Playing Games with the Timing of Judicial Review: 
An Evaluation of Proposals to Restrict Pre-Enforcement Review of Agency Rules

Mark Seidenfeld

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MARK SEIDENFELD*

I. INTRODUCTION

In 1990, Jerry Mashaw and David Harfst published their oft-cited study of rulemaking at the National Highway Safety Administration. The Mashaw and Harfst study added to the growing literature expressing concern about agencies’ hesitancy to set policy by legislative rulemaking. Like the authors of other studies, Mashaw and Harfst laid much of the blame for the ossification of the rulemaking process at the feet of the federal judiciary. According to these studies, increasingly burdensome judicial demands for data and explanations in support of agency rules has led agencies either to use other procedures, such as individual adjudications, to set policy, or to abandon policymaking in certain domains altogether. Unlike the authors of other studies, however, Mashaw and Harfst did not advocate simply easing the standard by which courts review agency rules. They expressed some trepidation that easing standards might compromise requirements of the American legal culture, which in turn could

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3 “The term ‘ossification’ refers to the inefficiencies that plague regulatory programs because of analytic hurdles that agencies must clear in order to adopt new rules.” Mark Seidenfeld, Demystifying Deossification: Rethinking Recent Proposals to Modify Judicial Review of Notice and Comment Rulemaking, 77 Tex. L. Rev. 483, 483 (1997).


5 See MASHAW & HARFST, supra note 1, at 225–28.
undermine the public trust that the overall regulatory process will not be allowed to run amok.\(^6\) Mashaw and Harfst suggested instead that courts refrain from reviewing a rule until after the agency has applied the rule in a particular context,\(^7\) either in a proceeding in which an applicant seeks a permit from the agency or one in which the agency enforces the rule against a private entity subject to its dictates.

In a recent article, Mashaw elaborated on his preference for delaying judicial review, rather than easing the standard of review.\(^8\) In this article, Mashaw sought to identify the benefits of delaying judicial review by modeling such review of agency rules as a game. He concluded that the option to challenge a rule prior to its enforcement would virtually always lead some entity to institute such a challenge.\(^9\) In contrast, he concluded that without this option regulated entities would frequently attempt to comply with the rule because delaying review subjects these entities to the threat of penalty for noncompliance before they know whether the rule is valid.\(^10\)

According to Mashaw's game theoretic analysis, attempts at compliance would have several salutary effects. First, such attempts may simply decrease the likelihood that a rule will be challenged,\(^11\) which will relieve the pressure on agencies to devote resources to ensuring that rules will pass hard look judicial review.\(^12\) Second, such attempts can generate information that is

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\(^6\) Mashaw and Harfst's recognition that public support for regulation, while widespread, is "very thin," Mashaw & Harfst, supra note 1, at 249–50, is consistent with my assertion that the populace supports meaningful judicial review to limit overreaching regulation. See also Robert Glicksman & Christopher H. Schroeder, EPA and the Courts: Twenty Years of Law and Politics, 54 LAW & CONTEMP. PROBS., Autumn 1991, at 249, 250 (contending generally that the attitudes of reviewing courts to administrative decisions reflect prevailing political assumptions about the roles and competence of political institutions like the legislature, particular agencies, and the courts themselves).

\(^7\) See Mashaw & Harfst, supra note 1, at 245–47.


\(^9\) See id. at 224.

\(^10\) See id. at 225–28.

\(^11\) See id. at 228–29.

\(^12\) The literature on the impact of judicial review on the ossification of rulemaking is replete with explanations of how close judicial scrutiny ossifies the administrative regulatory process. See id. at 200–04 (surveying studies that support the ossifying impact of judicial review); see also, e.g., McGarity, supra note 2, at 1412 (noting that agencies will attempt to prepare responses to all contentions to avoid remands under hard look review); Sidney A. Shapiro & Thomas O. McGarity, Reorienting OSHA: Regulatory Alternatives and Legislative Reform, 6 YALE J. ON REG. 1, 9–10 (1989) (blaming OSHA’s glacial pace of rulemaking on the demanding “substantial evidence” standard in its authorizing act and on judicial
relevant to the validity of a rule.\textsuperscript{13} For these reasons, Mashaw sees delaying judicial review until the post-enforcement stage as the most promising approach to deossifying the rulemaking process.

This Article extends Mashaw's game theoretic analysis and comprehensively analyzes the effects of delaying judicial review in a variety of circumstances. It begins by reviewing the potential for judicial review to alleviate ossification of rulemaking. It then identifies several potential offsetting detriments of delaying review and posits several empirical questions that have a significant bearing on the net social value of delaying review. Using variations on Mashaw's simple two-entity game, the Article proceeds to evaluate under what circumstances the answers to these questions are likely to favor delaying judicial review. Finally, the Article draws on the conclusions of the game theoretic analysis to suggest that delaying review of rules until the agency attempts to enforce them would be best done by Congress, and then only in a limited set of circumstances.

II. DELAYING JUDICIAL REVIEW TO ENCOURAGE AGENCY RULEMAKING

A. Delaying Review as a Means of Deossifying the Rulemaking Process

One of the major differences between the judicial review of agency rules and agency policies made through adjudicatory proceedings is the parties' ability to challenge rules before being subject to them. The Supreme Court laid down the standards for when courts may entertain such pre-enforcement challenges to rules in \textit{Abbott Laboratories Inc. v. Gardner}.\textsuperscript{14} The Court identified as central inquiries whether the issues raised by a challenge are fit for judicial resolution prior to the rule being applied and whether delaying judicial review would create a hardship for the parties.\textsuperscript{15} Despite the Court's focus on these seemingly case-specific factors, courts after \textit{Abbott Laboratories} have almost always permitted pre-enforcement review of final rules that mandate a substantive standard of conduct.\textsuperscript{16}


\textsuperscript{13} See Mashaw, supra note 8, at 234.
\textsuperscript{14} 387 U.S. 136 (1967).
\textsuperscript{15} See id. at 149.
Mashaw's game theoretic analysis purports to show that, because courts grant interested persons the right to challenge a rule before it may take effect, the probability is great that some entity will seek judicial review to have the rule overturned.\textsuperscript{17} A minor elaboration of the game he proposes leads to the outcomes he predicts.

1. \textit{The Propensity of Regulated Entities to Challenge Rules Prior to Their Enforcement}

From Mashaw's explicit partial specification of the game, along with his subsequent analysis, one can completely specify the game he proposes as follows: There are two players, G.M. and Chrysler, each of which is subject to a regulation adopted by the agency. Each player will have to pay compliance costs of 5 if the rule is not invalidated on judicial review. In addition, each will have to pay litigation costs of 1 if it challenges the rule prior to enforcement or if the agency attempts to enforce the rule against it. The probability of a court invalidating the rule is 0.5 whether on pre-enforcement review or in the agency's enforcement action against a player. The payoff matrix for this game is as follows:\textsuperscript{18}

\begin{align*}
\text{Payoff Matrix} & \quad \text{G.M. Sues} \quad \text{G.M. Does Not Sue} \\
\text{Chrysler Sues} & \quad -4 & -3.5 \\
\text{Chrysler Does Not Sue} & \quad -6 & -2.5
\end{align*}

\textsuperscript{17} \textit{See} Mashaw, \textit{supra} note 8, at 226–29.

\textsuperscript{18} Mashaw asserted that the payoff for the player not suing, when the other player sues is 3.5 rather than 2.5. \textit{See} Mashaw, \textit{supra} note 8, at 223. This is incorrect. Mashaw derived the payoff of 3.5 for a player who does not sue when the other player does by noting that the first player avoids compliance costs one half of the time and avoids litigation costs. But the baseline of 0 assumes that the player pays no litigation cost, so to add a savings of 1 for avoiding these costs essentially double counts them. All other figures in Mashaw's payoff matrix are correct.
This game has three pure Nash equilibria: \( \{ \text{Sue, Do Not Sue}, \{ \text{Do Not Sue, Sue}, \{ \text{Do Not Sue, Do Not Sue} \} \). If the players began by considering any one of these strategy profiles, neither could unilaterally improve its payoff by changing its strategy.

Nonetheless, this game has a single determinate outcome because the strategy \( \{ \text{Do Not Sue, Do Not Sue} \) weakly dominates all others. Chrysler will never sue because, regardless of what G.M. does, Chrysler achieves at least as great a payoff by not suing as by suing. By symmetry, G.M. will also never sue. Thus, one has every reason to believe that, despite the existence of three Nash equilibria, the outcome for this game would be that no entity challenges the rule.

Moreover, this outcome is not an artifact of the numbers. If \( X \) is the cost of compliance, and \( L \) the cost of litigation, then the payoff matrix generalizes to the following:

<table>
<thead>
<tr>
<th></th>
<th>Chrysler Sues</th>
<th>Chrysler Does Not Sue</th>
</tr>
</thead>
<tbody>
<tr>
<td>G.M. Sues</td>
<td>((1.5, 1.5))</td>
<td>((1.5, 2.5))</td>
</tr>
<tr>
<td>G.M. Does Not Sue</td>
<td>((2.5, 1.5))</td>
<td>((1.5, 1.5))</td>
</tr>
</tbody>
</table>

The same three Nash equilibria exist, and the strategy profile \( \{ \text{Do Not Sue, Do Not Sue} \) still weakly dominates the others.

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19 A Nash equilibrium is a strategy for each player such that "no player has an incentive to deviate from [its] strategy given that the other players do not deviate [from theirs]." ERic RASMUSEN, GAMES AND INFORMATION: AN INTRODUCTION TO GAME THEORY 23 (2d ed. 1994).

20 See id. at 20 (defining a weak dominant strategy equilibrium). Mashaw missed this equilibrium and instead found the game to be indeterminate because the equation he used to derive the mixed strategy equilibrium that he predicted did not correspond to the payoff matrix of the game. See Mashaw, supra note 8, at 224 & n.112.
Thus, the strategy in which neither player sues will be the outcome regardless of the compliance cost or the litigation cost. The game as specified by Mashaw is one for which the free rider problem of letting the other player sue always dominates.\textsuperscript{21}

It is easy, however, to change the assumptions of the game in a reasonable way and thereby specify a game that supports the conclusion that entities will have a strong incentive to challenge a rule. For example, assume that noncompliance was accompanied by a penalty of 7 (in addition to compliance costs) that is assessed if the agency successfully enforces the rule against a player. Moreover, assume that once a rule is upheld in a pre-enforcement challenge by one player, both players comply with the rule, but that neither complies if the rule is struck down upon such a challenge or in an enforcement proceeding. Of course, if the rule is upheld in an enforcement proceeding, the entity incurs the costs of subsequent compliance as well as the penalty. This revised game yields a payoff matrix as follows:

\begin{tabular}{|c|c|}
\hline
 & Chrysler Sues & Chrysler Does Not Sue \\
\hline
G.M. Sues & (1.5, 1.5) & (1.5, 2.5) \\
\hline
G.M. Does Not Sue & (2.5, 1.5) & (-2, -2) \\
\hline
\end{tabular}

This game has only two pure Nash equilibria: \{Sue, Do Not Sue\} and \{Do Not Sue, Sue\}. Because no strategy dominates, the outcome of the game is indeterminate.

In the real world, however, regulated entities may be faced with numerous agency rules that they might wish to challenge. The situation corresponds to the previous game being repeated over and over again. In such a repeat-game scenario, one would expect each entity to sue sometimes and not others. If the entities could enforce agreements coordinating their behavior, then only one

\textsuperscript{21} Mashaw points out, however, that the free rider problem for entities in an industry might be “solved” by creating an industry association to bring rule challenges. In addition, he notes that there is social pressure for each entity to contribute its “fair share of expenses necessary to promote the [group’s] ‘common good.’” See Mashaw, supra note 8, at 223; see also MANCUR OLSON, JR., THE LOGIC OF COLLECTIVE ACTION: PUBLIC GOODS AND THE THEORY OF GROUPS 137–43 (1965) (noting the ability of particular industries to form lobbying organizations). The costs of negotiating, monitoring, and enforcing private agreements to overcome free rider problems, however, can prevent such agreements from working effectively. See id. at 47 (noting that the costs of organizing and maintaining an interest group creates a barrier to effective coordination of group members’ conduct).
entity would sue for each rule, and each entity who benefits from rule challenges would have an incentive to agree to bear some of the burden of litigation. Absent the ability to enforce cooperation, each entity's choice of whether to sue in a particular case will be random, but each will sue a certain percentage of the time. The proportion of rules that each will challenge corresponds to the mixed-strategy equilibrium for the repeated game; this proportion satisfies the following equation:

\[1.5C + 1.5(1-C) - 2.5C + 2(1-C) = 0.\]

This is satisfied if \(C = 0.78\), the same percentage as Mashaw predicted for his original game.

This revised game also indicates that the propensity to sue despite the free rider problem is not as greatly dependent upon the magnitude of the penalty as one might suspect. For any penalty \(P\), one finds a changed payoff only for the strategy in which neither party sues, and the payoff for that strategy is \((1.5 - \frac{1}{2}P, 1.5 - \frac{1}{2}P)\). One can plug this payoff into the mixed-strategy equilibrium

\[G[1.5C + 1.5(1-C)] + [1-G][2.5C - 2(1-C)].\]

Differentiating with respect to \(G\) and setting the result equal to 0 yields the equation in the text.

