



Repeated adjustment of delegated powers and the history of eminent domain

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ABSTRACT

In representative democracies, citizens delegate powers. Not surprisingly, citizens react angrily when the delegated powers are misused (i.e., used so as to decrease social welfare). Perhaps more puzzlingly, citizens sometimes repeatedly delegate the same power (e.g., surveillance of citizens, conscription), and then repeatedly react with anger to its misuse. To study this phenomenon, we model a stylized public that repeatedly adjusts the set of powers it delegates to politicians. The public obtains new information each period, forecasts rationally (but not perfectly) the benefits and costs of delegation, and infers the likelihood with which a court will correct politicians' misuses of delegated powers. We use the model to explore the history of eminent domain in the United States—a history characterized by periodic public backlash. The model and historical discussion illuminate the nature of public responses to judicial rulings—explaining why the public may react by adjusting the scope of delegated powers, even if a ruling merely upholds a well-established precedent.

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1. Introduction

Expectations about the ability and willingness of courts to oversee the (proper) use of government powers clearly influence the range of powers a voting public will wish to delegate. Yet the process appears far from straightforward. Consider the uproar sparked by the U.S. Supreme Court's 2005 decision in *Kelo v. City of New London*.² Although the debate surrounding the decision received widespread attention, it is rarely noted that the *Kelo* furor was merely the latest in a long line of angry public reactions to adjudicated eminent domain proceedings, involving such varied things as mill dams, railroads, and urban renewal. Indeed, New London's employment of eminent domain powers was far from extreme when viewed in the broader context of how eminent domain had been used in the United States in the past. Why would a rational citizenry – repeatedly – delegate a power, observe the power misused, respond angrily when the court is unwilling to correct the misuse, and then delegate the power all over again? And why would a sim-

ple upholding of precedent (as the *Kelo* court appeared to be doing) generate so much backlash?³

In this paper, we seek to answer these questions. We begin by developing a model in which a stylized public decides how broad a scope of powers to delegate, taking into account expected benefits and the likelihood of court oversight. The model works as follows: In each of a potentially infinite number of periods, the public maximizes the expected returns to delegating (or not delegating) a particular power. In any given period, delegating the power may turn out *ex post* to be welfare-enhancing or welfare-decreasing, but the public must make its delegation decision prior to learning the exact welfare effects. A court can monitor the use of the delegated power, and thus ensure that the power is employed only in periods in which it enhances social welfare; however, the court will not always choose to monitor. In each period, the public observes new information (in the form of shocks) about the way the expected net benefits of delegation have changed from the previous period, and about the likelihood of the court's willingness to monitor.

From the model, we obtain three principal predictions. First, a rational public will repeatedly delegate and revoke (and re-delegate and re-revoke) certain powers. In other words, what may appear *ex post* to be a cycle of repeated mistakes may instead be a

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² In *Susette Kelo, et al. v. City of New London, Connecticut, et al.*, 545 U.S. 04-108 (2005), the Court ruled (5–4) for the city of New London, thus allowing the use of eminent domain to take non-blighted homes in order to provide land for private development.

³ Cole (2006) writes, “The political controversy that erupted around *Kelo* took legal scholars by surprise. After all, the decision did not significantly alter eminent domain doctrine; the Court followed well-established precedents.”

series of rational ex ante choices.⁴ Second, if the public is homogeneous, the expected benefits of delegation are highest and formal revocations of powers are least likely when the court monitors consistently (forbidding the use of welfare-reducing powers). However, if the court monitors inconsistently (sometimes allowing and sometimes forbidding the use of welfare-reducing powers), a rational public will react to each court ruling as new information, even if the court simply follows precedent. Third, when the public is *heterogenous* and only one segment of the public determines policy – i.e., one segment is decisive – powers may be delegated when total net benefits are negative, as long as the net benefits to the decisive group are positive. Similarly, a power may not be delegated when the net benefits are positive but the decisive group would suffer losses. Determining optimal court behavior is then much more complicated, because a far-sighted decisive group will choose the set of delegated powers in anticipation of the court's decisions. In this case, a court that permits the use of delegated powers when and only when the powers have positive social benefits may be sub-optimal—when rationally anticipated by the decisive group, such a basis for court rulings may fail to maximize social benefits.

We apply these predictions to a history of eminent domain in the United States. We focus on five episodes of eminent domain use, involving mill dams (early-to-mid 19th century), railroads (mid-to-late 19th century), mining in the Rocky Mountain West (late 19th century), urban renewal (mid-20th century), and *Kelo*-style economic development (late 20th century to present). By no means do these episodes comprise a comprehensive list of eminent domain applications; however, each is historically important, has inspired a large literature, and captures the basic trade-off the public faces when delegating potentially useful but potentially misused powers.⁵

What we find is consistent with the model's predictions. With respect to the first prediction, each of the five episodes displays a nearly identical pattern of expansion and contraction of eminent domain powers. The pattern takes the following form: Technological or social change raises the expected benefits of broadly defined eminent domain powers, and broadly defined powers (for that particular employment of eminent domain) enjoy widespread public support. As time passes, eminent domain is extended to projects with smaller (perhaps negative) social benefits, or new information about the true social benefits is revealed. Public support collapses and controversy may ensue (depending upon how the court responds—see the next paragraph). The use of eminent domain powers is thus narrowed, but the narrowing is restricted to *that particular sphere* (e.g., mill dams, railroads). The problem therefore arises again in another sphere.

With respect to the model's second prediction, when use of the power is pushed beyond the limits acceptable to the public, one of two things occurs: (i) courts intervene and restrict eminent domain powers, or (ii) courts fail to intervene, and public backlash puts pressure on politicians to rewrite statutes, pass new laws, or amend constitutions. In other words, where courts crack down on controversial eminent domain practices, no formal rewriting of laws need occur, but where courts choose not to intervene, the public forces a change, and the disputed practice is curtailed.

⁴ Fischel (1995, 88–90) develops a similar idea when he discusses changes in eminent domain compensation procedures driven by diminishing marginal benefits of, e.g., railroads and interstate highways.

⁵ There have, of course, been myriad other applications of eminent domain powers; e.g., for urban power lines, public transport, highways, schools, airports, and sports facilities. See Nichols (1999) for a very extensive treatment of eminent domain. For recent economic treatments of historical applications of eminent domain powers (and takings broadly defined), see, e.g., Hart (1995, 1996a, 1996b, 1998).

With respect to the model's third prediction, although we cannot definitively identify cases when socially undesirable policies were implemented specifically because the proponents could ignore the costs imposed on others, we *do* observe instances where distinguishable – and politically marginal – minorities were the primary losers from eminent domain activities. Perhaps most notoriously, those “relocated” by the massive urban renewal projects of the mid-20th century were overwhelmingly African American and Latino.⁶ The *Kelo* case is also interesting in this respect; Justice O'Connor's dissent argues that the decision gave city governments license to transfer wealth from the politically weak to the politically powerful. We surmise from the public reaction to the decision that O'Connor's argument is correct—the backlash occurred throughout the country, where, unlike in New London, the general public remained essentially behind the veil of ignorance with respect to who might be harmed by eminent domain use. We return to these issues in Section 3.

Our paper thus contributes to a large literature on the delegation of policymaking powers. Much of that literature emphasizes the agency problems inherent in delegation. For example, McCubbins and Schwartz (1984), McCubbins, Noll, and Weingast (1987), Moe (1989), and Macey (1992) examine how legislatures control administrative agencies. Matsusaka (1992, 2005) analyzes the effects of direct democracy (exercised through ballot initiatives). Hanssen (1999, 2000) and Besley and Coate (2003) investigate the differential effects of appointing versus electing public officials. The existence of commitment problems is another reason for delegating (or not) certain powers; see, e.g., Schelling (1960) on delegation as a commitment device, Barro (1986) and Kaplow (1992) on rules versus discretion, and Milgrom and Roberts (1992) on principal-agent problems.

Yet our approach differs from these previous analyses in that we abstract from agency problems (which clearly exist and are often severe) in order to focus on how the public adjusts delegated powers in the face of changing circumstances. We adopt this approach in order to highlight the fact that, regardless of the precise amount of agency slack, there will always be some potentially delegated powers for which delegation may have either positive or negative expected net benefits. Repeated phases of desirable use, undesirable use, restriction of powers, and re-delegation of powers – all influenced by the behavior of the court – are then the norm. Hence, a rational public, observing recent undesirable use, may respond by temporarily, but not permanently, restricting the delegated power. We document such patterns in eminent domain policy, and demonstrate the importance of the monitoring role played by courts, and of how the public reacts to court rulings.

2. Theoretical model

Starting from a Lockean premise, we develop a simple dynamic model in which citizens delegate government powers so as to maximize expected net benefits.⁷ In each of a potentially infinite number

⁶ Prior to the successes of the Civil Rights Movement, the poorer segments of these ethnic groups clearly had disproportionately little political influence (e.g., Wright, 1999). The potential for tyranny of the majority is often discussed in analyses of the political economy of takings; see, e.g., Hermalin (1995).

⁷ We adopt the John Locke's notion that representative government draws its legitimacy from the consent of the governed (Locke, *Of Civil Government*). Epstein (1985, Chapter 2) notes that the U.S. Constitution's two limitations on the exercise of eminent domain (that it be for a “public use” and that “just compensation” be paid) are implicit in Locke's reasoning. Stoebuck (1977, 11–12) writes, “The Lockean theory of expropriation comes to this: The government does not take your land without your consent; you have delegated the power of consent to your legislative agents. . . . Most authorities who have considered the question [of eminent domain] have simply described the power as an inherent power of government, arising out of the imperativeness of governmental activities. However, the Lockean theory,

of periods, a stylized public chooses whether to delegate a particular power. The public has full information about the value of the power in the previous period, and uses this information to forecast rationally, but not perfectly, the value for the current period.

