

Information & Contestation: A Formal Model of Notice and Comment*

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Abstract

We develop a formal model of notice and comment rulemaking. An agency investigates a state of the world with some effort of its choosing, then proposes a policy and may or may not reveal its information about the state. A group, which is biased toward one of the agency's possible choices, then investigates the state as well, and may or may not reveal its information. A reviewing court may uphold or reverse the agency's policy, depending on the proposal made and information revealed. The analysis focuses in particular on the effect of judicial review on agency investigations in advance of proposing a rule, and on the content of the agency's policy proposal. We show that it is socially optimal for the court's review posture to be conditioned on the agency's policy choice as well as the quality of the record it assembles, and it may be optimal for courts to be deferential to agencies even with weak evidence substantiating their policy choice.

Work in Progress. Comments and complaints very welcome.

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Modern government is bureaucratic government. But bureaucrats face only indirect and limited forms of popular accountability, and yet they also lack the independence of the judiciary. Thus their discretion over public policy has the potential to threaten cherished principles of both representative government and due process. Essentially, bureaucrats are not political enough to fall directly under conventional sanctions of democratic accountability, but are too political to guarantee observance of due process on their own.

As the reach and importance of bureaucratic government has grown in the United States, Congress and courts have responded with legislation and doctrines of judicial review to constrain bureaucratic discretion. The Administrative Procedure Act of 1946 is a watershed of such legislation at the federal level. The APA defined presumptively binding procedural requirements that federal agencies must satisfy when taking several distinct kinds of policy action. One of the hallmarks of the APA (and its successors and amendments) is the process it specifies for agencies when they engage in rulemaking, or issue regulations pursuant to legislation that stipulate what the effects and requirements of the law actually are.

Of several types of rulemaking, the most common is informal, or “notice and comment,” rulemaking.¹ Notice and comment rulemaking involves internal analysis by the agency culminating in the proposal (*i.e.*, notice) of a policy (*i.e.* rule) by the agency for public comment. Following a fixed period of (receiving) comment, the agency then responds to those comments and promulgates a final, possibly revised rule.² Groups or individuals affected by these rules can, of course, petition federal courts for their review. Judicial review of agency rules includes analysis of the agency’s findings of fact, *i.e.* the agency’s assessment of information — including information from public comment — that putatively justifies the particular content of the rule on which the agency settled. If reviewing courts find the agency’s finding of fact deficient in light of court-defined standards, they can void the rule, essentially vetoing it.

Rulemaking, as the articulation of policies having general application and force of

¹Formal rulemaking under the APA requires a more elaborate and cumbersome process for the agency to build a record of its proceedings, and is rarely used.

²Congress and the President have, of course, layered other requirements on agencies before a rule can be proposed or take effect, *e.g.* review by the Office of Information and Regulatory Affairs under Executive Order 12,291 and its successors, and review by Congress under the Congressional Review Act of 1996. In this paper we more or less ignore these channels of review and focus on the “standard” notice and comment process, though one could interpret the “court” in our model as some other external reviewer with veto power over agency regulations.

law, is a quasi-legislative activity. Legal scholars have traditionally³ interpreted the notice and comment process as one which requires an agency to institute a stylized version of legislative proceedings, including prior solicitation of input from affected parties, before determining a final policy. As for judicial review, the traditional interpretation idealizes courts as a backstop to prevent agency decisions that are arbitrary, capricious, unsubstantiated, or otherwise in violation of due process.

Social scientists in the “structure and process” school (McCubbins, Noll and Weingast (1987), McCubbins, Noll and Weingast (1989)) have pioneered an alternative, political rationale for these procedures, arguing that they ensure that bureaucratic decisions respond to the preferences and priorities of legislators — even after those legislators fade from power. In essence, this school of thought holds that administrative procedures are devices for “making the deal stick” after it is struck in Congress and handed over to bureaucrats for implementation. Notice and comment is an effective means for ensuring that agencies respond to input but legislatively favored interest groups; this process as well as court review are simple devices for Congress to “outsource” oversight over agency actions.

In this paper we take a different tack and analyze the effects of notice and comment rulemaking, combined with judicial review, on the information brought to bear when establishing regulations. The “comment” portion of notice and comment has an obvious effect of bringing new information into the record behind a regulation — namely, that provided by groups and individuals offering comment. This source of information is squarely within the traditional legal interpretation of the effects and benefits of notice and comment proceedings.

We take a step back from this effect and analyze the effect of notice and comment proceedings on information “produced” by the agency in the first instance. We explore the incentives that notice and comment rulemaking creates for the proposing agency to exert effort in developing its regulation. Specifically, we posit a formal model of notice and comment rulemaking in which an agency investigates relevant facts and proposes a rule, following which an interested group independently investigates the relevant facts as well. A reviewing court can either uphold or reverse the agency’s proposal. To focus on the incentive effects of the notice and comment process itself, we model the agency as indifferent about policy as such (so it has no intrinsic motivation to exert investigative effort), and assume that both the agency and group incur costs from investigating that

³See *e.g.* Cass, Diver and Beermann (2002) for an exposition of the “textbook” interpretation.

increase with the thoroughness of the investigation. However, the agency dislikes court reversal, which opens a channel for court review doctrines to affect agency actions.

The model identifies court review doctrines that induce socially optimal levels of investigation from the agency.⁴ Thus “the court” is simply a mechanism rather than a player with ideological goals of its own, and we assume the court can fully commit to adhere to a standard of judicial review.⁵ In other words, the model is not an argument that, under realistic specification of preferences, notice and comment does in fact yield socially optimal levels of agency investigation. Rather, the model identifies judicial review doctrines such that even a fairly venal agency can be induced investigate in a socially optimal fashion.

1 The Model

We model the notice and comment process using a stark, sequential game in which players may invest costly effort in uncovering verifiable and welfare-dispositive information. The approach is very similar to that utilized recently by Warren (2009) and Ashworth and Shotts (2011), both of whom are interested in questions more closely tied to electoral accountability, but whose insights seem portable to the realm of administrative policy-making (*i.e.*, bureaucratic accountability) as well. A key difference between our model and theirs is the motivation of the auditors/challengers/regulated interests.⁶ We focus on auditing performed by a Group whose interests in information are indirect and result only from the fact that the overseer, the judiciary, is interested in promoting informed policymaking.

⁴In this respect, our model is substantively most closely related to Stephenson (2006), which explores the effect of “hard look” judicial review on exertion of investigative effort by agencies. Stephenson argues that this review stance induces agencies to exert effort to signal the quality of their policy choice to courts. Our model differs from this most notably by (i) including public comment in the process, and (ii) identifying review postures that induce optimal effort, rather than exploring the incentive effects of one particular review posture.

⁵The commitment assumption is reasonably realistic in this context, since judicial review of agency actions almost always ends with district or appellate courts, which implement review standards codified by the Supreme Court. Essentially, one can think of the Supreme Court as articulating postures of judicial review, which commits lower courts to implement those standards in specific cases.

⁶Auditors in general (including journalists, bureaucrats, and political opposition parties) are the focus in Warren’s work, while Ashworth & Shotts focus on the special and important case of electoral challengers as a specially-motivated auditor. The analogue in this paper are regulated interests

Players and Structure of Play. We model notice and comment rulemaking as a game of asymmetric information between three players, an agency A , group G , and court C . There are three possible policies $x \in \{0, 1, \varphi\}$, where $x = \varphi$ is a status quo policy and $x = 0$ and 1 denote alternatives. Additionally, there is a state of nature $\omega \in \Omega = \{0, 1\}$. The common prior belief is that $\omega = 1$ with probability $p \in (0, 1)$.

A statute requires A to choose either policy $x = 0$ or $x = 1$. This reflects a common aspect of regulatory legislation in which an agency is charged with gathering information and issuing a regulation from some set of options, but regulatory inaction is not permitted. For instance, under specific conditions the Clean Air Act Amendments of 1977 required the Environmental Protection Agency to identify a “best available control technology” for reducing air pollutants from electric utilities, and lack of pollution control was not among its options.

Given this requirement, notice and comment rulemaking proceeds as follows. First A chooses how much effort to exert in investigating the state, $e_A \in [0, 1]$. With probability e_A , A (privately) learns the true state ω ; with probability $1 - e_A$, the agency (privately) learns nothing about the true state and retains its prior beliefs. We denote the signal observed by A by $s_A \in \{\phi, \omega\}$, where $s_A = \phi$ represents the uninformative signal.