See generally RASMUSEN, supra note 19, at 67–71 (defining and discussing mixed strategies). To solve for a mixed-strategy equilibrium, one must maximize each entity's payoff with respect to the probability of that entity playing a particular strategy. See id. at 69. The first-order condition for a maximum is that the derivative of each entity's payoff, as a function of the proportion of time that the entity plays a particular strategy, be zero. For the revised game, if \(C\) represents the percentage of time that Chrysler sues, and \(G\) the percentage of time that G.M. sues, then G.M.'s payoff is as follows:

\[G[1.5C + 1.5(1-C)] + [1-G][2.5C - 2(1-C)].\]
equation, and solve for the probability of suit by Chrysler that can support a mixed equilibrium. This probability is as follows:

\[ C = \frac{\frac{1}{2}P}{1 + \frac{1}{2}P}. \]

By symmetry, an equilibrium exists only if this is the probability of suit by G.M. as well. Thus, there is some probability of suit for even the smallest of penalties. Moreover, a penalty as small as 1 (equal to the litigation cost and only one-fifth of the compliance cost) results in each player suing one-third of the time. This translates into at least one of the two entities suing 56% of the time. In reality, there are likely to be many more than two regulated entities subject to a rule, and many issues in a rulemaking on which a challenge may succeed. Hence, the propensity for someone to challenge the rule will be even greater.

This propensity for some regulated entity to challenge a rule occurs because pre-enforcement review allows an entity to ignore the penalty until after a court has determined the validity of the rule. Only the cost of litigation, compared to the cost of compliance, dissuades an entity from suing. In the usual case, however, the expected savings in compliance costs, created by the possibility that a court will reverse the rule and relieve the entity of the rule’s regulatory burdens, significantly outweigh the costs of litigation. As the game I have

\[ 1.5C + 1.5(1-C) - 2.5C - (1.5-\frac{1}{2}P)(1-C) = 0. \]

The probability of no challenge is the product of the probabilities that neither group challenges the rule, or \((0.67)^2 = 0.44\).

If \(q\) denotes the probability that the court will affirm the rule and \(X\) the expected costs of compliance, then the expected cost savings equal \((1-q)X\). Frequently, \(q\) is on the order of 0.5, see Peter H. Schuck & E. Donald Elliott, To the Chevron Station: An Empirical Study of Federal Administrative Law, 1990 Duke L.J. 984, 1022 (finding that over the long run 43.9% of rulemakings were affirmed in toto), and \(X\) may be in the tens of millions of dollars. Rarely do litigation costs for a rule challenge reach into the millions of dollars.

The incentive to challenge a rule occurs even if suits are not successful in an appreciable percentage of cases (i.e., even if \(q\) is approximately equal to 1) as long as the regulated entity enjoys sufficient cost savings merely from delaying application of the rule. Thus, pre-enforcement review encourages regulated entities “‘to file petitions for review, based on frivolous or other unmeritorious claims, largely for the purpose or effect of delay.’” Senate Comm. on Governmental Affairs, 95th Cong., Study on Federal Regulation IV: Delay in the Regulatory Process 14 (Comm. Print 1977) (quoting testimony of FTC Chairman Calvin Collier before the Consumer Protection and Finance Subcommittee of the House Interstate and Foreign Commerce Committee given March 8, 1977) (Hearings on H.R. 3816); see also Howard A. Latin, Proceedings and Papers of the Conference on Environmental Law: Air Pollution Control in the 1990s—Learning from Past Mistakes: Comments on Professor Weinberg’s Paper, 1990 Ann. Surv. Am. L. 125, 127 (1993); Neil
proposed illustrates, the propensity for some entity to challenge a rule is great despite the possibility for regulated entities to free ride on the litigation of their fellow regulatees.\textsuperscript{28}

2. The Propensity of Beneficiaries of Regulation to Challenge Rules Prior to Their Enforcement

From the analysis above, one might surmise that beneficiaries of regulation, or more realistically the public interest groups that represent beneficiaries’ interests, usually will not institute pre-enforcement rule challenges because they do not face any penalty for violating the rule. This prediction, however, is belied by the numerous rule challenges mounted by public interest groups.\textsuperscript{29} The model fails to predict the behavior of public interest groups because generally beneficiaries will complain that a rule is too weak.\textsuperscript{30} Beneficiaries do not seek a return to the pre-rule status quo, but rather a judicial order forcing the agency to make the rule tougher. Unlike regulated entities, beneficiaries of a rule cannot simply refuse to comply with the rule and be assured of an opportunity to raise their challenge in a post-enforcement proceeding.

The decision of a public interest group to challenge the rule can be modeled using the following game. The baseline of zero corresponds to the benefit bestowed by the rule the agency adopts. $B$ denotes the additional benefit the interest group will receive if it prevails in a rule challenge. As before, assume that a challenger bears a litigation cost, $L$, and assume that the probability of success in a rule challenge is 0.5.\textsuperscript{31} The payoff matrix for this game is as follows:

\begin{table}
\begin{tabular}{|c|c|}
\hline
\textbf{Challenger} & \textbf{No Challenge} \text{\textbackslash } \text{Pre-enforcement} \text{\textbackslash } \text{Post-enforcement} \\
\hline
\textbf{Challenge} & $-L$ & $B$ \\
\hline
\textbf{No Challenge} & $-L$ & $0$ \\
\hline
\end{tabular}
\end{table}

\begin{flushright}
R. Eisner, \textit{Agency Delay in Informal Rulemaking}, 3 \textit{Admin. L.J.} 7, 8 (1989) (noting that private parties can benefit from the delay that results from a rule challenge).
\end{flushright}

\begin{flushright}
\textsuperscript{28} This seems to comport with reality. \textit{See Latin, supra} note 27, at 126 (asserting that “[u]nder the Clean Water Act, . . . every regulatory standard was challenged by the affected industries”).
\end{flushright}

\begin{flushright}
\textsuperscript{29} \textit{See id.} (noting that most regulations under the Clean Water Act were challenged by environmentalists as well as affected industries).
\end{flushright}

\begin{flushright}
\textsuperscript{30} \textit{See Mashaw, supra} note 8, at 225.
\end{flushright}

\begin{flushright}
\textsuperscript{31} This game also models the behavior of regulated entities when they are precluded from challenging a rule upon its application, well after the rule is adopted. \textit{See} Frederick Davis, \textit{Judicial Review of Rulemaking: New Patterns and New Problems}, 1981 \textit{Duke L.J.} 279, 282–89, 300–08 (reporting Congress’s increasing use of limitations on post-enforcement review, listing statutes that purport to cut off post-enforcement review, but noting courts’ hesitancy to cut off such review in certain circumstances). In that situation, regulated entities can save the costs of compliance, $X$, but only if they challenge the rule up-front and the court
As long as the costs of litigation are less than the expected benefit an interest group derives from suing, in this case less than twice the benefit the group will derive if it prevails in its challenge, this game has two pure Nash equilibria: \{Sue, Do Not Sue\} and \{Do Not Sue, Sue\}. Because no strategy dominates, the outcome of the game is indeterminate.

Like regulated entities, however, interest groups may be faced with numerous agency rules that they might wish to challenge. The situation again corresponds to the game being repeated over and over. As for the modified game for regulated entities, one would expect a mixed-equilibrium outcome in which each interest group challenges rules randomly, but a given percentage of the time. The mixed equilibrium for this repeated game occurs with a probability of \([1-2L/B]\) that each interest group sues.\(^{32}\)

According to this game theoretic analysis, therefore, there will be a probability of suit by some entity as long as \(L\) is less than \(\frac{1}{2}B\). If the benefit of prevailing on a rule challenge is only five times the litigation costs, then each entity will sue 60% of the time. Even if there were only two potential public interest groups to challenge each rule, at least one group would challenge the rule 84% of the time. Thus, the propensity for beneficiaries of a rule to challenge it upon its adoption, like the propensity of regulated entities, is also great.

<table>
<thead>
<tr>
<th>Interest Group A Sues</th>
<th>Interest Group B Does Not Sue</th>
<th>Interest Group B Does Not Sue</th>
</tr>
</thead>
<tbody>
<tr>
<td>(\frac{1}{2}B - L), (\frac{1}{2}B - L)</td>
<td>(\frac{1}{2}B - L), (\frac{1}{2}B)</td>
<td>(0, 0)</td>
</tr>
</tbody>
</table>

\(^{32}\) If \(\alpha\) and \(\beta\) represent the percentage of rules that interest groups A and B challenge respectively, then the equation for an interest group to maximize its expected payoff is as follows:

\[
\beta(\frac{1}{2}B - L) + (1-\beta)(\frac{1}{2}B - L) = \beta(\frac{1}{2}B).
\]

Solving for \(\beta\) gives the expression in the text. By symmetry, \(\alpha\) must be given by the same expression in the mixed-strategy equilibrium.
3. Agencies’ Reactions to the Likelihood of Pre-enforcement Rule Challenges

Faced with a prospect of almost certain judicial review, an agency will not adopt a rule unless it has collected data showing that every aspect of the rule is justified. Federal courts today review rulemaking by asking whether the agency seriously took account of all factors relevant to its decision. In addition, courts demand that agencies develop data to support factual predicates and predictions undergirding the rule. Hence an agency, expecting some entity to challenge a rule, will withhold promulgating the rule until its regulatory experts perform analyses that justify the rule in the face of every challenge that the agency can foresee. The alternative would be for the agency to adopt a rule that stands a good chance of being overturned on judicial review several years down the line. The time lost to the review process may render the rule insupportable or even outdated by the time the agency might have to consider it on remand. In addition, having to reconvene the staff involved in formulating the original rule several years after promulgation can

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34 See, e.g., Cincinnati Bell Tel. Co. v. Federal Communications Comm’n, 69 F.3d 752, 758–59 (6th Cir. 1995); Beno v. Shalala, 30 F.3d 1057, 1073–74 (9th Cir. 1994); Maryland People’s Counsel v. Federal Energy Regulatory Comm’n, 761 F.2d 780, 785–86 (D.C. Cir. 1985).
35 See, e.g., Foundation for North Am. Wild Sheep v. United States Dep’t of Agric., 681 F.2d 1172, 1180 (9th Cir. 1982) (rejecting the agency’s conclusions about the reaction of wild sheep to a road because the agency presented no data on reaction of sheep to roads built above, rather than below, the sheep’s habitat); United Steelworkers of Am. v. Marshall, 647 F.2d 1189, 1293–98 (D.C. Cir. 1980) (rejecting OSHA findings of technological feasibility because the agency failed to develop data quantifying the extent to which technological innovations would reduce workers’ exposure to lead).
36 See MASHAW & HARFST, supra note 1, at 121–22 (reporting a colloquy between Senator Hartke and NHTSA’s chief counsel, during which the chief counsel indicated that judicial review was preventing NHTSA from promulgating certain regulations); McGarity, supra note 2, at 1414–19 (reporting that overly aggressive judicial review contributed to the abandonment of rulemaking by the EPA and Consumer Products Safety Commission); JOHN M. MENDELOFF, THE DILEMMA OF TOXIC SUBSTANCE REGULATION 121–22 (1988) (arguing that because of the demands of judicial review, OSHA adopts fewer rules and spends more resources ensuring that support for those rules will pass judicial muster).
37 See Pierce, supra note 4, at 25 (noting that by the time the court reversed a FERC rule on natural gas allocation priorities during a gas shortage, there was no longer any shortage); Schuck & Elliott, supra note 27, at 1051 (stating that “the period of time elapsing between the original agency decision and the agency’s post-remand response is often so protracted that new developments [relevant to the propriety of the agency decision] . . . are almost bound to occur”).
greatly disrupt the agency's continued regulatory efforts. Hence, because pre-enforcement review almost guarantees that a rule will be subject to exacting judicial review, agencies have an incentive to spend an inordinate quantity of resources justifying regulations they have already decided to adopt.

Paced with this scenario, agencies will look for other means to regulate. To avoid such pre-enforcement challenges, agencies can set policy as part of adjudicatory proceedings or in policy statements. An agency may even simply decline to regulate altogether when the rulemaking option does not look promising. The preceding analysis suggests that courts might eliminate some barriers that judicial review places on policymaking by rule by limiting review of rules to the post-enforcement stage. Under this approach, entities subject to a rule would not be able to challenge it until the agency brought suit against the entity for failure to comply with the rule. Those who failed to comply would face the threat of a penalty for violating the rule if the court upheld the rule in the enforcement proceeding. Mashaw's Pre-enforcement Review Game 2

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38 See Jerry L. Mashaw & David L. Harfst, Regulation and Legal Culture: The Case of Motor Vehicle Safety, 4 YALE J. ON REG. 257, 295 (1987); see also Richard J. Pierce & Sidney A. Shapiro, Political and Judicial Review of Agency Action, 59 TEX. L. REV. 1175, 1193 (1981) (asserting that the "costs of active judicial review include the costs of the rethinking and rewriting required to comply with the court's mandate [on remand]"), But cf. Schuck & Elliott, supra note 27, at 1053 (suggesting that changes in agency staff addressing decisions on remand was not a major reason for agencies altering their decisions after remand).