Note that we do not explicitly model a government actor. Instead, we focus on adjustments the public makes in response to shocks (i.e., unforeseen changes in circumstances). Nonetheless, the government (and associated agency problems) do appear implicitly in the model's structure. For example, *persistent* corruption (or slack) among government officials would be reflected in a lower base value of delegating a given power. Similarly, *unforeseen changes* in the level of corruption (or slack) from one period to another would be reflected in the model's shocks.

2.1. The basic model

To focus on citizens' broadly shared interests, we begin by considering decisions made by a homogeneous public. The public decides whether to delegate a given power i ; delegating the power will expand the scope of government powers. When choosing whether to delegate power i for period t , the public's objective function is:

$$\max Eu_{i,t} \quad (1)$$

In the absence of delegation, $u_{i,t} = 0$, while the net benefit of delegating power i for period t is:

$$u_{i,t} = v_i + \lambda e_{t-1} + (1 - \lambda)e_t \quad (2)$$

where $-1 \leq v_i \leq 1$; v_i is constant over time (hence $Eu_{i,t} = v_i$ for all t when not conditional on shocks); e_t is the period t shock, which is drawn from a uniform distribution from -1 to 1 ; $0 < \lambda < 1$.

The public observes shock e_t after making the decision about period t powers (and before making the decision about period $t + 1$ powers); e_t is drawn independently of shocks in other periods.

The expected value of power i for period t is thus:

$$E(u_{i,t}|e_{t-1}) = v_i + \lambda e_{t-1} \quad (3)$$

The public will therefore delegate the power only if:

$$v_i + \lambda e_{t-1} > 0$$

To simplify notation, let threshold v_t^* define the range of v_i over which the public will delegate power i . Then:

$$v_t^* = -\lambda e_{t-1} \quad (4)$$

The public delegates power i for period t if $v_i > v_t^*$ and does not delegate power i if $v_i < v_t^*$. Given the assumed range from which e is drawn (-1 to 1), the public will always delegate the power if $v_i - \lambda > 0$ and never delegate the power if $v_i + \lambda < 0$. However, the more interesting case involves parameter values where the public will *sometimes* delegate the power: $v_i - \lambda < 0 < v_i + \lambda$. Thus, the sometimes-delegated powers are those with values of v_i such that $-\lambda < v_i < \lambda$.

Now, as a simple way to examine the public's optimal decision with respect to the *scope* of powers, consider the assumed range for v_i (i.e., $-1 \leq v_i \leq 1$) as a continuum of potentially delegated powers. The total set of potentially delegated powers has measure 2, and

the subset that the public would ever delegate has measure 2λ . Although λ does not have an easily observed real-world analogue, the theoretical observation that a higher λ leads to a larger set of sometimes-delegated powers does provide some practical insight: If in a democracy one observes many types of powers being misused and subsequently revoked (again and again), one should not jump to the conclusion that voters are acting in a myopic or otherwise irrational manner. Our model indicates that voters making rational use of *better* information will choose a *larger* set of sometimes-delegated (and sometimes abused) powers.⁸ This leads to our first proposition:

Proposition 1. Rational behavior will produce a set of sometimes-delegated powers, with large positive shocks leading to delegation and large negative shocks leading to revocation. Moreover, the more observable in advance are the shocks that produce fluctuations in the value of potentially delegated powers, the larger the set of sometimes-delegated powers.

2.2. The court as a static institution

We will now introduce a court into the model. For ease of exposition, we will begin with a very simple static court (with rulings made independently across time periods), then expand the model to allow a dynamic court (with a parameter indicating the degree of consistency in court decisions across time periods). We assume that the court has the ability to monitor the use of a power, and to forbid its use in periods when the net benefits are negative. The value of the court can thus be calculated in terms of the negative net benefits avoided. A perfectly monitoring court will prevent the use of power i when $u_{i,t} < 0$, saving the public $-[v_i + \lambda e_{t-1} + (1 - \lambda)e_t]$. Therefore, a perfectly monitoring court yields expected savings of⁹:

$$\frac{[v_i + \lambda e_{t-1} - (1 - \lambda)]^2}{4(1 - \lambda)} \quad (5)$$

In the real world, the public cannot count on courts to monitor government activity perfectly. Hence, we introduce two factors affecting court behavior. Let k represent a cutoff such that the court will not serve as a monitor when $u_{i,t} > -k$; that is, if the court doing nothing will lead to the public losing less than k , the court will do nothing. The parameter k can thus represent judicial ideology (e.g., beliefs regarding the appropriateness of intervention) or the court's simple weighing of the opportunity cost of its time.¹⁰ Let m represent the probability (conditional on $u_{i,t} < -k$) that the court will serve as a monitor in the sense that when the public decides to delegate a power, the court will act to prevent the power's undesirable

⁸ More precisely, the higher the value of λ , the larger the set of sometimes-delegated powers, the smaller the set of always-delegated powers, and the smaller the set of never-delegated powers. A high value of λ implies that the current deviation of u_i from v_i depends principally on last period's shock rather than on this period's shock, so that currently observed information (e_t) allows more accurate predictions of next period's u (u_{t+1}).

⁹ The maximum savings is $-[v_i + \lambda e_{t-1} - (1 - \lambda)]$. The probability of positive savings is $-[v_i + \lambda e_{t-1} - (1 - \lambda)]/2(1 - \lambda)$. The expected value of savings, conditional on positive savings, is $-[v_i + \lambda e_{t-1} - (1 - \lambda)]/2$.

¹⁰ The parameter k can incorporate a court's ideological position in the sense that a high or low value of k may cause the court to deviate from the choice that would maximize benefits to the public (u). Because the model already emphasizes the possibility of delegated powers (to politicians) being used in undesirable ways, we do not complicate matters by adding a court that would be yet another version of the same problem (e.g., by allowing a court that systematically favors socially harmful policies).

which directly influenced the original constitution-makers, is a more fundamental explanation both of the nature of the expropriation power, and of why, in our system of government, it resides with the legislature." For related work, see, e.g., Fleck (2000) and Hanssen (2004a). Fleck considers the optimal timing for the establishment of institutions that can, depending on circumstances, increase total surplus or (by threatening property rights) reduce incentives to invest. Hanssen (2004a) examines the optimal level of judicial independence when politicians cannot otherwise establish a credible commitment to future policy.

use.¹¹ The expected value of delegating power i is then:

$$E(u_{i,t}|e_{t-1}) = v_i + \lambda e_{t-1} + \frac{(m)[(v_i + \lambda e_{t-1} - (1 - \lambda))^2 - k^2]}{4(1 - \lambda)} \quad (6)$$

Basic calculus shows that v_i^* decreases when k decreases or m increases. This yields:

Proposition 2. For lower values of k and/or higher values of m , the public will be willing to delegate power i in the presence of a lower value of v_i for any given e_{t-1} (and for lower values of e_{t-1} for any given v_i). Therefore, the lower the value of k and the higher the value of m , the larger the set of delegated powers, ceteris paribus.

In plain language, the greater the court's propensity to block undesirable uses, the greater the set of powers the public delegates.¹²

2.3. The court as a dynamic institution

The preceding discussion treats the court statically—in other words, each court decision is determined independently and affects only the period in which it is made. In the real world, judicial decisions appear to have substantial (albeit incomplete) consistency over time. Thus, we will extend the model by allowing the probability of monitoring in any given period to be related to whether the court was willing to act as a monitor in the previous period. We will maintain all of our other assumptions, but now let m represent the *long run fraction* of periods in which the court is willing to monitor (i.e., willing to block sufficiently undesirable uses of the delegated power).

Let p_{ny} and p_{yn} represent stationary transition probabilities, with p_{ny} indicating the probability of the court being willing to act as a monitor in period t , conditional on the court being unwilling to act as a monitor in period $t - 1$, and p_{yn} indicating the probability of the court being unwilling to act as a monitor in period t , conditional on the court being willing to act as a monitor in period $t - 1$. These transition probabilities generate a simple stochastic process and imply the value of m :

$$m = \frac{p_{ny}}{p_{ny} + p_{yn}} \quad (7)$$

We will now define a new parameter, π , to index (conditional on m) the degree to which the court changes its role from a non-monitor to a monitor (from one period to the next); $0 < \pi < 1$ and $\pi < m/(1 - m)$.

$$p_{ny} = \pi$$

$$p_{yn} = (\pi/m) - \pi$$

which in turn implies that

$$p_{nn} = 1 - \pi$$

¹¹ In the real world, of course, there are trade-offs the public and politicians face when allocating power to the judicial system (e.g., Ramseyer, 1994; Hanssen, 2000, 2004a, 2004b; Maskin and Tirole, 2004; Klerman and Mahoney, 2005). For example, a court with the power to block eminent domain may use that power to block socially desirable uses of eminent domain. Our model allows this (when $k < 0$).

¹² Although the court in the model neither has explicit policy objectives nor acts strategically, these factors can be viewed as implicit in the model. For example, to the extent judges have utility functions that depend directly on policy and/or whether the court intervenes, their preferences will be determinants of our exogenous parameters k and m . Also note that while m is a scalar in the model, making m an increasing function of the what the public would lose in the absence of judicial intervention (e.g., assigning the court a reaction function that incorporates the cost of abuse) will not change the model's implications—increases in m will still, ceteris paribus, increase the public's propensity to delegate.

$$p_{yy} = 1 - \left(\frac{\pi}{m} - \pi\right)$$

The lower the value of π , the more consistent are court decisions over time. Resetting the value of π rescales all the transition probabilities without changing m .

