

**Pluralism and Regulatory Failure:
When Should Takings Trigger
Compensation?**

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Abstract

The paper evaluates the desirability of compensation for regulatory takings. To do so, we describe a public choice model in which regulators' decisions are influenced by competing political interests. We consider how the political incentives of landowners, environmentalists, and taxpayers are affected by alternative compensation rules and in turn describe the regulatory decisions made in such a pluralistic political environment. Modeling the regulator's incentives in this way leads to the conclusion that compensation should not be paid unless environmentalists and property owners have unequal influence politically. Moreover, the model has several counter-intuitive implications when political influence is not balanced. For instance, if environmentalists are disenfranchised they should support compensation, since it reduces property owner opposition to regulation. In contrast, if environmentalists wield disproportionate influence, penalizing rather than compensating landowners can induce more efficient regulation by stimulating landowner opposition. The analysis emphasizes the deadweight social costs of compensation and the desirability of compensation rules conditioned on both diminished land value and irreversible landowner investments.

Key Words: regulatory takings, compensation, political economy

JEL Classification Numbers: K11, D72, L51

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1. INTRODUCTION

The Fifth Amendment's requirement of compensation for takings has stimulated prolonged and largely unresolved attempts at the law's clarification. Despite recurrent high court attention, takings jurisprudence has been inconsistent in its definition of government actions that imply a compensable taking and the factors upon which the scale of compensation is based. Nevertheless, takings jurisprudence has preserved a relatively proscribed set of conditions under which the government is compelled to compensate property owners for losses due to government action.² Recent statutory attempts at takings reform can be interpreted as an attempt to broaden the conditions under which courts compel compensation. This is the goal of the 104th Congress' reform efforts; efforts which have elevated the constitutional issues surrounding compensation for government takings to a subject of public debate.

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² An essential question in takings jurisprudence is to define a demarcation between what is compensable and what is not. Earlier cases focused on the scope of the state's police power as in *Pennsylvania Coal v. Mahon* 260 U.S. 393 (1922) and were concerned with defining the relatively limited set of conditions under which state control over property could be asserted. More contemporary cases, such as *Penn Central Transportation Co., v. New York City*, 438 U.S. 104 (1978) or *Keystone Bituminous Coal Ass'n. v. DeBenedictis* 480 U.S. 470 (1987) take broad police powers as more or less given and attempt to define factors ("diminution of value," "nuisance") that require compensation. The most important recent case, *Lucas v. South Carolina Coastal Council* 112 S.Ct. 2886 (1992), exhibits this factor-based approach. For a good overview of takings jurisprudence see Lunney (1992). Most commentators believe that *Lucas* has not significantly broadened the scope of regulatory actions that will compel compensation, see Lazarus (1993) or Sax (1993).

While takings compensation affords protection to property owners who would otherwise bear disproportionate public burdens, its recent political salience derives largely from the intuition that compensation requirements affect governmental behavior. Out of frustration with what is perceived as excessive regulatory encroachment into the private sphere, proponents of takings reform see it as a means to restrain invasive lawmaking.³ Indeed, support for takings reform has become a litmus test for attitudes toward the appropriate scope and scale of government regulatory actions. The broader are the government's commitments to compensation, the argument goes, the more modest will be the government's efforts to regulate private property.

Normatively, the connection between compensation and regulatory action leads us to ask if regulatory decisions are influenced by compensation rules, how can those rules be devised to motivate optimal levels of regulation? In this analysis, we address this question while keeping in mind the concern that compensation can distort property owner incentives, by fully insuring them against foreseeable losses due to regulatory action. Our objective is to describe optimal compensation rules that induce efficient regulation while avoiding distortions in land use decisions.

Existing analyses of takings compensation have failed to adequately address these issues by failing to incorporate a satisfactory description of regulatory decision making. Two polar visions of regulatory decision making are typically made. The first assumes that the

³ To quote one Representative, "Time and again in Idaho I have seen people run off their land and people's houses burned to fit some eco-plan devised by bureaucrats . . . bureaucrats out of control, there are countless examples of lesser crimes they commit every day that need to be stopped." Statement of Hon. Helen Chenoweth, Committee on Agriculture, Private Property Rights Hearing on H.R. 9, Feb. 15, 1995.

regulator is "captured" by anti-development interests and suffers from a fiscal illusion, weighing the benefits of regulation only against direct fiscal outlays (compensation payments). Costs borne by property owners are given no weight in the regulator's calculus.⁴ Given this assumption, compensation emerges as a desirable social policy. In this "regulator-as-tortfeasor" model, property owners are viewed as injured parties whose interests are ignored by the government. Compensation is desirable, given this assumption, since it forces the government to internalize otherwise unweighted costs when it makes regulatory decisions.

