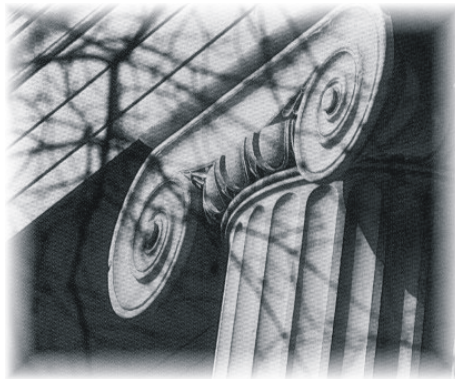


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COMPENSATION FOR REGULATORY TAKINGS WITH A REDISTRIBUTIVE GOVERNMENT

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Compensation for Regulatory Takings with a Redistributive Government

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Abstract

Richard Epstein has argued that, in a fairly broad range of circumstances, governments should pay compensation for regulatory actions which impose costs on a subset of society. I develop a model in which there are two groups, one of whom benefits from a regulation, and one of whom bears the costs. A potentially biased government sets the level of the regulation, and this government may also redistribute income across the two social groups via the tax system. When taxes are nondistortionary, the government chooses the efficient level of the regulation in order to maximize wealth, and then uses the tax system to distribute this wealth according to its own biased preferences. If the government is forced to pay compensation for the costs of the regulation, it simply undoes this via the tax-transfer system. When taxes are distortionary, the government may not choose the wealth maximizing level of the regulation when compensation is not paid. It turns out, however, that societal wealth is monotonically decreasing in the degree of compensation to be paid, so that the optimal level of compensation is zero.

JEL classification: K2, H4, D72

Keywords: Takings, Regulation, Compensation

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1. Introduction

Should an individual be compensated when they bear costs due to a government regulation?

Richard Epstein has argued that the answer is 'yes' in a fairly wide range of circumstances.

There are several arguments that can be put forth for why compensation should be paid. These include justice, fairness, and efficiency. The efficiency argument relates to the idea that a government will choose a more efficient level of a regulation if it is forced to pay for the costs imposed by that regulation. In this paper, I will focus on the efficiency argument for compensation and will not address fairness or justice arguments.

I develop a model where there are two groups in society, one of which bears all the costs of a regulation, and one of which benefits from the regulation. A potentially biased government sets the level of the regulation. This government may freely engage in redistribution through the tax and transfer system. When taxes are nondistortionary, the government will choose the efficient level of regulation, even if it is biased. It does this in order to maximize wealth, which it then redistributes according to its (potentially biased) preferences. If compensation is mandated, it has no effect on either group in society or on aggregate wealth, because the government costlessly undoes the mandated compensation via the tax and transfer system.

When taxes are distortionary, a biased government may not choose the wealth maximizing level of the regulation. However, it will deviate from the wealth maximizing level of the regulation only if it is cheaper to transfer income between groups by adjusting the level of the regulation than by using the tax and transfer system. As a result, both aggregate wealth and individual wealth for members of the two groups are monotonically decreasing in the level of the required compensation. This occurs because required compensation leads the government to transfer income in a less efficient fashion.

The situation described by the model will clearly not cover all cases. The government setting the regulation must have access to redistributive instruments. Thus, it is least likely to apply to a local government setting regulations. It has more applicability to state governments which do have a variety of tax, spending and transfer instruments at their disposal and is most likely to apply to a federal government which has the greatest range of redistributive instruments at its disposal. The government must also be able to distinguish the two groups and have a plausible way of transferring income between them.¹ For example, an endangered species listing may affect an identifiable set of landowners as might wetlands regulation. Labor market regulations will affect an identifiable set of firms and so on.

When the needed conditions for the model do apply, there is a very strong policy implication which is that the wealth maximizing level of compensation is zero when taxes are distortionary. The reason is that the redistributive government will attempt to undo the effects of the mandated compensation payment, but using the tax system to do this is costly because of the distortionary effect of taxation.

