Takings, Insurance, and Michelman: Comments on Economic Interpretations of "Just Compensation" Law
Author(s): William A. Fischel and Perry Shapiro
Source: *The Journal of Legal Studies*, Vol. 17, No. 2 (Jun., 1988), pp. 269-293
Published by: The University of Chicago Press for The University of Chicago Law School
Stable URL: http://www.jstor.org/stable/3085570
Accessed: 14/06/2014 05:36

TAKINGS, INSURANCE, AND MICHELMAN: COMMENTS ON ECONOMIC INTERPRETATIONS OF "JUST COMPENSATION" LAW

*WILLIAM A. FISCHEL and PERRY SHAPIRO**

I. The Noncompensation Controversy

Under the takings clause of the Constitution, the state is required to pay just compensation whenever it takes private property for public use. Yet the explicit command of the Fifth Amendment does not foreclose asking whether, on balance, this rule is a good thing. If pressed on the question, most economists and lawyers would, we believe, conclude that the government should pay for the property that it takes. The argument, especially that of economists, might be that forcing the government to pay for the resources it gets promotes efficiency.[1] In a world lacking any compensation requirement, the obvious fear is that private investors will be inhibited by the thought that government will snatch away or unthinkingly destroy the fruits of their venture. The fears of what will happen at the end of the process work themselves into the calculation of property owners at the beginning of that process, so that too little capital will be invested in productive enterprises. The compensation requirement thus serves the dual purpose of offering a substantial measure of protection to private entitlements, while disciplining the power of the state, which

* Professors of Economics at Dartmouth College and the University of California, Santa Barbara, respectively. We are grateful for written comments on earlier drafts from Robert Ellickson, Joseph Fisher, Ted Frech, Gideon Kanner, Frank Michelman, Stephen Spurr, and Joseph Tomain, and for oral comments from numerous colleagues at seminars at UCSB, Dartmouth, and the Public Choice Society.

[1] The theme is strongest in the public choice literature. See generally William F. Baxter & Lillian R. Altree, Legal Aspects of Airport Noise, 15 J. Law & Econ. 1 (1972); Louis De Alessi, Implications of Property Rights for Government Investment Choices, 59 Am. Econ. Rev. 13 (1969); Richard Epstein, Takings: Private Property and the Power of Eminent Domain (1985); and M. Bruce Johnson, Takings and the Private Market, in Planning without Prices (Bernard H. Siegan ed. 1977).

[*Journal of Legal Studies*, vol. XVII (June 1988)]
 0047-2530/88/1702-0004$01.50

would otherwise overexpand unless made to pay for the resources that it consumes.

This conventional economic wisdom has been challenged by Blume, Rubinfeld, and Shapiro (henceforth, BRS).[2] Their article offered a model that proved that compensation for takings is inefficient in that such compensation encourages landowners to overinvest in private capital. The basic logic of their position is that compensation allows landowners to ignore the opportunity cost of their land for efficient government projects. This finding will be called the noncompensation result.

The noncompensation result is not merely an economist's curiosity. Since its articulation in 1984, the BRS result has become the focus of two law journal articles that advance it as the basis for a substantial reevaluation of compensation practice in American law.[3] Two of the authors of the article, Blume and Rubinfeld, have offered an analysis of compensation as insurance, and they have suggested that courts distinguish their awards of compensation on the basis of the risk preferences of those affected by takings. Their rule is that people whose property is taken should be awarded compensation only if they did not have an opportunity to reduce the risk of a taking by purchasing private insurance (presumably available once the rule was adopted) or by spreading risks through diversification and contingent contracts. Compensation by government agencies is thus viewed as a last-resort substitute for private insurance. As a practical matter, Blume and Rubinfeld suggest that wealthier people are more likely to be able to insure privately, and thus government compensation for takings might be reserved for poor people.[4]

Louis Kaplow adopts a premise that is similar to that of Blume and Rubinfeld—that compensation serves the function of insurance—but arrives at a different policy conclusion. He argues that because moral hazard problems identified by BRS are less efficiently controlled by the government, only private insurance is needed to provide compensation for takings and, more generally, for all legal transitions, such as tax re-

[2] Lawrence E. Blume, Daniel L. Rubinfeld, & Perry Shapiro, The Taking of Land: When Should Compensation Be Paid? 99 Q. J. Econ. 71 (1984).

[3] Lawrence E. Blume & Daniel L. Rubinfeld, Compensation for Takings: An Economic Analysis, 72 Cal. L. Rev. 569 (1984); and Louis Kaplow, An Economic Analysis of Legal Transitions, 99 Harv. L. Rev. 509 (1986). Their insurance rationale for takings was anticipated, without extensive analysis, by Richard A. Posner, Economic Analysis of Law 41 n. 1 (2d ed. 1977). Another recent article relies on the BRS noncompensation result to propose modifications of takings jurisprudence, but it does not advance the insurance rationale—Robert Cooter, Unity in Tort, Contract, and Property: The Model of Precaution, 73 Cal. L. Rev. 1 (1985).

[4] Blume & Rubinfeld, *supra* note 3, at 606–7. We do not examine the practical difficulties of implementing such a rule, some of which Blume & Rubinfeld discuss (*id.* at 608–9).

form and deregulation. The noncompensation result thus forms an economic rationale for reading the just compensation clause out of the Constitution, although Kaplow professes to be agnostic about the application of his discussion.[5]

In Section II we explore the logic of the noncompensation result using the distinction between property rules and liability rules developed by Calabresi and Melamed.[6] It is shown that the source of the inefficiency created by compensation is similar to the moral hazard found in many other economic policies. Section III explicates Frank Michelman's utilitarian standard and places the noncompensation result in that context.[7] We argue that the insurance model does not fit into this framework because its promoters ignore or misinterpret Michelman's demoralization costs. It is shown that the noncompensation result, which occasioned the development of the insurance model, can be incorporated in Michelman's model, and that it does militate against compensation in many instances. Section IV shows that misinterpretation of demoralization costs is also the source of confusion about whether capitalization of expected takings into land value militates against compensation for purchasers. The conclusions are given in Section V.

II. Compensation and Moral Hazard

A. *A Tale of Four Floods*

The following example is intended to capture the salient points of the BRS article by extending one of their examples. A family owns land in a river valley on which they contemplate establishing a business to provide overnight accommodations. They must choose between a campground and a hotel. The campground requires investments of small amounts of capital that depreciate quickly. The hotel involves more capital, which lasts longer and provides more guest services per year. Prior to investigating the geology of the region, the family concludes that the hotel is more profitable.

The only thing that would make the hotel less profitable would be to have the level of the river in the valley rise to such an extent that it would inundate the hotel, in which case all capital would be lost because the

[5] Kaplow, *supra* note 3, at 572. Practical problems with private insurance are discussed in the text at note 38 *infra*.

[6] Guido Calabresi & A. Douglas Melamed, Property Rules, Liability Rules, and Inalienability: One View of the Cathedral, 85 Harv. L. Rev. 1089 (1972).

[7] Frank Michelman, Property, Utility and Fairness: Comments on the Ethical Foundations of 'Just Compensation' Law, 80 Harv. L. Rev. 1165 (1967).