The second, contrasting assumption made in the literature is that regulatory decision making is inherently welfare-maximizing. This, of course, assumes away the possibility of regulatory failure. Instead of addressing compensation's effect on regulatory behavior, this literature highlights compensation's potentially undesirable effect on property owner decisions.⁵ Because of compensation's ability to distort landowner investment, a rule of no compensation tends to emerge as optimal in this strand of literature.

Neither characterization of regulatory motives is theoretically compelling or empirically realistic. Are we to believe that regulators are solely beholden to environmentalists when Congress is controlled by Conservatives? Or, alternatively, that regulators are welfare-maximizing, and immune to political pressure? Increasingly, takings scholarship is confronting

⁴ Examples of analysis that motivate or employ this assumption include Blume, Rubinfeld, and Shapiro (1984), Kaplow (1986), Posner (1992, p. 58-61), and Miceli and Segerson (1994).

⁵ Fischel and Shapiro (1988) coin the term "unimpeachable benefit-cost machine" to describe an inherently welfare-maximizing type of regulator. See also Blume, Rubinfeld, and Shapiro (1984), who draw attention to the moral hazard problem created by a government's commitment to compensate. As they show, the investment decisions of potentially regulated parties are distorted when compensation insures them against the private costs of regulatory change.

the need to incorporate in its analysis more compelling explanations of regulatory decision making.⁶ Of particular relevance are the insights provided by contemporary public choice theory. Public choice theory emphasizes the pluralism of American political institutions. Regulators are neither benevolent nor beholden to a particular political faction. Instead, the government responds to competing factions, differentiated by their interests and success at organized political activity.⁷ Given a public choice description of regulatory incentives, what types of compensation rules will lead to optimal regulatory decisions? And how does the presence or absence of compensation affect the political incentives of competing interests?

To answer these questions we describe a public choice model in which the regulator's decisions are influenced by competing interests.⁸ In the context of takings disputes, these interests can be broken down into three groups of primary relevance: property owners, who bear the costs of regulation, anti-development interests who enjoy the benefits of regulation, and taxpayers who bear the costs of any compensation offered to property owners. We allow the groups to differ in their ability to translate their interests into regulatory action. One group may be better organized or financed than another, and if so, will wield disproportionate influence over regulatory decision-making. This assumption allows us to contemplate the consequences of political influence that fails to accurately reflect the social benefits and costs of regulatory change.

⁶ For instance, Fischel and Shapiro (1989) use a public choice analysis to show that positive (though not full) compensation is desirable when regulatory decisions are expected to be made in a "majoritarian," or median voter-type fashion. Lunney's (1992) analysis is closest in spirit to ours since he discusses regulatory decision-making--and compensation's effect on it--as being the product of a pluralistic political system.

⁷ As in Olson (1965).

⁸ This is in the spirit of Peltzman (1976) and Becker (1985).

Second, political action is consequently affected by the compensation rule. For instance, if property owners are provided with compensation, their desire to thwart regulation is mitigated while taxpayer opposition to regulation is heightened. A public choice perspective allows political action focused on the regulator--and thus the nature of regulation--to emerge endogenously and as a function of the compensation rule employed by the regulator or courts.

As we will argue, it is unlikely that a "no compensation" rule will be optimal given this description of political and regulatory behavior. If there is no compensation, the government acts efficiently only if the political system perfectly reflects, and balances, the full social benefits and costs of regulation. For this to happen, environmentalists, taxpayers, and property owners must have equal influence over regulatory decisions. Equal influence is clearly the goal toward which democracy strives, but unequal influence is an empirical reality whose consequences have not been sufficiently addressed by the literature on takings.

The paper is organized as follows. Section 2 describes more fully the public choice perspective of regulatory behavior. In turn this allows us to define how compensation for takings affects the political incentives of affected interest groups, property owner investment decisions, and ultimately regulatory behavior. Section 3 describes the optimal compensation rule that emerges from the public choice analysis. In particular, we define the factors on which the rule is based. These include familiar factors--among them lost property value, and the scale of social benefits achieved via regulation--and less familiar factors, such as the social cost of public finance and competing interests' relative strength in the political process. Section 4 describes the way in which compensation should respond to property owner investment

decisions.⁹ Section 5 concludes with an evaluation of current legal and proposed statutory approaches to takings compensation.