39 See E. Donald Elliott, Re-inventing Rulemaking, 41 Duke L.J. 1490, 1492-93 (1992) (asserting that the primary purpose of notice and comment procedures are to create a record for judicial review); Melnick, supra note 2, at 247 (contending that agencies accumulate information and respond to all comments to defend against the uncertainty of judicial review); Pierce & Shapiro, supra note 38, at 1193 (noting that "active judicial review . . . [might prompt] a cautious administrator . . . to 'play it safe' by adding elaborate, costly procedures").

40 Policy statements technically are rules under the Administrative Procedure Act, see 5 U.S.C. § 551 (1994), but do not have binding legal effect. See Robert A. Anthony, "Well, You Want the Permit Don't You?" Agency Efforts to Make Nonlegislative Documents Bind the Public, 44 ADMN. L. REV. 31, 31 (1992). Under the Abbott Laboratories test for pre-enforcement review, however, courts have frequently found policy statements to be unripe for review until they are applied in an adjudicatory context. See Michael Asimow, Nonlegislative Rulemaking and Regulatory Reform, 1985 DUKE L.J. 381, 390 n.44, 422 & n.213; Seidenfeld, supra note 3, at 488 & n.34.

41 See McGarity, supra note 2, at 1393; see also MASHAW & HARFST, supra note 1, at 10-11 (summarizing NHTSA's avoidance of rulemaking and the resulting abdication of automobile safety regulation); Pierce, supra note 4, at 27 (predicting that FERC will back down from proposing rules to deregulate the electricity industry because of the difficulty of meeting judicial standards).
PLAYING GAMES

demonstrates that this penalty would provide some incentive to regulated entities to comply with a rule rather than to challenge it. But Mashaw's game also counsels that the likelihood of challenges to a rule will depend heavily on particular circumstances that affect the payoff to regulated entities from suing versus complying. The extent to which entities will comply will depend on numerous factors, including the costs of compliance, the probability that the agency will actually try to enforce the rule, the probability that a reviewing court will uphold the rule in an enforcement proceeding, the significance of the penalty for violating the rule relative to the costs of compliance, and at the margin the costs of litigation. Mashaw emphasizes that post-enforcement review is unlikely to eliminate challenges altogether; instead, it will entirely discourage challenges only in some cases and merely delay them in others. Moreover, post-enforcement review does not change the rigor with which courts review agency policymaking. Thus, post-enforcement review maintains the role of the courts in constraining agency action—a role that the American political system seems to demand.

B. Potential Detriments of Delaying Judicial Review

Mashaw's analysis of post-enforcement review is insightful, but as Mashaw himself suggests, evaluation of delaying review of rules warrants further study. His analysis demonstrates that post-enforcement review holds some potential to encourage regulated entities to comply with rules and thereby ameliorate incentives that judicial review might otherwise give agencies to avoid rulemaking. In any particular context, however, delaying judicial review may not be desirable. From the standpoint of social welfare, Mashaw's game theoretic analysis is incomplete. It fails to address when compliance with a rule

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42 See Mashaw, supra note 8, at 228.
43 See id.
44 See Mashaw & Harfst, supra note 38, at 316 (the political process seems to back a "judicial presence in regulatory affairs"); cf. Cynthia R. Farina, Statutory Interpretation and the Balance of Power in the Administrative State, 89 Colum. L. Rev. 452, 486-87, 497 (1989) (articulating, in the context of statutory interpretation, how the modern flexible view of Congress's power to delegate lawmaking power necessitates judicial control of administrative discretion).
45 See Mashaw, supra note 8, at 228.
46 Mashaw recognizes this, noting for instance that the "complex state-federal process" for implementing the EPA's air quality standards may require certainty about the validity of those standards in order "to mobilize political resources." Mashaw, supra note 8, at 236. He does not, however, attempt to categorize the situations in which delay of judicial review is likely to provide benefits that exceed its potential costs.
might be detrimental rather than beneficial.\textsuperscript{47} It also fails to incorporate other indirect effects that delaying judicial review might have on the overall rulemaking process.\textsuperscript{48} If an agency adopts a rule that it cannot justify both legally and as a matter of policy, the regulatory system should avoid forcing compliance.\textsuperscript{49} To the extent that judicial review filters out such bad rules from good ones, pre-enforcement review benefits society.

Compliance reduces the likelihood of a challenge to a rule, and the possibility of facing a rule challenge prompts the agency to take greater care when promulgating the rule. Thus, by encouraging compliance, post-enforcement review might actually discourage the care with which agencies assess the legality and wisdom of proposed rules.\textsuperscript{50} Post-enforcement review might also force entities to invest in compliance with rules that later prove to be unsound, needlessly increasing regulatory costs.\textsuperscript{51} Entities might even decide to

\textsuperscript{47} See Cento G. Veljanovski, The Economics of Regulatory Enforcement, in ENFORCING REGULATION 171, 173 (Keith Hawkins & John M. Thomas, eds., 1984) (noting that efficiency concerns counsel against forcing compliance with regulations when the costs of avoiding violation of the rule exceed the harm the violation imposes).

\textsuperscript{48} For example, the same deliberative processes within agencies that contribute to the ossification of rulemaking also help to deter promulgation of rules that reflect accommodation of focused interest groups or acquiescence in idiosyncratic preferences of the lead office in the rulemaking process. See Seidenfeld, supra note 3, at 510; see also William F. Pedersen, Jr., Formal Records and Informal Rulemaking, 85 YALE L.J. 38, 60 (1975) (arguing that judicial review provides incentives within agency staff that improve the rulemaking process).


\textsuperscript{50} One way in which judicial review increases the care with which agencies treat rulemaking is by empowering a variety of professional groups within the agency to challenge the view of the office pushing for the regulation. See Pedersen, supra note 48, at 60 (judicial inquiries into the detailed justifications for regulations “give those who care about well documented and well-reasoned decisionmaking a lever with which to move those who do not”); James Q. Wilson, The Politics of Regulation, in THE POLITICS OF REGULATION 357, 381 (James Q. Wilson, ed., 1980) (“[a]s outside groups . . . hired economists and scientists to challenge EPA decisions [in court], the power of scientists and economists within the EPA grew”).

\textsuperscript{51} For example, an EPA rule requiring equipment to filter benzene from smokestacks resulted in an Amoco Oil Company refinery spending $31 million only to discover that the benzene from the plant was coming from pumping gasoline into barges at its loading docks. The EPA essentially imposed an enormous cost despite a later discovery that it provided little
abandon a market altogether if both the costs of compliance and the penalties for noncompliance threaten catastrophic outcomes. Even when increased compliance is desirable, delay of judicial review increases the costs of uncertainty that regulated entities face between the time a rule is adopted and the time a court speaks to the rule’s validity.\textsuperscript{52}

Ultimately, the efficacy of post-enforcement review of rules as a means of alleviating systematic bias against policymaking through rulemaking hinges on the answers to several empirical questions. First, does post-enforcement review encourage compliance with those rules that are justified as matters of law and policy, as opposed to rules that are of suspect wisdom and legality? Second, does post-enforcement review improve the courts’ ability to distinguish good rules from bad ones? Finally, does post-enforcement review encourage agencies to act more efficiently in adopting rules without sacrificing the likelihood that rules will be upheld on judicial review? Although I do not answer these questions definitively, my analysis suggests answers that only guardedly support Mashaw’s optimism about post-enforcement review and that caution, at the very least, that changing the timing of review of rules in many regulatory contexts may have detrimental effects on regulatory policy.\textsuperscript{53}

\textsuperscript{52} Although delaying judicial review can exacerbate the costs of this uncertainty, such costs occur even with the availability of pre-enforcement review whenever a rule goes into effect before a reviewing court decides on its validity. Perhaps the most renown case illustrating the effect of such uncertainty is \textit{Shell Oil Co. v. Environmental Protection Agency}, 950 F.2d 741 (D.C. Cir. 1991). Ten years after the EPA adopted a rule declaring mixtures of listed hazardous wastes to themselves be hazardous waste, the D.C. Circuit reversed and remanded the rule, finding that the EPA had violated the Administrative Procedure Act’s notice requirements. See \textit{id.} at 761. The Eighth Circuit subsequently determined that \textit{Shell Oil} overruled EPA enforcement decisions based on violations of the mixture rule prior to the EPA’s re-adopting of the rule. See \textit{United States v. Goodner Bros. Aircraft, Inc.}, 966 F.2d 380, 385 (8th Cir. 1992). These two decisions leave regulated entities with the dilemma of determining whether to comply with other rules that they believe the EPA promulgated using improper procedures. See Robert L. Glicksman, \textit{Pollution on the Federal Lands III: Regulation of Solid and Hazardous Waste Management}, 13 STAN. ENVT. L.J. 3, 41-42 (1994) (noting the uncertainty surrounding compliance with such rules, but predicting that regulated entities will not risk penalties for rule violations should the rules later be upheld).

\textsuperscript{53} To be fair to Mashaw, he too cautioned about the generality of his conclusion that restricting judicial review of rules to the post-enforcement period “has much to recommend it.” Mashaw, \textit{supra} note 8, at 236.
III. EVALUATING THE IMPACT OF DELAYING JUDICIAL REVIEW

A. The Effect of Delaying Judicial Review on the Net Benefits of Compliance

The preclusion of a pre-enforcement challenge subjects a regulated entity to the threat of being penalized for noncompliance. Overall, such a threat will encourage compliance with any rule. To the extent the rule is justifiable as a matter of law and policy, encouraging compliance promotes regulatory efficacy. But delaying judicial review might also encourage compliance with rules that are not valid. The greater the threatened penalty for violating a rule, the more likely it is that a regulated entity will comply with it.\(^5\)\(^4\) Rarely, however, do regulatory schemes relate the magnitude of the penalty for violating a rule to the degree that a rule appears justified. One might envision a court limiting a fine for violation because the rule, although valid, was suspect prior to judicial review. In other words, courts conceivably could set fines for rule violations according to how close to meritorious they thought the challenges to be.\(^5\)\(^5\) This, however, would involve courts in fine-tuning judicial review to determine not only whether a rule was valid, but by how much. Given the trouble courts have with determining mere validity, asking them to engage in a much more difficult sliding scale evaluation of a rule seems beyond ordinary judicial competence.\(^5\)\(^6\) Thus, once a penalty for a violation is

\(^{54}\) See infra text accompanying note 61.

\(^{55}\) I am not aware of any court or commentator who has suggested such a sliding scale approach to penalties for rule violations. The approach, however, resonates with the call by at least one environmental law scholar for courts not to allow Congress or the EPA to incarcerate those whose conduct ultimately is found technically to violate a criminal regulatory provision that, prior to judicial determination, was indeterminate in scope. See Richard J. Lazarus, Meeting the Demands of Integration in the Evolution of Environmental Law: Reforming Environmental Criminal Law, 83 Geo. L.J. 2407, 2526 (1995); see also Adamo Wrecking Co. v. United States, 434 U.S. 275, 285 (1978) (reversing a criminal conviction for a violation of an EPA regulation covering asbestos release because the regulation appeared to be a “work practice rule” rather than an “emission standard,” which rendered the rule’s validity uncertain at the time of the violation).

\(^{56}\) Interestingly, the D.C. Circuit seems to have engaged in the flip side inquiry. The court now asks whether a rule, though arbitrary and capricious because the agency failed sufficiently to engage in reasoned decisionmaking, was nonetheless close enough to being valid that the court feels justified in not vacating the rule even though it remands the rule to the agency. One factor in determining not to vacate the rule is whether “there is at least a serious possibility that the . . . [agency] will be able to substantiate its decision on remand.” Allied Signal, Inc. v. Nuclear Regulatory Comm’n, 988 F.2d 146, 151 (D.C. Cir. 1993). Such a determination, although recognizing a level of validity for a rule somewhere between
specified, the threatened penalty will not deter challenges to valid rules any more than challenges to invalid rules.

The expected magnitude of any penalty, however, will vary with the probability that the court will uphold the rule in the enforcement proceeding. An economically rational regulated entity will discount any threatened penalty by the entity's subjective assessment of this probability.\textsuperscript{57} Such an assessment may vary in proportion to the regulated entity's beliefs about the legality and wisdom of the rule. Presumably, an entity is likely to attach a higher subjective probability of affirmance to a rule the entity believes to be valid than it would to a rule the entity believes to be invalid. Thus, one might suspect that delaying judicial review is most likely to deter challenges to rules based on arguments that the challenger itself finds suspect. By the same reasoning, one might expect delaying judicial review to encourage compliance most when regulated entities consider the rule reasonable, for instance when they believe that the costs of compliance are not likely to be prohibitive.