2. Background

Richard Epstein (1985, 2008) has argued that individuals should be compensated for regulations which impose costs upon them, assuming that these regulations do not provide offsetting benefits to the affected party. The regulation should not be subject to the compensation requirement if the behavior being regulated falls under the state's police powers. A behavior falls under the police powers if, for the behavior in question, individuals could bring action against the offending party

¹ The ability to distinguish between the groups is also a necessary condition for compensation to be paid, so this is not a restrictive requirement.

under the law of nuisance.² Certain types of environmental regulation may satisfy this criteria, but Epstein (2008, pp. 131-134) argues that endangered species regulation and wetlands protections do not and that therefore these regulations should be subject to takings compensation.³ Similarly, zoning, landmark preservation and most labor market regulations constitute the type of regulatory taking which Epstein argues should be subject to compensation. He also argues that compensation should not be restricted to cases in which the group being regulated is small. Thus there is a fairly large scope of regulatory activity which Epstein believes should be subject to a compensation requirement.

One argument in favor of compensation for regulatory takings is that such compensation will induce the government setting the regulation to do so at an efficient level.⁴ One of the key results of my paper is that compensation for regulatory takings is counter-productive when the government subject to this requirement is free to redistribute income between the regulated and unregulated group. It is worth pointing out that Epstein views redistributive taxation as a taking.⁵ If redistributive policies are banned, the arguments of this paper do not apply. We can think of the analysis as reflecting the outcome when part of Epstein's program is adopted, compensation for regulatory takings, but part is not, so that redistribution is still possible.

In Pecorino (2009), I analyze the effects of compensation for regulatory takings when the affected level of government is unable to engage in redistributive activities. There are two groups in society, one of which bears all the costs of the regulation. The government which sets the regulation is potentially biased in favor of one of the two groups. In the absence of

² See Chapter 9 in Epstein (1985).

³ For more on the effect of endangered species regulation, see Innes (1997), Polasky and Doremus (1998), Lueck and Michael (2003), and Zhang (2004).

⁴ This argument is presented in Epstein (2007: 744).

⁵ See Chapter 18 of Epstein (1985) for his views on taxation and Chapter 19 for his views on redistributive spending programs.

compensation, a biased government will not set the efficient level of the regulation. When taxes are not distortionary, the optimal level of compensation for a regulatory taking is always positive. This is true, even if the government is biased in favor of the group which bears the cost of the regulation. Moreover, the optimal level of compensation will induce the government to choose the optimal level of the regulation. Thus, when taxes are nondistortionary, forcing a government to pay compensation for regulatory takings is highly effective in inducing the efficient level of regulation. When taxes are distortionary, however, the picture is less clear. The optimal level of compensation will be small or zero if the government bias is small, the tax distortion is large or if the group to be compensated is large. Overall the results lend qualified support for the idea that compensation for regulatory takings can induce a government to choose the efficient level of regulation. As the current paper shows, however, the issue of whether or not the affected government can engage in redistribution is crucial in determining whether mandated compensation is efficiency enhancing.

There is a large theoretical literature on both physical takings and regulatory takings. In this paper, the taking should be interpreted as resulting from a regulatory action. The literature often addresses two issues, only one of which is addressed in this paper. This issue addressed in this paper concerns the problem of inducing efficient choices by the government. However, the literature is also concerned with the investment choices made by the landowners/regulated parties. In particular, the party which may be subject to a taking may engage in too high a level of investment if full compensation is to be paid in the event a taking actually occurs.⁶ This issue is not addressed in my paper.

⁶ This leads Blume, Rubinfeld and Shapiro (1984) to argue that 0 compensation may be optimal if the government's decision to take land is independent of its current use.

In context of a model of regulatory takings, Miceli and Segerson (1994) develop compensation rules which are analogous to the optimal liability rules developed in tort law.⁷ Under one, the ex ante rule, the regulated party receives compensation if she suffered a loss due to a government action, while undertaking the efficient level of investment on her land. By contrast, under the ex post rule, the government only pays compensation if its regulation is inefficient.