TABLE 1

SUMMARY OF THE SCENARIOS IN SECTION II

Scenario (and Rule)	Outcome	Efficiency
1. Natural disaster (no compensation)	Campground	Efficient
2. Natural disaster (government compensation)	Hotel	Inefficient
3. Public dam (government compensation)	Hotel	Inefficient
4. Private dam (landowner consent)	Campground	Efficient

hotel would be "immovable" (too costly to move). In that case, the campground would have been more profitable, since only a trivial amount of capital would have been lost. What causes the river to rise, and what knowledge the landowners have or should have about such events, will be discussed under different scenarios. It is assumed throughout that the landowners are risk neutral. (The scenarios are summarized in Table 1 to facilitate comparison of the results.)

Scenario 1 involves a natural disaster. The landowners are made aware that there is a 20 percent probability that their land will be inundated when a natural lake is formed as a result of a rockslide on government-owned land downstream from the proposed hotel. Nothing can be done to reduce the probability of this event or to mitigate the damages it will cause once it happens, and the government is known not to be responsible for the consequences of this "act of God." As a result, the landowners decide to build the nondurable hotel (the campground), a decision which is assumed to maximize social welfare.

In scenario 2, suppose that prior to the landowners' decision to build the campground the government enacted a flood compensation bill that offers to pay those affected by natural disasters for the market value of their losses. No payment in advance, other than an increase in taxes spread among all citizens, is necessary to acquire this guarantee of compensation.

This bill will induce the landowners to erect the hotel rather than the campground. This outcome is inefficient because it guides capital into ventures with negative expected value. The risk to the landowner is removed by the promise of compensation, but the cost to society remains, since capital is removed from safer places to riskier ones. The incentive created by the flood compensation bill is an example of moral hazard.[8]

[8] Blume & Rubinfeld, *supra* note 3, at 618 n.144, use this term, as do BRS, *supra* note 2, at 86. Moral hazard may also be thought of as an externality in the sense that it induces people to ignore some of the costs of their actions. Kaplow, *supra* note 3, at 551, uses this term to describe the BRS characterization of compensation. Our subsequent use of the term "moral hazard" in the text refers solely to the landowner incentives identified by BRS.

Moral hazard arises from any entitlement that divorces the consequences of people's actions from their decisions. The phenomenon is pervasive in any society. Companies that provide fire insurance worry that policyholders may ignore efficient fire prevention measures; payments to victims of pollution may induce them to live too close to its source; and colleges that grant tenure to professors may find that they work relatively little thereafter. As these examples suggest, moral hazard is not confined to insurance companies or to government programs, nor does moral hazard alone deter governments from undertaking otherwise desirable actions.

Scenario 3 assumes that no natural disaster can inundate the land on which the hotel construction is planned, but the land may be submerged by a dam built by a local government granted the power of eminent domain. The government finds it socially profitable to build the dam only if some exogenous event, such as a rise in the price of oil, occurs to make hydropower profitable. Both the would-be hotel owners and the government dam builder know that the probability of such an event is 20 percent (the same as in the natural disaster case), and both parties know that the value of the dam if this event occurs will exceed the value of the durable hotel.

Assume, moreover, that the government does only projects whose benefits exceed their costs, and everyone knows that when oil prices exceed a certain level, the government will build the dam. The government cannot be swayed from this decision by any political activity or legal manipulations. We call this relentless dedication to benefit/cost principles the Pigovian assumption.[9] It allows the landowners to regard the government's decision to build the dam as an exogenous event. The government will seize the property if the aforementioned increase in oil prices occurs; otherwise the property is safe.

Under these conditions, BRS prove that it is inefficient to compensate the landowner for the taking.[10] "Just compensation" is, under these conditions, a form of moral hazard. Advance knowledge of a rule that the government would pay for damages to structures would be inefficient for the same reason that disaster payments are inefficient in the second scenario: durable private capital is unnecessarily put at risk of destruction. The essence of the BRS result is that government takings are analo-

[9] That Pigou may not have been a Pigovian is argued by Victor Goldberg, Pigou on Complex Contracts and Welfare Economics, 3 Res. Law and Econ. 39 (1981). We instead refer to the "Pigovian tradition" identified by Ronald H. Coase, The Problem of Social Cost, 3 J. Law & Econ. 1 (1960).

[10] This is theorem 1 of BRS, *supra* note 2, at 78. The result was anticipated by Baxter & Altree, *supra* note 1, at 6; and Jack L. Knetsch & Thomas E. Borcherding, Expropriation of Private Property and the Basis for Compensation, 29 U. Toronto L. J. 237, 243 (1979).

gous to these problems.[11] We shall examine this analogy in the next scenario and in the next section.

The BRS moral hazard problem could not arise if the private capital could be costlessly removed from the site. This result follows because the social cost of landowners who ignore the possible government taking of their land is not their loss of the land but the destruction of the capital they put there. It follows, then, that there is no inefficiency entailed in paying full compensation for government takings of labor services or portable capital. Indeed, the very mobility of such resources induces rational governments to pay full compensation for their services regardless of any constitutional requirements. This observation helps explain why real estate is the focus of a disproportionate number of taking cases.

The inefficiency of compensation is not necessarily caused by strategy. The BRS result does not depend on landowners' deliberately overbuilding, which would in any event be unprofitable unless compensation for excessive structure were for more than its market value. The BRS efficiency problem is simply that the landowners rationally disregard the probability that the government may have alternative uses for their land that require the destruction or costly removal of private capital.

One way of dealing with the moral hazard problem is for the government to purchase in advance of landowner decisions an option to take the property without paying for lost capital. For example, the government could pay the landowner for the reduction in land value caused by the announcement that it would not pay for capital in the event of a taking. If and when the taking occurs, the government pays only for the land, as if no building had been put there. Landowners in scenario 3 would then be on notice (for which they were compensated) that building the hotel would be at their own risk, and they would then efficiently take into account the probability of the dam.[12]

Purchase of taking options does not entirely dispose of BRS's moral hazard. It might be preferable to the current situation (scenario 3), depending on whether the cost of the additional transaction offsets the ex-

[11] The moral hazards offered as examples in scenario 2 above are dealt with in various ways. Insurance companies require fire prevention measures; zoning laws may prevent people from occupying pollution-prone districts; and colleges may apply moral sanctions to unproductive tenured faculty. But property owners aware of government plans may continue to erect buildings or plant crops up to the moment of the taking with every expectation that they will be paid for all improvements. See Gideon Kanner, Condemnation Blight: Just How Just Is Just Compensation? 48 Notre Dame Law. 765 (1973) and case notes in 98 ALR3d 504 and 27 Am. Jur. 2d § 294. This is not to argue, however, that the compensation called for under current law is a full measure of the loss. See Epstein, *supra* note 1, at 51–56.

[12] This solution is described by Cooter, *supra* note 3, at 22–23; Epstein, *supra* note 1, at 157–58, and Knetsch & Borcherding, *supra* note 10, at 243.

pected reduction in moral hazard costs. But compared to the BRS "ideal" of scenario 1 (or scenario 4 below), their moral hazard problem remains. In the time it would take for the government to adopt and implement the purchase of options, landowners may inefficiently discount the probability of loss in anticipation of compensation. Only if landowners were completely surprised by the program would it avoid the moral hazard problem. Furthermore, the government would seem to require considerable foresight to make such a program practical.