2. A PUBLIC CHOICE MODEL OF REGULATORY DECISION MAKING

To highlight similarities to and differences from our approach, consider the conventional economic analysis of takings in which the government is treated as a tortfeasor. The government "injures" property owners when regulation reduces property values or strands investments associated with property. Inefficient levels of injury occur in these models because the regulator is assumed to represent only pro-regulatory political interests in making its regulatory decisions. As in our analysis, the standard model is used to derive a compensation rule that induces both optimal levels of regulation and optimal property owner investment decisions.

The Regulator-as-Tortfeasor Model

Using the tortfeasor analogy, the takings problem is analogous to a two-sided, or joint-care, incentive problem. The regulator (the injurer) creates property owners losses through the choice of regulation. And property owners (the victims) can affect, through their decisions, the size of the loss.¹⁰ The size of the loss is determined by the property owner's choice of land use and through its choice of investments that are stranded by regulation. Compensation requirements can correct the government's failure to efficiently regulate. The social cost of property owner losses are internalized by the regulator given that they must raise tax revenue to provide compensation. The award of compensation must also be conditioned on the

⁹ Brennan and Boyd (1995) contains formal analyses of the arguments we present in Sections 3 and 4.

¹⁰ See Miceli and Segerson for an analysis based on this type of model.

behavior of property owners, however. This is because property owners will make excessive investment or inappropriate land use decisions when they are fully compensated for regulation-induced losses in property value.

With the government as injurer and landowners as victims, the prescription of this standard analysis is familiar from the standard economic analysis of tort liability. There are two optimal compensation rules that emerge from this type of treatment of takings. The first is akin to a strict (government) liability rule with a contributory (property owner) negligence defense. In other words, if the property owner makes efficient land use decisions they are compensated, otherwise they are not. The second rule, which produces identical incentive effects, is for the government to pay compensation only if it regulated inefficiently. This leads the government to promote only efficient regulations. And given efficient regulation, property owners bear full liability for the private costs regulation imposes. This leads to optimal property owner investments.¹¹

A Public Choice Model of Regulatory Behavior

A critical, and unrealistic, assumption made in regulator-as-tortfeasor models is that the regulator weighs the benefits of regulation (e.g., reductions in a nuisance, or improved public amenities) only against the costs of compensation. The social costs of regulation, such as reduced property values or stranded investments, are ignored by the regulator, unless courts compel compensation based upon them. But if the regulator is sensitive to the social costs of

¹¹ The normative equivalence of strict liability with a contributory negligence defense and a negligence rule is well established. See Landes and Posner (1987, p. 73-77).

failing to regulate (which define regulation's benefits), why is it not sensitive to the social costs of imposing regulation on property owners?

It is axiomatic in public choice theory that those who are affected, positively or negatively, by regulatory decisions have an incentive to affect, via politics, the outcome of regulatory decisions. Property owners will oppose regulatory efforts to limit their property rights, and environmentalists will support regulation that enhances environmental conditions. The amount of money and time these groups are willing to spend to influence regulatory outcomes is directly related to the benefit they would receive or costs they would bear given, say, more regulation. The social benefits and costs of alternative policies are thus signaled by the money, time, and effort spent to influence policy choices. The stronger a group's signal, the more political influence is wielded by them, and the more likely is it that their interests will prevail.

Of course, it is equally axiomatic that unequal financial resources, organizational ability, transaction costs, and information and free rider problems can all distort the translation of social benefits and costs into political influence. This, for instance, contributes to the perception that political decision making is controlled by special, rather than broad, political interests. Regulatory failure arises in a pluralistic political model when influence is "unbalanced" in this way--i.e., when one or more groups yield disproportionate influence relative to the costs they bear or benefits they receive from regulatory policy.¹² Only if the

¹² The pluralistic model on which we focus is only one of several public choice models; the most common alternative being the majoritarian or median-voter model. "Unbalanced" influence is likely to arise in a majoritarian model, as well. In fact, the social costs and benefits of policy are likely to be even more poorly reflected by political outcomes in a majoritarian model than in a pluralistic one. In a majoritarian model with a one-dimensional policy spectrum, the median voter's preferences are assumed to prevail, regardless of the intensity of voter preference on either side of the median. For analyses of the empirical relevance of alternative public choice models see Inman (1979) and Romer and Rosenthal (1979).

benefits and costs of regulatory change are perfectly signaled by lobbying effort--if influence is "balanced"--can one conclude that it is economically desirable for regulators to respond to interest group influence.