In some of the existing literature including Blume, Rubinfeld and Shapiro (1984) and Miceli and Segerson (1994), the government may make inefficient policy choices because it suffers from fiscal illusion meaning that if it is not forced to pay for a taking, it will underestimate the cost of a policy. In Fischel and Shapiro (1989) and Hermalin (1995), a majoritarian government may make inefficient choices as a majority seeks to impose the cost of a policy on a minority.⁸ By contrast, I model a potentially biased government which maximizes the weighted sum of the utilities of the individuals in society.⁹ Such a biased welfare function could arise from the type of lobbying game analyzed by Grossman and Helpman (1994).

3. The Model

There are two groups in society with N_1 members of group 1 and N_2 members of group 2. Members of group 1 bear all of the costs of the regulation $R \geq 0$, while members of group 2 obtain benefits from this regulation.¹⁰ Thus, not including any taxes or transfers, members of group 1 have wealth $W_1(R)$, where $W_1' < 0$ and $W_1'' < 0$ and members of group 2 have wealth

⁷ Miceli and Segerson (1996) provides a book length treatment of the takings issue.

⁸ Other work in the takings literature includes Sax (1964, 1971, 1993), Blume and Rubinfeld (1984), Innes (1997, 2000), Claeys (2003), Tideman and Plassmann (2005) and Miceli (2008).

⁹ A similar approach is taken by Brennan and Boyd (2006).

¹⁰ Think of the costs borne by members of group 1 as net costs equal to the gross costs incurred from the regulation minus any benefits received.

$W_2(R)$, where $W_2' > 0$ and $W_2'' < 0$. For group 1, wealth is decreasing in the regulation at an increasing rate. For group 2, wealth is increasing in the regulation, but at a decreasing rate.

In the absence of government spending and distortionary taxation, aggregate private sector wealth $A = N_1W_1(R) + N_2W_2(R)$. For future reference, it is useful to derive the wealth maximizing level of the regulation. Setting $dA/dR = 0$, the first order condition may be expressed as follows:

$$-N_1W_1'(R) = N_2W_2'(R). \quad (1)$$

This condition requires setting the marginal cost of regulation imposed on group 1 equal to the marginal benefit received by group 2. Denote the value of R which solves (1) as R^O . In order to have an interior solution for R^O , it must be the case that $N_2W_2'(0) > -N_1W_1'(0)$, which I assume to be the case. The curvature properties of the W functions guarantee that this value of R is unique.

Each individual member of the groups pays taxes T_1 and T_2 respectively. These taxes are distortionary in the sense that \$1 of tax collections by the government reduces individual wealth by more than \$1.¹¹ Denote the distortion associated with taxing each group as δ_1 and δ_2 respectively, so that the tax distortion may differ across the two groups. While the value of the δ 's are taken as exogenous in my model, differences in their values could arise if one of the two groups were taxed more heavily in equilibrium than the other.¹² Let k be the percentage of the

¹¹ Innes (2000) and Brennan and Boyd (2006) also consider distortionary taxes.

¹² Alternatively, the value of the tax distortions could differ if labor supply elasticities differed systematically across the two groups.

loss due to the regulation which must be compensated by the government.¹³ Thus, when a regulation $R > 0$ is imposed, members of group 1 receive $k(W_1(0) - W_1(R))$ as compensation.

Net wealth (denoted W_1^N and W_2^N) for members of the two groups is

$$W_1^N = W_1(R) + k(W_1(0) - W_1(R)) - (1 + \delta_1)T_1, \text{ and} \quad (2a)$$

$$W_2^N = W_2(R) - (1 + \delta_2)T_2. \quad (2b)$$

For members of each group, utility is a function of net wealth so that we have, $U_j(W_j^N)$, $j = 1, 2$, where $U_j' > 0$ and $U_j'' < 0$. In addition, assume that $U_j'(0) = \infty$ and $U_j'(y)$ is finite for any $y > 0$. This last set of assumptions guarantees that as the government engages in redistribution between the two groups, we will have an interior solution where both groups retain positive wealth in equilibrium.