Scenario 4 involves a private dam. (This case does not track BRS or other aforementioned papers.) It involves the same facts as in scenario 3: a dam will become profitable if and only if there is a rise in oil prices, an exogenous event whose probability is 20 percent. The difference is that the prospective dam builder is a private party who cannot exercise the right of eminent domain.

The government's role is solely to enforce contracts and protect private property from being taken by another without *consent*. Consent implies that ownership of resources is protected by a property rule, meaning that the owner can refuse to trade. The contrasting protection, under the distinctions developed by Calabresi and Melamed, is a liability rule, in which resources must be exchanged as long as the purchaser pays compensation judged by a third party to be equal to the value of the property taken.[13] The typical example of liability rule protection for landowners is eminent domain, under which the government may take their property if it pays for it. It is this rule, of course, that is being examined in this section.

The upstream landowners in the present scenario must give their consent to the building of the dam. What will they do in this situation with regard to their business decision? They will build the campground, just as they would in the case of an uncompensated disaster. This is the efficient decision, which they will make because they can bargain with the dam builder for some of the profits of his dam in exchange for their not building the hotel. (Recall that we assumed that the dam was more profitable than the hotel, so such an exchange is feasible if transaction costs are low enough.)

It would be irrational for the upstream landowners to build the hotel to establish a better bargaining position. Property rule protection puts them in an unimprovable position: they can refuse any offer by the dam builder regardless of the current state of their land. They are thus able to collect all of the surplus value of the dam, and they have no incentive to ignore the probability that a lake may be the most profitable use of their land. This example shows that the BRS result depends on the nature of prop-

[13] Calabresi and Melamed, *supra* note 6.

erty rights as well as on the nature of government. Both issues are explored in the next section.

B. Moral Hazard, Liability Rules, and Pigovianism

The BRS noncompensation result is counterintuitive because most economists expect that attaching market prices to things induces economic agents to behave efficiently. But their result becomes more plausible if we note two differences between their models of takings and ordinary exchange. One of the actors, the government, is constrained by the Pigovian assumption to act optimally. The government does not need to be constrained by prices, since, by assumption, it has all the information and incentives to act correctly. Pigovianism suppresses any concern with inefficient levels of government.

Pigovianism alone is not sufficient to get the counterintuitive result, though, since the landowner could be protected by a property rule against government invasions as well as against invasions by other people. In such a case, the government would have to negotiate with the landowners. Because of the security of their position, the landowners would not be induced to ignore the alternative uses for their land that the government might have in mind. The sufficient (and reasonable) condition for the BRS noncompensation result is that the landowner be protected only by liability rules.

The essential problem of a liability rule is that it attempts to limit the entitlements of private property owners. The economic rationale for a liability rule is that it avoids the holdout problem. Under property rule protection, private landowners may strategically refuse to sell their property at values that may be acceptable to them in ordinary transactions in an effort to extract some of the government's surplus from the project. This is inefficient because some such strategies may result in no exchange at all, or they may involve additional resources not otherwise employed in normal market transactions. This rationale, which we accept for this article, precludes the solution suggested by scenario 4 in the previous section.[14]

Our emphasis on compensation as a liability rule also explains the problem with the traditional argument (in Section I) that compensation will improve the allocation of resources because it protects private property. The answer is that eminent domain itself is, in one perspective, a

[14] Some research has suggested that eminent domain is not less costly to the government than voluntary market transactions. See Patricia Munch, An Economic Analysis of Eminent Domain, 84 J. Pol. Econ. 473 (1976); and A. Mitchell Polinsky, Controlling Externalities and Protecting Entitlements: Property Right, Liability Rule, and Tax Subsidy Approaches, 8 J. Legal Stud. 1 (1979). If these findings held generally, however, governments would forgo the use of eminent domain, and there is little evidence that they do.

reduction in property rights, not a protection of them. The Fifth Amendment concludes, "nor shall private property be taken for public use, *without just compensation*" (our emphasis). If this clause were intended solely to protect private property, the last three words would be omitted, and *without the consent of the owner* would be substituted (as it is in the Third Amendment's prohibition of quartering peacetime troops in private homes). Just compensation forces a sale on prearranged terms, something no private person could do without government authority. Those who argue that protecting private property rights improves efficiency are not contradicted by the BRS result; they have only misidentified the just compensation clause as an absolute protection for property rights.

The noncompensation result is the most dramatic of the BRS article, and its implications are the focus of the present article. But noncompensation is not the only rule they derived from their analysis. Several variations noted the possibility of systematic government errors that might be partially corrected by compensation. For our present purposes, however, the important point is that none of these variations eliminated the moral hazard problem of landowners' overinvesting because of a compensation guarantee. In the absence of these mitigating variations, zero compensation is still the efficient outcome.

III. Michelman's Demoralization Costs and Insurance

This section explicates Frank Michelman's utilitarian approach to the taking issue and compares it to the view of takings as insurance outlined in Section I. Michelman's article is widely cited, but its economic implications are not fully appreciated.[15] Part of our purpose is to place his contribution in terms of normative economic theory, and part is to show why the aforementioned insurance rationales for takings are inconsistent with Michelman's criteria.

In addition to the utilitarian approach, Michelman advances a Rawlsian fairness criterion, which he implicitly prefers. He suggests, however, that the fairness and utilitarian criteria usually yield the same rules for compensation.[16] For this reason, we confine ourselves in this article to the

[15] Michelman, *supra* note 7, is the most frequently cited (in law journals) article on takings and the eighth most cited law journal article on any subject in the last forty years. Fred Shapiro, The Most Cited Law Review Articles, 73 Cal. Law Rev. 1540 (1985).

[16] Michelman, *supra* note 7, at 1223. We have shown in another paper that the Rawlsian thought experiment that underlies the fairness criterion will generate a demand for compensation when a majoritarian government decision process is expected by those selecting the compensation rule, but on expected utility, not maximin grounds. William A. Fischel & Perry Shapiro, A Constitutional Choice Model of Compensation for Takings (working paper, Department of Economics, University of California, Santa Barbara 1987). See also text at note 52 *infra*.

criterion based on philosophical utilitarianism, which was the original basis of normative economic theory and retains important links to modern welfare economics.

A. *The Utilitarian Standard*

According to Michelman, in deciding whether a government action was a taking that requires compensation, a utilitarian would consider three factors: efficiency gains, demoralization costs, and settlement costs. We quote extensively from Michelman's article because a textual analysis will buttress our position that others have misinterpreted the utilitarian standard.

Efficiency gains are "the excess of benefits produced by a [government's] measure over losses inflicted by it, where benefits are measured by the total number of dollars which prospective gainers would be willing to pay to secure adoption, and losses are measured by the total number of dollars which prospective losers would insist on as the price of agreeing to adoption."[17] As the beginning entitlement, losers are asked what they need for consent, not what they would be willing to pay to avoid the loss. Note also that gainers are to do the paying; they are not asked what compensation they would require to forgo the gains. This condition forestalls the offer/ask disparity, which indicates that people demand more to voluntarily surrender an entitlement they possess than they would pay to obtain an identical entitlement that they were not initially assigned.[18]

The efficiency gains criterion is where economists may be tempted to stop. Just compensation becomes a command for government efficiency, for without it we cannot be assured that government will truly value the resources it takes from the private sector.[19] (This overlooks the possibility that some losses may not be compensable with money.) But even if we admit that actual rather than hypothetical payment is the more accurate

[17] Michelman, *supra* note 7, at 1214.