After observing s_A , A promulgates a policy $x \in \{0, 1\}$ and chooses a message m_A from $M(s_A) = \{\phi, s_A\}$.⁷ Note that this choice is trivial if $s_A = \phi$. It merely allows A to either reveal or conceal its signal.⁸ Thus, we are assuming that A 's investigation uncovers “hard” evidence, which may be excluded from the record that A builds, but must be reported truthfully if A includes it.

Next G observes x and m_A , and chooses its own investigative effort level $e_G \in [0, 1]$. With probability e_G , the group (privately) observes $s_G = \omega$ and, with probability $1 - e_G$, the group (privately) observes an uninformative signal, $s_G = \phi$. (Note that, if $m_A \neq \phi$, the group has no need to exert investigative effort.) After observing s_G , the group chooses a message, $m_G \in \{\phi, s_G\}$, which represents its input into the notice and comment process.

Finally, C observes (x, m_A, m_G) and decides whether to reverse or uphold x , which determines the final policy, denoted by $y \in \{0, 1\}$. If C reverses x , denoted by $r = 1$, then the final policy outcome is $y = \varphi$. Otherwise, C upholds the policy, denoted by

⁷While A does not have a choice in whether to promulgate, incorporating such discretion is a natural next step. We conjecture that it will be an important one, as it will reduce the effects of court reversal on A 's incentive to exert effort.

⁸This construction is adopted for symmetry: given the presumed preferences, A never has a strict incentive in equilibrium to conceal $s_A \neq \phi$.

$r = 0$, and the final policy outcome is $y = x$. Substantively, this reflects a judicial review process in which the court can either uphold agency action, or determine that agency action does not satisfy some doctrinal standard and remand the case to the agency for further analysis — during which time the status quo policy remains in effect. The court does not itself choose policy, however.

Payoffs. All actors’ policy utilities are normalized so that the status quo guarantees a payoff of zero in all states of nature. Policy payoffs $v_i(x, \omega)$ for player $i \in \{A, G, C\}$ are as follows:

	Agency		Group		Court	
	$\omega = 0$	$\omega = 1$	$\omega = 0$	$\omega = 1$	$\omega = 0$	$\omega = 1$
$x = \varphi$	0	0	0	0	0	0
$x = 0$	0	0	-1	-1	0	0
$x = 1$	0	0	β	β	0	0

Additionally, G and A both have non-policy components of their utility. First, both G and A incur costs to investigate ω ; these costs are $\frac{\kappa}{2}e_A^2$ for A and $\frac{c}{2}e_G^2$ for G . Second, if C reverses A ’s policy ($r = 1$), A incurs a cost k .

Players’ overall utilities are as follows:

$$\begin{aligned}
 u_A(y, e_A, r) &= v_A(y, \omega) - \frac{\kappa}{2}e_A^2 - kr, \\
 u_G(y, e_G) &= v_G(y, \omega) - \frac{c}{2}e_G^2, \\
 u_C(y, r) &= v_C(y, \omega),
 \end{aligned}$$

The parameters β , κ , c , and k are exogenous and common knowledge. We impose the following restriction from time to time in the analysis. In words, it implies that the Group’s investigative efforts will be “interior” following the promulgation of the policy it does not favor (*i.e.*, $e_G < 1$ following the promulgation of $x = 0$).

Assumption 1 (Costly Group Investigative Efforts) $p < c$.

We also introduce a “voter” V as a non-strategic actor to serve as a normative guide for the mechanism design problem. V ’s payoffs are as follows:

		The Voter	
		$\omega = 0$	$\omega = 1$
$x = \varphi$	0	0	
$x = 0$	1	0	
$x = 1$	0	1	

Thus V 's utility is maximized when the policy matches the state, and the voter is presumed to weakly prefer action by the Agency.⁹ Note that the prior p that $\omega = 1$ represents the *ex ante* probability of alignment of the interests of the Group and the voter.

While V 's utility for a given policy x depends on ω , players' utilities do not. To motivate these payoffs substantively, suppose that A can promulgate one of two safety standards for an industry ($x = 0$ or $x = 1$), and the safety effects on consumers depend on ω . One standard ($x = 1$) has the side effect of raising barriers to entry in the industry (*e.g.*, high fixed cost technologies that require access to imperfect capital markets), which raises profits for incumbent firms; the other standard ($x = 0$) is costly to implement but does not raise barriers to entry, and so is costly to incumbent firms. The group G represents incumbent firms that care about profits but not consumer safety. The agency A is an archetype of Niskanen (1971) bureaucracy: status-conscious (so dislikes reversals) and cost-minimizing (so, for a given budget constraint, budget maximizing), but indifferent about policy as such. We analyze this case not for its verisimilitude (see Gailmard and Patty (2007) on bureaucratic policy motivations), but because A has no intrinsic motivation to learn ω so the incentive effects of notice and comment are most interesting and normatively important.

The Court: Review. For its part, the Court is a cipher: it is indifferent between both actions in all histories. We make this assumption to focus on court behavior that maximizes the Voter's equilibrium payoff; given its indifference, C is always willing to follow such a strategy.¹⁰ Clearly, this involves overturning any regulation that is inconsistent with a hard signal (and, similarly, upholding any regulation that is consistent with a hard signal), and we will presume that the Court does this both on and off the equilibrium path of play. Furthermore, we will restrict attention to equilibria in which the Agency

⁹This assumption leads to the interesting implication that the voter's optimal scheme involves committing to a weakly dominated strategy (striking down regulations) in pursuit of higher effort levels by the Agency.

¹⁰In other words, the analysis will identify doctrines of judicial review that are maximally effective at eliciting informed policymaking through the notice and comment process.

always reveals its signal.¹¹

Thus, the only question as to C 's behavior is what it does when it has no information about the policy (*i.e.*, neither A nor G sends an informative signal). In this case, the Court may condition only on the policy choice itself (*i.e.*, $x = 0$ or $x = 1$). The probability that the Court overturns ($r = 1$) regulation x in the absence of information is denoted by $\rho_x \in [0, 1]$.

2 Analysis

2.1 Group Behavior

It is useful to note at this point that, if A reveals a hard signal of $m_A = \omega$, G 's dominant action is to set $e_G = 0$, as C 's subsequent behavior is independent of G 's message m_G . Accordingly, we ignore these subgames when discussing the Group's incentives.¹² The only subgames in which the Group has a nontrivial choice about e_G are those in which A has revealed no signal (*i.e.*, $m_A = \phi$).

Accordingly, conditional on $m_A = \phi$, $x \in \{0, 1\}$, and ρ , G 's (conditional) expected payoff from effort e_G is

$$U_G(x, e_G) = \begin{cases} (\rho_0 - 1) ((1 - p) + p(1 - e_G)) - \frac{c}{2} e_G^2 & \text{if } x = 0, \\ e_G p \beta + ((1 - p) + (1 - e_G)p) (1 - \rho_1) \beta - \frac{c}{2} e_G^2 & \text{if } x = 1. \end{cases} \quad (1)$$

The first order conditions for the Group imply the following effort levels:

$$e_G^*(x) = \begin{cases} \min[p(1 - \rho_0)/c, 1] & \text{if } x = 0, \\ \min[p\beta\rho_1/c, 1] & \text{if } x = 1. \end{cases} \quad (2)$$

The following restriction on the parameters of the problem so as to obviate the need to carry around the min operator.

Assumption 2 (Interior Optimal Group Effort) $p\beta \leq c$.

¹¹In this setting—where the Agency is presumed to be indifferent about the policy outcome and incur no direct cost from revealing its signal—this is not a restrictive assumption, but obviously would be quite strong in other preference environments.

¹²Of course, these subgames are relevant and given full consideration when we turn our attention to the incentives of the Agency and the Court.

We will impose Assumption 2 at various points in the analysis that follows. Regardless of whether we invoke Assumption 2, however, the Group’s effort is maximized by $\rho_0^{G^*} = 0$ and $\rho_1^{G^*} = 1$: the Court is skeptical of upholding a policy that the Group favors in the absence of confirmatory information and, conversely, deferential to any policy the Group does not favor in the absence of contradictory information. With an understanding of the Group’s strategic calculus in hand, we now turn to the Agency’s incentives and the effect of judicial review on the Agency’s investigative efforts.