I evaluate this hypothesis using a simple two-player game similar to the one that Mashaw used to analyze regulated entities' propensities to comply with a rule. Consider again two regulated entities, General Motors and Chrysler, who now cannot challenge a regulation prior to enforcement. Their only choice is to comply or not. If one entity complies, it will bear the costs of compliance, X. If the entity refuses to comply, it will face an enforcement action by the regulating agency and hence will bear litigation costs, L. In addition, if the agency is upheld on review after it seeks to enforce the rule, the entity will have to pay compliance costs plus some penalty, P, for violating the rule. Denoting by q regulated entities' subjective evaluation of the probability that a court will affirm a rule in an enforcement action by the agency,\textsuperscript{58} the payoff matrix for

\textsuperscript{57} If the entity is risk averse, it will discount the penalty by a factor of less than this probability to reflect its distaste for the uncertainty of judicial review. See \textit{MARK SEIDENFELD, MICROECONOMIC PREDICATES TO LAW & ECONOMICS} 72–73 (1996).

\textsuperscript{58} The dynamics of this game, as well as games I introduce later in my analysis, actually involve three players: G.M., Chrysler, and the reviewing court. The analysis, however, becomes intractable if I introduce the court as an independent player attempting to maximize its own payoff. Instead, I treat the court's decision as one of "nature"—an external factor that affects the players' assessment of the probability that the rule will be affirmed in an
the game is as follows:  

<table>
<thead>
<tr>
<th></th>
<th>Chrysler Complies</th>
<th>Chrysler Violates</th>
</tr>
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<tbody>
<tr>
<td>G.M. complies</td>
<td>(-X, -X)</td>
<td>(-X, -q[X+P]-L)</td>
</tr>
<tr>
<td>G.M. violates</td>
<td>(-q[X+P]-L, -X)</td>
<td>(-q[X+P]-L, -q[X+P]-L)</td>
</tr>
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Viewing the costs of litigation and compliance as externally dictated, this game has a unique Nash equilibrium that depends on the values of q and P. If \( X > \frac{q}{1-q}P + \frac{1}{1-q}L \), then the Nash equilibrium is for every entity to violate the rule. If, however, \( X < \frac{q}{1-q}P + \frac{1}{1-q}L \), then the Nash equilibrium is for every entity to comply with the rule.

59 The game assumes that each entity has the same estimate of the probability that the court will affirm the rule in an enforcement action. Because the game posits no distinguishing characteristics for any entity, this assumption is reasonable as long as no entity has information about the rule unavailable to other regulated entities.

60 If \( X > q[X+P]+L \), then it is easy to verify that if every entity starts by violating the rule, no one entity can improve its payoff by complying. If \( X < q[X+P]+L \), then if every entity starts by complying, no one entity can improve its payoff by violating the rule. Simple algebra converts these inequalities into those given in the text.

61 These equilibria are dominant-strategy, as well as Nash, equilibria: If \( X<P \) then each entity does better by complying regardless of the strategy of the other entity; if \( X>P \) then each entity does better by violating regardless of the strategy of the other entity. See RASMUSEN, supra note 19, at 17 (defining “dominant strategy equilibrium”). Because the
This conclusion supports the intuitive analysis that precedes the specification of the game. If an entity believes a rule to be valid and thus concludes that the reviewing court will uphold the rule, then effectively $q=1$ and every entity will comply with the rule.\footnote{Unfortunately, lawyers tend to overestimate their chances of success in litigation. \textit{See} Elizabeth F. Loftus \& Willem A. Wagenaar, \textit{Lawyers’ Predictions of Success}, 28 JURIMETRICS J. 437, 450 (1988). For this reason, the entity’s belief that a rule is valid might not lead it to conclude that a court is likely to uphold the rule. Undue optimism on the part of lawyers will tend to reduce any effect that barring pre-enforcement review might have on the propensity of entities to comply with rules they consider to be valid.\textsuperscript{62} This assertion is supported by conclusions of various case studies that judges are incapable of distinguishing good rules from bad ones. \textit{See}, \textit{e.g.}, Mashaw \& Harfst, supra note 1, at 87-91 (relating how the reviewing court’s lack of understanding of crash test dummies led it to remand a rule that would have provided significant net social benefit); Barry Boyer, \textit{The Federal Trade Commission and Consumer Protection Policy: A Postmortem Examination}, in \textit{MAKING REGULATORY POLICY} 93, 102 (Keith Hawkins \& John M. Thomas eds., 1989) (noting that judicial review of trade regulation “seemed to reward poor empirical analysis”); Pierce, \textit{supra} note 4, at 15-18 (concluding that judicial remands of FERC’s regulations allowing equal access to gas pipelines publicly labeled FERC staff “lawless and incompetent” for changing energy policy in a manner that was “desperately needed, urged on an agency by the courts, welcomed by Congress, and implemented in a manner that yields enormous improvements in the performance of a regulated market”). Of course, these studies investigated judicial review of rules prior to enforcement, and the unpredictability of judicial review may itself be a product of the availability of pre-enforcement review. For an analysis of how limiting review to the enforcement stage affects the quality of judicial review, see \textit{infra} Part II.B.\textsuperscript{63}} If instead an entity believes a rule to be invalid and thus concludes that the reviewing court will reverse the rule, then effectively $q=0$ and entities will violate the rule as long as the cost of litigation does not exceed the cost of compliance. In many instances, however, a regulated entity will remain uncertain whether a reviewing court will uphold a rule.\footnote{This last conclusion is partially encouraging and partially problematic. If penalties are set approximately equal to the costs of compliance, then, to the extent that regulated entities’ subjective probabilities of affirmance depend on the validity of the rule, denying pre-enforcement review will encourage equilibria reflect dominant strategies, they are robust; they are not sensitive to changes in information available to the players of the game. \textit{See id.}} This leads to a subjective probability of affirmance that is neither close to zero nor one. In such an instance, an entity will comply with the rule if the penalty is significantly greater than the cost of compliance, but will violate the rule if the penalty is significantly less than the cost of compliance.\footnote{The condition that $q$ be significantly different from 0 and 1 ensures that the factor $q/(1-q)$ is significantly greater than 0 and not significantly greater than 1. It simultaneously ensures that the factor $1/(1-q)$ is not significantly greater than 1.}
compliance when compliance is appropriate. If affirmance or reversal of a rule is highly uncertain and penalties as well litigation costs are much lower than the costs of compliance, which unfortunately is often the case, then delaying review to the post-enforcement stage will do little to encourage compliance, even when entities consider the rule valid. What may be more disconcerting, if penalties happen to be significantly greater than costs of compliance, delaying judicial review will strongly encourage compliance even with rules that every entity considers invalid.

Despite these disheartening predictions, the analysis suggests that for a subset of rules pre-enforcement review can induce efficient compliance without inducing compliance with invalid rules if the penalty for violation is set appropriately. Often the validity of a rule will depend on whether the costs of compliance end up being exorbitant. That may be the case when Congress specifies that the promulgating agency is to impose regulations that are reasonable, or even when the agency's authorizing statute specifies that rules must simply be feasible. Even where a statute does not so specify, the cost of compliance with a rule frequently is an important consideration in a court's consideration of whether to allow an agency to enforce the rule. If the penalty

65 Emulating the notion in tort law that a reasonableness requirement imposes a cost-benefit standard, see United States v. Carroll Towing Co., 159 F.2d 169, 173 (2d Cir. 1947) (expressing the duty of reasonable care as a balance of expected costs and benefits), courts and agencies have interpreted some statutes that call for regulation to be reasonable as embodying a rough cost-benefit standard. For example, the Clean Air Act provision that existing sources in dirty air areas meet emission limitations based on reasonable achievable control technology, has been read to require the EPA and states implementing this provision to balance the costs and benefits of compliance with the limitations. See 40 C.F.R. § 51.100(o) (1996) (defining "reasonably available control technology" (RACT) to require consideration of the social and economic impact of such emission limitations); 1 WILLIAM H. RODGERS, JR., ENVIRONMENTAL LAW: AIR AND WATER § 3.12(4), at 285 (RACT is "utilitarian rather than absolutist"). In another example, courts have hinted that the requirement of section 3(8) of the Occupational Safety and Health Act (OSH Act)—that workplace safety standards be "reasonably necessary or appropriate"—might require OSHA to find a reasonable relationship between the compliance costs and benefits of such a standard. See American Textile Mfrs. Inst. v. Donovan, 452 U.S. 490, 512 (1981); United Auto Workers v. OSHA, 37 F.3d 665, 669-70 (D.C. Cir. 1994).

66 See American Textile Mfrs., 452 U.S. at 513 n.31 (interpreting OSH Act feasibility requirement for standards governing toxic substances in the workplace as including economic feasibility).

67 See, e.g., R. SHEP MELNICK, REGULATION AND THE COURTS: THE CASE OF THE CLEAN AIR ACT 212–20 (1983) (noting that despite the Clean Air Act's intentional omission of costs as a factor for the EPA to consider in setting its air quality standards, courts have held that the EPA cannot enforce infeasible emission limitations and that costs thereby become relevant in EPA proceedings to enforce emission limitations).
for a violation is set at the approximate magnitude of compliance costs that the legislature deems reasonable, and as long as the courts do not affirm or reverse an overwhelming proportion of rules, regulated entities will comply with the rule when the actual costs of compliance are much less than the reasonable level of costs and violate the rule when the costs of compliance are much greater than the reasonable level of costs. If the legislature’s goal is efficient regulation, then it can set the penalty for violation of agency regulations at the dollar value of social benefits it expects to flow from compliance with these regulations. Such a penalty will induce regulated entities to comply only as long as the benefits significantly exceed the costs of compliance.

Compliance remains uncertain only when the costs of complying with a rule approximately equal the penalty for violating it. In that instance, a regulated entity’s behavior will depend most heavily on its subjective assessment of the probability that a court will uphold the rule in an enforcement proceeding. If q is significantly greater than 0.5, the entity will comply with the rule; if q is significantly less than 0.5, the entity will violate it. Unpredictable compliance in this context, however, does not impugn delaying judicial review. Compliance becomes arbitrary precisely because the costs and benefits of compliance are comparable. In such a situation, there is no clear social gain or loss from either compliance or violation of the rule.

This dependence on the magnitude of the penalty, however, poses pragmatic problems for a regulatory scheme, because the level of compliance costs that are reasonable will vary from context to context. For a large manufacturer whose violation of a rule threatens to impose millions of dollars of health and safety costs on society, compliance costs of millions of dollars may be reasonable. For a mom-and-pop producer, however, that magnitude of compliance costs would clearly exceed what is reasonable. Hence, Congress may find it difficult to set a penalty for a rule violation that reflects the reasonable costs of compliance for every entity. Nonetheless, the task may not be impossible. Statutes sometimes specify that each individual incident violating the rule, each site in violation of a rule, and each day of continued violation...

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68 I use “efficient” here and throughout this Article to mean wealth maximizing. See Seidenfeld, supra note 57, at 49–56 (discussing various notions of economic efficiency and defining wealth maximization).

69 If \( X \approx P \), then the criteria for an entity to violate the rule translates into \( q < X/(2X+L) \). Assuming that litigation costs are much less than compliance costs leads to the conclusion that entities will violate the rule when they believe the probability of a court upholding the rule is less than 0.5.
constitute separate violations. In this way, statutes structure the penalty to be somewhat proportional to the social harm created by a rule violation.

Of greater concern, reasonable compliance costs will also vary from rule to rule, even for rules adopted under the same authorizing statute. But Congress does not know in advance what rules the agency will promulgate, so it must grant the agency discretion in what penalty to seek for a rule violation. Congress usually merely sets upper bounds on penalties for rule violations. The analysis above suggests that Congress should not only set such bounds roughly according to its expectation about the harm caused by such violations, but should also allow an agency sufficient leeway to impose a penalty that will deter unreasonable violations. Unfortunately, an agency would have an incentive to set penalties as high as it can because a greater penalty would induce more compliance, which in turn would shield the agency from judicial scrutiny of the rule in an enforcement proceeding. Thus, Congress might need to cabin further agency discretion about the appropriate penalty for a rule violation. Congress, however, could do so in several flexible ways. For example, if Congress desired efficient compliance it could direct the agency to seek a penalty equal to the expected benefit from compliance with the rule. If Congress desired stricter compliance, it could direct the agency to seek a penalty that exceeds the expected benefit of compliance but that does not render the option of violating

70 See, e.g., Animal Welfare Act, 7 U.S.C. § 2149(b) (1994) (providing that every sale or lease in violation of the statute, or rule, regulation or order issued pursuant to it, shall constitute a separate violation, and that each day of a continuing violation constitutes a separate violation); Money Laundering Suppression Act of 1994, 31 U.S.C. § 5321(a)(1) (1994) ("[A] separate violation occurs for each day the violation continues and at each office, branch, or place of business at which a violation occurs or continues."); see also, e.g., Powerplant and Industrial Fuel Use Act of 1978, 42 U.S.C. § 8433(b) (1994) (providing for a civil penalty of up to "$10 per barrel of petroleum or $3 per Mcf of natural gas used in operation of [a] powerplant in excess of that authorized").