What does this mean for the public's decision? With the static court, the public knows m and acts accordingly. With the dynamic court, the public knows m , but also knows whether the court was willing to act as a monitor last period and the degree of intertemporal consistency in court decisions. Hence, court rulings in period $t - 1$ will influence the scope of powers the public delegates for period t . This changes the expected value of monitoring by changing Eq. (6) as follows:

$$E_{t-1}[u_{i,t}|\text{willing to monitor } t - 1] = v_i + \lambda e_{t-1} + [1 - (\pi/m) + \pi] \frac{[v_i + \lambda e_{t-1} - (1 - \lambda)]^2 - k^2}{4(1 - \lambda)} \quad (8)$$

$$E_{t-1}[u_{i,t}|\text{unwilling to monitor } t - 1] = v_i + \lambda e_{t-1} + (\pi) \frac{[v_i + \lambda e_{t-1} - (1 - \lambda)]^2 - k^2}{4(1 - \lambda)} \quad (9)$$

For a given m , more court consistency (i.e., lower π) leads to a greater expected value of power i when the court has recently been willing to monitor, and a lower expected value of power i when the court has recently been unwilling to monitor. This leads to the next proposition.

Proposition 3. Conditional on the value of m and the court being willing to act as a monitor in period $t - 1$, a lower value of π leads to a larger set of delegated powers for period t (i.e., lower v_i^*). Conditional on the value of m and the court being unwilling to act as a monitor in period $t - 1$, a lower value of π leads to a smaller set of delegated powers for period t (i.e., higher v_i^*).

In other words, for a given long run propensity of the court to monitor some specific category of powers, more consistency over time (i.e., lower π) implies that the public responds more strongly – i.e., adjusts the scope of delegated powers to a greater degree – when it observes changes in court decisions. And, of course, all rulings matter: In each period, the court's decision (regardless of what the court does) provides new information with respect to the public's expected net benefits of delegating power i .

Under what conditions would the model predict a major change? Following the logic of Propositions 2 and 3, the model predicts that the scope of delegated powers will shrink particularly dramatically from period $t - 1$ to period t (i.e., v_i^* will be much lower than v_{t-1}^*) when the public observes the combination of the following: a negative e_{t-1} following a positive e_{t-2} , with both shocks large in magnitude; a usually consistent (low π) court that switches from monitoring in period $t - 2$ to not monitoring in period $t - 1$.

When interpreting the model's characterization of court behavior, it is useful to consider an additional point regarding the way the abuse of delegated powers may influence the probability of court intervention. The model directly incorporates one factor: Mild abuse may be insufficiently harmful to induce the court to act (i.e., $-k < u_{i,t} < 0$). A complementary factor follows from the logic of Rubin (1977) and Priest (1977). In periods with more severe abuse, one would expect more cases to be filed, giving courts more opportunities to monitor. Thus, even if courts made decisions in a purely random manner, greater abuse would lead to more judicial action to curb abuses. In the terminology of our model, highly undesirable shocks lead to higher values of m ,

and this increases the likelihood that delegated powers will be revoked.¹³

2.4. Allowing for a heterogeneous public

So far, we have assumed that a homogeneous public chooses the set of government powers, but in reality the heterogeneity of interests will influence the choice of powers. The concern for our model is that some members of the public may, at the time the decision with respect to power i is made, expect to garner a disproportionately large share of the benefits, while another group bears the bulk of the costs. In other words, the decision may be made outside the Rawlsian “veil of ignorance,” (i.e., made after the identity of winners and losers is known). It is in such circumstances that the potential for “tyranny of the politically decisive” arises.¹⁴ That is, the decisive group may establish policies that yield positive expected benefits for itself, but negative expected benefits for society as a whole. We model this by allowing v_i to have two components:

$$v_i = \alpha v_{i,dec} + (1 - \alpha)v_{i,nondec}$$

where $v_{i,dec}$ represents the per capita value to the decisive group, $v_{i,nondec}$ represents the per capita value to the nondecisive group, and α represents the number of people in the decisive group, measured as a share of the total population. Assuming for simplicity that shocks (e) affect the decisive and nondecisive equally (per capita), the decisive seek to maximize¹⁵

$$u_{i,dec,t} = v_{i,dec} + \lambda e_{t-1} + (1 - \lambda)e_t$$

With a court that ignores $u_{i,nondec}$ (or in the absence of a court), the only fundamental difference from our previous analysis is that the decision with respect to power i will be made with some of the costs or benefits ignored. Thus, for a sometimes-delegated power i :

Proposition 4. With a court that either ignores $u_{i,nondec}$ or fails to monitor, $v_{i,nondec} < v_{i,dec}$ implies that the decisive group will delegate power i in more time periods than would be in the interest of the general public, and $v_{i,nondec} > v_{i,dec}$ implies that the decisive group will delegate power i in fewer time periods than would be in the interest of the general public.

In this case, the court (if it monitors) acts as an agent of the decisive group, and the decisive group makes its decision with that in mind.

The implications are different if court rulings are based on the benefits to *all* of society (i.e., the court does not ignore $u_{i,nondec}$). Given our assumption of rationality, the decisive group will anticipate the court’s action, and set policy accordingly. This leads to the following proposition.

Proposition 5. By weighing all benefits (u_i) rather than merely the benefits to the decisive group ($u_{i,dec}$), a court may reduce the incentive for the decisive group to delegate power i . This holds even if delegating the power would be in the interest of the general public. In some circumstances, everyone (i.e., members of the nondecisive group and members of the decisive group) will have

higher expected benefits if the court considers only benefits to the decisive group rather than all benefits.¹⁶

To see intuitively why having the court ignore the nondecisive group’s benefits ($u_{i,nondec}$) may make *everyone* better off, consider a power that is very valuable to the nondecisive group. More specifically, suppose that power i would, if delegated, always benefit the nondecisive group enough to make net benefits to society positive (i.e., $u_i > 0$ always holds), but would sometimes help, but more often harm, the decisive group. The decisive group then would not delegate the power in the presence of a court that ruled based on the sign of u_i (total social benefits). Hence, the potentially beneficial – to everyone – power would never be delegated. However, if instead the court acted as a faithful agent of the decisive group (i.e., weighed only $u_{i,dec}$), a shock that generated $u_{i,dec} > 0$ would lead to benefits for the entire population. Thus, in this case, everyone would prefer court rulings based on the sign of $u_{i,dec}$ to court rulings based on the sign of u_i .

For applying the model, the key point to recognize about Propositions 4 and 5 is how they differ from Propositions 2 and 3. The difference demonstrates the importance of whether policy is set by a group of homogenous citizens behind a veil of ignorance (as in Propositions 2 and 3) or by a decisive subset of the population who are out from behind the veil (as in Propositions 4 and 5). When, as in Propositions 2 and 3, all members of the public set policy behind the veil (e.g., they do not know who will be drafted into the military or whose property will be taken via eminent domain), an always-monitoring court that counts total social benefits will inspire the largest set of delegated powers. If instead, as in Propositions 4 and 5, the veil has been lifted at the time of the delegation decision, an always-monitoring court that counts total social benefits will inspire the delegation of *fewer* powers and may generate lower expected social benefits (as compared to a court that counts only benefits to the decisive).

3. A history of eminent domain use

In this section, we apply the model to the history of eminent domain in the United States.¹⁷ We examine five episodes of eminent domain use: for mill dams (early-to-mid 19th century), railroads (mid-to-late 19th century), mining in the Rocky Mountain West (late 19th century), urban renewal (mid-20th century), and *Kelo*-style economic development (late 20th century to present). In each episode, there are technological, social, or policy changes that work in a manner analogous to shocks, increasing or decreasing the expected benefits from the use of eminent domain.¹⁸

¹⁶ To illustrate, let power i be such that $\lambda = 0$, $m = 1$, and $v_{i,dec} > -1$. In this case, if the court rules based on $u_{i,dec} > 0$ and ignores $u_{i,nondec}$, the decisive group will always choose to delegate power i . If, however, the court rules based on all costs and benefits (i.e., $u_i > 0$), then any given $v_{i,dec} < 0$ combined with a sufficiently high value of $v_{i,nondec}$ implies that the decisive will not choose to delegate power i . In this case, members of the nondecisive group (along with members of the decisive group) will have higher expected benefits if the court bases its ruling on $u_{i,dec} > 0$ rather than $u_i > 0$.

¹⁷ The term “eminent domain” is attributed to Hans Grotius, a 17th century Dutch legal philosopher who articulated the principle that in some cases “public advantage should prevail over private advantage” (quoted in Stoebuck, 1972, 559–560).

¹⁸ The potential benefits from eminent domain arise from the “holdout problem” – socially beneficial projects that require assembling many parcels of land (as when building a highway) may be waylaid by a single recalcitrant landowner demanding well in excess of his or her opportunity cost (e.g., Fischel, 1995, Chapter 2). Polinsky (1979) suggests that eminent domain may be less efficient than market transactions as a means of acquiring land for public use, and Posner (1992, 57) asks why governments find the power of eminent domain necessary while private developers – building a resort or shopping center – manage without it. Kelly (2006) argues that eminent domain is necessary because a government is less able to engage in secret purchases than a private party, thus rendering holdup problems more acute. The question of eminent domain and holdouts has also been discussed in analyses of property versus liability rules; see, e.g., Calabresi and Melamed (1972, 1106–1107),

¹³ See the preceding footnote for related points. We are grateful to a referee for pointing out the relevance of Rubin (1977) and Priest (1977) to our analysis.

¹⁴ We speak of the “politically decisive” rather than of the “majority” because, in the real world, the segment of the population that ultimately sets policy is not always a numeric majority.