Our analysis of takings policy begins by acknowledging that political influence aimed at the regulator is itself a function of the regulator's decisions and the levels of compensation compelled by the legal system. To understand how property owners, environmentalists, taxpayers, and regulators will respond to a particular compensation rule, consider the sequence of decisions made by these parties when regulation and compensation are a possibility. First, property owners decide how much to invest in their land. This decision is based on the following: (1) the increase in property value associated with investment in its improvement, (2) their expectation that future regulations will strand these investments and (3) the level of compensation they receive in the event regulation occurs. For concreteness, consider investments such as the clearing or drainage of land, or construction on the property. These investments can add to the private value of the land, while also imposing external environmental costs

Second, the regulator decides whether and how much to regulate, depending on the political influence directed toward it. Consider the political interest groups with a stake in this decision. First, there are anti-development interests--"environmentalists"--who seek a reduction in externalities generated by development. Second, there are the developers, the property owners. Third, there are taxpayers who must bear the cost of any compensation granted to property owners. Following the approach proposed by Peltzman (1976), the regulator has a political support function defined by the effect of regulation on these groups. Taking the compensation rule and existing landowner investment decisions as given, the

regulator chooses the level of regulation in order to maximize this political support function. Stringent regulation will be opposed by property owners and supported by environmentalists. Taxpayers will support less regulation if more regulation means that public funds must be raised for compensation.¹³

3. USING COMPENSATION TO OVERCOME REGULATORY FAILURE

The public choice perspective emphasizes the importance of failures in the political expression of regulation's social benefits and costs. The question we ask is, how can compensation rules be used to motivate efficient regulatory decision making when political expression is distorted--either in favor of environmentalists or property owners?

Before addressing this question directly, we note that compensation is not the only means to correct for unbalanced political influence. If compensation is based on the outcome of regulation, it affects the political incentives of those who receive the compensation and those who must pay for it. Compensation can therefore be thought of as an *outcome-based* tool to correct for unbalanced political influence, affecting the incentive, rather than the ability, to exercise political influence. Note, however, that policy attention can also be geared toward the source of unbalanced influence--the failure of lobbying to adequately reflect social costs and benefits.

Organizational-based rules that govern the ability and cost of lobbying are, at least conceptually, a substitute for outcome based rules such as compensation. For instance, if environmentalists are

¹³ It is for convenience alone that we refer to taxpayers, landowners, and environmentalists as separate and disjoint groups. Clearly, many taxpayers and even some property owners are environmentalists. Nevertheless, on net, regulation will make some better off ("environmentalists," who could be property owners), some worse off if there is no compensation ("property owners," who could be environmentalists) and some worse off if they are taxed to pay compensation ("taxpayers," who could be environmentalists and property owners).

disenfranchised, the ability of environmental lobbying to reflect the social benefits of regulation could be improved via tax policy or lobbying rules that favor such groups.

Using Compensation to Overcome Regulatory Failure in a Pluralistic Political System

To describe the ways in which a compensation rule can guard against regulatory failure, it is useful to identify assumptions regarding political action necessary to conclude that no compensation is optimal. If there is no compensation there will be no taxation, irrespective of the regulator's decision. Thus, taxpayers have no incentive to influence regulatory outcomes.¹⁴ Consequently, with no compensation, regulation will be efficient only if the influence exerted by environmentalists and property owners is balanced, i.e., it perfectly mirrors the social benefits and costs of regulation.

It is important to stress that balanced influence is not the same as equal influence. To illuminate the distinction, consider a regulation with large environmental benefits and small property owner costs. If property owners and environmentalists have equal ability and resources to organize politically, they have balanced influence. However, environmentalists will in this case be more strongly influential because their political action reflects the large social benefits of regulation, while property owners' political action (or lack thereof) signals that the costs borne by them are not substantial.

¹⁴ This may be an oversimplification. Taxpayers may care about regulations that reduce property values because, by reducing those values, the tax base is eroded. An eroded tax base, of course, means that holding revenue requirements fixed, higher marginal tax rates must be applied to the narrower base.