[18] There is experimental evidence that this disparity is substantial. See Jack L. Knetsch & J. A. Sinden, Willingness to Pay and Compensation Demanded: Experimental Evidence of an Unexpected Disparity in Measures of Value, 99 Q. J. Econ. 507 (1984); and James D. Marshall, Jack L. Knetsch, & J. A. Sinden, Agents' Evaluations and the Disparity in Measures of Economic Loss, 7 J. Econ. Behavior and Org. 115 (1986).

[19] De Alessi, *supra* note 1. Fischel has pointed out, however, that uncompensated regulatory takings still present the government with an opportunity cost if the government can sell exceptions to its regulations. William A. Fischel, The Economics of Zoning Laws 69–70, 125–31 (1985). This possibility is precluded by Michelman's initial entitlement that losers are to be compensated for their losses, not that they must pay to avoid them. It may also be inhibited by landowners' anticipation that their property may be retaken once they repurchase their rights.

measure of value, we face a dilemma: if we require compensation for everything, the costs of doing so will prevent many otherwise efficient projects. But if we pay only hypothetically, we risk imposing yet another type of cost.

The latter are *demoralization costs*. They are "the total of (1) the dollar value necessary to offset disutilities which accrue to losers and their sympathizers specifically from the realization that no compensation is offered, and (2) the present capitalized dollar value of lost future production (reflecting either impaired incentives or social unrest) caused by demoralization of uncompensated losers, their sympathizers, and other observers disturbed by the thought that they themselves may be subjected to similar treatment on some other occasion."[20] Demoralization costs, in short, are the bad things (bad for a utilitarian, that is) that happen if you do not pay. Because demoralization costs are, like all utilitarian costs, subjective, it is necessary to count the disutility of individuals who are adversely affected by government actions even if what was taken was not actually their property.[21] The net effect on demoralization costs of such "irrational" disutility is likely to be small, however. Few sympathizers or investors would register the adverse secondary effects that ordinarily swell demoralization costs.

More familiar to economists is Michelman's third factor, *settlement costs*. These are "the dollar value of time, effort, and resources which would be required in order to reach compensation settlements adequate to avoid demoralization costs. Included are the costs of settling not only the particular compensation claims presented, but also those of all persons not obviously distinguishable by the available settlement apparatus."[22] These costs are more usually called transaction costs, though, as is pointed out below, Michelman's definition leaves room for behavioral factors not normally covered by this term and so warrants a different label.

Michelman combines these factors into a utilitarian "filicific calculation." A government measure whose dollar benefits (B) exceed costs (C) as determined by willingness to pay and be paid, respectively, should nevertheless *not* be adopted if the net benefit is exceeded by both demoralization costs (D) and settlement costs (S). In symbols, a utilitarian does not do the project if $(B - C) < \min(D,S)$. Michelman does not say what course should be followed if the government decides to go ahead

[20] Michelman, *supra* note 7, at 1214.

[21] See Epstein, *supra* note 1, at 147–49, for discussion of such a case.

[22] Michelman, *supra* note 7, at 1214.

with a project in which $B < C$. However, in subsequent discussion of demoralization costs, he notes that taking on an inefficient project would raise demoralization costs and compel compensation.[23] This would, as a practical matter, discourage a budget-conscious government from performing such a project.

If net benefits are positive and greater than *either* settlement or demoralization costs (or both), the lower of S or D should be endured by the government. Thus, in this latter situation, if settlement costs are lower than demoralization costs, compensation should be paid in order to avoid the greater cost (demoralization). But if settlement costs are higher than demoralization costs, compensation should be denied on this utilitarian calculus. In symbols, the government should pay if $(B - C) > S$, and $S < D$. On the other hand, the government does *not* have to pay if $(B - C) > D$, and $D < S$.

B. Pareto, Kaldor-Hicks, and Michelman

Michelman's utilitarian standard is sometimes called an efficiency criterion. This can be misleading. It is not a rule that all government decisions must involve Pareto-superior moves, because it allows that in some situations (that is, when $[B - C] > D$, and $D < S$), some people can be left worse off if it is too costly to compensate them. In fact, it may even be possible for the government to make compensation and still do the project profitably ($B > C + S$) but still not be compelled to pay, because demoralization costs are relatively low ($D < S$). Thus, Michelman's criterion is more permissive to the government than the Pareto-superiority criterion.

On the other hand, Michelman's standard is less permissive than the Kaldor-Hicks criterion, which says simply that the government should take on projects if the gainers can compensate the losers, but does not require that it actually make the compensation. This is simply Michelman's efficiency gain, that $B > C$. The Kaldor-Hicks criterion was developed in response to the notion that settlement costs of the Pareto-superiority criterion may be so large as to prohibit all projects. But Kaldor-Hicks does not address the troubling possibility that the government may thereby impose large burdens on particular individuals.[24]

[23] See text following note 29 *infra* for a summary of Michelman's demoralization causes. The analysis in the present article concerns only the compensation question, not whether the project is to be done at all.

[24] Mitch Polinsky has advanced a "quasi-Paretian" standard that builds on the idea that a train of Kaldor-Hicks (uncompensated) actions might be acceptable if the victims realized

Michelman's path-breaking contribution was to define an intermediate standard. The appeal to economists of Michelman's utilitarian formulation is that it offers a coherent, efficiency-based (cost minimization) standard for choosing between the rigid Pareto-superiority criterion, which disallows consideration of settlement costs, and the permissive Kaldor-Hicks criterion, which ignores the distribution of utility gains.[25]

We emphasize that Michelman's utilitarian criterion requires that demoralization costs be a distinct entity. The distinctness is evident in the text quoted above. Demoralization costs are the "dollar value necessary to offset disutilities which accrue to losers and their sympathizers *specifically* from the realization that no compensation is offered" (emphasis added). "Specifically" is taken to mean that these costs (D) do not overlap with the cost term (C) in the calculation of efficiency gains. If they did, Michelman's criterion would either involve double counting or collapse into the Kaldor-Hicks criterion. Demoralization costs are not simply costs; they are costs that are imposed by the lack of compensation itself. They disappear if it is known that compensation will be paid, but other costs (the cost side of benefit-cost analysis and the settlement costs) remain.

C. *Demoralization and Majoritarianism*

The source of the demoralization cost for Michelman is the risk of "majoritarian exploitation."[26] He is explicit in keying demoralization costs to the distinction between this political hazard and risk due to random events such as natural disasters. Majoritarianism is said to have greater disincentive effects because of a "perception that the force of a majority is self-determining and purposive. . . . The argument [for the existence of demoralization costs as distinct from other risks] must then proceed to the effect that even though people can adjust satisfactorily to

---

that over a longer period of time they would get benefits that more than offset current losses. A. Mitchell Polinsky, Probabilistic Compensation Criteria, 86 Q. J. Econ. 407 (1972). His purpose is to express mathematically the series of events that would yield a given probability that net benefits would be received by all. Unlike Michelman, he did not try to justify adoption of one standard or another. On whether an extended series of Kaldor-Hicks efficient actions satisfies just compensation, see Richard A. Posner, The Ethical and Political Basis of the Efficiency Norm in Common Law Adjudication, 8 Hofstra L. Rev. 487, 491–93 (1980); contrast Anthony T. Kronman, Wealth Maximization as a Normative Principle, 9 J. Legal Stud. 227, 236–37 (1980). See also Epstein, *supra* note 1, at 209–10.