¹⁵ Symmetrically, $u_{i,nondec,t} = v_{i,nondec} + \lambda e_{t-1} + (1 - \lambda)e_t$. This (combined with the assumptions stated above regarding $u_{i,dec,t}$ and v_i) is consistent with maintaining our earlier assumption that $u_{i,t} = v_i + \lambda e_{t-1} + (1 - \lambda)e_t$.

3.1. Interpreting the model's "Scope of Delegated Powers" in the context of eminent domain

The U.S. Constitution declares that eminent domain can be applied only (1) for a "public use" and (2) upon the payment of "just compensation."¹⁹ In practice, these two terms have proven sufficiently nebulous so as to allow takings of almost any kind, and this fact underlies the application of our model.²⁰ The principal real-world analogue to the model's "scope of delegated powers" is the choice of how narrowly or broadly to interpret "public use" and/or "just compensation." For example, an "always-delegated power" might be the employment of eminent domain to take farmland for the construction of a public road with compensation based on market prices for similar farmland—this would be consistent with narrow interpretations of public use and just compensation. By contrast, a "never-delegated power" might be the employment of eminent domain to take one individual's home and give it to another individual with only trivial compensation paid—this would be consistent with extremely broad interpretations of public use and just compensation. Finally, a "sometimes-delegated power" might be the employment of eminent domain to take farmland to build a railroad with trivial compensation paid, or to take private homes so that developers can build new homes with "market prices" paid to the original owners.²¹ These two "sometimes-delegated powers" are among the episodes we investigate in what follows.

3.2. Implication 1: Repeated broadening and narrowing of powers

The model's first proposition is that the behavior of a rational public may generate what appears on the surface to be (but are not) repeated instances of myopic behavior. In other words, there will be periods in which a power is delegated and used desirably, followed by periods in which the delegated power is used undesirably, followed by periods in which the power is restricted, followed by periods in which the power is delegated anew, followed by periods in which the power is used undesirably again.

3.2.1. The mill acts

All of the original thirteen colonies implemented "mill acts," which authorized the erection of dams – and the consequent flooding of adjacent lands – for the construction of mills. The mill acts were intended to aid the establishment of grist mills, which ground grain. When the colonies became states, the mill acts (with minor alterations) were incorporated into new state constitutions. The first such statute was enacted by the Massachusetts colonial legislature in 1713. The Massachusetts statute referred to "mills

Ayres and Balkin (1997, 742), and Epstein (1997, 2111–2115). For studies of who benefits from eminent domain, see, e.g., Munch (1976) and Garnett (2006).

¹⁹ The 5th Amendment to the U.S. Constitution contains the phrase "nor shall private property be taken for public use, without just compensation," and the 14th Amendment states that U.S. citizens cannot be deprived of "life, liberty, or property without due process of law," which effectively extends the 5th Amendment's protections to actions by individual states (the 5th Amendment was initially interpreted as applying only to the federal government). Most state constitutions contain similar wording, with some state-specific elaborations. For discussions of how "public use" and "just compensation" are related and may substitute for each other to some degree, see, e.g., Fennell (2004).

²⁰ For example, Stoebeuck (1977, 14) writes, "Semantically, 'public use' is descriptive and does not limit the purposes for which eminent domain may be used."

²¹ As frequently pointed out, determining "just compensation" for private homes is problematic, the value of the home to the homeowner being unobservable and potentially well in excess of the home's "market" price. Courts have on occasion interpreted "just compensation" as requiring payments above market value. For example, the famous *Head v. Amoskeag Mfg. Co.*, 113 U.S. 9, 10–11 (1885) decision required a 50 percent premium above market value be paid for land taken for the construction of mills.

serviceable to the public good and the benefit of the town," and gave dam owners the right to improve mill ponds as long as they paid for any damage resulting from rising water. In 1795, this right became part of the Massachusetts state constitution, with mill owners allowed to flood neighboring lands "as required" in order to support the effective operation of the mill (Nichols, 1917, 224–228).

The justification for these constitutional provisions was that grist mills were "public necessities" (unground grain had little value) and were required by law to serve all comers at regulated prices.²² As Nichols (1917, 225) writes:

The grinding of corn [grain] was a public necessity, which could not well be accomplished in any other way; the miller was bound by law to grind for all who brought corn to his mill and the rates he was permitted to charge were subject to regulation by law. It requires no deviation from well-established principles to hold that a grist mill maintained under such conditions is for the public use.

Similarly, in his analysis of Delaware's mill acts, Hart (1998) emphasizes that household consumers were the intended beneficiaries of the early mill acts – households grew grain largely for home use, and needed it ground. Hart (1998, 456) quotes from Delaware's Act of 1719, "[I]t is greatly for the ease of the people to be commodiously served with good mills for grinding their corn." Hart (1998, 457) continues, "The special concern for household use of gristmills is also shown by regulation of the maximum toll collectable by millers." In short, grist mills were regulated monopolies (perhaps local natural monopolies), and the benefit a given mill produced for a community presumably depended upon where the mill was sited. As with other uses of eminent domain, mill acts required "just compensation" (which usually took the form of an annual payment) for flooded land.²³

The rise of cotton mills in the early 19th century (and other industrial mills subsequently) was a shock that reduced the expected benefits of allowing a broad interpretation of "public use" in the context of mill dams. Despite being unregulated, serving markets larger than local communities, and selling their output under reasonably competitive conditions, the industrial mills followed the example of grist mills and invoked the power of eminent domain to justify the flooding of adjacent property. Distressed landowners argued that industrial mills, being neither "public necessities" nor regulated, were not a legitimate "public use." Others argued that the phrase "public use" encompassed public benefits of any kind (e.g., creation of jobs, promotion of economic growth), and that industrial mills therefore should be allowed to invoke eminent domain powers. A number of state courts initially concurred with the latter view.²⁴ Nichols (1940, 619) writes that "At first, even such jurists as Chief Justice Shaw of the Massachusetts Supreme Court had no hesitation in holding that such expropriations [by industrial mills] were valid under the power of eminent domain because of the general benefit which the growth of industry conferred upon the community as a whole."²⁵ The language has striking parallels to today's debate over *Kelo*-type takings.

²² For example, the Connecticut code provided that a miller "shall be allowed for the grinding of each bushell of Indian corn, a twelfth part, and for other graines, a Sixteenth part." Quoted in Ely (1992, 20). See also Munneke (1991) and Nichols (1940).

²³ Hart (1995) concludes that Maryland's early mill act provided compensation that was below the market value of the land (and hence not "just" in the sense that the term is understood today).

²⁴ Eminent domain practices were considered the province of state courts, and were not challenged in federal court until later in the 19th century (e.g., Scheiber, 1971).

²⁵ In *Scudder v. Trenton Delaware Falls Co.* (1832), the Massachusetts Supreme Court ruled in favor of a company that wanted to build an industrial dam—the court

Yet, in contrast to the *Kelo* case, by the mid-19th century the courts had reversed themselves and begun to rule that this expanded concept of public use was inappropriate. Eminent domain, state courts declared, could not be employed by industrial mills—industrial mill owners had to negotiate and purchase land through voluntary exchange, like other private businesses.²⁶ In short, when circumstances changed (i.e., industrial mills appeared), the benefits of the original broad definition of public use (applied to mills generally) diminished, and eminent domain powers were restricted.²⁷

3.2.2. The railroads

Like the privately owned grist mills, privately owned railroad companies were empowered to employ eminent domain directly.²⁸ The reason again lies with the size of the benefits produced—railroad lines were enormously valuable to previously isolated communities. In addition, most railroad rates were regulated. As a result, there was general agreement that the construction of a railroad, like the building of a grist mill, was a “public use.”

Nonetheless, controversy eventually arose; however, the issue was not how broadly to define “public use,” but rather how broadly to interpret “just compensation.” It was evident that the building of railroad lines raised substantially the value of nearby land, and railroad companies – which had discretion in setting compensation levels – began to reduce, or “offset,” the compensation paid to landowners by the anticipated rise in value of remaining lands. This practice became known as the “benefit-offset.” Use of the benefit-offset was initially uncontroversial, because the gains to landowners were so large. But as time passed, the size of the offset grew, eventually reaching the point where railroads paid only a nominal sum (for example, one dollar).²⁹

The ability to take land without compensation clearly reduced the expense of building railroad lines, and may have promoted the construction of railways for which the true costs exceeded the benefits. Furthermore, one would expect the marginal benefits of additional lines to fall as more and more lines were constructed; Fischel (1995, 88) suggests this in his discussion of railroad compensation practices. In terms of this paper’s model, the initial positive shock – the very large value resulting from the first railroad lines – faded. The result was a storm of protests, and a barrage of litigation. Some state courts forbid the use of the offset; others did not, and where courts did not, the public successfully pressed for changes in the laws.³⁰ Changing a statute or rewriting a constitution (in some states, the offset was outlawed via constitutional provision) is costly; furthermore, it is possible that more flexible compensation practices would have encouraged the building of socially valuable railroad lines that otherwise went unbuilt. But

agreed that manufacturing activity would raise property values and open markets for the region’s farm produce, and that, as such, the dam was a legitimate public use (Munneke, 1991, 3).

²⁶ These court decisions formed the basis of what became known as the “narrow doctrine” of public use, which, for the most part, would prevail for the next three-quarters of a century. Describing the narrow doctrine, Nichols (1940, 617), writes “public benefit was insufficient, and public use began to be defined as use by the public.” See also Horwitz (1977, 260).

²⁷ In an examination of Delaware’s mill act, Hart (1998) describes how the apparent objective of the act changed over time from promoting mills that provided a public service (i.e., grinding grain for local households) to protecting existing mills’ use of water (regardless of whether they were large commercial enterprises) as part of a regime of laws defining more clearly the ownership of water resources.