Compensation When Property Owners are Excessively Influential

When political influence is unbalanced--when the resources and ability to influence policy are unequal--our analysis generates counter-intuitive prescriptions for takings policy. For instance, suppose environmentalists are disenfranchised, i.e., influence is unbalanced in the favor of property owners. Should environmentalists oppose compensation? Not necessarily. Compensation for takings affects property owners' incentive to oppose regulation. Without compensation, property owners have a strong incentive to oppose--and through their opposition, weaken--regulation. If, as environmentalists might claim, well-heeled property owners wield disproportionate influence over regulatory decision-making, then regulators will be led to under-regulate.

The results are counter-intuitive because we have incorporated the possibility that compensation affects an interest group's incentive to support or oppose the regulation in question. In the above case, property owners' incentive to lobby for reduced regulation (and their success in doing so) can be overcome by compensating them for losses they suffer. In the extreme, if property owners are fully compensated, they will exert no effort to limit regulation. If unbalanced political influence disfavors environmentalists, property owner compensation allows for the political acceptance of more stringent regulation.

This discussion indicates that one way to correct regulatory failures arising from a lack of environmentalist influence is for courts to weaken--via compensation--property owner opposition to regulation. A substitute for *weakening* property owner opposition is to *strengthen* environmentalist support for regulation. While somewhat troubling philosophically and practically, compensation could be used to reward environmentalists as a function of how

strongly the government regulates. A reward, above and beyond the benefits environmentalists receive from seeing regulations instituted, would enhance their incentive to advocate and aid their success at achieving stronger regulation.¹⁵

It is interesting to note that compensation requirements are typically advocated by property owners who argue that compensation is needed to restrain regulators who otherwise are excessively influenced by environmentalists. In contrast, our conclusion is that compensation is desirable if the opposite is true if regulators are excessively influenced by property owners. The difference is that the by advocating compensation, the property owners can enlist taxpayers to oppose regulation as well.

Compensation When Environmentalists are Excessively Influential

What form should compensation take if property owners are correct in their belief that regulators are captured by environmentalists? If property owners are disenfranchised, negative compensation is optimal. That is, property owners should be *penalized*, above losses in property value, when a taking occurs. While this would seem to add insult to a property owner's injury, it has the desirable effect of motivating greater property owner opposition to regulation. This is desirable since, if property owner interests are under-represented, regulators will over-regulate. To counter the tendency, property owners must be motivated to oppose regulation more strongly than they otherwise would. Landowner penalties stimulate greater opposition to regulation. By making property owners believe they have more to lose

¹⁵ Note that the incentives created by rewarding environmentalists for stronger regulations is identical to the incentives created by penalizing them for weak regulations. Both stimulate greater environmentalist influence.

than just direct losses from regulation, they will compensate for their lack of political clout by increasing activities designed to influence the regulator's decision.

Alternatively, excessive environmentalist influence can be countered by compensating them for reductions in regulation. In other words, one could view policies to permit environmental degradation as a "taking." If regulation is excessive, compensating environmentalists for reductions in regulatory stringency weakens their incentive to pursue excessive regulation. Clearly, this is a legal intervention with serious practical difficulties. Identifying environmentalists, and therefore who should be compensated, is much more difficult than identifying the property owners affected by regulation.¹⁶ Also, compensating environmentalists for reductions in environmental regulation carries the flavor of bribery.¹⁷ A more fundamental problem with compensating environmentalists for reductions in regulation is that taxpayers must finance the compensation. Since regulators are likely to respond to political influence from taxpayers, taxpayer incentives must also be considered.

Compensation and the Role of Taxpayer Influence

An alternative check on excessive regulation is taxpayer opposition. If property owners lack political clout, positive compensation requirements--which are borne by

¹⁶ Property owners can credibly claim compensation rights, since ownership involves a cost. Proclaiming oneself to be an environmentalist is less credible since it may cost nothing. To overcome this problem, compensation could be provided only to those who can demonstrate a credible commitment to environmentalism, such as environmental organizations. Of course, this group is not fully inclusive of all those who would value enhanced environmental quality. Moreover, creating compensation rights would lead to additional and presumably inefficient entry by groups seeking those rents.

¹⁷ But compensating landowners for takings in order to reduce their opposition to regulation is a fundamentally identical intervention. The difference between the two cases is more semantic than substantive. In both cases, a form of payment is granted in order to affect one or the other group's incentive to influence regulatory outcomes.

taxpayers--can stimulate taxpayer opposition to excessive regulation. In the extreme, assume that property owners are completely disenfranchised, so that the regulator ignores property owner impacts in making its regulatory decisions. And assume that taxpayers and environmentalists have balanced influence. With full compensation, the social costs borne by property owners are perfectly shifted to taxpayers. If taxpayers' political clout is equal to environmentalists', the regulator will respond optimally. In this case, a full compensation rule leads to the optimal level of regulation.