[25] The implicit equation of Pareto superiority with compensation assumes that full compensation is the same as consent. The social necessity of making some forced exchanges even when one adheres generally to consensual standards is explored by Epstein, *supra* note 1, at 331–44.

[26] Michelman, *supra* note 7, at 1216.

random uncertainty, which can be dealt with through insurance, including self-insurance, they will remain on edge when contemplating the possibility of strategically determined losses."[27]

Why should people feel worse about majoritarian exploitation than about other hazards? Michelman suggests it is because they are strategically determined. People can adjust to strategic losses, but these adjustments are more costly (or involve greater disutility) than adjustments to random losses, which can be "conveniently dismissed from consciousness on the ground that, being uncontrollable, it is not worth thinking about."[28]

Regardless of the source of demoralization costs, our critical point at this juncture is that Michelman regards them as distinct from natural hazards.[29] This is further emphasized by his list of causes of demoralization costs. They include government actions in which (*a*) settlement costs are low (that is, people feel worse about not being compensated if it would have been easy to do so); (*b*) losers perceive that their burdens are large relative to others' (disproportionate impact); (*c*) the efficiency of the project itself is so doubtful that it is a thin veil for unprincipled redistribution; (*d*) the loss is not likely to be recouped by benefits tied in some way to the project (that is, lack of reciprocity); (*e*) those who lose now have little confidence that they will gain from similar projects in the future; (*f*) losers lack political influence to be able to extract concessions to mitigate their burdens in the future.[30]

Our private analogy of Michelman's demoralization distinction is the difference between one's feelings about a watch that is stolen and a watch that is lost. The watch is gone in both cases, but the very knowledge that it was stolen may make you feel worse and thus expend more real resources in avoiding this particular kind of loss, in part because such deliberate acts may be repeated.[31] The ability to purchase insurance

[27] *Id.* at 1217.

[28] *Id.* at 1217 and, generally, at 1169 n.5 (differentiating Michelman's intentions from Calabresi's treatment of compensation for accidents).

[29] Kaplow, *supra* note 3, at 534 n.66, recognizes that Michelman makes this distinction, but he rejects it as "unpersuasive" without explaining why.

[30] Michelman, *supra* note 7, at 1217–18. Conditions *d*, *e*, and *f* (our labels) form a partial justification for Posner's adoption of Polinsky's quasi-Paretian criteria. See note 24 *supra*. A more restrictive view is advanced by Epstein, *supra* note 1, at 195–215.

[31] The context of the theft may make a difference. A watch left unattended in a public washroom for a time may be stolen, but its owner may feel less demoralized from that than if it were stolen from a bedroom or by an identifiable individual. Surveys of perceptions of fairness indicate that people most strenuously object to transfers that involve deliberate exploitation of one person's utility by another. See Daniel Kahneman, Jack L. Knetsch, & Richard Thaler, Fairness as a Constraint on Profit Seeking, 76 Am. Econ. Rev. 728, 735 (1986).

against theft does not dispose of such costs, since insurance simply spreads them out over a period of time through insurance premiums. Note that the stolen watch's demoralization is net of the utility gain of the person who now has the stolen watch—and what victim has not wished that a thief's booty bring him ill fortune?

The direct disutility of the citizens whose losses are not compensated to their satisfaction is not the only demoralization cost for Michelman's utilitarians. They also count the disappointment of the losers' sympathizers, who are not necessarily losers themselves but who are made anxious (suffer disutility) as a result of the noncompensation.[32] Add to this the "value of lost future production (reflecting either impaired incentives or social unrest) *caused by demoralization* of uncompensated losers, their sympathizers, and other observers disturbed by the thought that they themselves may be subjected to similar treatment on some other occasion."[33]

The emphasis is added to indicate that Michelman considers these long-run costs to be caused specifically by demoralization; they are not merely prudent responses to random risks. These long-run costs arise not only from "impaired incentives" but also from social unrest. Social unrest costs could include direct public and private outlays to guard against antisocial actions, but they could as well include disaffection with the entire political process.

D. Why Insurance Models Overlook Demoralization

Given Michelman's specific disavowal of the analogy of the risk of a taking to the risk of a natural disaster, we must ask why those who advert to Michelman's principles nonetheless adopt the analogy. The solution to this puzzle has two keys. One is misidentification of BRS's moral hazard as a component of demoralization cost when it more logically belongs in settlement costs, and the other is the assumption of a Pigovian government, whose characteristics make its action seem like a naturally caused,

[32] The interpretation of Michelman's demoralization costs by Blume & Rubinfeld, *supra* note 3, at 579 n.53, is that the costs are borne only by people *other* than those directly affected by the government's action. This may account for their neglect of demoralization cost in their insurance model. Duncan Kennedy, on the other hand, attacks Michelman's inclusion of the disutility of sympathizers and other observers in demoralization costs. Kennedy sees this as part of a wider practice of ad hoc entitlement grants that render "liberal" law and economics "incoherent." Duncan Kennedy, Cost-Benefit Analysis of Entitlement Problems: A Critique, 33 Stan. L. Rev. 387, 403–4 (1981). Our demurrer is that Michelman's demoralization cost would remain a distinct (but smaller) cost even if no weight were given to sympathizers and others, and our critique of the insurance rationale would not be affected.

[33] Michelman, *supra* note 7, at 1214 (emphasis added).

random event, rather than the workings of a deliberate agent of popular will.

In separate articles, Robert Cooter and Louis Kaplow argue that higher demoralization costs from a government action militate *against* compensation rather than for it. The reason for this reversal of Michelman's rule is that they identify BRS's moral hazard as a component of demoralization cost.[34] This is not, we submit, a reasonable interpretation of BRS's moral hazard. Landowners' incentives to disregard the public opportunity cost of the private use of their land do not result from a feeling of "majoritarian exploitation," which would give rise to demoralization cost. Landowner moral hazard arises instead from the expectation that compensation *will* be paid. This expectation eliminates landowners' demoralization along with their inclination to be concerned about how big a building they place on land that may eventually be demanded by the government (as in scenario 3 in Section II above).

The moral hazard problem belongs, instead, in settlement costs. Recall that Michelman includes in them "the cost of settling not only the particular compensation claims presented, *but also those of all persons not obviously distinguishable* by the available settlement apparatus" (emphasis added). Most economists would regard settlement costs as synonymous with transaction costs, and they may be tempted to confine them to the costs of operating an administrative apparatus. But the emphasized phrase in the quote suggests that something more is involved.

If compensation is to be paid to all losers from a government action, some people will attempt to appear before the compensation board to claim losses when they are not actually losers. These people would be denied. After compensation policy becomes known, however, an additional problem arises. Some people will make economic decisions that will place them in the "loser" category when they would otherwise have avoided such a position had they known they would not be compensated.