71 Although many factors go into the maximum penalty provided by statutes, potential harm from a violation appears to be one factor. This might explain, for example, why Department of Energy rules governing distribution of special nuclear material (i.e., plutonium and enriched uranium) carry a maximum penalty of $100,000 per violation, see Atomic Energy Act of 1954, 42 U.S.C. § 2282(a) (1994), but Department of Agriculture rules governing the maintenance of orderly market conditions for agricultural products carry a maximum penalty of $100 per violation, see Agricultural Adjustment Act, 7 U.S.C. § 610(c) (1994).

72 In numerous instances, Congress has specified that an agency is to consider the gravity of the violation and harm to the public in determining the amount of a civil penalty for a rule violation. See, e.g., National Housing Act, 12 U.S.C. § 1723i(c)(3) (1994); Interstate Land Sales Full Disclosure Act, 15 U.S.C. § 1717a(b)(3) (1994); Department of Housing and Urban Development Reform Act of 1989, 42 U.S.C. § 3545(g)(2) (1994).
the rule infeasible for the regulated entity.\textsuperscript{73} To discourage agency abuse in setting the penalty, Congress might have to subject the agency's choice of the magnitude of the penalty, as well as the rule itself, to judicial review.\textsuperscript{74}

B. The Effect of Delaying Judicial Review on the Quality of Judicial Decisions

Another argument in favor of delaying review of rules to the post-enforcement stage is that courts will, at that stage, have better information about the costs of complying with the rule and possibly about the impact of the rule.\textsuperscript{75} Because of the threat of penalties for noncompliance, entities will frequently make some effort to comply with rules. Some regulated entities may actually achieve compliance. Thus, in a suit by an agency for enforcement of a rule, the court is likely to have before it data about the costs of compliance, and perhaps about the efficacy of the rule as a means of achieving the agency's goal. In addition, entities' efforts to comply may reveal unintended consequences of a rule. All of this information will help a court better evaluate whether the rule adequately takes account of criticism leveled at it during hard look judicial review.\textsuperscript{76}

Delaying review to the enforcement stage, however, also means that a court will conduct its evaluation after regulated entities have made a significant investment in compliance and the agency has made a significant investment in

\textsuperscript{73} In many instances, statutes call for agencies to factor a violator's ability to pay into the determination of a penalty for a rule violation. See, e.g., statutory provisions cited \textit{supra} note 72.

\textsuperscript{74} Judicial review might limit agency abuse of discretion in setting penalties, but it might also create an issue that regulated entities could use to move the ossification of the regulatory process from the rulemaking to the enforcement stage. \textit{Cf. supra} notes 2, 4 and accompanying text (discussing the literature that blames ossification of the rulemaking process on judicial review). Because courts often show sympathy for regulatory violators facing significant penalties, see \textit{WILLIAM A. IRWIN ET AL., ENVIRONMENTAL LAW INSTITUTE, ENFORCEMENT OF FEDERAL AND STATE WATER POLLUTION CONTROLS: A REPORT TO THE NATIONAL COMMISSION ON WATER QUALITY} 208-09 (1975); \textit{Melnick, supra} note 67, at 195 (noting how industry used sympathetic district courts to stymie EPA efforts to enforce Clean Air Act state implementation plan requirements), subjecting the magnitude of the penalty for a rule violation to meaningful judicial review is likely to encourage violators to challenge enforcement actions brought against them.

\textsuperscript{75} See \textit{Mashaw, supra} note 8, at 233-34.

\textsuperscript{76} \textit{Cf. Paul M. Verkuil, Judicial Review of Informal Rulemaking, 60 VA. L. REV. 185, 205 (1974)} (noting that the availability of pre-enforcement review changes the focus of the court from the facts surrounding the application of the rule to the rulemaking process itself, which in turn will trigger more vigorous judicial scrutiny).
enforcement. Moreover, at this stage, the interested parties may have adjusted to the rule, so that overturning it could upset expectations of the public affected by the rule and thereby foment political instability concerning an issue that had settled on the political backburner. The costs of overturning a rule at this stage are much greater than the costs of overturning a rule before enforcement. In fact, sunken investment costs and settled expectations might make enforcement of the rule the best option for the court even though the court could have increased social welfare by overturning the rule prior to investments in compliance and enforcement. A reviewing court might hesitate to overturn a rule at this late stage even if the extra data available to the court shows that the rule was not justified in the first place.

The controversy about the scrubbing of coal, which Bruce Ackerman and Richard Hassler so aptly illuminated, illustrates how delaying enforcement might induce a court to uphold a bad rule. In that controversy, eastern coal interests and environmentalists formed a coalition that led the Environmental Protection Agency (EPA) to set a standard for emissions from new coal-fired power plants that essentially required coal scrubbing. Ackerman and Hassler persuasively demonstrated that a more flexible standard allowing the burning of clean coal could have resulted in greater reductions in harm from air pollution at significantly less cost. Once power plants installed scrubbers, however, it would have made little sense for a court to overturn the standard, because scrubbing was too expensive.

Despite the arguments above, there is some reason to remain optimistic that delaying judicial review of rules will improve the quality of judicial review in a certain class of cases. As previously noted, in some cases the issue facing the reviewing court is the feasibility or cost of compliance with the rule. Regulated entities are likely to have better information than the court and even the agency regarding such issues. In other words, the quality of judicial review in such cases would improve if the courts could get regulated entities to reveal

77 Rulemaking can be viewed as a process by which the President and each house of Congress reach an equilibrium position about regulatory policy. This equilibrium depends greatly on the initial position staked out by the agency rule. See Matthew D. McCubbins et al., Structure and Process, Politics and Policy: Administrative Arrangements and the Political Control of Agencies, 75 VA. L. REV. 431, 437 (1989). So viewed, the potential for political foment from the judiciary upsetting this equilibrium becomes obvious.


79 See id. at 31-33 (describing the formation of the coalition between environmentalists and eastern coal producers that led to the scrubbing requirement).

80 See id. at 88–103.

81 See supra notes 65–67 and accompanying text.
such information truthfully. The rub, however, lies in the fact that these entities will face increased burdens and costs if the court upholds the rule, so they have every incentive to overstate the problems the rule will cause.\textsuperscript{82} Reverting to the formalism of game theory, what the judiciary needs is a mechanism that gets regulated entities to signal by their actions when they believe a rule is not overly onerous.\textsuperscript{83}

Intuitively, one might surmise that delaying judicial review to the post-enforcement stage may enable such a mechanism to operate. When judicial review is delayed, regulated entities face the prospect of a penalty for noncompliance if the rule is upheld in the enforcement proceeding. On the one hand, if they evaluate the rule and believe that it is valid, then they are apt to think a court will uphold the rule and hence are unlikely to refuse to comply. In such a situation, an entity must figure that its fellow regulatees will also conclude that the rule is valid. An entity that violates such a rule thus opens itself to a substantial likelihood that others will comply, which reinforces the probability that a reviewing court will uphold the rule. This in turn would result in the entity having to pay a penalty and, perhaps more significantly, finding itself behind its competitors in steps to comply with a rule.\textsuperscript{84} On the other hand, if the entity evaluates the rule and believes it to be invalid, then the entity can be much more secure in a decision not to comply. It can count on its fellow regulatees not to comply as well, and if no entities comply, the court is likely to reverse the rule as infeasible or unreasonable.\textsuperscript{85} Thus, faced with a rule that the

\textsuperscript{82} Cf. Stephen Breyer, Judicial Review of Questions of Law and Policy, 38 ADMIN. L. REV. 363, 388 (1986) (noting that industry self-interest interferes with agencies’ ability to get information from the industry).

\textsuperscript{83} See Douglas G. Baird et al., Game Theory and the Law 122–23 (1994) (defining “[s]ignalling [as taking] place when those who possess nonverifiable information can convey that information in the way they choose their actions”).

\textsuperscript{84} If an entity were subject to an injunction to keep it from violating a rule, delay in compliance could jeopardize the entity’s ability to sell its product altogether. Such a delay in steps towards compliance would put the entity at an extreme competitive disadvantage. In most enforcement proceedings, however, courts hesitate to force production to grind to a halt because of a rule violation. See Melnick, supra note 67, at 217 (stating, with regard to enforcement of Clean Air Act regulations, that “[e]ven those courts that have shown most sympathy for environmental causes have held that courts must use their equity power to fashion reasonable compliance schedules instead of issuing prohibitory injunctions”).

\textsuperscript{85} Moreover, even if the court did enforce the rule, the entity would be in the same position as its competitors of having to pay the penalty, and thus would not be relatively disadvantaged. It could pass some of the costs of the penalty on to its customers and would suffer only the lost profits from the decrease in demand caused by the higher price throughout the industry. See Seidenfeld, supra note 57, at 64 (describing the different impact of a firm bearing a unique cost increase versus the entire industry having to bear the cost).
entity considers invalid, the entity will reason that violating the rule will save it
the costs of compliance and will not subject it to any penalty. For rules whose
validity hinge on information known uniquely to regulated entities, courts can
use these entities’ very decisions whether to comply as signals about the rules’
validity.86

Occupational Safety and Health Administration (OSHA) standards for
allowable levels of toxic substances in the workplace provide an excellent
example of rules for which signaling might have aided judicial review.87 Once
OSHA finds that a toxic substance poses a significant risk to workers’ health at
levels above those allowed by its standard, the validity of the standard hinges on
whether the standard is feasible.88 Determining the feasibility of a standard is
not an easy exercise,89 and courts have on numerous occasions struggled to
assess the feasibility of particular standards.90 If challenges to the feasibility of
such standards could be brought only in enforcement proceedings, reviewing
courts would have before them data about any industry attempts to comply with

86 To use the terminology of game theory, intuition suggests that the following set of
strategies represents a perfect Bayesian equilibrium: a regulated entity believes that other
regulated entities will comply with a rule that the entity finds to be reasonable, and the entity
will itself comply; a regulated entity believes that other regulated entities will not comply with
a rule that the entity finds unreasonable, and the entity itself will not comply; all entities
believe that a reviewing court will uphold a rule with which some entities comply and reverse
a rule with which no entity complies, and the courts act consistently with these beliefs. A set
of strategies is a perfect Bayesian equilibrium when “in the proposed equilibrium, a player’s
actions are the best response, given that player’s beliefs and the actions and beliefs of the
other players.” BAIRD, supra note 83, at 84; see also RASMUSEN, supra note 19, at 146
giving a more general, and more technical, definition of a perfect Bayesian equilibrium.
87 OSHA standards for toxic substances in the workplace are governed by the definition
88 See Industrial Union Dep’t., AFL-CIO v. American Petroleum Inst., 448 U.S. 607,
643 n.48 (1980).
89 The task is made more difficult by the fact that OSHA toxic substance standards must
be both technologically and economically feasible. See American Textile Mfr. Inst. v.
Donovan, 452 U.S. 490, 513 n.31 (1982).
90 See, e.g., National Cottonseed Products Ass’n. v. Brock, 825 F.2d 482, 487–88
(D.C. Cir. 1987) (affirming the feasibility of an OSHA regulation requiring continuing
medical monitoring of those whose health has been affected by cotton dust); United
Steelworkers v. Marshall, 647 F.2d 1189, 1263–1308 (D.C. Cir. 1980) (noting the difficulty
of reviewing the feasibility of an OSHA standard before affirming standards for exposure to
lead in certain industries and reversing such standards in other industries); Industrial Union
Dep’t v. Hodgson, 499 F.2d 467, 477–78 (D.C. Cir. 1974) (remanding part of the workplace
standards for exposure to asbestos because the Secretary of Labor had failed to show that a
stricter standard was not feasible).
the rule, and perhaps would even have examples of companies that did comply. Almost universal compliance would seriously undercut arguments that the standard was not feasible, regardless of the definition of feasibility that one uses.