Note that this is the scenario implicitly assumed by the conventional regulator-as-tortfeasor model. Our analysis highlights the political and economic assumptions implicit in that model. First, property owners' interests are politically unrepresented. Second, environmentalist and taxpayer influence is perfectly balanced. This means that when property owner losses are shifted to taxpayers via full compensation, taxpayers act as a perfect surrogate for property owner interests. Finally, existing analyses assume that there are no deadweight costs associated with the taxation necessary to finance compensation. Only if one accepts all of these assumptions is it valid to conclude that full compensation is optimal.

We have already suggested that the first two assumptions are quite special. Property owners certainly wield some influence. And while taxpayer influence is a substitute for property owner influence, it is likely that taxpayer interests are under-represented politically, relative to the more focused interests of environmentalists and property owners.

Consider a more general set of scenarios. If influence is unbalanced in favor of environmentalists and, in particular, if both property owners and taxpayers are ineffective lobby forces, the optimal compensation rule will be to compensate property owners for losses at

more than a dollar for dollar rate. This is true since the threat of very large tax burdens is necessary to induce taxpayer lobbying effort sufficient to balance the excessive influence of environmentalists on regulatory decision making.

Alternatively, assume that lobbying effectiveness is reversed, so that environmentalists are disenfranchised, and taxpayer reluctance to pay compensation has been promoted. All else equal, this argues for less than dollar-for-dollar property owner compensation. It also suggests what might be called the Reagan-Gingrich effect. Note that the greater is taxpayer opposition to taxation, the smaller is the amount of compensation necessary to get them to oppose more stringent regulations. If the desire is to limit regulation, it is strategically effective to motivate opposition to taxation, followed by a takings policy that requires compensation (and the taxation needed to finance it). This perhaps explains why those opposed to regulation find it effective to first generate widespread opposition to taxes generally, and then propose full compensation rules.

Absolute Compensation Levels

Not only has the current debate over the takings issue given insufficient attention to the incentives facing actual regulators--and the interest groups that influence them--but in treating the compensation payment as essentially a transfer, it has neglected the real social costs associated with the financing of compensation. If distortion-free taxes were possible, the absolute level of compensation would not affect welfare. However, the commodity taxes the government must raise if there is net compensation carry a social cost. The regulator-as-tortfeasor model's implicit assumption that transfers entail no social cost is clearly invalid. Too frequently, the emphasis is placed on the use of lump sum transfers, when a goal of policy

should be to minimize net transfers.¹⁸ All else equal, optimal takings policy should minimize compensation--and thereby the need to finance compensation via taxation. The improvement of economic performance would therefore be better served by focusing attention on compensation or penalty strategies that improve incentives *at the margin*.

The current attention devoted to compensation alone, rather than to the regulatory incentives created by compensation, is understandable, if regrettable. Clearly, opponents of stricter takings policies have an incentive to preserve environmental "wealth" and de-couple environmental controls from increased taxation. Similarly, proponents of those policies have an incentive to preserve wealth either through less regulation or via compensation payments. Moreover, by shifting compensation to taxpayers, property owners are implicitly shifting their own need to lobby, and the costs thereof, to taxpayers. However, from a normative perspective the motivation of optimal regulatory behavior can to a large degree be separated from distributional considerations. Marginal incentives--whether they be generated by payments or by penalties--can in principle be combined with lump sum transfers or penalties. The combination of such interventions would preserve marginal incentives for efficient investment and regulation while minimizing net transfers financed by taxpayers.

4. USING COMPENSATION TO AVOID INEFFICIENT PROPERTY OWNER DECISIONS

Compensation rules affect not only regulatory behavior, but the investment decisions of property owners. An investment influences the value of the property owner's land and the size

¹⁸ See Hermalin (1995) for another analysis that stresses the importance of marginal incentives, rather than lump-sum transfer payments.

of the environmental externality to be regulated. But property owner investments are also a function of the compensation rule. For instance, given full compensation, property owners are fully insured against losses in property value, creating a form of property owner moral hazard.¹⁹ If compensation is not full, property owner investments will hedge against the possibility of subsequent regulation which reduces the value of their land.

To address the two objectives of regulatory intensity and investment level, a compensation rule should have two instruments. Accordingly, the compensation rule should be conditioned on property owner investments as well as on diminution of property value. The marginal compensation rate based on diminution of value targets the regulatory incentive problem, while the marginal compensation rate based on level of investment targets property owner incentive problems.