This is precisely the moral hazard problem treated by BRS, who argue that such actions militate against compensating losers, just as high settlement costs make compensation less urgent for Michelman. Thus, the BRS result can be viewed as an example of settlement costs. BRS's moral hazard could be avoided if transaction costs (a part of settlement costs) were zero, because then it would be trivially simple to design a compensation policy that anticipated and forestalled landowner inefficiency.[35] In such a world, however, all transactions could be subjected to Pareto-

[34] Cooter, *supra* note 3, at 21; Kaplow, *supra* note 3, at 561.

[35] BRS, *supra* note 2, at 86, prove that lump-sum compensation avoids the moral hazard problem. See also the discussion of option purchases in text at note 12 *supra*.

superiority rules, and no theoretical debates about just compensation would be necessary.

It is not argued here that Michelman anticipated the BRS result. We submit, instead, that Michelman provides a framework for including the moral hazard problem that they identified. Thus Cooter's and Kaplow's conclusion that the moral hazard problem militates against compensation is correct, but it does not contradict Michelman's conclusion. Michelman does not have demoralization costs backward; Cooter and Kaplow have simply put a newly identified cost (BRS's moral hazard) in the wrong category of Michelman's framework.

The other key to why economists neglect Michelman's distinction between random hazards and majoritarian excesses is that it seems logical to do so given their assumptions about the nature of government. BRS, Blume and Rubinfeld (in their joint article), Cooter, and Kaplow each adopt, for the noncompensation result, a Pigovian model of government.[36] This model assumes that government is an unimpeachable benefit-cost machine. It does not inquire about the distribution of benefits, nor can it be manipulated by any faction of those governed. Thus, losses incurred by individuals whose property is taken should be regarded as analogous to those that occur through such unsystematic and noncompensable events as market forces or natural events.[37] There are no majoritarian excesses possible, because government decisions do not depend on the will of *anyone,* let alone the majority. Demoralization costs in such a world should be zero.

The Pigovian model, which is adopted in most public policy models as an innocent ceteris paribus assumption, turns out to dispose of the taking issue entirely. Since BRS show that settlement costs are always positive (due to the moral hazard problem), $S > D$ for all projects, since $D = 0$ in

[36] BRS, *supra* note 2, at 72; Blume & Rubinfeld, *supra* note 3, at 580 and 583; Cooter, *supra* note 3, at 35; and Kaplow, *supra* note 3, at 521 and 577 n.197. At other points, each of these articles drops the Pigovian assumption in favor of a model in which citizens do affect the government's decision or where governments are subject to fiscal illusion. Except for Cooter's, though, these models are not central to their analyses. The overall message of each article is that payment of compensation is inefficient. (Cooter is largely concerned with other aspects of law, but his discussion of takings does invoke the landowner moral hazard problem as an important issue.)

[37] That members of society may regard losses incurred by deliberate acts as worse than those that occur randomly is not to argue that compensation should never be paid to the victims of random events who may not have insured themselves (for example, flood victims or destitute retirees). Our argument is only that the reasons for the latter programs do not rest on demoralization costs, but on something else, perhaps empathy with the victims. While demoralization costs are increased by the empathy of those who see others being involuntarily exploited, the basic source is the losers' knowledge that they are being involuntarily used for another's gain. See also Michelman, *supra* note 7, at 1216 n.101.

the Pigovian model. Thus compensation would never be called for in a Pigovian application of Michelman's utilitarian framework.

IV. The Temporal Error of Insurance and Capitalization

A. *Private Insurance and Demoralization Costs*

It has been argued in the previous section that Michelman's utilitarian criterion forms a coherent framework to accommodate the moral hazard issue, and that no additional efficiency rationale is needed. Now we ask whether, if one accepts this conclusion, one could not accept also private insurance for takings, which Kaplow argues is more efficient.[38] If landowners whose property is taken are paid, why should they feel greater loss if the payment comes from private insurance rather than from the public purse? Why does a check from a private insurer not soothe demoralization costs as well as public compensation?

One response to this line of reasoning is its impracticality. Kaplow does not attempt to explain the absence of a private, third-party insurance market for losses not covered by current eminent domain practices. We know of no legal inhibitions on such insurance, and uncompensated costs such as relocation, attorneys' fees, and lost business goodwill are often substantial and accrue to those who seem to be in a poor position to self-insure. An explanation for lack of private taking insurance, suggested to us by Robert Ellickson in a letter, is adverse selection. A public planner might tip off landowners of an impending taking and encourage them to apply for insurance in order to reduce political opposition to his project. Insurance losses would mount as a result, and private insurers would withdraw. Another problem involving purely private insurance against takings is how to secure the assets of insurance companies. If the government can seize any private property without compensation, what would prevent it from seizing the assets of insurance companies?

Even if these practical problems could be overcome, however, there remains a fundamental flaw in relying on private insurance. Kaplow's proposal looks for the taking at the wrong moment in time. If landowners are risk averse, they can avoid the *risk* of a prospective taking by purchasing insurance or self-insuring. But demoralization costs are not imposed at the moment the property is taken. Demoralization costs, properly understood, arise when landowners *realize* that their wealth is reduced, not when the legal taking occurs. Even if they were risk neutral, so that

[38] Kaplow, *supra* note 3.

they had no demand for insurance, landowners would be demoralized by the uncompensated reduction in wealth, which is the value of the property prior to the risk, times the probability that it will be taken. An insurance payment simply spreads this loss over time and reduces variance in the insured's income stream. The existence of insurance does not dispose of the issue of uncompensated transfers of wealth, and it is no more an argument for legalizing uncompensated takings than it is for legalizing the theft of watches.

To drive this point home, consider another analogy. Suppose that copyright laws were suspended. Authors who once relied on royalties from published works would realize at once that their wealth has been reduced. But because not all books may be pirated, there will be uncertainty about future incomes. Risk-averse authors may then insure. They will pay to their insurers premiums, the capitalized value of which is at least equal to the expected loss incurred as a result of copyright suspension. In the end, some authors will receive payments from their insurers for what used to be called copyright infringement. But few economists (and no commercial authors!) would argue that such private insurance amounts to the same thing as copyright law. The fundamental change was the loss of rights previously held. Insurance did not restore those rights.

We should qualify the previous example by pointing out that if copyright were suspended, authors would benefit as readers from the reduced price of other (existing) books, just as landowners denied compensation would benefit from lower taxes to pay for public services. Thus, their true complaint is that their *net* wealth is reduced by the disproportionate impact of the change. One could imagine a community made up exclusively of authors in which abolition of copyright (within the community) might add to authors' net worth if there were costs for enforcing the copyright. In such a world, the local sacrifice of copyright protection would be compensated by the implicit, in-kind benefits of a larger stock of literature at a lower price.[39]

B. Capitalization and Notice Arguments against Compensation

Looking at takings at the wrong moment in time is the source of another problem that causes persistent confusion in the takings literature. This is the argument that expectations of a taking are capitalized in the value of property so that purchasers of the property pay less for it and thus should

[39] For a limited endorsement of implicit in-kind benefits, see Epstein, *supra* note 1, at 195–215. Michelman's demoralization costs are likewise lowered by such reciprocity, implying less need for compensation. See item *d* in the text at note 30 *supra*.

not be compensated.[40] Our argument is that capitalization does not satisfy anxiety about takings because it again views the problem at the wrong moment in time.