2.2 Agency Behavior: Investigation

The Agency’s choice of policy is simple when it receives an informative signal (*i.e.*, $s_A \neq \phi$): set $x = s_A$ and reveal its signal. When the Agency is not informed, its incentives are more complicated and we defer detailed consideration of this until Section 2.4. For the time being we simply denote A ’s policy choice when uninformed by $x_\phi \in \{0, 1\}$.¹³ Given this, we can identify A ’s optimal level of investigative effort.

A ’s expected payoff from (x_ϕ, e_A) is given by the following:

$$U_A(x_\phi, e_A) = \begin{cases} (e_A - 1)(e_G^*(0)p + (1 - e_G^*(0) + e_G^*(0)(1 - p))\rho_0)k - \frac{\kappa}{2}e_A^2 & \text{if } x_\phi = 0, \\ (e_A - 1)(1 - e_G^*(1) + e_G^*(1)(1 - p))\rho_1 k - \frac{\kappa}{2}e_A^2 & \text{if } x_\phi = 1. \end{cases}$$

This yields the following equation for the equilibrium effort levels:

$$e_A^*(x_\phi) = \begin{cases} (e_G^*(0)p + (1 - pe_G^*(0))\rho_0)k/\kappa & \text{if } x_\phi = 0, \\ (1 - pe_G^*(1))\rho_1 k/\kappa & \text{if } x_\phi = 1, \end{cases}$$

which, once we substitute equation (2), equates to

$$e_A^*(x) = \begin{cases} (k(p^2(1 - \rho_0)^2 + c\rho_0))/(c\kappa) & \text{if } x = 0, \\ (c - p^2\beta\rho_1)\rho_1 k/(c\kappa) & \text{if } x = 1. \end{cases} \quad (3)$$

These calculations suggest the following restriction on the parameters of the problem.

¹³ A ’s choice of x_ϕ is crucial to both A —in spite of our assumption that A is indifferent about the match between the policy chosen and the underlying state of nature—and the voter. This is because of G ’s bias: G will not submit evidence to overturn $x = 1$ and will not submit evidence to uphold $x = 0$. Thus, x_ϕ will have welfare effects above and beyond that captured by the distribution of ω (*i.e.*, p).

Assumption 3 (Interior Optimal Agency Effort) $k < \kappa$.

Substantively, the restriction—which we will impose at various points below—ensures that the Agency will pursue an “interior” investigative effort. In other words, the Agency does not fear reversal sufficiently to discover the true state of nature with certainty. This restriction not only obviates some algebraic difficulties with comparative statics analysis, it also ensures that there will always be a positive probability that the Group’s investigative efforts might be dispositive—if the Agency always discovers the true state, then in this setting, optimal judicial review will never overturn the Agency’s recommendation.¹⁴

For $x = 0$, equation 3 is strictly convex for $p \in (0, 1)$. Accordingly, the value of ρ_0 that maximizes Agency effort is a corner solution, satisfying

$$\rho_0^{A*} \in \{0, 1\}.$$

The first order conditions for minimization yield the following minimum:

$$1 - \frac{c}{2p^2}$$

Accordingly, leveraging the symmetry of parabolas, it follows that

$$\rho_0^{A*} = \begin{cases} 1 & \text{if } p^2 < c, \\ 0 & \text{if } p^2 > c. \end{cases}$$

Since we have assumed that $0 < p < c$ (Assumption 1), it follows that $\rho_0^{A*} = 1$. When contrasted with the optimal review strategy in terms of maximizing the Group’s efforts ($\rho_0^{G*} = 0$), this encapsulates the tension faced by the Court – the Agency will exert more effort conditional on promulgation of $x = 0$ when $s_A = \phi$ if the Court is more likely to *reverse* $x = 0$ in the absence of confirmatory information, but the Group’s incentives are opposed to this, as it will exert more effort if the Court is more likely to *uphold* $x = 0$ in the absence of contradictory information.

For $x = 1$, equation 3 is strictly concave for $p \in (0, 1)$. The value of ρ_1 that maximizes

¹⁴Clearly, this conclusion no longer holds if we allow for the Agency to have nontrivial policy preferences involving the possibility of preferring to not choose policy in accord with the voter’s preferences even when the Agency is informed. This interesting case is much more difficult to analyze for a variety of reasons and left for future work.

Agency effort is

$$\rho_1^{A^*} = \frac{c}{2\beta p^2}.$$

In spite of this interior solution for maximizing Agency effort, we will see that maximizing the Voter’s welfare generally involves a deterministic judicial review strategy, where the Court either upholds all policies in the absence of dispositive information or reverses all such policies.

2.3 Welfare-Maximizing Court Review for a Fixed Agency Policy

We now turn to the issue of judicial review standards that maximize voter welfare, taking as given A ’s policy choice when uninformed x_ϕ . That is, we analyze the effects of C ’s strategy on A ’s effort e_A but not its policy when uninformed x_ϕ . We assume that C can fully commit to a strategy specifying its actions in each history of the game.

As noted above, the components of C ’s strategy that maximize voter welfare when either A or G sends a hard signal are clear. The key remaining issue is to identify the welfare maximizing components of C ’s strategy when neither A nor G sends an informative message, *i.e.* ρ_0 and ρ_1 .

Formally, it is obvious that voter welfare cannot be enhanced by requiring $\rho_0 = \rho_1$. In brief, G ’s bias toward $x = 1$ and the sequence of notice and comment rulemaking implies that a lack of information under $x = 0$ carries a very different meaning than a lack of information under $x = 1$. Substantively, however, allowing $\rho_0 \neq \rho_1$ is noteworthy. The implication is that the quality of the evidence assembled on the record is not the sole determinant of C ’s posture with respect to A ’s choice. Rather, C ’s deference to A can and should be effected by the substantive content of A ’s proposal as well. In other words, a court free of ideology other than maximizing voter welfare should nevertheless be attentive to the politics of the agency’s choice, and in particular its distribution of benefits and costs on affected groups.

Expected voter welfare¹⁵ is calculated as follows:

$$W(\rho) = \begin{cases} e_A^*(0) + (1-p)(1-e_A^*(0))(1-\rho_0) & \text{if } x_\phi = 0, \\ e_A^*(1) + p(1-e_A^*(1))(e_G^*(1) + (1-e_G^*(1))(1-\rho_1)) & \text{if } x_\phi = 1. \end{cases}$$

¹⁵The term “expected” is key, as when C is interested in interim voter welfare it will never reverse A ’s decision.

In the absence of a signal, A may choose either $x_\phi = 0$ or $x_\phi = 1$. We consider judicial review of these two possible scenarios, *i.e.* ρ_0 and ρ_1 , in turn.

Review of Anti-Group Policies. The expression for voter welfare conditional on $x_\phi = 0$ is strictly convex for $p \in (0, 1)$, so that $\rho^{W^*}(0)$ is either 0 or 1. The evaluations of $W(\rho_0|x_\phi = 0)$ at these points are:

$$\begin{aligned} W(\rho_0 = 0|x_\phi = 0) &= 1 - p + p \min\left[1, \frac{kp^2}{c\kappa}\right], \\ W(\rho_0 = 1|x_\phi = 0) &= \min\left[1, \frac{k}{\kappa}\right]. \end{aligned}$$

Sidestepping A 's strategic calculus regarding the choice of x_ϕ for a moment (see Section 2.4, below), deference following $x_\phi = 0$ (*i.e.*, $\rho_0 = 0$) yields a higher expected payoff for the voter than does skepticism (*i.e.*, $\rho_0 = 1$) if

$$1 - p + p \min\left[1, \frac{kp^2}{c\kappa}\right] > \min\left[1, \frac{k}{\kappa}\right].$$

If we impose Assumption 3 ($k \leq \kappa$) and Assumption 1 (*i.e.*, $c > p$), this reduces as follows:

$$\begin{aligned} 1 - p + p \frac{kp^2}{c\kappa} &> \frac{k}{\kappa}, \\ kp^3 &> c(k - (1 - p)\kappa). \end{aligned}$$

This leads to the following result.