The optimal investment-based marginal compensation rule features three components. First, compensation must reflect the direct social costs generated by a marginal change in investment. If clearing more land or building a bigger building generates an externality, compensation should be reduced on the margin. In effect, a penalty is imposed on the landowner equal to the Pigouvian externality tax.²⁰ The need for such a tax--or, to put it differently, an adjustment to the property owner's compensation--is independent of the part of the compensation rule based on diminution of property value.

Second, the property owner should be penalized for investing when additional investment increases the diminution in property value that occurs in the event of regulation, or

¹⁹ See discussion in Blume, Rubinfeld, and Shapiro (1984).

²⁰ This charges the property owner with the social costs of greater investment. An alternative mechanism, as suggested by Hermalin is to pay the property owner the social benefit of reduced investment.

when investment was made without consideration of the possibility of future changes in regulation. Without this penalty, property owners will have an incentive to invest too much, to increase the diminution-based compensation they receive. This penalty is not necessary in the absence of compensation, and increases in magnitude as compensation increases.

In addition to these two penalty components, the investment-based marginal compensation rule should also contain a component to guard against a property owner's tendency to invest too little if it expects the strength of regulation to be an increasing function of its investment choice. This form of compensation is not necessary under full compensation for diminution of value, since property owners are insured against losses in value, regardless of the regulator's ultimate choice of regulatory stringency.

To summarize, takings rules that lead to efficient regulation can nevertheless lead property owners to neglect external costs and attempt to exploit the prospect of compensation. Accordingly, compensation should be conditioned at the margin on both landowner investments and the diminution in property values that results from regulation. Together, these instruments provide the marginal incentives necessary to guarantee efficient regulatory and landowner decisions. It remains the case, however, that no *net* compensation should be paid, given the social cost of raising taxes to make compensation payments. Compensation rules should be regarded as payments made and received *only* when property owners or regulators act inefficiently, to prevent deviations from optimal levels of investment and regulation.

5. CONCLUSIONS AND IMPLICATIONS FOR THE TAKINGS REFORM DEBATE

Normative political and economic theory suggest that takings compensation is a mechanism to check undesirable governmental behavior. The preceding analysis has shown

how compensation can be used to induce efficient government behavior. Checks on inefficient government choices are necessary when, left to themselves, political institutions fail to adequately reflect social benefits and costs in their regulatory decisions. This argument is appreciated by proponents of reform who, in fact, use it as the intellectual motivation for change. However, if government failure is the problem to be addressed by takings policy, it also follows that legislative oversight and reform of takings policy is inappropriate.

It is undesirable for legislatures to define when or how much compensation should be paid. When legislatures define the cases and conditions under which compensation is granted, takings compensation may be turned into a vehicle for wealth-redistribution aimed at the satisfaction of short-term, parochial political interests. The perception that the 104th Congress' takings reforms were part of a political strategy to undermine relatively narrow sets of regulations underscores the possibility that takings will be used opportunistically to further the political aims of the current legislative majority.²¹ While numerous criticisms of the recent reform bills can be offered--and are discussed more fully by other authors in this issue--a more overarching concern is that takings reform should not be legislatively determined at all.

Undesirable regulatory decisions are made because they arise from a political system that fails to adequately reflect social welfare. The composition and goals of legislatures are a product of the same political and institutional system. Legislatures that are unduly influenced by environmentalists or property owner interests are unlikely to use compensation policy to

²¹ H.R. 925, passed in March, 1995 applied only to losses in value due to wetlands protection under the Clean Water Act, the Endangered Species Act, and particular wetlands and water rights provisions of other statutes.

induce welfare-maximizing regulatory decisions. Instead, legislatures have an incentive to use compensation policy to further their own distributional, political, and regulatory aims.