²⁸ The rights were specified in a railroad’s corporate charter, or defined on a line-by-line basis, rather than written into a state constitution (e.g., Nichols, 1917, 992–923).

²⁹ Scheiber (1973, 237) writes, “Frequent damage awards of \$1, after offsetting had been figured, occurred in Illinois, and. . . awards of six cents, after offsetting, became a cause célèbre in New York.”

³⁰ See Table 1 and the discussion in part B of this section.

given the alternative, the public chose to revoke the power. When circumstances changed (the net value of additional lines declined), the benefits of allowing the railroads broad discretion in determining just compensation diminished, and the power was restricted.

3.2.3. Rocky Mountain mining

All six of the Rocky Mountain states that entered the Union in the latter part of the 19th century enacted constitutional provisions allowing miners and mining companies to employ eminent domain directly to build access roads, dump tailings, dig tunnels, and so forth.³¹ No such provisions were granted in most of the eastern states, although (as discussed) similar powers had been specified for grist mills.³² The discovery of large quantities of ore (the “shock”) had rendered mining extremely valuable in the West. Holdout problems could be avoided and transaction costs reduced by assigning default eminent domain rights to miners. Given that so many residents of these areas were miners (or worked in related industries), such rules were heartily endorsed. As Nichols (1917, 254) notes, “the successful operation of the mines had been essential to the very existence of the community and to the occupation of the states by any considerable number of permanent inhabitants.” The rights were incorporated first into territorial law, and then, when the territories became states, into state constitutions. Bakken (1987, 29) describes the writing of the first Rocky Mountain constitutions as follows:

Private eminent domain rights [i.e., eminent domain rights granted to private firms or individuals] originated in territorial law based on the peculiar economic necessity of the region. Local mining district regulations had allowed rights of way for tailings and water ditches . . . Constitutional convention delegates drew upon this tradition . . . Without such extraordinary powers, mining . . . [was considered to be] impossible.

Writing precise rules into state constitutions limited the discretion that policymakers could exercise. There were potential costs to this approach—neither politicians nor courts could restrict a given mine’s use of eminent domain even if that use was socially undesirable. But limiting discretion was the whole point—miners’ use of eminent domain for “essential activities” was secure.

The gains from allowing miners to invoke eminent domain declined as time passed—in the context of our model, the initial large positive shock faded. Migration changed the population mix, and the opportunity cost of the broad eminent domain powers rose—what had been efficient for a population of miners was not for farmers and townspeople. Some Western states altered their constitutions so as to eliminate provisions that had favored mining interests, while others left those provisions in place, but essentially ignored them (most were rendered irrelevant by changed land-use practices and new regulations, in any case).³³ Circumstances had changed, and the broad eminent domain powers granted to miners were restricted.

3.2.4. Urban renewal

The Great Depression and the New Deal ushered in an era of massive public projects. Among these was “urban renewal,” some-

³¹ See Nichols (1917, 254–255). For example, the 1889 Idaho constitution (Art. 1, § 14) stated that land could be taken “for the drainage of mines, or the working thereof, by means of roads, tramways, cuts, tunnels, shafts, hoisting works, dumps, or other necessary means to complete development” (see Lewis, 1909, 33).

³² Although see Robinson (2007, 25), who argues that laws allowing the use of eminent domain by landlocked private entities to purchase easements were common throughout the nation.

³³ For example, starting a mining operation today (even on one’s own land) requires ensuring that roads, drainage, disposal of tailings, etc., be undertaken in compliance with environmental regulations.

times referred to as “slum clearance.” In 1937, Congress enacted the United States Housing Act, which began the practice of providing federal funds to the states for the construction of public housing (later, the federal funds became available for re-development, broadly defined). Gaining access to federal funds required municipalities to demolish (or modernize) existing housing (Babler, 1937, 278). To do this, municipalities invoked the power of eminent domain. In contrast to the earlier episodes we have discussed, local governments acted directly, subject only to the constitutional constraints of “public use” and “just compensation.”³⁴

Whether takings for urban renewal qualified as a public use was initially debated in the courts. Clearly, under the narrow doctrine, which had applied up to that time, they did not. In the end, courts abandoned the narrow doctrine—“public use” once again became synonymous with “general benefits to the public” (e.g., economic growth, increased tax revenue), as had temporarily been the case with respect to industrial mill dams.

Slum clearance was initially accepted as a wonderful idea by Democrats and Republicans, by the courts, and by most non-slum dwelling observers.³⁵ However, displaced residents, whose homes were taken, felt differently, and unable to find help in either the courts or city hall, some reacted violently—slum clearance was one of the factors that sparked the massive urban riots of the mid-1960s (e.g., Kerner Commission, 1968). The result was to bring most large-scale urban renewal projects to a halt. As Altshuler and Luberoff (2003, 24–25) write:

Dramatic national change [in the urban renewal approach] awaited the urban riots of 1965–67. Some of the poster cities of the urban renewal program, such as Newark and Detroit, were among the hardest hit. Study commissions appointed to explain what had caused the riots, moreover, commonly found government clearance activities to be among the most intense sources of ghetto resident grievance . . . One immediate result was a near-total abandonment of slum clearance activities. Some renewal officials, of course, wanted to proceed with their plans, but virtually no one else cared to risk provoking riots.

This was backlash at its starkest. The positive shock originating in the Depression era’s enthusiasm for federally funded projects (and the incentives created by providing federal funds contingent on demolishing private housing) was followed by the negative shock of the riots, and broad use of eminent domain powers for urban renewal no longer appeared desirable. Urban renewal was formally terminated as a distinct federal program in 1974 (Frieden and Sagalyn, 1989, 49).

3.2.5. Economic development

Finally, there is the use of eminent domain litigated in the *Kelo* case: “economic development.” To some extent, small-scale economic development projects were the logical successors to the grand urban renewal programs of earlier decades. But the designers of the post-1960s projects generally attempted to avoid the most objectionable feature of large-scale urban renewal—the condemnation of residential housing (e.g., Altshuler and Luberoff, 2003). The

³⁴ To some degree, the practice continues: Fischel (2005) proposes that the infamous *Poletown* condemnations, in which the Michigan Supreme Court allowed a non-blighted residential neighborhood in Detroit to be demolished to build a General Motors plant, were undertaken only because of federal funding incentives (*Poletown Neighborhood Council v. City of Detroit*, 304 N.W.2d 455 Mich. 1981).

³⁵ Wilson (1966, 407) writes, “Few national programs affecting our cities have begun under such favorable auspices as urban renewal. Although public housing was from the very first a bitterly controversial policy, redevelopment and renewal by contrast were widely accepted by both Democratic and Republican administrations and had the backing of both liberals and conservatives, labor and business, planners and mayors.”

newer projects tended to be small and precisely focused (for example, the building of retail centers, convention centers, and sports facilities), with relatively little land taken for any given project.³⁶ Few objected to this application of eminent domain power.

Yet once again, eminent domain powers were extended to less desirable uses. Perhaps because of the booming urban property markets of the mid-1990s onwards (or because of something else), re-development projects began once again to take residential property. Writing more than 30 years after the supposed demise of the urban mega-projects (and before the *Kelo* decision), Altshuler and Luberoff (2003, 42–44) conclude that

At the turn of the twenty-first century, the trajectory of urban mega-project investment was upward, and ‘do no harm’ constraints were fraying at the edges . . . the consequence was growing pressure [from private businesses] to relax or eliminate many of the barriers to physical development put in place over the previous three decades . . . more projects involving residential displacement were going forward than at any time since the 1960s.

The backlash to the *Kelo* decision may once again lead to a narrowing of eminent domain powers.

3.2.6. A sunset provision?

If the pattern described in the preceding discussions – repeated broadening and then narrowing of eminent domain powers – is typical, a natural question is why do eminent domain laws not include “sunset provisions” that specify explicit dates on which legislation will expire if not renewed? Sunset provisions have been part of a number of tax and regulatory policies (see, e.g., Auerbach, 2006; Gale and Orszag, 2003, 2004; Hahn, 2000; Hamm and Robertson, 1981). A prominent recent example is the Patriot Act; absent reauthorization, many of the Act’s mandates were set to expire on December 31, 2005 (U.S. Government Printing Office, 2001).³⁷

The model in Section 2, because it assumes that policy is set anew each period, cannot be used to analyze the potential value of a sunset clause. However, we have extended the model in a manner that generates three relevant predictions. We provide a brief explanation here and a formal exposition in Appendix A. First, sunset provisions will be more valuable when they create few costs and the amount of time over which they mitigate losses is long. Second, sunset provisions will be more valuable when the court is unable or unlikely to revoke an undesirably delegated power (i.e., when m is small and/or k is large). Third, sunset provisions will be more valuable when delegation has large downside risks, as determined by the weight on the ex ante unknown shock (e_t) in relation to the other determinants of the benefits of delegation (v_i and e_{t-1})—in other words, when the weight on e_t makes delegation risky, even though v_i and e_{t-1} are large enough to make delegation desirable.

What do these predictions tell us about sunset provisions and eminent domain law? Consider as a counterpoint the Patriot Act (inspired by the “shock” – to use the model’s parlance – of the 9/11 attacks). Why would the Patriot Act contain sunset provisions while eminent domain rules do not? With respect to the first prediction, the expected costs of re-debating the Patriot Act after four years, while not trivial, could have been viewed as low relative to the potential benefits (avoiding terrorist attacks) and costs (lost civil liberties). By contrast, the cost of re-debating eminent domain laws

³⁶ The average in a sample compiled by Frieden and Sagalyn (1989) occupied just 5.7 acres. Of course, there were exceptions, such as the notorious *Poletown* condemnations.