Proposition 1 *Assume $c > p$ (Assumption 1) and $\kappa > k$ (Assumption 3). Then, the welfare-maximizing review strategy when the Agency promulgates a proposal not favored by the Group is deterministic. Specifically, the Court should be deferential toward $x_\phi = 0$ (*i.e.*, $\rho_0^{W^*} = 1$) when*

- *the Agency does not incur a sufficiently large enough cost from reversal: $k < (1 - p)\kappa$,*
- *the Agency's marginal costs increase sufficiently quickly (κ is large), and*
- *the probability that the Group's interests are aligned with those of the voter is sufficiently low (p is sufficiently close to 0).*

Proposition 1 leads to several interesting conclusions. First, it identifies conditions under which court deference to agencies is optimal even in the absence of an informative record. This is in contrast to standard doctrines of judicial review of agency findings of fact (articulated most clearly by the Supreme Court in *Universal Camera Corp. v. National Labor Relations Board* (1951)), which hold that courts must defer to agency findings of fact only when the latter are supported by substantial evidence in the record as a whole. Here the agency’s policy choice $x = 0$ is unsubstantiated by a factual record, yet the court optimally defers to its decision. The reason is that such a choice gives groups strong incentives to adduce information invalidating the agency’s choice, and if they do not present any, that in itself provides evidence consistent with the agency’s choice.

Second, the Court’s optimal response (under the presumption of maximizing the Voter’s expected welfare) is skepticism in those situations in which the Agency can, and needs to, be induced to exert significant effort: when it fears reversal and/or when the marginal cost of collecting information does not increase too quickly. This focus on marginal costs is crucial: the Court’s optimal review strategy depends upon balancing the Agency’s marginal calculations. It is not a function of the overall cost of information collection because the Court is not interested in the direct welfare effect of costly information collection. Rather, the Court’s review should be conditioned upon the sensitivity of the Agency’s best response.

Third, judicial review should be deterministic in spite of the fact that we are assuming away any selection problems for the judiciary.¹⁶ This is interesting in light of, for example, Fearon’s critique of the dilemma posed in using democratic governance as a potential solution for moral hazard problems in governance.¹⁷

Finally, the role of the probability of preference alignment between the Group and the Voter is intuitive: presuming that $\kappa > k$, the Court should be more deferential toward $x_\phi = 0$ as the probability that $\omega = 0$ increases (*i.e.*, as p decreases).

While the proposition identifies the optimal review strategy taking as given $x_\phi = 0$, we will see in Section 2.4 that this approach from an *ex ante* perspective is infeasible because of the A ’s strategic response to it. It will turn out that eliciting $x_\phi = 0$ from A requires C to treat such a policy with some measure of deference: extreme skepticism of

¹⁶Another way of putting this is that we are not imposing any perfection/sequential rationality requirements on the Court’s review behavior.

¹⁷See, for example, Fearon (1999), Ashworth (2005), and Ashworth and Bueno de Mesquita (2006).

$x_\phi = 0$ is inconsistent with a strategic, reversal-averse Agency ever proposing $x_\phi = 0$ with positive probability.

For now, however, we turn to the optimal treatment of pro-Group policies ($x_\phi = 1$) in the absence of dispositive information (*i.e.*, $m_A = \phi$ and $m_G = \phi$).

Review of Pro-Group Policies. The expression for voter welfare conditional on $x_\phi = 1$ is a quartic function of ρ_1 .¹⁸ The minimizer of this function is a lengthy expression that stymies both intuition and straightforward analysis.¹⁹ For all values of the parameters that we have investigated, $W(\rho_1|x_\phi = 1)$ is maximized by deterministic review strategies (*i.e.*, “corner solutions”) $\rho_1^* \in \{0, 1\}$. Luckily, the values of $W(\rho_1|x_\phi = 1)$ for $\rho_1 \in \{0, 1\}$ are transparent expressions. In particular, the evaluations of $W(\rho_1|x_\phi = 1)$ at these points are:

$$\begin{aligned} W(\rho_1 = 0|x_\phi = 1) &= p, \\ W(\rho_1 = 1|x_\phi = 1) &= \frac{p^2\beta}{c} + \left(1 - \frac{p^2\beta}{c}\right) \min\left[1, \frac{k(c - p^2\beta)}{c\kappa}\right]. \end{aligned}$$

Skepticism when faced with $x_\phi = 1$ (*i.e.*, $\rho_1 = 1$) yields a higher expected payoff for the voter than deference whenever

$$1 < \frac{k(c - p^2\beta)}{c\kappa},$$

as in this case the Agency will always learn the state of nature – this is ruled out by Assumption 3. If the Agency’s optimal effort level is interior (so that uninformed policy proposals are observed with positive probability in equilibrium), skepticism yields a higher expected payoff for the voter if

$$p < 1 + \frac{kp^4\beta^2}{c^2\kappa} + \frac{p^2\beta(\kappa - 2k)}{c\kappa}$$

¹⁸Specifically, this is

$$W(\rho_1|x_\phi = 1) = \frac{\beta^2kp^4\rho_1^4}{c^2\kappa} - \frac{\beta kp^3\rho_1^3}{c\kappa} + \frac{\beta kp^3\rho_1^2}{c\kappa} - \frac{\beta kp^2\rho_1^3}{c\kappa} - \frac{\beta kp^2\rho_1^2}{c\kappa} + \frac{\beta p^2\rho_1^2}{c} + \frac{k\rho_1}{\kappa} + \frac{kp\rho_1^2}{\kappa} - \frac{kp\rho_1}{\kappa} - p\rho_1 + p$$

Since the first term

$$\frac{\beta^2kp^4}{c^2\kappa} > 0,$$

this function is monotonically increasing for sufficiently large values of ρ_1 .

¹⁹This expression is available from the authors on request.

Clearly, a sufficient condition for skepticism to dominate deference when confronted with $x_\phi = 1$ is $\kappa > 2k$. The following proposition describes the comparative statics of the optimal choice of deference or skepticism following the promulgation of an uninformed proposal of the Groups favored policy.

Proposition 2 *When the optimal review strategy after the Agency proposes the Group’s favored policy is deterministic ($\rho_1^{W*} \in \{0,1\}$), skepticism is the optimal strategy (i.e., $\rho_1 = 1$) if*

1. *the Agency’s marginal cost of information increases quickly relative to its cost of reversal ($\kappa \geq 2k$),*
2. *the Agency’s marginal cost increases sufficiently quickly (κ is sufficiently large (independent of fixed k)),*
3. *the Group’s marginal cost increases sufficiently quickly (large values of c), and*
4. *the Group’s payoff from its preferred policy outcome is sufficiently large (large values of β).*

The comparative statics described in Proposition 2 (conclusions 2-4) provide several insights. First, the net payoff from judicial skepticism increases as information becomes increasingly costly (regardless of for whom, conclusions 2 & 3). This somewhat counter-intuitive conclusion results from the fact that, when these comparative statics are strict, the Agency’s optimal effort level is less than one. In such cases, both the Agency and Group can be effectively induced to exert higher levels of effort with positive probability on the equilibrium path. When κ is sufficiently large (greater than $2k$), the comparative statics become “weak,” in the sense that skepticism *is* the optimal strategy, regardless of the values of the other parameters (conclusion 1).

The final comparative static (conclusion 4) provides an interesting insight into the optimal variation of judicial skepticism across different issue areas. In areas where the regulated interest’s favored policy yields a sufficiently high net payoff to the group relative to judicial reversal, judicial skepticism can play an informational role, effectively forcing the Group to justify or defend the sustenance of its favored policy. An alternative (partial equilibrium, or decision theoretic) view of this is that interest groups who place high

value on the affirmation of a given policy will exert high levels of effort to find/generate information in support of that policy’s alignment with the voter’s interests.²⁰

In short, Proposition 2 can be summarized as indicating that, in many cases, skepticism motivates both the Agency and the Group when the Agency knows that it will promulgate a pro-Group policy in the absence of (Agency-held) information.

2.4 Agency Policy Choice with an Uninformative Signal

The analysis above focused on the situations in which A promulgated a policy after receiving no signal ($s_A = \phi$). The analysis was conditioned on A ’s choice of policy in this situation, which we denote by $x_\phi \in \{0, 1\}$. It is simple to see that A will frequently have a strict best response conditional on not receiving an informative signal when choosing which policy to propose.

