worth noting that Rawls´ approach explicitly starts from the assumption of a *plurality* of values. This makes it necessary to qualify the status of the contractarian results – they are meant to be derived from a *political* agreement, rather than from some metaphysical insights.

Rawls follows the basic contractarian logic in arguing that the way the benefits and costs of the processes of social cooperation are distributed is ´just` if it corresponds to principles that rational agents would plausibly have agreed upon under ´fair` conditions. This ´fairness` proviso refers to the specific way the original position is modeled. It includes assumptions about the kind of information available to the individuals (the ´thickness` of the veil of ignorance), the individuals´ preferences (e.g., for risk), and a normative rule concerning the weight of the individual preferences in the process of deriving social welfare judgments. The whole contractarian methodology is centered around the concrete specification of the original position.

Assuming that on the constitutional stage, the individuals do not dispose of any information as to the position they will take in future sub-constitutional market games, Rawls develops two positive hypotheses about the agents´ choice behavior under these conditions. First, he conjectures them to behave in a very risk-averse way, i.e. to choose

according to the *maximin* criterion: That is, when selecting among the available sets of constitutional rules, they will focus exclusively on their respective worst consequence – they then choose the set that displays the (for them) ´best` worst consequence. On the basis of this decision-theoretic assumption, Rawls concludes that behind the veil of ignorance, rational agents will agree upon the *Difference Principle*. It includes two sub-principles and one priority rule:[30]

> „1. Each person is to have an equal right to the most extensive total system of equal basic liberties compatible with a similar system of liberty for all.
> 2. Social and economic inequalities are to satisfy two conditions. First, they must be attached to offices and positions open to all under conditions of fair equality and opportunity; and second, *they must be to the greatest benefit of the least advantaged members of society*"

He explains the second principle as follows:

> „[T]he higher expectations of those better situated are just if and only *if they work as part of a scheme* which improves the expectations of the least advantaged"[31]

The principles are complemented by the following priority rule[32]:

> „The principles of justice are to be ranked in lexical order and therefore liberty can be restricted only for the sake of liberty."

Notice that the Difference Principle offers preliminary answers to the two main desiderata of our Law & Economics endeavor: First, it determines a non-instrumental weight – or ´value` - for individual rights. Second, it formulates a criterion for evaluating alternative distributional patterns.

Hence, according to Rawls, every member of society should be granted a minimum endowment of basic multi-purpose resources; at the same time, no individual should be systematically excluded from sharing in the cooperative surplus generated by the very mutual behavioral constraints that will be agreed upon on the constitutional stage.[33] According to Rawls, a contractual agreement is legitimate only if it is made sure

[30] cf. RAWLS (1971: 302, my italics).
[31] cf. RAWLS (1971: 75, my italics).
[32] cf. RAWLS (1971: 302).
[33] on critical points in Rawls' argument see HARSANYI (1975) and BINMORE (2005). Notice however that all three authors argue by equating the agents' choice situation behind the famous veil of ignorance with the choice situation an autonomous single agent faces in a real-life setting. For if the veil is sufficiently thick, all agents dispose of identical information (or rather non-information) concerning the

that no individual member of society will be systematically discriminated ex post (in the sense of being completely excluded from society´s cooperative surplus). In the end, the famous maximin principle appears to reflect only one highly specific facet of an overarching, much more plausible normative idea – which itself will have to be further specified, to be sure. In the following sub-section it is however not the content of the Rawlsian ´principles of justice`, but the procedure by which they can be developed that plays a key role. First and foremost, Rawls offers a *procedural* theory of justice.

4.3. …and their deliberative generation.

For the purpose of the present paper, the most important feature of Rawls´ approach is the fact that he combines two different legitimization procedures in order to derive widely acceptable principles of justice. Besides the classical contractual method described above, he employs a ´coherentist` method (O´Neill 1998; Daniels 1979; Hahn 2000). This will be discussed in this sub-section.

As has been shown above, the specification of the original position and its informational structure plays a key role in any contractarian theory. The informational constraints serve as a model of the ´moral viewpoint` a fictitious impartial observer would take. What underlies this model is a set of normative statements about what kind of arguments are considered acceptable in a normative discourse. In order to specify such a model, one has to choose one of two possible procedures. On the one hand, the model can be set axiomatically (Harsanyi 1982). This is the approach that for instance Kant took when he proposed the original position *cum* social contract metaphor as a model for the

characteristics of the sub-constitutional market game. In that case, their choice behavior can be reconstructed by modeling the choice of a single representative agent! Thus, under these artificial conditions, social and individual choice become identical. It is however a non-sequitur to reduce genuine *social* choice to isolated individual choice behavior, , for the following reason. There is a categorical difference between individual and collective choice behavior under uncertainty. In the former case, it is perfectly rational for a single agent to choose a strategy (say, driving by car) that involves a small risk of resulting in a negative payoff (a deadly accident), if the overall expected utility is positive or sufficiently high (depending on the agent´s preference for risk). In the latter case, though, following this logic cannot be assumed to be rational a priori. Note that here, ´rational` should be understood as ´agreeable by all agents concerned`. For if a utilitarian (i.e., ´distributively blind`) rule is chosen, there is a positive probability that some members of society will end up in a situation where they do *not* dispose of the Rawlsian minimum resource endowment. Then, the resulting distributional pattern will not be acceptable for these agents, in the sense of not being defendable as resulting from the application of a justifiable rule.

categorical imperative – which, in turn, was based on purely theoretical, rationalistic (i.e. non-empiristic) reasoning.