³⁷ The USA PATRIOT Act was signed into law on October 26, 2001. We are grateful to a referee for suggesting we that consider sunsets and for pointing out the relevance of the Patriot Act.

every four years is likely to be quite large relative to the potential improvement in policy (not many houses are taken at any given moment, and though compensation may not always be felt to be adequate, it is required). With respect to the second prediction, in the case of the Patriot Act, some powers (such as warrantless wire-tapping) appear to be designed to *avoid* judicial oversight. Thus, one could reasonably worry that courts would lack the ability to monitor effectively. By contrast, although courts have not monitored the use of eminent domain perfectly, they have quite reliably taken on the task of assessing whether the “public use” and “just compensation” criteria have been met. Finally, with respect to the third prediction, critics of the Patriot Act argue that the types of powers it grants carry particularly large downside risks regarding civil liberties. While having one’s property taken under court-allowed eminent domain (which generally occurs *with* compensation) may be costly, it pales in comparison to what civil libertarians fear could result from the abuse of special wartime powers.³⁸

3.3. Implication 2: The court as monitor

The model’s second and third propositions demonstrate how monitoring by a court reduces the public’s incentive to narrow (“revoke” in the context of the model) eminent domain powers. The dispute over mill dams illustrates this most clearly. The “narrow doctrine” of public use resulted from state courts reining in attempts to expand the public use justification to include benefits of almost any kind (e.g., jobs, economic growth). The courts (eventually) concluded that such a broad interpretation of public use would leave, in effect, no check on the ability of public officials to take private property. For example, in 1837 New York state’s highest court declared, “Can the constitutional expression, public use, be made synonymous with public improvement, or general convenience and advantage, without involving consequences inconsistent with the reasonable security of private property?”³⁹ In the context of Proposition 3, the courts forbid use of the power in a period when net benefits would have been negative, and thus indicated a high likelihood of continuing to curtail undesirable uses. Indeed, in the mid-19th century several states so emphasized judicial monitoring of eminent domain applications that they wrote provisions into their constitutions explicitly assigning the monitoring role to the courts. For example, the 1876 Colorado constitution stated, “the question whether the contemplated use be really public shall be a judicial question, and determined without regard to any legislative assertion that the use is public.”⁴⁰

The narrow doctrine of public use, as developed by state courts, prevailed into the 20th century and is reflected in this quotation from the 1917 first edition of Nichol’s classic treatise:

It is well-settled, as a general principle of law, that the power of eminent domain cannot be constitutionally employed to enable private individuals to cultivate their land or carry on their business to better advantage, even if the prosperity of the

community will be enhanced by their success. (Nichols, 1917, 217).⁴¹

Contrast that with what Nichol’s revised text, published 46 years later, has to say:

Anything that tends to enlarge the resources, increase the industrial advantages and promote the productive power of any considerable number of the inhabitants of a section of a state, or which leads to the growth of towns and the creation of new resources for the employment of capital and the prosperity of the whole community, giving the constitution a broad and comprehensive interpretation, constitutes a public use. (Nichols, 1963, Section 7.2. Quoted in Groberg, 1966, 514).

Tellingly, the latter quotation is from a chapter-section titled, “The Definition of Public Use Has Changed Over Time.” Why did it change so drastically? Although several judicial decisions endorsed a somewhat looser interpretation of public use, the biggest doctrinal change occurred with the New Deal slum clearance projects. Writing at the time the first of these projects was underway, Nichols (1940, 623–633) discusses what he called the “decay of the narrow doctrine,” stating, “the unkindest cuts to the narrow doctrine are given by recent state cases upholding condemnation for housing and slum clearance.” Slum residents appealed to the courts, but judges refused to gainsay elected officials—after some debate, court after court began to rule that slum clearance was a legitimate public use.⁴² Nichols (1940, 633) continues, “It seems apparent that these cases mark the end, or at least the beginning of the end, of the basic hypothesis of a narrow doctrine, that the requirement of public use necessitates judicial scrutiny of the intended use of the land taken without regard to the broader purpose of the authorizing statute.”

In 1954, the U.S. Supreme Court handed down its decision in *Berman v. Parker*, the urban renewal era’s most iconic case. In *Berman*, the Court voted 9–0 to permit eminent domain to be employed to support the demolition a large swathe of southwest Washington, D.C. As far as public use was concerned, the Court’s sentiment can be summed up in a phrase from the majority opinion (authored by Justice William O. Douglas): “The entire area needed redesigning” (*Berman et al. v. Parker et al.*, 348 U.S. 26 (1954), 34). The narrow doctrine was dispensed with once and for all—if “redesigning” was a public use, so was almost anything. Justice Douglas further stated that

where the exercise of eminent domain power is rationally related to a conceivable public purpose, the Court has never held a compensated taking to be proscribed by the Public Use Clause. (Quoted in Merrill, 1986, 63).

Yet Justice Douglas’ statement was untrue—in the late 19th and early 20th century, the U.S. Supreme Court had endorsed the state courts’ promotion of the narrow doctrine.⁴³ The U.S. Supreme Court’s *Berman* ruling reflected a *new* consensus. And that consen-

³⁸ History suggests reason for concern about the abuse of special wartime powers, and for concern that courts may fail to protect citizens (e.g., consider the internment of Japanese Americans following Pearl Harbor). A vast literature examines the role of courts during times of crisis (e.g., Epstein et al., 2005).

³⁹ *Bloodgood v. Mohawk & H.R. Co.*, 18 Wend. (N.Y.) 9, 65 (1837); quoted in Nichols (1940, 618–619).

⁴⁰ Colorado constitution of 1876, Art. 2, § 15. (See the NBER State Constitutions Project, at <http://www.stateconstitutions.umd.edu/index.aspx>.) In 1902, Pennsylvania’s highest court drew a similar distinction between legislative and judicial roles. “Whether it is expedient or wise for the legislature to . . . take property for a public use, is a purely political question, and one solely for the legislature. But whether the use to which it is sought to appropriate the property . . . is a public use, is a judicial question for the determination of the courts.” (Quoted in Babler, 1937, 280).

⁴¹ Similarly, Lewis (1909, 507) writes, “The public use of anything is the employment or application of the thing by the public. Public use means the same as use by the public, and this it seems to us is the construction the words should receive in the constitutional provision in question. . . it is the only view which gives the words any force as a limitation or renders them capable of any definite and practical application.”

⁴² See Nichols (1940, 630) for a list of court decisions. For an illustration of how thoroughly state courts abandoned the narrow doctrine, compare Babler (1937, 276) with Groberg (1966, 514).

⁴³ See Nichols (1940). Even when the Supreme Court expressed substantial deference to local determinations (legislative and judicial) of what comprised a “public use,” it had acknowledged that a basic level of scrutiny was warranted. For example, in 1920, when ruling on a North Dakota statute, the U.S. Supreme Court stated, “the judgement of the highest court of the State declaring a given use to be public in its nature would be accepted by this court *unless clearly unfounded* [emphasis added].” Quoted in Babler (1937, 283).

sus was: The courts need not monitor how “public use” is defined by local officials.

Although the urban riots of the mid-1960s marked the end of the large-scale “slum clearance” projects, their successors survive in the form of *Kelo*-style economic development. In recent years, the number of municipalities attempting (like New London) to use eminent domain to take residential housing has increased. Many state courts have checked the trend, perhaps the most noteworthy decision being *Wayne v. Hathcock*, in which the Michigan Supreme Court effectively reversed its 1981 ruling that had allowed the vilified *Poletown* condemnations.⁴⁴ Merrill (1986, 66) surveys indexed state and federal court cases involving eminent domain from 1954 onwards and concludes, “state courts are much less deferential to legislative declarations of public use than one would expect in light of [the expansive interpretation of public use allowed in] *Poletown* . . . In fact, state court enforcement of the public use limitation has generally increased since 1954.”

Nonetheless, in the *Kelo* case, Connecticut’s highest court and the U.S. Supreme Court decided otherwise. Proposition 3 of our model predicts that the public will treat any court ruling as news, and that the public’s move to effect a change in the scope of powers will be particularly dramatic when at the same time the public observes a negative shock to the net benefits of delegating a broad power, it sees the court switch from monitoring to not monitoring. In the *Kelo* controversy, the general public clearly views the taking of well-maintained homes for *Kelo*-style development projects as an undesirable use of eminent domain. And the *Kelo* decision – which signaled that some state courts were not monitoring and that the nation’s highest court would not insist upon it – reduced the likelihood of judicial monitoring for citizens in all states. Public displeasure with the *Kelo* decision has been expressed in local meetings, newspapers, magazines, opinion polls, agitation for changes in law, and ballot measures.⁴⁵ The public reaction has put pressure on politicians to reduce the scope of eminent domain powers delegated to city governments.

Our analysis helps clarify the controversy surrounding the *Kelo* decision—a controversy that many legal scholars consider baseless. For example, David Barron, a professor at Harvard Law School, was quoted in the *Hartford Courant* as follows:

To many, the headlines about the Supreme Court’s June 23 decision in *Kelo vs. City of New London*—“Court Authorizes Seizure of Homes”—must sound un-American. But in upholding a city’s right to take private property as part of an economic redevelopment plan, the court affirmed principles as old as the Constitution.⁴⁶

Such arguments miss a critical point: While very broad interpretations of “public use” indeed date back to the country’s early history, so, too, do angry public reactions that lead to a reining in of very broad interpretations of public use. For instance, as discussed above, the narrow doctrine – the precedent cast aside by *Berman* and related decisions – originated in the early 19th century backlash against attempts to define “public use” as encompassing the creation of jobs and economic growth. Considered in this light, the public reaction to *Kelo* is less surprising.