The Agency’s optimal policy choice x_ϕ^* in this event is determined as follows:²¹

$$x_\phi^*(\rho_0, \rho_1) = \begin{cases} 0 & \text{if } (1 - pe_G^*(0, \rho_0)) \rho_0 + pe_G^*(0, \rho_0) < (1 - pe_G^*(1, \rho_1)) \rho_1, \\ 1 & \text{if } (1 - pe_G^*(0, \rho_0)) \rho_0 + pe_G^*(0, \rho_0) > (1 - pe_G^*(1, \rho_1)) \rho_1. \end{cases} \quad (4)$$

The key for our analysis is to verify that $\rho = (\rho_0, \rho_1)$ can be constructed in such a way that each of the following four cases hold:

$$\begin{aligned} \rho_0 = 0 \ \& \ x_\phi^*(\rho_0, \rho_1) = 0, \\ \rho_0 = 1 \ \& \ x_\phi^*(\rho_0, \rho_1) = 0, \\ \rho_1 = 0 \ \& \ x_\phi^*(\rho_0, \rho_1) = 1, \quad \text{and} \\ \rho_1 = 1 \ \& \ x_\phi^*(\rho_0, \rho_1) = 1. \end{aligned}$$

²⁰More generally, of course, the proper “judicial auditing view” is that the Court will seek information supporting the contention that the policy is consonant with the Court’s policy aims. Here we presume that the Court is the agent of the voter’s *ex ante*.

²¹For reasons of space, we do not consider the possibility of setting a judicial review strategy so as to make the Agency indifferent between $x_\phi = 0$ and $x_\phi = 1$. However, note that the voter’s *ex ante* expected welfare can not be strictly improved by such a review strategy. This conclusion might fail to hold, of course, if there were *ex ante* incomplete information about the Agency’s policy preferences.

The first case holds if

$$\begin{aligned} \frac{p^2}{c} &< 1 - \frac{p^2\beta}{c}, \\ c &> p^2(1 + \beta). \end{aligned} \tag{5}$$

The second case does *not* hold, as it would require

$$1 < 1 - \frac{p^2\beta}{c}.$$

The third case does hold with $\rho = (0, 0)$

$$\frac{p^2}{c} > 0,$$

and the fourth case also holds, since

$$1 - \frac{p^2\beta}{c} + \frac{p^2\beta}{c} = 1 > 1 - p.$$

The first case holds for sufficiently large c and sufficiently small values of p . Substantively, these conditions imply that the Agency can be induced to promulgate an anti-Group policy when uninformed ($x_\phi = 0$) by extreme judicial deference to such a policy ($\rho_0 = 0$) if the Agency's marginal costs of information collection increase sufficiently quickly and/or the Group's favored policy is unlikely to be in line with the interests of the voters (low values of p).

The fact that the second case does not hold implies that it is impossible to simultaneously induce the Agency to promulgate the anti-Group policy while adopting a stance of extreme skepticism ($\rho_0 = 1$). Upon a moment's reflection, this is intuitive—in such a situation, $x_\phi = 0$ will be overturned with probability 1, whereas there is always a positive probability that the Agency will be upheld if it chooses $x_\phi = 1$, even if the Court treats the pro-Group policy with extreme skepticism (*i.e.*, $\rho_1 = 1$). Accordingly, a policy-indifferent, reversal-averse Agency can not be induced to, in essence, antagonize the Group without sufficiently dispositive supporting information to guarantee that such a policy will survive judicial scrutiny.

The question, then, is the maximum degree of judicial skepticism of $x_\phi = 1$ that is consistent with the Agency proposing $x = 1$ when it is uninformed. The righthand side of the inequality upon which equation (4) is based is strictly decreasing in ρ_1 and the

lefthand side of that same inequality is concave downward in ρ_0 , so the maximum value of ρ_0 for which

$$(1 - pe_G^*(0, \rho_0)) \rho_0 + pe_G^*(0, \rho_0) = (1 - pe_G^*(1, \rho_1)) \rho_1$$

is found by setting $\rho_1 = 1$ and solving

$$(1 - pe_G^*(0, \rho_0)) \rho_0 + pe_G^*(0, \rho_0) = (1 - pe_G^*(1, 1)) \quad (6)$$

for ρ_0 . The roots of equation (6) are

$$\frac{2p^2 - c \pm \sqrt{c^2 - 4\beta p^4}}{2p^2}.$$

These roots are real if and only if

$$c \geq 2p^2\sqrt{\beta}, \quad (7)$$

a condition that, in essence, ensures that the Group's marginal cost of information gathering increases sufficiently quickly relative to the marginal benefit of finding dispositive evidence in favor of overturning $x = 0$. If this condition is satisfied, then the voters' optimal choice of the two roots is

$$\frac{2p^2 - c + \sqrt{c^2 - 4\beta p^4}}{2p^2},$$

which is less than 1 whenever inequality (7) is satisfied.

With these derivations in hand, note first that the restriction on parameters embodied in inequality (5) is stronger than that implied by inequality (7). Furthermore, inequality (5) is consistent with our earlier restrictions (Assumptions 1-3),²² so we now separate and label this restriction as a numbered assumption as well.

Assumption 4 (Agency Can Be Motivated to Choose $x_\phi = 0$ with $\rho_0 = 0$)

$$c > p^2(1 + \beta).$$

In the relevant parameter regions ($p \in (0, 1)$ and $\beta \geq 0$), satisfaction of Assumption 4 implies satisfaction of inequality (7).

²²By "consistent," we mean only that the assumptions can all be satisfied at the same time.

2.5 Optimal *Ex Ante* Design of Judicial Review

We are now in a position to consider the optimal *ex ante* judicial review strategy from the voter's perspective, incorporating its effects on both A 's effort e_A and its policy proposal when uninformed x_ϕ . Throughout the section, we impose Assumptions 1, 2, 3, and 4. In addition, we presume that the optimal review strategy after the Agency proposes the Group's favored policy is deterministic, as in Proposition 2.²³

The Four Possible Solutions. Letting

$$\tilde{\rho}_0 \equiv \frac{2p^2 - c + \sqrt{c^2 - 4\beta p^4}}{2p^2},$$

the voter's *ex ante* expected welfare from the four possible (constrained) corner solutions reduce to the following:²⁴

$$W(\rho_0 = 0 | x_\phi = 0) = \frac{k}{\kappa}, \tag{8}$$

$$W(\rho_0 = \tilde{\rho}_0 | x_\phi = 0) = \frac{(p-1)(\sqrt{c^2 - 4\beta p^4} - c)\left(\frac{k(c-\beta p^2)}{c\kappa} - 1\right)}{2p^2} + \frac{k(c-\beta p^2)}{c\kappa} \tag{9}$$

$$W(\rho_1 = 0 | x_\phi = 1) = p,$$

$$W(\rho_1 = 1 | x_\phi = 1) = \frac{p^2\beta}{c} + \left(1 - \frac{p^2\beta}{c}\right) \frac{k(c-p^2\beta)}{c\kappa}.$$

With Assumptions 1, 2, 3, and 4 in hand, it follows that

$$W(\rho_0 = 0 | x_\phi = 0) > W(\rho_0 = \tilde{\rho}_0 | x_\phi = 0),$$

so that, if it is optimal to elicit $x_\phi = 0$ from the Agency, it is optimal to do so with honey

²³Confirming this presumption is one of the first orders of business as we proceed in revising this in the future.

²⁴Formally, equation (9), expressed in full, is

$$W(\rho_0 = \tilde{\rho}_0 | x_\phi = 0) = \frac{(p-1)(\sqrt{c^2 - 4\beta p^4} - c)\left(\min\left[1, \frac{k(c-\beta p^2)}{c\kappa}\right] - 1\right)}{2p^2} + \min\left[1, \frac{k(c-\beta p^2)}{c\kappa}\right],$$

but Assumption 4 implies that

$$1 > \frac{k(c-\beta p^2)}{c\kappa},$$

and Assumption 3 directly obviates the min operator in the full expression of (8).

rather than vinegar and accord such proposals with extreme deference, (*i.e.*, $\rho_0 = 0$).

First, comparing the use of deferential treatment to obtain $x_\phi = 0$ with the use of a deferential treatment to obtain $x_\phi = 1$, eliciting $x_{\phi=0}$ is optimal according to the following relationship:

$$W(\rho_0 = 0|x_\phi = 0) > W(\rho_1 = 0|x_\phi = 1) \Leftrightarrow \frac{k}{\kappa} > p.$$

Accordingly, eliciting the anti-Group policy is the optimal strategy *only if* p is sufficiently low.