As attractive as this signaling scenario sounds, a rigorous game theoretic analysis demonstrates that such signaling will occur only to a limited extent. I evaluate the effect of courts using compliance behavior as a signal of rule validity using a slight generalization of the same two-entity game used to analyze compliance. Instead of specifying a single probability that a reviewing court will uphold the rule, the game assumes two such probabilities: \( q_1 \) denotes the probability that a court will affirm a rule and thus impose a penalty when one of the two entities complies with the rule; \( q_2 \) denotes the probability that a court will affirm the rule if both entities violate the rule. Some sort of signaling occurs if the fact of compliance by one entity increases the likelihood that a court will uphold the rule over the probability that occurs when neither entity complies—that is, when \( q_1 \) is greater than \( q_2 \). The payoff matrix for the game is as follows:

<table>
<thead>
<tr>
<th></th>
<th>Chrysler Complies</th>
<th>Chrysler Violates</th>
</tr>
</thead>
<tbody>
<tr>
<td>G.M. comlies</td>
<td>((-X, -X))</td>
<td>((-X, -q_1[X+P]-L))</td>
</tr>
<tr>
<td>G.M. violates</td>
<td>((-q_1[X+P]-L, -X))</td>
<td>((-q_2[X+P]-L, -q_2[X+P]-L))</td>
</tr>
</tbody>
</table>

Perfect signaling occurs if a court affirms a rule every time one entity complies but always reverses when neither complies. In that case, the payoff table reduces to the following:

<table>
<thead>
<tr>
<th></th>
<th>Chrysler Complies</th>
<th>Chrysler Violates</th>
</tr>
</thead>
<tbody>
<tr>
<td>G.M. comlies</td>
<td>((-X, -X))</td>
<td>((-X, -[X+P+L]))</td>
</tr>
<tr>
<td>G.M. violates</td>
<td>((-[X+P+L], -X))</td>
<td>((-L, -L))</td>
</tr>
</tbody>
</table>

If litigation costs are less than compliance costs, as they usually are, this game has two Nash equilibria: one in which every entity complies and another in which no entity complies. Starting from either of these two strategies, neither G.M. nor Chrysler can unilaterally improve its payoffs by altering its conduct.
Unfortunately, whether compliance costs exceed litigation costs says little about the reasonableness of a rule.\textsuperscript{91} Thus, both equilibria can exist for both reasonable and unreasonable rules. In other words, even were the rule unreasonable, all entities might comply with it, and even were the rule reasonable, all entities might violate it. Given the existence of two equilibria, the outcome of the game is indeterminate. Nonetheless, one might reasonably predict that neither entity will comply with the rule regardless of its perceived validity because the equilibrium \{Violate, Violate\} leaves both entities better off than the alternative \{Comply, Comply\}.\textsuperscript{92} If compliance costs greatly exceed the sum of litigation costs and the penalty, as they often do, then the outcome that neither entity will comply is even more likely. All each entity has to lose by violating the rule if another entity complies with it is their litigation costs plus the penalty, while they may avoid the much more significant compliance costs if every entity decides not to comply.\textsuperscript{93}

\textsuperscript{91} If litigation costs exceed compliance costs for an individual entity, then the unique Nash equilibrium is for both Chrysler and G.M. to comply. To the extent that total social litigation costs exceed total social compliance costs, the administrative costs of reaching a judicial resolution cannot justify the benefits of such a resolution. In such a situation, this unique equilibrium would be desirable. But the validity of a rule can be tested by one entity, which alone bears litigation costs, while every regulated entity bears the compliance costs. Therefore, that $L > X$ does not imply that the social costs of litigation exceed the social costs of compliance. In short, if $L > X$, the unique equilibrium may or may not be efficient.

\textsuperscript{92} In other words, the equilibrium \{Violate, Violate\} is Pareto superior to that of \{Comply, Comply\}. \textit{See Rasmussen, supra note 19}, at 26 (positing that most modelers would predict the “Pareto efficient equilibrium” as the outcome); \textit{see also}, e.g., \textit{John C. Harsanyi \& Reinhard Selten, A General Theory of Equilibrium Selection in Games 80–81 (1988)} (arguing that such “payoff dominant” outcomes are natural focal points for players); \textit{R. Duncan Luce \& Howard Raiffa, Games and Decisions 106–07 (1957)} (eliminating any Pareto-dominated equilibria from consideration as an admissible Nash solution). \textit{But see Russell W. Cooper et al., Selection Criteria in Coordination Games: Some Experimental Results, 80 Am. Econ. Rev. 218, 226–29 (1990)} (reporting empirical results showing that players often do not choose a Pareto superior equilibrium over other Nash equilibria).

\textsuperscript{93} Given the posited relationship of the various costs, an entity is likely to treat $X$ the same as $X + P + L$, but find $L$ significantly different from $X$. Hence, players will focus on the strategy of violating the rule as promising an appreciable reward. \textit{See Thomas C. Schelling, The Strategy of Conflict 60 (1960)} (introducing the notion of focal points as a means of predicting the outcome of coordination games in which players cannot communicate); \textit{see also Baird, supra note 83}, at 39–40 (noting that players tend to reach the equilibrium that is a “focal point”); \textit{cf. Harsanyi \& Selten, supra note 92}, at 82–84 (arguing that players will consider the risks of what they have to lose by playing particular strategies each of which might lead to an equilibrium); \textit{Rasmussen, supra note 19}, at 27 (noting that the fear of a large loss from the other player deviating from a rational strategy...
One needs to change the game in two ways to make compliance a more likely strategy when a rule is reasonable and violation more likely when the rule is unreasonable. First, consistent with the lack of a reliable signal from noncompliance, courts must treat the signal as an imperfect one: they can presumptively affirm rules with which some entity complies, but must evaluate the reasonableness of those with which no entity complies somewhat independently. By doing so, courts expose entities to some risk of penalty even when none comply with the rule. In addition, just as in the game modeling efficient compliance, statutes authorizing rules must specify penalties of approximately the same magnitude as compliance costs that the legislature considers reasonable. Given these two modifications to the game (and ignoring litigation costs, which are usually significantly lower than compliance costs) the payoff table becomes as follows:

<table>
<thead>
<tr>
<th></th>
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<tbody>
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<td>G.M. complies</td>
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<td>(-X, -[X+P])</td>
</tr>
<tr>
<td>G.M. violates</td>
<td>(-[X+P], -X)</td>
<td>(-q2[X+P], -q2[X+P])</td>
</tr>
</tbody>
</table>

For this matrix, if the rule is reasonable (i.e., \( P > X \)), then the only equilibrium is for each entity to comply. If the rule is unreasonable (i.e., \( P < X \)), then there are again two equilibria: in one, every entity complies.

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94 I assume in the analysis below that an independent evaluation will result in courts affirming rules with which no entity complies with an approximate probability of 0.5. This is consistent with historical affirmation rates for rulemaking. See Schuck & Elliott, supra note 27, at 1022 (finding a long-term affirmation rate of 43.9% of challenged rules).

95 If \( P = X \), then the rule is neither patently reasonable nor unreasonable, and social welfare is not greatly affected by the court either affirming or reversing the rule. See supra note 69 and accompanying text. The standard rhetoric, that a court should not substitute its judgment for that of the agency as long as the agency decision is not patently unreasonable, see, e.g., Motor Vehicles Mfr's Ass'n v. State Farm Mut. Auto Ins. Co., 463 U.S. 29, 42–43 (1983); Citizens to Preserve Overton Park v. Volpe, 401 U.S. 402, 416 (1971); see also Peter Strauss, An Introduction to Administrative Justice in the United States 261–64 (1989) (discussing how courts apply the arbitrary and capricious standard of judicial review in an attempt to leave policymaking discretion to the agencies and yet ensure that the agencies do not act unreasonably), would nonetheless promote efficiency by discouraging entities from challenging such marginal rules, thereby saving society the administrative cost of having a court resolve the case.
with the rule and in the other every entity violates the rule. Thus, the outcome is once again not entirely determinate. However, because \( P \) is much less than \( X \), each entity risks a greater loss by complying with the rule than by violating it, and universal violation of the rule remains the best prediction.\(^{96}\) Thus, a court facing a rule that all regulated entities have violated should retain some legitimate concerns about the reasonableness of the rule. In sum, the compliance behavior of the entities is likely to provide some signal to the courts of the validity of the rule, albeit an imperfect one.

If regulated entities have some way of coordinating their behavior, imperfect signaling may even drive regulated entities to adopt determinate strategies. For example, a rule that requires entities to commit to publicly observable conduct prior to compliance is one for which partial signaling may be extremely reliable. In this situation, the game becomes one of sequential decisionmaking. One entity waits for the other to begin to comply. As soon as the first entity sees the second begin, it too takes steps to comply. If the first entity never makes an attempt to comply, the second does not either. Modeling this situation requires resort to the extensive form for the game.\(^{97}\) Assuming for the sake of concreteness that G.M. is the first player, that form of the game looks as follows:

\[
\begin{array}{c}
\text{G.M.} \\
\text{complies} & \text{violates} \\
\text{CHRYSLER} & & \\
\text{complies} & \text{violates} & \\
\text{(-X, -X)} & \text{(-X, [-X+P])} & \text{(-[X+P], -X)} & \text{(-q_2[X+P], -q_2[X+P])}
\end{array}
\]

The outcome to such a game can be derived by working backwards. If the rule is reasonable, Chrysler will comply regardless of what G.M. does. G.M., knowing this, will maximize its payoff by also complying. If the rule is unreasonable, G.M. knows that Chrysler will comply only if G.M. does, but will not comply if G.M. violates the rule. This leaves G.M. facing the following simplified game:

\(^{96}\) See supra notes 92–93 and accompanying text.

\(^{97}\) See BAIRD, supra note 83, at 51 (defining the extensive form for specifying a game); RASMUSEN, supra note 19, at 37–39 (same).
G.M. will maximize its payoff by violating the rule, which means Chrysler will do the same. Thus, if the rule is reasonable the unique outcome is for both entities to comply with it; if the rule is unreasonable, the unique outcome is for both entities to violate it.98

This entire analysis demonstrates that signaling provides only a limited means for post-enforcement review to improve the quality of judicial monitoring of agency policy. Signaling cannot be perfect. Although courts considering enforcement actions should take into account whether regulated entities have complied with a rule in assessing its reasonableness, courts must continue to assess the justifications for rules with which no entity complies, and uphold such rules in some cases to keep these entities honest. In addition, signaling depends critically on the penalty imposed for violating the rule. If the penalty is much lower than the anticipated compliance costs, entities will have little incentive to comply with the rule, regardless of whether they find it reasonable. If the penalty for failure to comply with a rule is greater than reasonable compliance costs, and there is some chance that a court will uphold the rule even in the face of industry noncompliance, regulated entities may try to comply with rules that they find unreasonable.

Finally, there are situations in which signaling simply will not occur. In particular, signaling cannot occur when regulated entities do not have superior information about the effects of rules. Thus, when the validity of a rule depends

98 This conclusion is highly counterintuitive. Usually, the ability of entities to communicate before committing to behavior permits them to collude to avoid sending signals against their common interest. In particular, according to a repeated game analysis, the ability of a firm in an industry to observe deviations of its rivals from conduct that is optimal to the industry as a whole removes a major impediment to such tacit collusion. See Baird, supra note 83, at 174. Thus, intuitively one would predict that the need for each entity to commit to observable conduct prior to compliance would induce noncompliance by every entity. In fact, without the threat that a court might uphold a penalty even if all the entities collude not to comply, a game theoretic analysis predicts the usual outcome of universal noncompliance. See App: Analysis of Signaling when the Court Imposes No Penalty in Case of Universal Violation and Entities Can Coordinate Their Compliance Behavior.
upon predictions about its efficacy, or the possibility of unintended consequences, rather than on the rule’s direct costs, signaling is unlikely to occur. For example, the manner in which the Supreme Court ultimately interpreted the Occupational Safety and Health Act of 1976 (OSH Act)\(^9\) in the Benzene case would have rendered signaling unhelpful: The Court read the OSH Act as requiring OSHA to make a threshold finding that benzene posed an actual health risk at levels of exposure prohibited by the rule at issue.\(^10\) It is unlikely that industry would have any comparative advantage over the agency in obtaining the information needed to make this finding. Overall, the extent to which delaying review to the post-enforcement stage will improve the judiciary’s ability to filter good rules from bad ones remains unclear.

C. The Effect of Delaying Judicial Review on the Quality of Agency Policymaking

Delaying review to the post-enforcement stage retains the meaningful scrutiny courts currently give to agency rules.\(^101\) Implicit in a desire to retain such review is an assumption that the current stringency of review—some variant of the hard look test—serves an important function in monitoring agency decisionmaking to ensure that the agency considered all factors relevant to the legality and wisdom of a rule.\(^102\) To the extent that hard look review gives agencies an incentive to deliberate carefully before adopting a rule, a system of post-enforcement review retains such incentives.

The care that an agency takes in adopting a rule, however, can depend on the likelihood that a court will review the rule as well as the stringency of that review. The toughest judicial test will have little effect on agency deliberation if the agency knows that its rule will never face a challenge in court. By similar reasoning, at the margin, reducing the likelihood of a challenge to any rule is


\(^101\) The retention of meaningful scrutiny seems to be one of the reasons that Mashaw prefers delaying review to revamping the standards of review. See Mashaw, supra note 8, at 235 (noting that changing the timing of review preserves “the traditional individual ‘right’ to independent judicial judgment”).

\(^102\) Elsewhere, I have argued explicitly that meaningful judicial review serves a valuable function in limiting capture and the imposition of idiosyncratic regulatory values by the administrative bureaucracy. See Seidenfeld, supra note 3; Mark Seidenfeld, A Civic Republican Justification for the Bureaucratic State, 105 HARV. L. REV. 1511, 1547–50, 1570 (1992) [hereinafter Seidenfeld, A Civic Republican Justification]; see also Seidenfeld, supra note 49, at 127–30 (describing the benefits of judicial review of agency reasoning in statutory interpretation).
likely to decrease the effect of judicial review on the agency’s processes. Whether one deems this decreased impact wholesome depends on whether one believes that judicial review has a salutary effect on agency decisionmaking. The key point is that one cannot have it both ways: one cannot contend that reducing the likelihood of judicial review will deossify rulemaking processes while simultaneously arguing that it will not compromise the impact of judicial review on the care agencies take in adopting rules.