Because it is too soon to determine what effect *Kelo* will ultimately have on state law, it is instructive to examine the railroad

compensation cases of 150 years ago. As discussed above, some state courts allowed politicians free rein in deciding whether railroads should be able to offset benefits, while others did not. Table 1 lists the 48 continental states, whether the courts in those states allowed or forbade the use of offsets, and whether the state changed its laws subsequently to prohibit offsets.⁴⁷ As can be seen, of the 16 states whose courts allowed use of the benefit-offset, 14 changed their laws so as to forbid it.⁴⁸ By contrast, of the 22 states whose courts limited the use of the benefit-offset, only two changed their laws to forbid it.⁴⁹ These results are consistent with the predictions of the model. The fading of a positive shock (the value of additional railroad lines) made a specific broad use of eminent domain powers – the offset – undesirable, inspiring the public to make sure that the power would not continue to be used. Hence, if the court did not monitor, the power was typically revoked (14 revocations in the 16 states where courts chose not to monitor). The likelihood of revoking the power was obviously much higher where the court did not monitor (revocation in 14 of 16 states) than where the court did monitor (revocation in 2 of 22 states).

In short, the evidence suggests, as our model predicts, that monitoring by the court reduces the public’s incentive to revoke a power. Because the courts forbade the application of mill act powers to industrial mills, there was little reason for formal change in the law (and the mill acts stayed on the books). When courts gave public officials carte blanche in large-scale urban renewal projects, the backlash was dramatic, and large-scale urban renewal was abandoned. And where some courts showed themselves to be monitoring while others did not – as with the benefit-offset – only in the latter instance did the public effect a change in the law.

3.4. Implication 3: Tyranny of the decisive

By relaxing the assumption that all members of the public set policy behind the veil, our model allows voters’ collective decisions to depart from what would maximize expected social benefits (Propositions 4 and 5). More specifically, a politically decisive group may establish powers that decrease social surplus but generate net benefits for itself. Although we are unable to measure the gains and losses to particular segments of society, it is clear that in some instances, identifiable minorities bore the brunt of the burdens brought about by broadly defined eminent domain powers.

The slum clearance episodes are perhaps most likely to reflect a true “tyranny of the decisive.” The benefits to most non-slum dwellers from the eradication of a slum were probably very small (at best), while the costs to the displaced residents were enormous. Those who lost their homes were typically working class or poor, and more often than not, members of ethnic or racial minorities. Anderson (1966) estimates that by March 31, 1963, over 600,000 people had been removed from their homes under the auspices of urban renewal programs, and that two-thirds of the displaced were African American or of Puerto Rican ancestry. Gans (1982, 385) suggests that one million households were displaced by federally sponsored urban renewal between 1950 and 1980.

To illustrate the political divisions, consider James Q. Wilson’s (1966, 412) discussion of a neighborhood association’s (the Community Conference) support of what turned out to be a very unpopular urban renewal project near the University of Chicago:

The upper middle-class professors, housewives, and business and professional men (both black and white) who made up the

⁴⁴ *County of Wayne v. Edward Hathcock et al.*, 684 N.W.2d 765 (Mich. 2004). See Mossoff (2004) and Somin (2004) for detailed discussions of *Wayne v. Hathcock*, and Cole (2006, 20–25) for a review of a number of other state court decisions. See, e.g., Fischel (2005) on *Poletown*.

⁴⁵ As Cole (2006, 1) puts it, “in June 2005 the U.S. Supreme Court decided the case of *Kelo v. New London Development Corporation* and all hell broke loose.”

⁴⁶ The quotation is taken from Burke (2006).

⁴⁷ The table draws on Nichols (1917).

⁴⁸ Several state constitutions banned “general” benefits from being offset, but allowed “special” – i.e., specific to that landowner – benefits to be offset.

⁴⁹ Every state that entered the Union from 1889 through 1912 included a ban of the benefit-offset in its constitution or legal code.

Table 1
The benefit-offset.

State	Year entered Union	Court allowed use of benefit-offset?	Law change to limit use of benefit-offset?	Form of law change (year)
Alabama	1819	Yes	Yes	Const. amend. (1868)
Arizona	1912	n.a.	n.a.	Original const.
Arkansas	1836	Yes	Yes	Unknown
California	1850	Yes	Yes	Const. amend.
Colorado	1876	Yes	Yes	Statute (1891)
Connecticut	1788	No	No	n.a.
Delaware	1787	No	No	n.a.
Florida	1845	Yes	Yes	Original const.
Georgia	1788	No	No	n.a.
Idaho	1890	n.a.	n.a.	Original statute
Illinois	1818	Yes	No	n.a.
Indiana	1816	Yes	Yes	Statute (1852)
Iowa	1846	Yes	Yes	Const. amend.
Kansas	1861	Yes	Yes	Original const.
Kentucky	1792	No	No	n.a.
Louisiana	1812	No	No	n.a.
Maine	1820	No	No	n.a.
Maryland	1788	Yes	Yes	Statute
Massachusetts	1788	No	No	n.a.
Michigan	1837	No	No	n.a.
Minnesota	1858	No	No	n.a.
Mississippi	1817	No	No	n.a.
Missouri	1821	Yes	Yes	Const. amend.
Montana	1889	n.a.	n.a.	Original statute
Nebraska	1867	No	No	n.a.
Nevada	1864	Yes	Yes	Statute
New Hampshire	1788	No	No	n.a.
New Jersey	1787	No	Yes	Const. amend.
New Mexico	1912	No rulings	No	n.a.
New York	1788	Yes	Yes	Statute
North Carolina	1789	No	No	n.a.
North Dakota	1889	n.a.	n.a.	Original const.
Ohio	1803	Yes	Yes	Const. amend. (1851)
Oklahoma	1907	n.a.	n.a.	Original const.
Oregon	1859	No	No	n.a.
Pennsylvania	1787	Yes	No	n.a.
Rhode Island	1790	No	No	n.a.
South Carolina	1788	Yes	Yes	Const. amend.
South Dakota	1889	n.a.	n.a.	Original const.
Tennessee	1796	No	No	n.a.
Texas	1845	No	No	n.a.
Utah	1896	n.a.	n.a.	Original statute
Vermont	1791	No	No	n.a.
Virginia	1788	No	No	n.a.
Washington	1889	n.a.	n.a.	Original const.
West Virginia	1863	No	No	n.a.
Wisconsin	1848	No	Yes	Statute
Wyoming	1890	n.a.	n.a.	Original statute

Source: Nichols (1917, Chapter 16).

bulk of the Conference were mostly people who were going to remain in the community and whose peace, security, cultural life, and property values would probably be enhanced by a successful renewal plan. The persons who were to be moved out of the community and whose apartments and homes were to be torn down were usually lower-income Negroes who, with very few exceptions, were not part of the [negotiation].

The upper middle class professors and their Conference colleagues were out from behind the veil of ignorance—it was clear *their* houses would not be taken.⁵⁰ Our model predicts (Propositions 4 and 5) that the establishment of powers when the overall expected benefits are negative but the expected benefits to the decisive group are positive will be more likely if courts do not

protect a tyrannized group. And in this case, courts allowed very broad interpretations of “public use” to prevail. Poorer residents were not pleased, as Jane Jacobs (1961, 5) vividly described:

[P]eople who get marked with the planner’s hex signs are pushed about, expropriated, and uprooted much as if they were subjects of a conquering power . . . Whole communities are torn apart and sown to the winds, with a reaping of cynicism, resentment, and despair that must be heard and seen to be believed.

Resistance (especially in the form of riots) presumably rendered the costs insuperably large even to the erstwhile beneficiaries (a “blighted” neighborhood in one’s city is better than a burned-down neighborhood). It is certainly the case that big urban renewal projects were brought to a halt.⁵¹

⁵⁰ Lewis (1959) surveyed local urban renewal directors in 91 cities, and found that residents likely to be displaced were seldom involved in the meetings, and almost never served on the committees that planned and carried out the work. The projects instead tended to cultivate citywide support and to approve and carry out plans without seeking the consent of the most adversely affected neighborhoods.

⁵¹ Although urban renewal was formally terminated as a distinct federal program in 1974 (Frieden and Sagalyn, 1989, 49–53), federal funds continue to be supplied for less all-encompassing building efforts.

By recognizing that (as the model predicts) the decision to establish a given power depends critically upon whether the decisive segment of the public is behind the veil of ignorance, one can better understand the public reaction to the *Kelo* decision. Why did a court case involving residents of New London, Connecticut, generate a nationwide public backlash? In New London itself, the development project at stake in *Kelo* had enough public support that the city fought legal challenges all the way to the U.S. Supreme Court. Of course – and this is the key distinction – the residents of New London were out from behind the veil with respect to whose homes would be taken, and very few stood to lose. In her *Kelo* dissent, Justice O'Connor explicitly discussed the relative political influence of the winners and losers:

The beneficiaries are likely to be those citizens with disproportionate influence and power in the political process, including large corporations and development firms. As for the victims, the government now has license to transfer property from those with fewer resources to those with more.

For the typical homeowner elsewhere in the U.S. (far more so than for residents of New London), the *Kelo* decision was relevant to eminent domain applications for which *the veil had not yet been lifted*. Unblighted middle class homes are now not safe from government-sponsored re-development (in contrast to the earlier slum clearance projects), and neither majority rule *ex post* (i.e., outside the veil) nor the courts *post-Kelo* can be counted upon to protect property rights that the majority would choose to protect *ex ante* (i.e., behind the veil). Thus, current and prospective homeowners who remain behind the veil (in practice, the vast majority of the public) favor revoking local governments' power to interpret public use expansively when taking private homes.