Similarly, comparing the use of deferential treatment to obtain $x_\phi = 0$ with the use of a skeptical review strategy to obtain $x_\phi = 1$, deference is optimal according to the following relationship:

$$W(\rho_0 = 0|x_\phi = 0) > W(\rho_1 = 1|x_\phi = 1) \Leftrightarrow 2ck > c\kappa + \beta kp^2.$$

These findings are summarized in the following result.²⁵

Proposition 3 *The voter’s welfare is maximized by committing to a judicial review strategy that is deferential to, and elicits, the anti-Group policy ($x_\phi = 0$) only if $p < \frac{k}{\kappa}$, whereas elicitation of $x_\phi = 1$ in the face of judicial skepticism ($\rho_0 = \rho_1 = 1$) is optimal if*

- *the Agency’s marginal cost of collective information increases quickly enough (large enough κ), and*
- *the Group’s valuation of its favored policy is large enough (β sufficiently large)*

As we discuss in more detail in the conclusion, the *ex ante* optimal mechanism is sensitive to the distribution of interests within the electorate. The Court should deferential to anti-Group policies only when the Group’s interests are (in *ex ante* terms) very unlikely to be aligned with the interests of the voters. Furthermore, in such cases, the Court will affirm anti-Group policies even when the Agency produces a “thin” record in support of its proposal. Note that, in such cases, the optimal mechanism necessarily involves differential treatment of the policies. For example, when optimal, this regime can be supported by deference to $x_\phi = 0$ and extreme skepticism toward $x_\phi = 1$ ($\rho_0 = 0$

²⁵We hope to have a richer description of the optimal mechanism in the near future (in particular, we hope to relax the assumptions and deal in more detail with the parameter regions in which the Group might exert maximum effort levels).

and $\rho_1 = 1$).²⁶

Of course, deference to the anti-Group policy may not be the optimal mechanism. As Proposition 3 makes clear, the pro-Group strategy may be the optimal policy choice to elicit from an uninformed Agency. And, to boot, the elicitation of this policy choice might be accomplished through extreme judicial skepticism. In particular, a judicial review strategy that is dubious of either policy when accompanied by a thin record will result in promulgation of the pro-Group strategy by the Agency when the Agency is uninformed. The scenarios in which the use of judicial skepticism to support (in equilibrium) the appearance of a pro-Group bias is optimal are exactly those in which the Group will be incentivized by judicial skepticism to collect information to bolster its case in court. Thus, somewhat ironically, these cases may be described as judicial skepticism of the Group engendering behavior consistent with an agency “captured” by the Group.²⁷

The third potentially optimal judicial strategy, characterized by extreme skepticism of anti-Group policies and extreme deference to pro-Group policies ($\rho_0 = 1$, $\rho_1 = 0$),²⁸ is optimal whenever p is large enough and neither κ nor β are sufficiently large to require (or, in the case of β , allow) judicial review to motivate the Group to collect information. This is a somewhat pathological case closely resembling agency capture or, perhaps more accurately, judicial abdication. In these regions, those policies proposed by the Agency that are accompanied by a thin record are pro-Group and effectively unchallenged in the sense that the Group does not collect any information as it is certain that the policy will be upheld.

In sum, there are three judicial review stances that can potentially maximize voter welfare. All of the involve extremity in either according deference to, or expressing skepticism toward, proposals that reach the Court accompanied by a thin record. Two of them require differentiated review, according different degrees of deference to pro- and anti-Group policies, respectively. In the next section, we step aside for a moment to consider a subtle and arguably intriguing aspect of the optimal mechanisms’ comparative

²⁶There are multiple payoff equivalent review strategies that elicit $x_\phi = 0$ and involve $\rho_0 = 0$. This extreme version is most clear to consider. Given our informational framework, one would never observe the actual review strategy for $x_\phi = 1$ in this regime.

²⁷The theory of agency, or regulatory, capture is a venerable one. The two seminal works on the topic are Huntington (1952), Bernstein (1955). A more formal treatment is offered by Laffont and Tirole (1991), and a recent historical study of capture as it affected federal judicial review in the late 20th century is presented in Merrill (1996).

²⁸As above with deferential elicitation of $x_\phi = 0$, there are multiple payoff equivalent review strategies that elicit $x_\phi = 1$ and involve $\rho_1 = 0$. This extreme version is most clear to consider.

statics with respect to the degree of *ex ante* likelihood of similarity between the Group’s preferences and those of the voter, p .

3 Negotiated Rulemaking and *Ex Parte* Contacts

In this section, we focus on the effect of p on the difference in the voter’s expected payoff between skepticism and deference when $x_\phi = 1$. The first derivative of this difference with respect to p is:

$$\frac{\partial[W(\rho_1 = 1|x_\phi = 1) - W(\rho_1 = 0|x_\phi = 1)]}{\partial p} = \frac{4kp^3\beta^2}{c^2\kappa} + \frac{2p\beta(\kappa - 2k)}{c\kappa} - 1$$

Even after imposing Assumptions 2 and 3, the first term can be arbitrarily close to $4p$, while the second term would then be approximately $-2\kappa^{-1}$, so that the derivative can be positive, implying that the voter’s expected payoff from skepticism of the Group’s favored policy might be increasing as the Group’s interests and those of the voter become more closely aligned.

Indeed, even in the limiting case of $p \approx 1$, skepticism is optimal after $x_\phi = 1$ when the following holds:

$$0 < \frac{k\beta}{c} + (\kappa - 2k). \tag{10}$$

Inequality (10) can be valid even when any or all of Assumptions 1 ($p < c$), 2 (*i.e.*, $p\beta \leq c$), and 3 ($k < \kappa$) hold.

The meaning of the possibility that increases in p can increase the voter’s expected payoff from judicial skepticism is admittedly abstract at first. However, the design of administrative procedure, particularly beginning in the mid-1970s and accelerating in the 1980s and 1990s, has focused increasingly on the *pre-promulgation* elicitation of information from regulated and other relevant interests. Such information can, for a variety of reasons, be incredibly potent from the view of both voters and reelection-motivated legislators and executives.²⁹

There are two (related) substantive design issues that relate to the judiciary’s beliefs about p : negotiated rulemaking and *ex parte* contacts. Before discussing these, however, it is important to note the limitations of the current model in terms of offering more than a speculative view on the broader issues.

²⁹Boehmke, Gailmard and Patty (2006) present a formal theory of this dilemma within a principal-agent/institutional design context.

Our theory assumes that p is common knowledge. In this case, the real import of this is that the judiciary’s knowledge of p is commonly known by the players. In other words, we have assumed away the possibility of a signaling game between either the Agency or the Group with the Court.³⁰ However, it is not too far of a bridge to cross to consider for a moment an extension of the model in which the Group can attempt to persuade, in an informationally-relevant-but-imperfect fashion, the Agency prior to the Agency’s choice of which policy to promulgate. In such a model, it is clear that—under some parameter alignments—the Agency would defer to the Group when otherwise indifferent. In this case, that would entail the Agency choosing to promulgate $x_\phi = 1$ when it does not have dispositive evidence in support of its policy choice.

Our model indicates that, when the “notice and comment/judicial review” subgames of such an extended model are equivalent to the more limited model presented above and the parameters are such that inequality (10) holds, the Group may have a strict incentive to foreclose/avoid pre-promulgation opportunities to influence the Agency, due to the commensurate increase in the Court’s post-promulgation beliefs about p . There are at least two substantively important examples of such opportunities in the federal rulemaking process, and the anecdotal, case-based evidence regarding the behaviors of both regulated interests *and agencies* in those cases is at the very least suggestive.

Negotiated rulemaking is a process through which an Agency may invite interested individuals to participate in an advisory committee that will draft, *through consensual procedures*, a proposed rule that is then forwarded to the convening agency for publication in the Federal Register.³¹ While members of the advisory committee do not have true, instrumental veto rights—the agency can act unilaterally even after the convening of an advisory panel—they do clearly have some instrumental power with respect to the ultimate *forwarding* of a proposed rule by the convening agency. Any rule forwarded with the (public and explicit) countenance of an advisory committee would in pursuit of ultimate judicial affirmation should, in equilibrium, be believed to be *no less likely* to be in alignment with the committee’s participants’ policy interests.