Delaying review until the post-enforcement stage, moreover, threatens to introduce a significant pro-industry bias into any administrative regulatory scheme. Such delay altogether prohibits beneficiaries of regulation from challenging rules as too lenient on regulated entities. Under current pre-enforcement doctrine, interest groups representing the public affected by a rule can challenge that rule on par with regulated entities. But such interest groups are not directly subject to the rule, and hence cannot choose to violate it in order to force a judicial test of the rule. Without the prospect of judicial challenges by beneficiaries, agencies have no legal incentive to accede to the positions of these beneficiaries, no matter how persuasive. Delaying review thus would return the rulemaking process to the legal process era during which it was assumed that political controls were sufficient to ensure that agencies acted on behalf of the public interest in administering regulatory programs.

103 Although my view that judicial review serves a valuable function is shared by some, see, e.g., Merrick B. Garland, Deregulation and Judicial Review, 98 HARV. L. REV. 507, 556 (1985) (judicial review can help prevent an agency from deviating from congressional intent due to political pressures); Cass R. Sunstein, Interest Groups in American Public Law, 38 STAN. L. REV. 29, 61-62 (1985) (explaining how “hard look” review facilitates the goals of deliberative democracy), it is not universally accepted. See, e.g., Mashaw, supra note 8, at 251-52 (accepting the need for judicial review primarily because the legal culture in the United States seems to demand it); McGarity, supra note 2, at 1451-53 (acknowledging benefits of judicial review but asserting that hard look review should be softened); Pierce, supra note 16, at 67 (stating pessimism about whether judicial review bestows any benefits on the regulatory process).

104 For a description of the legal process conception of administrative law, see Keith Werhan, The Neoclassical Revival in Administrative Law, 44 ADMIN. L. REV. 567, 576-83 (1992). Under the legal process conception, the primary role of the courts was to protect regulated entities from zealous agencies over-stepping their statutory bounds. See Garland, supra note 103, at 510; Richard B. Stewart, The Reformation of American Administrative Law, 88 HARV. L. REV. 1667, 1680 (stating that the courts’ aim [during the era following the New Deal] was to “promote formal justice in order to protect private autonomy”). Assurances that agencies performed their jobs of furthering the interest of the general public was supposedly provided by the professionalism of administrators and political constraints. See id. at 1682.
Today, however, students of regulatory history are all too familiar with the scenarios of capture to which such assumptions can lead.\textsuperscript{105}

Mashaw seems to be aware of this potential; he hints in a footnote that the problem can be alleviated by allowing beneficiaries of regulation to seek pre-enforcement review after posting a bond that they forfeit if they lose their challenge.\textsuperscript{106} If such a bond were set approximately equal to the benefit that the beneficiary would derive from having the rule reversed, it would provide a penalty analogous to one that regulated entities face for noncompliance. Such a bonding scheme, however, raises problems of its own, not the least of which is the likely rejection by the American polity of a regulatory scheme that imposes a penalty for seeking to have courts evaluate the legitimacy of agency action.\textsuperscript{107} Moreover, such a scheme might run afoul of the recognized constitutional right of access to the courts.\textsuperscript{108}

\textsuperscript{105} See Marvin H. Bernstein, Regulating Business by Independent Commission 86–91 (1955); Louis M. Kohlmeier, Jr., The Regulators: Watchdog Agencies and the Public Interest 69–82 (1969); Linda R. Hirshman, Postmodern Jurisprudence and the Problem of Administrative Discretion, 82 U. L. Rev. 646, 656 (1988); see also James M. Landis, Report on the Regulatory Agencies to the Present Elect 70–72 (1960) (recognizing the need for adversarial representation of the public’s interest in the administrative process, but falling short of recommending that the public’s representative be given authority to seek judicial review of an agency decision).

\textsuperscript{106} See Mashaw, supra note 8, at 229 n.115.

\textsuperscript{107} Mashaw’s advocacy of post-enforcement review is predicated in part on his belief that the American polity would find disturbing a scheme that freed agencies from meaningful judicial scrutiny. See id. at 208, 231, 233, 252 (contrasting the political acceptability of delaying judicial review with that of making the standard of review more forgiving). He does not explain why a requirement that rule beneficiaries pay for access to the courts would be any more acceptable to the American public.

\textsuperscript{108} See Bill Johnson’s Restaurants, Inc. v. NLRB, 461 U.S. 731, 742–43 (1983) (in light of the First Amendment right of access to the courts, the NLRB could not enjoin a well-founded lawsuit by an employer even if that suit was filed in retaliation for an employee’s exercise of his rights under the NLRA); Harrison v. Springdale Water & Sewer Comm’n, 780 F.2d 1422, 1427 (8th Cir. 1986) (citing numerous cases holding that the government cannot threaten an individual as a means of deterring legitimate law suits); cf. Lindsey v. Normet, 405 U.S. 56, 78–79 (1972) (holding that an Oregon statute requiring tenants to post a bond equal to twice the rent due in order to appeal an adverse eviction ruling violated the Equal Protection Clause, and emphasizing that such a bond would deter non-frivolous appeals by those unable to afford it). In order to provide the threat of penalty to beneficiaries that will deter petitions for review, it is not enough for the bond to merely cover harm caused by a party obtaining a judicial stay of a rule pending its review. Such a bond might be less politically problematic, as it would only require petitioners to cover any injury caused by their challenge. Certainly, this type of bond would not raise the same constitutional concerns as an out-and-out penalty for bringing a suit that ultimately proved unsuccessful. See id. at 77–78
IV. SELECTIVE USE OF POST-ENFORCEMENT REVIEW

When all is said and done, even if a regulatory scheme could provide penalties that induce efficient compliance, the case for exclusive post-enforcement review of rules is not open and shut. For many rules, barring pre-enforcement review will adversely affect the quality of the administrative decision or judicial review. Such a bar also extends the period during which regulated entities remain uncertain about the rule’s ultimate validity because of the potential for subsequent judicial reversal. Therefore, delaying judicial review does not appear to be a panacea for all ossification of agency rulemaking.

Perhaps the most significant factor in the calculus of the relevant benefit of pre-enforcement review is the extent to which judicial reversal of the rule at the enforcement stage threatens industry with significant wasted investment. In situations involving such a threat, delaying review to the post-enforcement stage exposes regulated entities to enormous risks. By complying, such entities risk investment made in reliance on the rule if the rule is subsequently overturned on review. By not complying, the entities risk having to pay penalties and falling behind others in the industry who decided to comply. In addition, the greater the threat of substantial stranded investment the greater the bias of the ultimate regulatory outcome against the affected public—the intended beneficiaries of a regulatory program. Judges will understandably hesitate to reverse rules if reversal leads directly to wasted assets. For this reason, suits (requiring bonds to cover potential costs imposed on a landlord by a tenant’s appeal would be constitutional); cf. Bill Johnson’s Restaurants, 461 U.S. at 743 (the First Amendment does not protect access to the courts to file baseless lawsuits). But this more limited bond frequently would not threaten the penalty needed to deter pre-enforcement suits by beneficiaries of regulation. A court often can review a rule prior to its scheduled effective date, in which case no stay (and hence no bond) would be required. In many other cases, the beneficiaries of the regulation are upset that regulation does not go far enough. In these cases, regulated entities would not suffer harm from a stay of the rule, and hence beneficiaries would not have to post a bond for bringing a pre-enforcement rule challenge.

The Supreme Court’s decision holding that pre-enforcement review of rules is presumptively available relied greatly on freeing regulated entities from the dilemma of having to invest in compliance or face penalties. See Abbott Lab. v. Gardner, 387 U.S. 136, 152–53 (1967).

I am reminded of a case that I argued defending the routing of an electric transmission line by the New York State Public Service Commission (PSC). See Delaney v. Public Serv. Comm’n, 507 N.Y.S.2d 471 (2d Dep’t 1986). The line was to cost $500 million,
by intended beneficiaries challenging a rule with which industry has decided to comply are not likely to succeed.

On the other side of the equation is the threat to the beneficiaries from industry refusals to comply. To the extent that delays in compliance pending judicial review impose substantial costs on the public, society is made better off by coercing prereview compliance. Even if threats of penalties are so great that they dissuade all judicial challenges by regulated entities and this lack of judicial review in turn leads the agency to adopt nonoptimal rules, the costs of delayed compliance might still justify preclusion of pre-enforcement review. The balance depends upon the detrimental impact of the deviation of the rules from optimality compared to the cost of delay that results from encouraging challenges by allowing pre-enforcement review. In short, an adequate rule that takes effect quickly may be better than an excellent rule with which industry will not comply for years.

A third significant factor in the balance is the ability of judicial review to encourage more careful deliberation by an agency about an issue raised in a rulemaking. Unfortunately, the net benefits that are likely to flow from the impact of delaying judicial review of rule challenges on the administrative decisionmaking process are not easy to assess. On the one hand, delaying judicial review will tend to discourage challenges altogether. Free from judicial oversight, an agency might make an unwise decision, perhaps to further an immediate political agenda or the idiosyncratic goals of a regulatory office within the agency, or perhaps simply to avoid devoting the resources

and by the time the court heard the case, the Power Authority of the State of New York had already spent $150 million clearing the route and designing the line for that route. I made certain to point out to the judges that a reversal of the PSC approved route would result in a total waste of that $150 million dollar investment. For another example explaining judicial hesitancy to reverse rules resulting in wasted assets, see supra notes 78–80 and accompanying text.


See Administrative Law Symposium, supra note 113, at 554 (remarks of Cass Sunstein noting that NHTSA's decision to shelve the requirement that automobiles be equipped with airbags was based on a political hit list, and not on any evaluation of the merits of the regulation); Pedersen, supra note 48, at 56–59; Seidenfeld, supra note 3, at 506–07. But see Administrative Law Symposium, supra note 113, at 556–57 (response of Elliott
necessary to make the best decision about a complex problem.\textsuperscript{115} On the other hand, delaying judicial review would give the court a more concrete factual setting in which to assess the reasonableness of the agency’s predictions.\textsuperscript{116} Thus, delaying judicial review might prevent the reviewing court from requiring analyses that cost much more to prepare than the information they generate is worth. Avoiding these counterproductive judicial demands, in turn, would obviate the need for the agency to perform as many studies and analyses as possible to convince the court that the agency took such predictions seriously, even if the studies have only marginal value in guiding the agency to regulate wisely.

Finally, my previous analysis of the possibility of a court reading signals from regulated entities’ compliance behavior suggests a limited class of cases for which delaying judicial review might benefit both the rulemaking and review processes. If the legality or wisdom of a rule hinges on information best known to regulated entities, and Congress can provide a penalty that measures the social harm from a violation of the rule, then delaying review can create an efficient incentive for these entities to reveal when they believe the rule is valid. Such revelations would provide information to the court about regulated entities’ true beliefs regarding the validity of a rule and thereby reduce the need for the agency to generate and analyze data merely to convince a court that its rule was justified. Such information might also improve the quality of judicial review, for instance by alerting courts to challenges based on makeweight issues that the regulated entities and agency know to be tangential to the real controversies created by a rule.\textsuperscript{117}

In short, the factors that go into the balance of whether pre-enforcement review of a rulemaking is warranted are too diverse to permit a simple answer that either pre-enforcement or post-enforcement review is always best. The diversity of the factors that enter into this balance suggests perhaps that courts should decide issue by issue whether to allow pre-enforcement review. In fact, these factors overlap substantially with those Abbott Laboratories purports to apply to determine whether a rule is ripe for review prior to its application.\textsuperscript{118}

\textsuperscript{115} Cf. Seidenfeld, \textit{A Civic Republican Justification}, supra note 102, at 1564 (asserting that policing by private interest groups able to challenge agency action in court is necessary to counter agency lethargy).

\textsuperscript{116} \textit{See Mashaw}, supra note 8, at 235 (delaying review until the post-enforcement stage focuses issues and gives courts a better information base to evaluate rule challenges).

\textsuperscript{117} \textit{See Seidenfeld}, supra note 3, at 496–98 (detailing judicial uncertainty about the significance of issues raised by a rule challenge).

\textsuperscript{118} \textit{See Abbott Lab. v. Gardner}, 387 U.S. 136, 149 (1967); \textit{see also} Toilet Goods Ass’n v. Gardner, 387 U.S. 158, 162–65 (1967) (holding that pre-enforcement challenge to rules questioning whether empowering lawyers within agencies, rather than technical staff, is beneficial).
A rule that imposes compliance costs that would go to waste were a court ultimately to strike down the rule is a classic example of a rule that imposes a hardship on the parties subject to it.\(^{119}\) Under the language of *Abbott Laboratories*, parties should be able to challenge such a rule immediately after its adoption. A rule whose validity depends on information distinctly within the knowledge of regulated entities, however, would be a good candidate for one not fit for judicial review until these entities are forced to reveal that information, for instance by the threat of a penalty for failure to comply. Hence, the analysis above supports implementing Mashaw’s proposal of delaying review simply by having courts stick more rigorously to the language in *Abbott Laboratories*, rather than read that case as justifying pre-enforcement review absent unique circumstances.