The government is potentially biased with the objective function

$$S = N_1 U_1(W_1^N) + \theta N_2 U_2(W_2^N), \quad (3)$$

where $\theta > 0$. If $\theta > 1$, the government is biased in favor of group 2 and if $\theta < 1$, the government is biased in favor of group 1. This type of biased government welfare function can arise in a Grossman and Helpman (1994) type model when one group is politically organized and the other is not. The government must set taxes in order to satisfy its budget constraint:

$$N_1 T_1 + N_2 T_2 = N_1 k(W_1(0) - W_1(R)) + G, \quad (4)$$

¹³ The parameter k is clearly not a choice variable of the government in question. It could be thought of as a constitutional requirement.

where G is an exogenously determined level of government spending and $N_1k(W_1(0) - W_1(R))$ is the total amount of compensation to be paid to members of group 1. I assume that the level of exogenous government spending is sufficiently high that both groups pay positive taxes (i.e., $T_1, T_2 > 0$) in equilibrium. Equation (4) may be solved for T_2 . Substitute this and equation (2) into (3) to express the government's objective function as follows:

$$S = N_1U_1(W_1(R) + k(W_1(0) - W_1(R)) - (1 + \delta_1)T_1) \\ + \theta N_2U_2(W_2(R) - (1 + \delta_2)(1/N_2)[N_1k(W_1(0) - W_1(R)) + G - N_1T_1]). \quad (5)$$

The government chooses R and T_1 to maximize (5). The first order conditions may be expressed as follows:¹⁴

$$-N_1U_1'W_1'(1 - k) = \theta U_2'(N_2W_2' + (1 + \delta_2)N_1kW_1') \quad (6a)$$

$$U_1' = (1 + \delta_2)\theta U_2' / (1 + \delta_1) \quad (6b)$$

The condition in (6b), derived from the choice of T_1 , reflects the government's redistributive choices. It involves the equation of marginal utilities mediated by the bias factor θ , and the tax distortions δ_1 and δ_2 . If one group has a higher distortion associated with taxation, the optimizing government will tend to tax them less, resulting in a higher level of wealth and a lower marginal utility of wealth.¹⁵

¹⁴ Note that the arguments of the derivatives of the U and W functions are suppressed in the expression below.

¹⁵ Note, however, that if the δ 's were endogenous, then δ would tend to be high precisely because the group suffered from a high level of taxation.

While the compensation parameter k enters into the arguments of U_1' and U_2' , the equilibrium ratio U_1'/U_2' is independent of k . Thus, any changes in k will either make both parties better off or both parties worse off. This is stated as Result 1:

Result 1: Any change in the compensation percentage k either raises the utility of both parties or lowers the utility of both parties.

Result 1 will allow us to focus on the aggregate wealth effects of changes in k . If, for example, aggregate wealth falls as a result of a change in k , individuals in at least one group must be made worse off. What Result 1 then implies is that individuals in the other group are also necessarily made worse off. This is significant, because the apparent effect of a compensation requirement would be to transfer income toward the group suffering the loss from the regulation. However, because the government has other redistributive tools at hand (i.e., taxes T_1 and T_2), it has the power to undo the transfer required by the compensation policy.

By substituting (6b) into (6a), we can express it as follows:

$$-N_1W_1' = N_2W_2' \left(\frac{1 + \delta_1}{(1 + \delta_2)(1 + k\delta_1)} \right). \quad (7)$$

The first thing to notice from (7) is that the derivatives of the utility functions and the bias parameter θ have dropped out of the expression.¹⁶ The model can be solved recursively, with R solved from equation (7) alone. Using this solution for R in equation (6b), we can solve for T_1 .