If Brennan, expecting that a taking of Alchian's land will not be compensated once Alchian sells it, nonetheless purchases it for $100 instead of the $300 it would command absent the prospective taking, it is true that Brennan does not lose in an expected-value sense if the land is subsequently taken without compensation. But *Alchian* surely lost from the prospective taking. If he had been guaranteed compensation for takings that, like other property entitlements, ran with the land, Brennan would have had to pay Alchian $300.

To say that Brennan should not be compensated because he "moved to the taking" or "purchased with notice" or "assumed the risk" or "had rational expectations" is to make one of *Alchian*'s property entitlements inalienable, if Alchian would have received compensation by holding on to it. (If neither Alchian nor Brennan would have been compensated, it is simply a taking of Alchian's property.) Insofar as alienability is regarded as an essential aspect of normal property rights, a rule that purchasers are not compensated is itself a taking of the seller's property.[41]

One of the reasons for confusion about this point is the ambiguity of Michelman's treatment of it. He offers an example in which those who purchase land they know may be taken should not be compensated.[42] His example is a purchaser (our Brennan) of land that is among parcels that are the subject of active public debate to prevent development in order to preserve the scenery along the highway. Michelman indicates that Brennan should not be compensated if the regulations are subsequently adopted because the price he paid for the land reflected the possibility of restrictions.

But it is not clear from the scenic highway example alone whether Michelman believes that the original owner (our Alchian) should have been compensated had he not sold it. If Alchian would not have been entitled to compensation, then there is no reason to compensate Brennan

[40] Blume & Rubinfeld, *supra* note 3, at 587, argue that capitalization of expected takings does not dispose of the compensation issue solely because of risk. Absent risk considerations, they submit that those who purchase with knowledge of an impending taking should receive less (or zero) compensation. *Id.* at 608 and 619 n.147. Other examples of this argument are Carol M. Rose, Planning and Dealing: Piecemeal Land Controls as a Problem of Local Legitimacy, 71 Cal. L. Rev. 837, 908 (1983); and Daniel R. Mandelker, Environment and Equity: A Regulatory Challenge 49 (1981).

[41] Robert C. Ellickson & A. Dan Tarlock, Land Use Controls, 105–7, 586–87 (1981); Epstein, *supra* note 1, at 156; and Fischel, *supra* note 19, at 184–86.

[42] Michelman, *supra* note 7, at 1238.

or any other successor in title for the same regulation, and Michelman's example is unexceptionable. If, on the other hand, Alchian would have been compensated but Brennan would not, Michelman makes the error of looking at the taking at the wrong moment in time. The taking's demoralization occurred when Alchian realized that his right to compensation was made inalienable, not when Brennan was denied compensation.

Richard Epstein criticizes Michelman for this example, noting that the scenic highway example was invoked by the California Supreme Court in a decision that denied compensation to a landowner whose commercial property was devalued by rezoning it to residential.[43] The court used Michelman's analogy of the land purchaser to a sweepstake ticket purchaser to support its dictum that "the long settled state of zoning law renders the possibility of change in zoning clearly foreseeable to land speculators *and other* purchasers of property" (our emphasis).[44] Aside from what we argue below is an unreasonable interpretation of Michelman, the court misapplied his example to the facts of the case. The plaintiff, HFH, did not purchase the land while zoning changes were being considered, but rather sought to sell the land, which had been rezoned to HFH's detriment six years after the company purchased it. HFH was like Alchian in our example, not like Brennan. Thus, even on the court's reading of Michelman, there was no evidence to suggest that the rezoning was foreseeable by the party who bore its financial consequences. The court declared, in effect, that all rezonings ought to be foreseen and that foreseeability eliminates the obligation to compensate. Thus, Epstein's objection to the theory that notice of a possible regulatory loss defeats all claims to compensation clearly applies to the reasoning of the California Supreme Court.

Epstein is especially critical of Michelman's comparison of Brennan's land purchase to that of a lottery. A lottery is voluntarily entered into, Epstein correctly argues, while regulations are unilateral decisions. But this criticism would not follow if it is assumed that Michelman would judge it fair not to grant Alchian compensation, either. In this case, Brennan *is* buying a lottery ticket, the same ticket Alchian would have had if he held onto the land. If it was fair for Alchian to hold the ticket, it is fair for Brennan. (It might not be fair for either, of course, but that is not what capitalization arguments are about.)

[43] Epstein, *supra* note 1, at 151–58, citing HFH, Ltd., v. Superior Court of Los Angeles, 542 P.2d 237 (Cal. 1976). An endorsement of the HFH ruling that invokes Michelman's support for it is Daniel R. Mandelker, Investment-backed Expectations: Is There a Taking? 31 J. Urban & Contemp. Law 3, 10–13, 22–23 (1987).

[44] HFH v. Superior Court, *supra* note 43, at 246.

It seems to us that Michelman is not uncritically invoking the capitalization or notice argument. While his assumption about the seller's rights is not clear in the scenic highway example, Michelman's previous example in the same section makes it quite clear that the mere expectation of a taking or purchasing with notice does not defeat the obligation to compensate. The case that most arouses Michelman's ire is an early California zoning case, *Hadacheck v. Sebastian*.[45] Residential development near the burgeoning city of Los Angeles engulfed a long-established brickyard, which the city then zoned out of existence without compensation. Michelman rejects as "fantastic" the idea that Hadacheck, the brickyard owner, had no claim to compensation because he should have known what was coming.[46]

It would seem to us no less fantastic for Michelman to argue (he does not) that, had Hadacheck sold his brickyard while the adverse zoning decision was being made the purchaser would have no right to compensation. The reason this is illogical is that if the hypothetical buyer had the right to be compensated that Michelman recognizes in Hadacheck, then Hadacheck would lose nothing in the sale of his brickyard. He would be selling both the title to the property and the entitlement to be compensated for a taking.

Hadacheck is not an isolated example in Michelman's article.[47] Our reading of the entire section in which it appears indicates to us that Michelman is arguing that a necessary utilitarian security of *most* property does not require absolute security for *all* property. Long-standing practices and unspoken understandings may, without excessive utilitarian damage, transfer some property rights to the government against private claimants, and vice versa. Conversely, takings of briefly established or deliberately speculative property rights may not require compensation on utilitarian grounds. His scenic highway example is invoked—in our view, unsuccessfully—in support of the latter principle. One need not agree with Michelman's handling of changing expectations to differentiate it from the idea that mere notice by the government should defeat all claims for compensation. Specifically, contrast the California Court's sweeping denial of compensation for zoning changes in *HFH* with Michelman's circumspect statement that a government's declaration of preemption of ownership "with respect to 'all land' might have an intolerable effect on

[45] Hadacheck v. Sebastian, 239 U.S. 394 (1915).

[46] Michelman, *supra* note 7, at 1237; see also 1242–43.