That the courts have not applied the *Abbott Laboratories* factors in such a literal fashion, however, suggests that the analysis, up to this point, has also ignored some countervailing considerations. One such consideration is the cost of uncertainty inherent in any scheme of ad hoc decisionmaking. Under a case-by-case determination of the availability of pre-enforcement review, the agency would not know beforehand whether an issue will be subject to such review. Faced with the possibility that a court will decide to review the issue before enforcement, a review-averse agency will invest in the full panoply of analyses and internal checks that led to ossification in the first place.\(^{120}\) In other words, agencies’ aversion to reversal of rules may be so great that the uncertainty that inheres in a case-by-case determination of whether a rule is subject to pre-enforcement challenge may lead an agency to perform the very overcautious data collection and analysis that the prospect of delayed review sought to obviate.\(^{121}\)

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\(^{119}\) *Abbott Laboratories* itself, in holding the rule at issue ripe for pre-enforcement review, relied on investments that petitioners would have to make to comply with the rule. *See Abbott Laboratories*, 387 U.S. at 152–53.

\(^{120}\) Agencies tend to be “review-averse” because judicial reversal of a rule imposes costs that go beyond investments in the particular rule. *See Mendeloff*, supra note 36, at 121 (asserting that reversal of a rule not only wastes investment in developing the rule and delays protection to the rule’s beneficiaries, but also “deflate[s] the morale of the [agency] staff” and weakens the agency’s ability to fend off political attacks).

\(^{121}\) Most commentators that have criticized active judicial review of agency rulemaking have blamed the ossification it causes on the uncertainty to which active review exposes agencies. *See Mashaw*, supra note 8, at 203; *see also*, e.g., *Kenneth Culp Davis & Richard J. Pierce, Jr.*, *Administrative Law Treatise* § 7.4, at 311–13 (3d ed. 1994) (the real impediment created by judicial review is uncertainty); Thomas O. McGarity, *Regulatory
A second consideration militating against case-by-case determination of the timing of review is the impropriety of judicial evaluation of whether a threatened penalty was meant to induce compliance as a signal of rule validity. To perform such an evaluation in the absence of direction from Congress requires that a court determine whether the penalty threatened for a rule violation measures the social harm that one would expect, \textit{ex ante}, to flow from the violation. But harms from rule violations often include interference with interests for which there is no market value or for which the market cannot accurately measure the full social cost.\textsuperscript{122} Valuing such a harm requires expertise about how strongly the populace as a whole feels about the harmed interest, and at present there appears to be no objective means of measuring such harm.\textsuperscript{123} In addition, rule violations affect symbolic interests that cannot


\textsuperscript{122} For example, the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) creates a cause of action for “damages for injury to . . . natural resources.” 42 U.S.C. § 9607(a)(4)(C) (1994). The courts have interpreted this provision to require compensation for harm not only to use values, but also to nonuse values. See Ohio v. Department of the Interior, 880 F.2d 432, 462–64 (D.C. Cir. 1989) (reversing DOI’s decision to limit damages to the diminution in use values); see also Note, “Ask a Silly Question . . . ”: \textit{Contingent Valuation of Natural Resource Damages}, 105 Harv. L. Rev. 1981, 1981 (1992) (describing nonuse values as including the value of the option to use the resource in the future, the value of the opportunity to leave the resource to future generations, and the value of merely knowing that the resource exists).

be reduced to objective valuations.\textsuperscript{124} For these reasons, evaluating harms from rule violations must engage some mechanism for effective public input.\textsuperscript{125} Thus, courts have neither the institutional competence nor the democratic pedigree to evaluate whether the threatened penalty for a rule violation measures the expected harm from such a violation.

These countervailing concerns about ad hoc judicial determinations of the timing of review suggests that Congress may be in a better position to preclude pre-enforcement challenges to rules under particular statutory provisions.\textsuperscript{126}

\textit{Economic Allocation of Natural Resources}, 61 U. Chi. L. Rev. 493, 495-96 (1994) (contingent valuation results vary by as much as 2000\% and depend on whether the public surveyed perceives itself as having a right to the interest harmed).

\textsuperscript{124}See ROBERT NOZICK, THE NATURE OF RATIONALITY 26-35 (1993) (arguing that rational decisionmaking must incorporate the symbolic utility of actions); Richard H. Pildes & Cass R. Sunstein, \textit{Reinventing the Regulatory State}, 62 U. Chi. L. Rev. 1, 65 (1995) (advocating a change in cost-benefit methodology to include "expressive dimensions of legal and political choices"). Such symbolic or expressive interests would even include an interest in reinforcing the "rule of law," which has traditionally guided our regulatory system. See Keith Werhan, \textit{Delegalizing Administrative Law}, 1996 U. Ill. L. Rev. 423, 466 (criticizing the movement to delegalize administrative decisionmaking for jeopardizing "the fundamental American commitment to the rule of law").

\textsuperscript{125} See Pildes & Sunstein, \textit{supra} note 124, at 62-63 (noting that differences between experts and lay persons in assessing risks often reflect "clashes of value frameworks" and that such clashes cannot be resolved without involvement of the public in decisionmaking deliberations); Levy & Friedman, \textit{supra} note 123, at 526 (concluding that contingent valuation depends on "the need to define property rights in legal dispute[s], [which] may necessitate a political solution").

\textsuperscript{126} It is not at all clear that Congress is interested in "deossifying" rulemaking. If anything, the 104th Congress has indicated a distaste for regulation and has threatened to increase the burden on the rulemaking process as a means of discouraging regulation. See Richard J. Pierce, Jr., \textit{Legislative Reform of Judicial Review of Agency Actions}, 44 DUKE L.J. 1110, 1127-28 (1995) (arguing that legislative action decreasing the influence of judicial review currently is unlikely); Cass R. Sunstein, \textit{Congress, Constitutional Moments, and the Cost-Benefit State}, 48 Stan. L. Rev. 247, 250 (1996) (asserting that many provisions passed by the 104th Congress "represented an effort to clog the administrative process with paperwork"). A majority of both houses supported bills that would have required agencies to conduct cost-benefit analyses and risk assessments for all major rules. See, e.g., 141 CONG. REC. H2372 (daily ed. Feb. 28, 1995) (reporting House passage of H.R. 1022); 141 CONG. REC. D888 (daily ed. July 20, 1995) (reporting failure of Senate to achieve 60 votes needed for cloture on the Dole Amendment to the Comprehensive Regulatory Reform Bill, S.343). This Article, however, limits itself to considering the extent and means of implementing delayed review that will, in theory, maximize social welfare. Pragmatic considerations, such as Congress's reluctance to ease regulatory burdens, might suggest that a case-by-case imposition of barriers to pre-enforcement review may be the best that can be achieved in the current political climate.
Certain statutory provisions call for agencies to make rules that, if later overturned, would strand enormous amounts of investment. For some of these rules, delays in compliance also may not impose significant costs on the statutory beneficiaries and implementation might not reveal information that bears on the rules’ validity. It is more important that such rules be optimal than that they be adopted quickly. The availability of pre-enforcement review of such rules would likely be socially beneficial.

An example would be a statute requiring the agency to establish a health-based safety standard, such as a National Ambient Air Quality Standard (NAAQS) under the Clean Air Act. If a NAAQS were set too stringently, and industry could not challenge a rule without being subject to the risk of a substantial penalty, industry might be forced to invest an enormous amount of money in emissions-control technology that provided little social benefit. Moreover, the process of implementing and enforcing a NAAQS, requiring each state to promulgate and enforce a comprehensive State Implementation Plan, is so cumbersome and expensive that once the EPA establishes a NAAQS it is loathe to change it. Thus, the administrative costs alone that would result from judicial reversal of the NAAQS after the standard had been applied would be great. Finally, the process of implementing and enforcing a NAAQS is not likely to reveal additional information about the actual health benefits of the standard, as such benefits may not show up for a long time after the NAAQS is attained and would be confounded by the impact of other changes in the environment of an area over this long period of time. Hence, retention of pre-enforcement review of the NAAQS makes sense.

In contrast, when a statute specifies that a standard be based on cost or feasibility, delaying review might be preferable. As already noted, the OSH Act’s requirement that OSHA set standards for toxic materials at a level which protects workers’ health to the extent feasible is an example of such a statute. If entities faced penalties approximately equal to reasonable compliance costs, then restricting review of an OSHA standard to the post-enforcement stage would give industry an incentive to attempt to comply in good faith. The results of such attempts would provide invaluable information about whether the standard was economically or technologically infeasible. In addition, even if a reviewing court later reversed an OSHA standard on the grounds it was infeasible, efforts to meet the standard would not result entirely in wasted

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  \item[127] 42 U.S.C. § 7409(b)(1) (1994) (mandating that the EPA promulgate primary NAAQS to protect the public health).
  \item[128] Cf. Mashaw, supra note 8, at 236 (recognizing that the complexity of the process of implementing NAAQS “may demand legal certainty in order to mobilize political resources, whatever the costs in legal adversariness”).
  \item[129] See supra notes 87–90 and accompanying text.
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investment. Assuming that the statute is correct in its presumption that imposing the most stringent standard affordable will benefit workers' health, at least to some extent,\textsuperscript{130} then forcing industry closer to meeting the standard will provide such a benefit. Thus, delaying review of such a standard is likely to provide the benefits that Mashaw identified.

The key point of these examples is that Congress could provide for post-enforcement review regulations under appropriate statutory provisions. Theoretically, we need not rely on case-by-case judicial determinations about the timing of review. In the appropriate regulatory context, adoption of particular statutory provisions governing the timing of review appear to be the preferable means for relieving the regulatory grid-lock that plagues agency rulemaking.

V. CONCLUSION

Scholars of the administrative rulemaking process have bemoaned the ossification of that process, in large measure blaming such ossification on unreasonable demands that reviewing courts have imposed on agencies when promulgating rules. One suggestion for relieving ossification is to delay the availability of judicial review of a rule until the proceeding in which the agency enforces the rule against a violator. Proponents of this suggestion reason that delaying judicial review will discourage rule challenges, which will relieve agencies of some of the burden they face in persuading courts of the validity of their rules. Furthermore, they argue that even when a rule is challenged in an enforcement proceeding, courts will have access to better information about the rule's validity.

This Article has evaluated the net benefits of delaying judicial review by investigating the likely impact of such a delay on compliance with rules by regulated entities, review of rules by the judiciary, and the promulgation of rules by agencies. Using a game theoretic analysis, the Article concludes that any benefits of delaying the availability of judicial review to challenge an agency rule depend greatly on the magnitude of the penalty that regulated entities face for violating the rule. If the penalty is much less than the costs of complying with the rule, entities are unlikely to attempt to comply. Without such attempts at compliance, a reviewing court is unlikely to have better information about the validity of the rule at the time the rule is enforced than the court would have at the time the rule is adopted. If the penalty is much

\textsuperscript{130} This presumption is buttressed by the Supreme Court's reading the OSH Act to require that OSHA first determine that the toxic substance at issue threatens workers' health at the concentrations prohibited by the standard. \textit{See} Industrial Union Dep't., AFL-CIO v. American Petroleum Inst., 448 U.S. 607, 643 n.48 (1980).
greater than the compliance costs, delaying review is likely to induce universal compliance with the rule, even if the rule is of suspect wisdom or legality. The Article also reasons that the impact of delaying rule challenges on the care agencies take in promulgating rules is highly unpredictable. Given that delaying review increases the risk faced by regulated entities, the Article therefore concludes that delaying the availability of rule challenges is not likely to provide net social benefits except in a narrow set of regulatory circumstances.

Even within this narrow set of circumstances, the Article concludes that courts should not dismiss rule challenges prior to enforcement as unripe for judicial review. Ad hoc determinations of the ripeness of rule challenges create legal uncertainty, and the determination of when social welfare is enhanced by deeming a rule challenge premature is beyond the institutional competence and legitimate authority of the courts. Rather, the Article suggests that Congress is best suited to evaluate when the benefits of delaying the availability of a rule challenge exceeds the costs of doing so. If Congress finds that a prohibition on pre-enforcement review is warranted for rules adopted under a statutory provision, it should restrict review to the enforcement stage as part of that particular statutory provision.
APPENDIX

ANALYSIS OF SIGNALING WHEN THE COURT IMPOSES NO PENALTY IN CASE OF UNIVERSAL VIOLATION AND ENTITIES CAN COORDINATE THEIR COMPLIANCE BEHAVIOR.

If a reviewing court will necessarily not impose a penalty for a rule violation when every entity fails to comply with the rule then the game is that for signaling with $q_2 = 0$. That the entities can coordinate their compliance behavior makes the game sequential: the second entity acts knowing the choice of the first entity. Without loss of generality, one can assume that the first entity to act is G.M. The extensive form for the game then is as follows:

Because Chrysler knows, when it acts, whether G.M. has decided to comply with or violate the rule, Chrysler can tailor its strategy to G.M.'s behavior. If G.M. has complied, Chrysler will maximize its payoff at $-X$ by also complying; if G.M. has violated the rule, then Chrysler will maximize its payoff at $-L$ by also violating it. Knowing that Chrysler will so act, G.M. faces the following simplified game:
G.M. therefore will violate the rule to maximize its payoff at -L. Because G.M. violates the rule, so does Chrysler. The outcome is determined with certainty: both entities will violate the rule.