What is key here in terms of the informational dynamics of notice and comment

³⁰Not to mention ruling out the intriguing possibility of a signaling game between the Agency and the Group.

³¹For more details on negotiated rulemaking and advisory panels, see Harter (1982), Coglianese (1997), Balla and Wright (2001), Kerwin and Furlong (2011), pp. 205-210. For a discussion of the agency’s choice of negotiated rulemaking from among several means of rulemaking from a public choice perspective, see Morriss, Yandle and Dorchak (2005).

sketched in this article is that the proposed rule that is ultimately produced by the concurrence of the advisory committee and the agency is itself nonetheless subject to the notice and comment process. Accordingly, a Group considering whether to voluntarily involve itself in a negotiated rulemaking process need make a calculation as to whether the advisory committee/negotiation process itself will generate sufficiently dispositive information to obviate worries about judicial review. To the degree that there is uncertainty about this outcome of the process, the Group must weigh the costs of the increase in the Court's increased posterior estimate of p on the Group's subsequent and sequentially rational level of investment in information collection in pursuit of judicial confirmation of the (presumably favored-by-the-Group) proposed policy. Put another way, there exist situations in which the pre-promulgation involvement of the Group with the Agency will increase the Court's post-promulgation estimate of p by an amount sufficient to justify judicial skepticism as opposed to judicial deference.

Empirical evidence regarding the use of negotiated rulemaking and other similar "consensual" rulemaking procedures is suggestive. Specifically, neither agencies nor regulated interests appear to be enthusiastic about pursuing administrative policy through these channels. In spite of bipartisan support from both congress and presidents,³² use of the process has been relatively rare and, when used, tends to be utilized for rules that officials at the agency in question regard as unimportant.³³

The tepid response by both agencies and regulated interests to negotiated rulemaking has been a disappointment to both policy experts and administrative law scholars.³⁴ As one scholar describes the motivations behind the formalization of the negotiated rulemaking process, "[t]he interest in negotiated rulemaking arose out of a desire to avoid this adversaryjudicial model."³⁵ Regardless of whether such desires are laudable,³⁶ the theory presented in the previous section indicates the importance of remembering that, while negotiated rulemaking and similar processes might tend to produce "better" or "less contentious" regulations, the mere possibility of *ex post* judicial oversight may ironically undermine the pursuit of a reduced need for this oversight through the inclusion

³²For example, Negotiated Rulemaking Act of 1990, 104 Stat. 4970 (1990) & Executive Order 12866 of September 30, 1993.

³³Coglianesse (1997), Lubbers (2008), and Funk (2009).

³⁴For example, Coglianesse (2002), Funk (2009), and Kerwin and Furlong (2011), pp. 205-210.

³⁵Funk (2009), p. 180.

³⁶Consider the arguments of Fiorino (1988), Coglianesse (1997), and Freeman and Langbein (2000) regarding whether the use of negotiated rulemaking potentially entails a loss of "legitimacy" due to its obfuscation of some of the traditional tenets of administrative due process.

of a pre-promulgation negotiation phase.

The same reasoning suggests, in an admittedly Kolko-ian sense,³⁷ an argument for “Group-based” support for a prohibition on *ex parte* contacts between the Group and the Agency prior to the publication of the Agency’s final rule. The issue of the optimal procedural controls of the nature and frequency of contacts between regulators and the regulated is clearly bigger than the spartan informational model we offer here.³⁸ Nonetheless, a full model of the informational effects of *ex parte* contacts between the Group and Agency on the Court’s beliefs would arguably offer predictions that mirror those sketched out above for the case of negotiated rulemaking. Accordingly, there is at least the hint in this theory of a rationale for the Group to lobby for stiff penalties for transparency and *ex parte* contacts. The interaction of our theoretical conclusions with this admittedly-at-first-quite-arcane aspect of administrative law become more intriguing when contemplating, for example, claims of executive privilege as asserted by Vice-President Richard Cheney when confronted with queries about the participants in the Energy Task Force in 2001.³⁹ This conclusion holds even more generally when one considers the delicate institutional and constitutional position occupied by “preclearance” of proposed regulation by the Office of Information and Regulatory Affairs (OIRA).⁴⁰

The parameter p is the heart of the incomplete information in our model. As such, it is a central figure in a traditional argument in favor of notice-and-comment and other participatory forms of administrative policymaking: eliciting the provision of information that enables government officials to choose policies that better match the underlying facts on the ground. In the next section, we discuss a direction in which the model can and should be extended: including the possibility of agency-directed revision of the policy after the Group offers comments and prior to judicial review.

³⁷In the spirit of the “regulation as cartel/price-protection” revisionist history of the ICC forwarded by Kolko (1965).

³⁸For example, even more than with procedures such as negotiated rulemaking, questions about the legitimacy of administrative policymaking are clearly relevant in a way that can not be captured by (*i.e.*, are orthogonal to the primitives of) our theory.

³⁹Among others, see Michael Abramowitz and Steven Mufson, “Papers Detail Industry’s Role in Cheney’s Energy Report,” *Washington Post*, Wednesday, July 18, 2007.

⁴⁰See, for example, the discussion by Strauss (2006) and a formal treatment of preclearance (and the seemingly counterintuitive countenance and sustenance of unilaterally asserted presidential authority) offered by Wiseman (2009).

4 Process and Information: Revision

One of the key elements of the notice and comment process that our theory does not include is the possibility of Agency revision after receiving comments from the Group. In particular, the notice and comment process involves a relatively unstructured pre-proposal process carried out within the Agency,⁴¹ after which the Agency issues at least one notice of a proposed rule, following which interested parties are invited to submit comments to the Agency regarding the proposed rule.

We now briefly consider a structural alteration of the baseline model (maintaining the same assumptions about preferences) in which the Agency is allowed to revise its proposal after the Group submits a (possibly untruthful) message and, following that, the Group can reveal its signal if it did not reveal it at the first opportunity. In order to keep the analysis as simple as possible, we do not allow the Agency or the Group to exert investigative efforts after their first respective opportunities to reveal their respective signals.⁴² We also assume that it is costless for the Agency to modify its proposal.

Suppose, as in the earlier analysis of the baseline model, that the Court affirms any policy accompanied by a dispositive justifying message and overturns any policy accompanied by a dispositive contraindicating message. Under this supposition, it is clear that the Group’s incentives to reveal its signal (which depend on the signal’s content) are unchanged in subgames in which the Group has an informative signal but did not reveal it at the first opportunity. Given this, it is clear that, in any subgame perfect equilibrium in weakly undominated strategies of this modified game, the Agency will modify its policy in any subgame in which the Group’s message is informative and indicates that the Agency’s original proposal is incorrect.

The Group’s incentives to reveal its signal at its first opportunity are similar to its incentives at the second round.⁴³ We consider them in turn, based on the content of the

⁴¹There are approaches to pre-proposal idea generation and analysis that do have some structural requirements imposed through either statute or executive order. One such example, discussed earlier, is negotiated rulemaking, the moving parts of which may be started very early in the policy process. Others center on various “preclearance” processes that have been imposed by presidents from both parties since the Carter Administration. Wiseman (2009) considers these features in some detail—we leave the question of the effects of the interaction between such procedures and the possibility of *ex post* judicial review for future work.

⁴²We conjecture (1) that this restriction for the Group is unimportant, but (2) the Agency may in some (many?) cases strictly prefer to shirk at the first opportunity to collect information and attempt to free ride on any information collected (and, in the case of $s_g = 1$, revealed) by the Group.

⁴³It is worth noting that this is partly due to both the binary state/policy structure and the preference alignment we have assumed. In richer settings, the Group’s incentives at the two opportunities will in

Group’s signal.

If the Group’s signal is pro-Group ($s_G = 1$), then the Agency will respond to the revelation of this signal by ensuring that the final policy is $x = 1$, which will be upheld by the Court. Accordingly, the Group’s best response is to reveal $s_G = 1$. On the other hand, revealing $s_G = 0$ will ensure that the final policy is $x = 0$ and is upheld by the Court.