Because the solution for R from (7) will not involve the government bias term, this immediately casts doubt on the idea that compensation for regulatory takings will act as a

¹⁶ In order to have an interior solution, it must be the case that when the derivatives in equation (7) are evaluated at $R = 0$, the right-hand side is greater than the left-hand side. I assume this condition is met. The curvature properties of the W functions guarantee that the interior solution for R is unique.

corrective for government bias in this model. To obtain some further insight, consider the special case where taxes are not distortionary so that $\delta_1 = \delta_2 = 0$. Equation (7) becomes $-N_1W_1' = N_2W_2'$, which is exactly the condition in (1) which guarantees that aggregate wealth is maximized. In this situation, the government sets R to maximize aggregate wealth and then sets the level of T_1 and T_2 to costlessly achieve its desired income distribution. Since the expression $-N_1W_1' = N_2W_2'$ does not involve k , it immediately follows that $dR/dk = 0$. Thus aggregate wealth is unaffected by the level of required compensation and this implies, via (6b), that the utilities of the two groups are unchanged when k changes. The redistributive government is able to costlessly undo the effects of any required compensation, and as a result, the level of the regulation is not affected by a compensation requirement. This analysis is summarized as Result 2:

Result 2: When taxes are nondistortionary ($\delta_1 = \delta_2 = 0$), (i) The level of the regulation does not depend upon the level of compensation so that $dR/dk = 0$; (ii) The government always chooses the wealth maximizing level of the regulation; (iii) The utility of both groups is independent of the level of required compensation.

When taxes are nondistortionary the government chooses the efficient level of the regulation, so from an efficiency standpoint there is nothing for the compensation policy to correct. In addition, the income distribution effects of the compensation policy are simply undone by the government in a costless fashion. The compensation policy brings no benefits, but it also imposes no costs in this situation. How does this picture change when taxes are distortionary? When we consider the case without compensation, so that $k = 0$, equation (7) becomes

$$-N_1W_1' = N_2W_2' \left(\frac{1+\delta_1}{1+\delta_2} \right). \quad (8)$$

If $\delta_1 = \delta_2$, we again obtain equation (1) and have the government choosing the efficient level of the regulation. If we let $\Delta = (1+\delta_1)/(1+\delta_2)$, it is straightforward to show that $dR/d\Delta > 0$. This implies that if $\delta_1 > \delta_2$, we will have $R > R^O$ (where R^O is calculated from (1)) and if $\delta_1 < \delta_2$, we will have $R < R^O$. This is summarized as Result 3:

Result 3: Assume that no compensation is paid for regulatory takings ($k=0$). If $\delta_1 > \delta_2$, then $R > R^O$, if $\delta_1 = \delta_2$, then $R = R^O$, and if $\delta_1 < \delta_2$, then $R < R^O$.

Result 3 would appear to leave some leeway for compensation to improve efficiency, however, as we will see, that is not the case. While the government is potentially biased, it is optimizing a paretian welfare function. This implies that it will transfer income in the most efficient way possible.¹⁷ So, for example, if $\delta_1 > \delta_2$, it is relatively expensive to tax group 1 directly. As a result, some of the tax will come in the form of a high level of regulation. This implicitly taxes group 1, but as long as R is not too far above R^O , it can actually be cheaper to tax group 1 in this fashion rather than doing so directly. Raising R above R^O lowers group 1's income and raises group 2's income. The government can then lower group 1's taxes and raise group 2's taxes by the same amount. Because $\delta_1 > \delta_2$, the total tax distortion is lowered in this fashion. As we will see below, the need to pay compensation will simply lead the government's tax and transfer system to be less efficient.

¹⁷ In his model of pressure groups, Becker (1983) finds that efficient forms of taxation will tend to emerge from the political process.

Next, consider the effect of changes in k on the level of regulation R . Totally differentiate equation (7) with respect to k to obtain

$$\frac{dR}{dk} = \frac{-N_1 W_1' (1 + \delta_2) \delta_1}{N_1 (1 + \delta_2) (1 + k \delta_1) W_1'' + N_2 (1 + \delta_1) W_2''} \leq 0. \quad (9)$$

If $\delta_1 > 0$, this expression is strictly negative, and R is monotonically decreasing in k .¹⁸ This is stated as Result 4:

Result 4: If $\delta_1 > 0$, the level of the regulation R is monotonically decreasing in the percentage of required compensation k . If $\delta_1 = 0$, $dR/dk = 0$.