[47] For other locations expressing skepticism of notice arguments, see *id.* at 1238 n. 124, 1241 n.131, and 1242–43.

productivity; but it might not when limited to, say, navigable waters or liquor licenses."[48]

Our defense of Michelman on this point must be distinguished from a defense of his position that failure to compensate Hadacheck is "violently offensive."[49] This we regard as more debatable because brickyards may have been more noxious than Michelman seems to believe. Owners of noxious uses should have incentives to regard how their neighborhood is changing and to adjust their activities accordingly when they are in the path of an efficiently expanding urban area.[50] The issue of moving to the nuisance may be disposed of by our assumption that the city was expanding in an efficient manner. If the homes that surrounded the brickyard had been an adventitious development, such as the new rural homes affected by a preexisting cattle feedlot's stench in *Spur Industries v. Del Webb,* the newcomers should have been obligated to mitigate damages, perhaps to the extent of compensating Hadacheck to move.[51] To suggest that Hadacheck could not reasonably have been expected to know real estate trends in Los Angeles is to neglect that bricks are used to build houses. He could have reduced his capital investment or accelerated his exploitation of his clay deposits, and there is only indirect evidence that he did not actually do this.[52]

[48] Michelman, *supra* note 7, at 1240; citations omitted. An extensive literature demonstrates the adverse effects on housing production of the supposedly foreseeable changes in California land use controls, to which the HFH court gives nearly unlimited license. See H. E. Frech III & Ronald N. Lafferty, The Effect of the California Coastal Commission on Housing Prices, 16 J. Urban Econ. 105 (1984); Bernard J. Frieden, The Environmental Protection Hustle (1979); Lawrence Katz and Kenneth T. Rosen, The Interjurisdictional Effects of Growth Controls on Housing Prices, 30 J. Law & Econ. 149 (1987); Stanford Environmental Law Annual, Land Use and Housing on the San Francisco Peninsula (1982); and Peter M. Zorn, David E. Hansen, & Seymour I. Schwartz, Mitigating the Price Effects of Growth Controls: A Case Study of Davis, California, 62 Land Econ. 46 (1986). On toleration of inefficient but long-standing government rules, see Epstein, *supra* note 1, at 324–29.

[49] Michelman, *supra* note 7, at 1237.

[50] That the noxious-use distinction is efficient and consistent with Michelman's utility and fairness principles is argued by Robert C. Ellickson, Alternatives to Zoning: Covenants, Nuisance Rules, and Fines as Land Use Controls, 40 U. Chi. L. Rev. 681, 728–33 (1973), and Fischel, *supra* note 19, at 158–60.

[51] Spur Industries, Inc. v. Del Webb Development Co., 494 P.2d 700 (Ariz. 1972). See also Donald Wittman, First Come, First Served: An Economic Analysis of "Coming to the Nuisance," 9 J. Legal Stud. 557, 566 (1980). An alternative analysis holds that the coming to the nuisance defense overlooks the prior unilateral assertion of nuisance rights by the cattle feedlot owner or by the brickmaker. See Epstein, *supra* note 1, at 118–21.

[52] The indirect evidence is strong, though. Hadacheck apparently chose to go to jail rather than comply with the law (*supra* note 45, at 404), an unlikely tactic for a shrewd landowner trying to make a little more out of a situation that he had long expected. The issue remains

V. Conclusion

Michelman's utilitarian standard offers a method for evaluating compensation questions that is consistent with principles of economic efficiency. It provides a normative guide for when to choose the Pareto-superiority criterion (at least insofar as just compensation is consistent with that criterion) and when to settle for the Kaldor-Hicks criterion. Michelman's framework permits incorporation of the BRS noncompensation result into settlement costs while retaining a view of government more realistic than the Pigovian assumption. Insurance rationales for compensation are inadequate in this framework, because insurance does not address demoralization cost, which plays a pivotal role in Michelman's standard. This is not to argue that the utilitarian standard is the only one consistent with economic reasoning. We argue only that those who advance the insurance rationale for compensation have not addressed the central normative question of compensation, which is when to respect individual property entitlements in a world of less-than-ideal governments.

Failure to address demoralization cost does not itself condemn all insurance rationales for compensation. It may turn out that demoralization is related to risk aversion and can be analyzed with the same methods. We need to know more about the sources of demoralization (if it exists as a distinct cost at all). We also need to know what a "majoritarian" government encompasses and why demoralization costs arise from it rather than from other types of government actions. For this reason, we conclude by pointing out two aspects of Michelman's framework that require more investigation.

"Majoritarianism" points to democratic models, of which there are a wide variety. In a separate article, we model a constitutional choice of compensation levels made in the face of a simple majority-rule government.[53] We find that compensation would be called for if risk-neutral, utility-maximizing constitution framers anticipate a majority rule government rather than a Pigovian government. This suggests a congruence with Michelman's result, although we cannot identify a specific factor in our model analogous to demoralization cost.

We need to know whether decisions of governments that are perceived as dominated by bureaucrats or by special interest groups give rise to demoralization costs in the same way as more obvious examples of major-

---

whether Hadacheck's position is emblematic of similarly placed landowners. (Text at note 21 *supra* indicates why it is important to consider such consequences.) If it is, demoralization costs are high and compensation is more compelling.

[53] Fischel & Shapiro, *supra* note 16.

ity rule, such as town meetings and plebescites. Existing commentary on this is mixed. Richard Epstein makes no distinction between takings that result from the politics of special interest or majority rule.[54] Taking a little from many people (for example, taxpayers) is regarded as the same as taking a lot from a few people (for example, outvoted owners of undeveloped land). Robert Ellickson, on the other hand, found that just-compensation remedies for excessive suburban zoning laws were especially appropriate because of the majoritarian structure of local government.[55] One reason for this distinction is that in larger governments the special-interest model of politics more likely applies, so that losers from uncompensated actions may be less demoralized by failure to compensate because they can recoup their losses in a later coalition.[56]

We suggest that modern survey research and psychological experiments may provide insights into the extent to which random losses differ from government-imposed losses, and how different types of government-imposed losses are perceived by those who bear the costs.[57] We also suspect that such nonlegal social norms as Ellickson has shown to influence trespass law may also affect the magnitude of both settlement and demoralization costs.[58] In any case, we believe that the comparison of demoralization costs and settlement costs suggested by Michelman can be furthered by modern methods of social science. Theories of both moral hazard and risk aversion may illuminate the taking question.

[54] Epstein, *supra* note 1, at 93–96.

[55] Robert C. Ellickson, Suburban Growth Controls: An Economic and Legal Analysis, 86 Yale L. J. 385, 404–20 (1977).

[56] See Michelman's sources of demoralization summarized in text at note 30 *supra;* the discussion of Polinsky's quasi-Paretion criteria at note 24 *supra;* and Fischel, *supra* note 19, at 221–29 (importance of government structure for compensability of land-use decisions).

[57] Kahneman, Knetsch, & Thaler, *supra* note 31; Elizabeth Hoffman & Matthew L. Spitzer, Entitlements, Rights, and Fairness: An Experimental Examination of Subjects' Concepts of Distributive Justice, 14 J. Legal Stud. 259 (1985).

[58] Robert C. Ellickson, Of Coase and Cattle: Dispute Resolution among Neighbors in Shasta County, 38 Stan. L. Rev. 623 (1986).