Now it is hopefully clear that the incentives of the Agency with respect to the choice of which policy to (initially) propose when the Agency is uninformed are altered from those in the baseline model in an important way. Now, even if the anti-Group policy is greeted by the Court with extreme skepticism (*i.e.*, $\rho_0 = 1$), the Agency in this extended setting can propose $x_\phi = 0$ and still avoid reversal with positive probability (unlike in the baseline model). The Agency’s expected payoff function in this model is

$$U'_A(x, e_A) = \begin{cases} (e_A - 1)(1 - e_G^*(0) + e_G^*(0)(1 - p))\rho_0 k - \frac{\kappa}{2}e_A^2 & \text{if } x = 0, \\ (e_A - 1)(1 - e_G^*(1) + e_G^*(1)(1 - p))\rho_1 k - \frac{\kappa}{2}e_A^2 & \text{if } x = 1, \end{cases}$$

so that one of the structural “kinks” confronting the Agency in the baseline model is removed here by including the opportunity for the Agency to respond to the Group’s comments. That kink (which occurs with probability $pe_G^*(0)$, the equilibrium probability that the Group will obtain the signal $s_G = 1$) would of course partially reemerge if the Agency bore a cost of revision, as the Agency knows that it will *never* need to revise $x = 1$ and would, on the margin, prefer to avoid revision.

While a richer model of notice and comment is clearly desirable before suggesting any firm conclusion about the optimal structure (in particular, length) of the participation process, it is interesting to note at this early point that the possibility of revision—namely, of allowing the Group’s comments to be taken into account by the Agency prior to the Court providing a final judgment affirming or reversing the policy—does not reduce the need for judicial review (represented in this framework as the probability that the Court encounters a contested proposal accompanied by a thin record). This is due to the fact that, even in the extended process, the Group’s bias in terms of what information it will willingly provide remains unchanged.

general differ.

5 Conclusion

Notice and comment rulemaking followed by judicial review is the bedrock of procedural legitimacy in agency policy making. Our model shows that this procedure can have important and subtle effects on the incentives of both agencies and interested parties to investigate the issues surrounding a policy and build a record rationalizing their decisions. While the actors' preferences in our model are stylized — in particular, groups are unconditionally biased in favor of one policy and against another; agencies have no policy preferences and simply want to avoid reversal (and costly effort) — they capture a situation in which standard rulemaking procedures have interesting effects.

Naturally, in light of the agency's desire to avoid reversal, the court's posture of skepticism toward the agency can induce it to investigate the issues it faces more deeply. But the incentives and bias of interested groups imply that the socially optimal judicial posture is not necessarily skeptical of the agency. Rather, in some situations courts should be deferential to agency policy choices even if the evidence supporting the agency's policy is meager — because those decisions give groups biased against them strong incentives to provide hard contradictory information when they can. When courts are deferential to such agency decisions, interested groups know they cannot count on skeptical courts to hold agencies in check. In this way, socially optimal judicial review is sensitive to the politics surrounding agency regulation — the benefits and costs it imposes on favored groups — even though courts in our model are, by design, wholly apolitical. Moreover, the model straightforwardly implies that optimal judicial review is not simply a function of the quality or depth of the record adduced by the agency in support of its decision; it also depends on the policy content of the decision. In other words, even when agencies select from a statutorily-defined and sanctioned set of policy options, optimal judicial review implies that courts should be more deferential to some policy decisions — particularly those unfavorable to interested parties — than others.

While it presents some insights about judicial review, the restrictiveness of the model calls for a number of extensions. Many have been discussed above, but those we see as particularly important are more realistic specifications of agency preferences, agency discretion over whether to propose a policy, incorporating agency revision of its initial policy in light of comments from interested parties, and allowing for multiple groups.

References

- Ashworth, Scott. 2005. "Reputational Dynamics and Political Careers." *Journal of Law, Economics, and Organization* 21(2):441–466.
- Ashworth, Scott and Ethan Bueno de Mesquita. 2006. "Delivering the Goods: Legislative Particularism in Different Electoral and Institutional Settings." *The Journal of Politics* 68(01):168–179.
- Ashworth, Scott and Kenneth Shotts. 2011. "Challengers, Democratic Contestation, and Electoral Accountability." Working Paper, Stanford Graduate School of Business.
- Balla, Steven J. and John R. Wright. 2001. "Interest Groups, Advisory Committees, and Congressional Control of the Bureaucracy." *American Journal of Political Science* 45(4):799–812.
- Bernstein, M.H. 1955. *Regulating Business by Independent Commission*. Princeton, NJ: Princeton University Press.
- Boehmke, Frederick, Sean Gailmard and John Patty. 2006. "Whose Ear to Bend? Information Sources and Venue Choice in Policy Making." *Quarterly Journal of Political Science* 1(2):139–169.
- Cass, Ronald A., Colin S. Diver and Jack M. Beermann. 2002. *Administrative Law: Cases and Materials*. Aspen Law & Business, New York.
- Coglianese, Cary. 1997. "Assessing Consensus: The Promise and Performance of Negotiated Rulemaking." *Duke Law Journal* 46(6):1255–1349.
- Coglianese, Cary. 2002. "Empirical Analysis and Administrative Law." *University of Illinois Law Review* 2002:1111–1139.
- Fearon, James D. 1999. Electoral Accountability and the Control of Politicians. In *Democracy, Accountability and Representation*, ed. Adam Przeworski, Susan C. Stokes and Bernard Manin. New York, NY: Cambridge University Press pp. 55–97.
- Fiorino, Daniel J. 1988. "Regulatory Negotiation as a Policy Process." *Public Administration Review* 48:764–772.

- Freeman, Jody and Laura I. Langbein. 2000. "Regulatory Negotiation and the Legitimacy Benefit." *New York University Environmental Law Journal* 9:60–151.
- Funk, William. 2009. "Public Participation and Transparency in Administrative Law—Three Examples as an Object Lesson." *Administrative Law Review* 61(171):171–198.
- Gailmard, Sean and John W. Patty. 2007. "Slackers and Zealots: Civil Service, Policy Discretion, and Bureaucratic Expertise." *American Journal of Political Science* 51(4):873–889.
- Harter, Philip J. 1982. "Negotiating regulations: A cure for the malaise?" *Environmental Impact Assessment Review* 3(1):75–91.
- Huntington, Samuel P. 1952. "Marasmus of the ICC: The Commission, the Railroads, and the Public Interest, The." *Yale Law Journal* 61:467–509.
- Kerwin, Cornelius M. and Scott R. Furlong. 2011. *Rulemaking*. 4th ed. Washington, D.C.: CQ Press.
- Kolko, Gabriel. 1965. *Railroads and Regulation, 1877-1916*. Princeton, NJ: Princeton University Press.
- Laffont, Jean-Jacques and Jean Tirole. 1991. "The Politics of Government Decision-Making: A Theory of Regulatory Capture." *The Quarterly Journal of Economics* 106(4):1089–1127.
- Lubbers, Jeffrey S. 2008. "Achieving Policymaking Consensus: The (Unfortunate) Waning of Negotiated Rulemaking." *South Texas Law Review* 49:987–1047.
- McCubbins, Mathew, Roger Noll and Barry Weingast. 1987. "Administrative Procedures as Instruments of Political Control." *Journal of Law, Economics, and Organization* 3(2):243–277.
- McCubbins, Mathew, Roger Noll and Barry Weingast. 1989. "Structure and Process, Politics and Policy: Administrative Arrangements and the Political Control of Agencies." *Virginia Law Review* 75(2):431–489.
- Merrill, Thomas W. 1996. "Capture Theory and the Courts: 1967-1983." *Chicago-Kent Law Review* 72:1039–1118.

- Morriss, Andrew P., Bruce Yandle and Andrew Dorchak. 2005. "Choosing How to Regulate." *Harvard Environmental Law Review* 29:179–250.
- Niskanen, William. 1971. *Bureaucracy and Representative Government*. Chicago: Aldine.
- Stephenson, Matthew C. 2006. "A Costly Signaling Theory of "Hard Look" Judicial Review." *Administrative Law Review* 58(4):753–814.
- Strauss, Peter L. 2006. "Overseer, or the Decider—The President in Administrative Law." *George Washington Law Review* 75:696–760.
- Warren, Patrick L. 2009. "Third-Party Auditors and Political Accountability."
- Wiseman, Alan E. 2009. "Delegation and Positive-Sum Bureaucracies." *The Journal of Politics* 71(03):998–1014.