Why does $dR/dk = 0$ when $\delta_1 = 0$? Because in this case, the effect of the compensation can costlessly be undone by raising taxes on group 1.

Result 4 contrasts with Result 1 of Pecorino (2009). In that model, the government had no opportunities for transferring income across groups other than by the setting of the level of the regulation. When the government in that model is biased in favor of the regulated group ($\theta < 1$), increases in k can result in higher levels of the regulation.¹⁹ Thus, when $\theta < 1$ the government's ability to engage in redistribution has a critical effect on the comparative static dR/dk .

Next consider the effect of changes in k on aggregate wealth. If aggregate wealth falls as a result of a change in k , at least one party must be made worse off, but we know from Result 1, that both parties will in fact be worse off in this situation. Taking account of government spending and losses due to the tax distortions, aggregate wealth A may be expressed as

¹⁸ The numerator is positive because $W_1' < 0$, and the denominator is negative because W_1'' and W_2'' are both negative.

¹⁹ In Pecorino (2009), if taxes are nondistortionary, a bias in favor of the regulated group ($\theta < 1$) is sufficient to ensure that an increase in k raises the level of the regulation. However, if taxes are distortionary, it requires a sufficiently large bias in favor of the regulated group in order to obtain this result.

$$A = N_1 W_1(R) + N_2 W_2(R) - G - \delta_1 N_1 T_1 - \delta_2 N_2 T_2.$$

Substitute for T_2 from the government budget constraint in (4) to obtain

$$A = N_1 W_1(R) + N_2 W_2(R) + (\delta_2 - \delta_1) N_1 T_1 - \delta_2 N_1 k (W_1(0) - W_1(R)) - (1 + \delta_2) G. \quad (10)$$

In order to compute dA/dk , first compute dT_1/dk from equation (6a). Utilizing this and the solution for dR/dk from equation (9) yields

$$\frac{dA}{dk} = -\delta_1 N_1 (W_1(0) - W_1(R)) \frac{((1 + \delta_1)(1 + \delta_2) N_2 U_1'' + (1 + \delta_2)^2 N_1 U_2'')}{(1 + \delta_1)^2 N_2 U_1'' + (1 + \delta_2)^2 N_1 U_2''} \leq 0. \quad (11)$$

This expression is strictly negative if $\delta_1 > 0$, meaning that wealth is monotonically decreasing in the required level of compensation. As noted previously, if wealth decreases, individuals in both groups must be worse off. Thus, individual welfare for both groups is monotonically decreasing in the degree of required compensation. An increase in k generates additional tax distortions, as taxes must be raised in order to pay for the compensation. There is no corresponding benefit derived from induced changes in R , because deviations from R^O arise from the government's attempt to minimize the level of distortion associated with the taxes it levies. If $\delta_1 = 0$, aggregate wealth and individual welfare are both unaffected by k because, as noted above, it is costless to undo the effects of the mandated compensation. This is summarized as Result 5:

Result 5: Assume that $T_1, T_2 > 0$. (i) When $\delta_1 = 0$, aggregate wealth and individual welfare are unaffected by the percentage of required compensation k . (ii) When $\delta_1 > 0$, aggregate wealth and individual welfare are monotonically decreasing in the percentage of required compensation k . This implies that the optimal level of compensation is 0

whenever $\delta_1 > 0$.

The issue of whether or not the affected government can engage in redistribution is critical for the efficiency effects of required compensation for regulatory takings. In Pecorino (2009) I find that positive levels of compensation can improve efficiency in a range of circumstances, but in that model, the affected government is unable to engage in redistribution outside of its choice of the level of the regulation. By contrast, the results here suggest that there is no role for compensation to improve efficiency when the affected government can engage in redistribution.