To understand what our model suggests about the desirability of the *Kelo* decision, note that even if one believes that the Court chose specifically not to protect a tyrannized minority, that is insufficient to establish that the Court made a mistake: As [Proposition 5](#) shows, by committing to weighing the social benefits of a delegated power (rather than just benefits to the decisive group), a court may *reduce* social benefits, because fewer desirable powers will be delegated. What does, however, make the *Kelo* decision appear undesirable in the context of our model is that voters who arguably remained behind the veil (notably, those outside Connecticut) responded to *Kelo* by calling for a reduction in the scope of delegated eminent domain powers. In addition, the *Kelo* ruling could reflect something analogous to the case where $0 < u_{i,t} < -k$; that is, justices siding with the majority opinion may have viewed the net benefits of employing eminent domain in the *Kelo* case as negative, but not sufficiently negative to merit intervention by the U.S. Supreme Court. Although we cannot test this directly, it is consistent with comments from Justice Stevens, who wrote the majority opinion yet later explained that he views *Kelo*-style uses of eminent as bad policy.⁵²

Once again, history provides an interesting point for comparison to *Kelo*. In 19th century, citizens of the Mountain States could have chosen to rely on courts to monitor the use of eminent domain, but chose instead to write eminent domain powers for themselves directly into state constitutions. Thus, Rocky Mountain miners, like the *post-Kelo* public, chose to reduce the amount of discretion held by courts, thereby eliminating the possibility of the ideal outcome (in which a perfectly monitoring court ensures the efficient use of delegated powers). Why did miners choose not to rely on courts?

Our model suggests two possible reasons. First, as [Proposition 2](#) illustrates, miners might have expected that imperfectly monitoring courts would not protect miners' eminent domain rights, even when the rights were socially beneficial. This is analogous to the public reaction to *Kelo* but with the contrary objective—ensuring broad (in the Rocky Mountains) rather than weak (*post-Kelo*) eminent domain powers. Alternatively, miners may have recognized that in some cases their eminent domain powers would not be socially beneficial, and as such, would not withstand scrutiny from courts that weighed the full social benefits. Miners would then do best by not allowing judicial discretion in the first place (as in [Proposition 5](#)).

4. Conclusion

In a representative democracy, the public faces a trade-off: To enjoy the benefits resulting from delegation, the public must run the risk that delegated powers will be used in a manner that decreases social welfare. We model a citizenry that rationally but imperfectly forecasts the value of delegating powers. In each period, the public obtains new information about the expected value of delegation, and about the court's willingness to monitor how the delegated powers are used. In response, the public adjusts the set of delegated powers. We apply the model to the history of eminent domain. Consistent with the model's predictions, we find that the scope of eminent domain powers has been adjusted repeatedly over time – from narrow to broad and from broad to narrow – as new information about the social benefits of particular applications of eminent domain (e.g., to mill dams, railroads, mining, and urban development) is revealed, and judicial rulings indicating the willingness of courts to curtail socially undesirable applications are made public.

Although we focus on eminent domain, the logic of our model applies more broadly. Consider, for example, spying on citizens or detaining citizens without trial. Our model predicts that the public will allow the government substantial discretion to engage in domestic spying, or to detain suspected traitors, when the expected net benefits are very high; for example, following a foreign attack. Furthermore, the more likely are courts to curtail socially undesirable spying or detention, and the less likely is the majority of the public to be affected (perhaps only citizens who physically or culturally resemble those who carried out an attack will be spied upon or detained), the broader are the powers the public will be willing to delegate. Eventually, however, the expected net benefits of broadly defined powers (to spy or detain) become negative even for the majority, and public pressure narrows the delegated powers (the powers will be restricted even more dramatically if new information reveals that courts are unlikely to monitor abuses). The powers will then remain restricted until circumstances once again change (e.g., another attack occurs) and the public loosens the reins, as it has done many times before. One case in point is that the bombing of Pearl Harbor was followed by the notorious internment of Japanese-Americans (of all ages, without evidence of wrongdoing). Another is that the September 11, 2001, attacks were followed by the *de facto* suspension of *habeas corpus* for suspected terrorists. The former policy was abandoned once the perceived threat had diminished, and so perhaps may be the latter.

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⁵² As [Greenhouse \(2005\)](#) reports: "His own view, Justice Stevens told the Clark County Bar Association, was that 'the free play of market forces is more likely to produce acceptable results in the long run than the best-intentioned plans of public officials.' But he said that the planned development fit the definition of 'public use' that, in his view, the Constitution permitted for the exercise of eminent domain."

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Appendix A. A theoretical extension with application to sunset clauses

In this appendix, we extend our model so that it can account for the decision to adopt (or not) a sunset clause or, more generally, a policy that reduces the time necessary react to an undesirable shock. Consider a public that will delegate power i for period t and, at the same time the public delegates that power, has the option to establish a sunset provision for that power: By incurring a cost (c), the public can reduce the amount of time over which an ex post undesirable delegation decision will do harm to the public. The public will establish the sunset provision if and only if it increases the expected net benefits to the public. As a starting point, let:

$$u_{i,t} = v_i + \lambda e_{t-1} + \underline{\lambda} e_t$$

This is as before, except that the introduction of $\underline{\lambda}$ (for which $0 < \underline{\lambda} < 1$) will streamline the exposition of the way the downside risk of delegation affects the value of a sunset provision. Now, to model the net benefits when there is an optional sunset provision, define:

$$\underline{u}_{i,t} = (v_i + \lambda e_{t-1} + \lambda e_t) - cs, \quad \text{if } u_{i,t} > 0$$

$$\underline{u}_{i,t} = (1 - \sigma s)(v_i + \lambda e_{t-1} + \lambda e_t) - cs, \quad \text{if } u_{i,t} < 0$$

where σ is exogenous; $0 < \sigma < 1$; the public chooses $s = 0$ or $s = 1$.

When $u_{i,t} < 0$, setting $s = 1$ will reduce the loss from delegation by $-\sigma(v_i + \lambda e_{t-1} + \lambda e_t)$. The expected value of reduced losses will depend on both the probability that $u_{i,t} < 0$ and, conditional on $u_{i,t} < 0$, the expected magnitude of those loss. If $e_t = -1$ will cause $u_{i,t} < 0$ (i.e., the relevant case), then the probability (conditional on e_{t-1}) of drawing an e_t such that $u_{i,t} < 0$ is $-(v_i + \lambda e_{t-1} - \underline{\lambda})/2\underline{\lambda}$. And, conditional on a draw of e_t that yields $u_{i,t} < 0$, the expected value of $u_{i,t}$ is $(v_i + \lambda e_{t-1} - \underline{\lambda})/2$. This implies that the expected reduction in losses is:

$$\frac{\sigma(v_i + \lambda e_{t-1} - \underline{\lambda})^2}{4\underline{\lambda}}$$

Hence, the public will set $s = 1$ if and only if

$$\frac{\sigma(v_i + \lambda e_{t-1} - \underline{\lambda})^2}{4\underline{\lambda}} - c > 0$$

Adding in the court, the public will set $s = 1$ if and only if

$$\frac{\sigma(v_i + \lambda e_{t-1} - \underline{\lambda})^2}{4\underline{\lambda}} - c - \frac{\sigma m[(v_i + \lambda e_{t-1} - \underline{\lambda})^2 - k^2]}{4\underline{\lambda}} > 0$$

This allows us to identify which factors will increase the net gains from setting $s = 1$ and, hence, to predict the conditions under which the public will establish sunset provisions.

Low cost: small c

A small value of c represents a low cost of setting $s = 1$ (e.g., the public and legislators will not need to spend much time re-debating the delegation decision at set intervals). Quite simply, when the cost of employing a sunset provision is low relative to the potential benefits and costs at stake (i.e., relative to the scale of v and e), the public will be more likely to employ a sunset provision.

High degree of loss mitigation: large σ

A large value of σ represents a large mitigation of the losses that arise when delegation turns out ex post to be undesirable. Most importantly, this reflects the amount of time by which the sunset clause speeds up the process of revoking powers that turn out ex post to be undesirable.

Low probability that court will monitor: small m or high k

A smaller value of m and/or higher value of k will indicate that the court is less likely to monitor, and court monitoring is a substitute for a sunset clause. For example, when $m = 1$ and $k = 0$ (i.e., the court always monitors), there will be no gain from a sunset provision.

Large downside risk: low v_i , low e_{t-1} , high $\underline{\lambda}$

The practical implication here relates to the degree to which the value of delegation depends on its stochastic components (i.e., e_{t-1} and e_t , as weighted by λ and $\underline{\lambda}$) relative to its fixed component (v). To understand this, recall that the value of politicians using power i in period t is $v_i + \lambda e_{t-1} + \underline{\lambda} e_t$. This has, at the time the public chooses between $s = 0$ and $s = 1$, an expected value of $v_i + \lambda e_{t-1}$.

An increase in the downside risk will result from a reduction in v_i or e_{t-1} , or from an increase in $\underline{\lambda}$. A decrease in v_i , ceteris paribus, will increase the probability of $u_{i,t} < 0$ and, regardless of the sign of $u_{i,t}$, reduce $u_{i,t}$; for both of these reasons, a decrease in v_i will increase the value of setting $s = 1$. An increase in e_{t-1} works in a very similar manner, but its interpretation differs from that of a lower v_i : e_{t-1} affects the sunset clause decision for only one period, whereas a low v_i matters in every period. An increase $\underline{\lambda}$ will not affect $Eu_{i,t}$, but it will increase the variance of $u_{i,t}$ and, hence, the increase expected costs mitigated by setting $s = 1$.⁵³

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⁵³ This is easy to show formally because

$\partial[\sigma(v_i + \lambda e_{t-1} - \underline{\lambda})^2 - m[(v_i + \lambda e_{t-1} - \underline{\lambda})^2 - k^2]]/\partial \underline{\lambda} > 0$ for any case in which the sign of $u_{i,t}$ depends on the draw of e_t (i.e., for any relevant case).

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