Judicial, rather than legislative, constraint and evaluation of political failure may be the most appropriate check on unbalanced political influence and outcomes. The judicial oversight of political processes and outcomes, such as that suggested by our analysis, falls well within the mainstream of constitutional jurisprudence. Indeed, a principal interpretation of the Constitution's function is that it protects the expression of minority interests in a representative democracy. The need for protections arises because representative government can fail to balance the interests of minorities against the will of the majority. All that can be guaranteed by representative democracy is that majority viewpoints are expressed legislatively. The democratic ideal, however, also places value on the interests of the minorities affected by majoritarian policies. Voter qualification and apportionment, due process protections, the regulation of commerce between the states, prohibitions of slavery and unreasonable search and seizures, and obligations to compensate for takings can all be viewed as areas in which the Constitution acts to protect minority rights. Without these protections, representative, majoritarian democracy cannot guarantee that the costs borne and benefits received by minority interests will be represented in government decision-making.²²

²² The *Carolene Products* footnote, for example, is an expression of the belief that judicial review is not only consistent with, but necessary to the satisfaction of, the aims of democracy (*United States v. Carolene Products Co.*, 304 U.S. 144 (1938)). Ely (1980, p. 73-104) provides a rationale for, and interpretation of, judicial intervention based on the idea that the constitution and judicial oversight are a mechanism to foster processes leading to balanced political representation. Dworkin (1985, p. 69-71) argues more directly that Constitutional interpretation requires judges to make decisions based on the moral principles underlying the rights themselves, rather than on the desire to promote economic welfare *per se*.

Our analysis of takings policy has described a set of rules, implemented by the judiciary, that use compensation to overcome failures of representation in a pluralistic political system. It deserves emphasis, however, that there is a broad set of constitutional tools with which the judicial system can address failures in representation. The foremost is the definition of the boundary between private property and the state's police powers.²³ In a literal sense, the definition is central to takings jurisprudence because a taking can occur only if private property is taken.²⁴ This, for instance, explains why both current jurisprudence and recent reform legislation require the so-called nuisance exception. Derived from the common law evolution of property doctrines, the nuisance exception implies that if a claim arises due to enforcement of state or common law nuisance provisions, then a taking has not occurred.²⁵ As these definitions of nuisance evolve, so too will the scope of acceptable regulatory action and with it the need for judicial oversight to guard against regulatory failure.

Our analysis of compensation, and acknowledgment of the variety of forms judicial oversight can take, aid the interpretation and evaluation of current takings jurisprudence. Given the ubiquity of legislative and regulatory effects on property values, the broad absence of compensation may reflect a judicial perception that affected parties have balanced influence,

²³ This boundary has never been precisely delineated. See for example *Charles River Bridge v. Warren Bridge*, 36 U.S. 341 (1837) wherein: "While the rights of private property are sacredly guarded, we must not forget, that the community also have rights, and that the happiness and well-being of every citizen depends upon their faithful preservation."

²⁴ See Sax who views the *Lucas* opinion as a response to shifting definitions of the boundary between traditional and "ecological" property rights.

²⁵ Kmiec (1995) argues that recent Supreme Court decisions have led to a standard whereby compensation must be paid unless courts have determined that the regulation addresses a nuisance as defined by a state's common law courts, rather than by legislative fiat.

and that there is limited need for compensation to modify regulatory behavior. In addition, courts may find that only gross inequities in the burden of covering regulation's costs warrant the burden of compensation. Not the least of these costs is that when compensation is available many of the gains are likely to be dissipated in litigation and other "rent-seeking" expenditures. This may explain why current law requires close to total diminution of value before takings will be compensated.

Overall, our analysis suggests that takings compensation can affect regulatory outcomes in counter-intuitive ways. The pluralistic public choice perspective also highlights the ways in which compensation should be sensitive to political influence. Further development of the type of compensation rules presented in this paper and their application to various case settings and statutes may shed additional light on whether and when to compensate for losses resulting from policy decisions. A prominent, current example of such a situation relates to the disposition of so-called "stranded assets" in a de-regulated electricity industry.²⁶ It also suggests positive empirical tests of our model.²⁷ For example, one might regard the move from uncompensated military service to a volunteer army as not only a predictable response to the increased political organization and clout of college-age males, but a way to ensure that such clout would not lead the government to be too reluctant to wage wars. Our theory also provides some policy justification for empirical observations that

²⁶ This issue relates to whether or not the government should allow electric utilities to recover generation costs incurred prior to the introduction of competition; costs that may be unrecoverable after deregulation. Existing legal rules requiring regulators to allow firms the opportunity to earn "just and reasonable" returns serve in large measure to prevent governments from deciding to pay utilities enough to cover only operating costs, once capital expenditures are sunk (*Federal Power Commission v. Hope Natural Gas*, 320 U.S. 591 (1944)).

²⁷ We thank, without implication, David Levy and Robert Tollison for some of these observations.

wealthier landowners, presumably with more political influence, receive a higher percentage of their property values as compensation following a taking under eminent domain.

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