On the other hand, a *conventionalist* perspective can be taken; then, normative reasoning has its starting point not in the philosopher´s armchair, but rather in an empirical inquiry into the moral intuitions and social norms that actually do prevail in the historical-cultural setting under consideration. Hence, the individuals´ moral *common sense* is set at center stage in the contractarian argument. Rawls suggests that the empirically prevailing informal social norms should guide the specification of the contractarian original position. Instead of setting an axiomatic definition, he proposes to explicitly develop the contents of the original definition – i.e. he proposes to endogenize it. Within the contractarian literature, this is a highly original endeavor indeed.

In order though to avoid the notorious 'naturalistic fallacy', Rawls needs to construct a methodological bridge to overcome the gap between the is-world of empirically valid social norms and the ought-world of normative statements. To this end, he constructs the model of a *public deliberation procedure* which takes the individual moral intuitions and the collectively shared social norms of a given society as a (´crude`) input and transforms them into a set of abstract principles of justice. These principles shall be gained in the course of a rule-guided multi-step procedure: Abstractly spoken, the individuals (participating at a given constitutional discourse) move first by expressing their moral intuitions, social norms and social preferences. As this will result in a vast amount of ´normative knowledge` that will be both non-operational and highly contradictory (and partly non-sensical, too), social philosophy enters the stage and gets the task of summarizing these utterances, in the sense of distilling their common ground. The few abstract principles that have been formulated will then be suggested to the individuals, who probably will partly reject them, but who may also critically reflect on their own original utterances and adjust them, etc. In the end, this interactive learning process will (hopefully) result in a coherent set of abstract normative statements that properly reflect the generalizable core of the agents´ preferences. These statements constitute what Rawls calls the ´Reflective Equilibrium` of society[34]; they guide the specification of the contractarian original position. The Reflective Equilibrium represents

[34] cf., e.g. RAWLS (1971: 20) and the critical analysis by HAHN (2000).

Rawls´ idea of a genuinely political (compromise-based) agreement on normative issues, i.e. it dismisses any metaphysical pretensions. Moreover, in spite of the misleading ´equilibrium` notion, it is not meant to be developed once and statically valid thereafter. Rather, it serves as a device to solve normative problems, as long as it yields generally acceptable results. If this is no longer the case, it will be adjusted and modified accordingly.

5. Concluding Remarks

In the present paper we have tried to show that Law & Economics is in need of an enrichment by an institutional-evolutionary account of fairness norms. This has been illustrated for the case of bilateral land use conflicts and takings decisions. From the perspective of the orthodox, supposedly 'Coasean' approach, these regulatory problems can best be solved by applying the 'single owner' heuristic and calculating both the welfare-maximizing way to reallocate the property rights in question and the incentive-compatible amount of compensation for takings of land.

This approach suffers however from two basic shortcomings. First, it cannot provide a solution to the distributional conflict underlying any Coasean bargaining game. Second, it cannot supply a plausible interpretation of essential legal terms such as 'reasonable' and 'fair' that turn out to be key in tackling the compensation problem.

We have argued that the way out of this impasse leads to the incorporation of informal social norms into the Law & Economics calculus. While it can be empirically shown that courts do indeed take account of the institutional context of the agents involved in litigation, there is unfortunately no straightforward way to generate the required fairness criteria. While Michelman's approach neglects the non-consequentialist value of individual rights, Rawls' conventionalist approach can indeed be used as a deliberative model of the legal process that delivers plausible criteria of both procedural and distributive fairness.

Notice finally that this fairness-oriented perspective on two classic Law & Economics issues not only follows Coase' central methodological suggestion to explore the characteristics of a world of positive transaction-costs, but it can also be seen as

starting from an evolutionary view on the economic nature of land use conflicts that is much more realistic than the orthodox perspective. For if we conceptualize land use patterns as temporary results of an *ongoing process of endogenous urban change*, then we can interpret land use conflicts as reflecting the costs of adapting to these ever-changing patterns and the novelty they bring about. Put differently, while land use patterns change continuously, they also generate configurations of land uses that are deemed undesirable by a subset of the agents affected. Hence they bring about adaptation costs. These costs have to be shared somehow among the individual users of the urban agglomeration − and it is a plausible answer to this distributional problem that the law is supposed to give. Law & Economics should finally try to accept this challenge.

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