In the course of setting out the model, I assume that both groups pay positive taxes. If group 2 received a subsidy on net, so that $T_2 < 0$, the results would be unaffected regardless of whether or not the receipt of a subsidy entailed a distortion.²⁰ However, the results are affected if group 1 receives a subsidy on net ($T_1 < 0$). If the amount of the subsidy exceeds the compensation to be paid, then the redistributive government can reduce the subsidy dollar for dollar with the required compensation. If there is no distortion associated with the subsidy, then welfare is unaffected. If receipt of the subsidy causes a distortion, then we could have a reversal of Result 5, assuming that receipt of the compensation payment is nondistorting.²¹ In this case, when compensation is required, it allows the government to substitute distortion free compensation payments for the distorting subsidy payments, and this would allow welfare to increase. As a practical matter, this situation seems unlikely, because individuals with enough assets to endure a significant regulatory taking would typically earn enough to pay positive net taxes.

²⁰ Such a distortion would drive a wedge between the subsidy paid and the subsidy received by members of the group. This would affect the algebraic solution for certain expressions, but not the results of the paper.

²¹ Or, alternatively, that the distortion associated with receipt of the compensation payment is smaller than the distortion associated with a subsidy.

4. Conclusion

The results of this paper strongly suggest that compensation for regulatory takings will not enhance efficiency if the affected government unit is able to transfer income between the relevant groups in society. More broadly, the results of this paper combined with the result of Pecorino (2009) allow us to draw some tentative conclusions about which policy combinations work well together and which do not. In thinking about this, consider the following three aspects of policy: (i) the overall size of government; (ii) whether the government is permitted to engage in redistributive actions; and (iii) whether the government needs to pay compensation for regulatory takings.

Imagine initially that a biased government sets the level of a regulation, that taxes are nondistortionary, redistribution is not possible, and compensation is not required for regulatory takings. Such a government will not generally choose the optimal level of the regulation.²² Allowing redistribution and requiring compensation are alternative means of inducing the government to choose the efficient level of the regulation. If the government is allowed to engage in redistribution, it will set the regulation at an efficient level and then use costless redistribution to achieve its desired income distribution. Alternatively, as shown in Pecorino (2009), if the level of compensation for regulatory takings is set appropriately, this can also induce the government to set the regulation at the efficient level. While these policies work well separately, they do not work well together. As seen in this paper, the effects of required compensation become undone when the government can engage in redistribution. Furthermore,

²² This is seen in Pecorino (2009). In the current paper, it is straightforward to show that if we require $T_1 = T_2$, so that redistribution is not allowed, the government will not choose the efficient level of the regulation unless by coincidence this level of regulation also led to an optimal distribution of income from the government's standpoint.

if taxes are distortionary, forcing a redistributive government to pay compensation for regulatory takings will lower welfare of all groups in society.²³

If the government cannot engage in redistribution, compensation for regulatory takings may enhance efficiency, but the overall size of government is important, because if the government is large, the distortion associated with taxation will tend to be large. In this case, the scope for efficiency enhancing compensation may be limited to instances in which the number of people to be compensated is small.²⁴ If the size of government is small, then the tax distortion will be low and the scope for efficiency enhancing compensation is larger.

Taken as a whole, Epstein's policy proposals would entail a significantly smaller role for government, with redistributive activities greatly curtailed, and with compensation paid for regulatory takings.²⁵ This combination of policies is coherent in the sense that they can achieve the goal of inducing efficient policy choices from the affected government. Note that curtailments in the size of government can be undertaken without regard to the other two policies.²⁶ However, a requirement that compensation be paid for regulatory takings will not function well if redistribution is still possible or if the scope of government means that tax distortions are high.

²³ But note the exception discussed at the end of Section 3.

²⁴ See Result 6 in Pecorino (2009).

²⁵ As noted earlier, Epstein views redistributive policies as a taking, but he does not advocate immediately eliminating programs such as social security, because individuals have factored this program into their saving decisions for retirement.

²⁶ Significantly reducing the size of government might require that redistributive transfers be reduced, but it does not required that redistribution itself be banned.

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