# Sticky Regulations

*Aaron L. Nielson*†

*Administrative law is often said to present a dilemma. On one hand, all three branches of the federal government have crafted procedures to facilitate public participation in the regulatory process and to ensure that the benefits of regulations outweigh their costs. But on the other hand, such procedures have a price—they slow administrative action and sometimes thwart it altogether. In fact, marching under the banner of "ossification," an entire literature has formed around the idea that there are too many procedures and that administrative law should be transformed to speed up the regulatory process.*

*Ossification, however, has an overlooked, proregulatory benefit: it allows agencies to promulgate "sticky regulations"—that is, rules that cannot be changed quickly. And sticky regulations can be quite valuable, especially when one recalls that agencies seek not only to regulate things as they now exist but also to encourage the emergence of a future that does not yet exist. Regulators are often hard pressed to achieve long-term policy goals absent private investment in innovation—and private investment is enhanced by regulatory stability. Agencies thus can benefit from their ability to reassure private parties that the regulatory landscape will not be upended before long-term investments can be recouped. Hence the counterintuitive upside of ossification: the very fact that regulatory change is hard creates the stickiness that helps agencies regulate into the future. This is not to say that ossification is always a boon for agencies or that all procedures are cost justified. It is to say, however, that once the value of sticky regulations is accounted for, the widely held belief that a dilemma exists between robust procedures and agency flexibility must be rejected as too simplistic.*



† Associate Professor, J. Reuben Clark Law School, Brigham Young University. The author thanks Stephanie Bair, Jim Brau, Emily Bremer, Brigham Daniels, Daniel Hemel, David Moore, Carolina Núñez, Jarrod Shobe, Paul Stancil, Lisa Grow Sun, Christopher Walker, the participants in the 2017 Center for the Study of the Administrative State's Research Roundtable on Rethinking Due Process and accompanying public policy conference held at the Antonin Scalia Law School, George Mason University, and the participants in the 2016 Rocky Mountain Junior Scholars Forum held at the S.J. Quinney College of Law, University of Utah. Michael A. Stevens provided helpful research assistance. Financial support was provided by Brigham Young University and the Center for the Study of the Administrative State.

## INTRODUCTION

Modern administrative law is often said to present a dilemma. On one hand, robust public participation in the regulatory process is valuable, and agencies should not promulgate regulations that cost more than they are worth. And further, at least as a conceptual matter (leaving aside for a moment how it may work in practice), it is hard to argue against the idea that there should be external review of agency decisions—for instance, by courts or the White House, or both—to help ensure that agencies make sound decisions. After all, although agency officials no doubt try to do their best, like anyone else, they make mistakes.[1]

[1] See Richard H. Pildes and Cass R. Sunstein, *Reinventing the Regulatory State*, 62 U Chi L Rev 1, 4 (1995) (noting certain "pathologies of modern regulation"); Mark Seidenfeld, *A Civic Republican Justification for the Bureaucratic State*, 105 Harv L Rev 1511, 1563 (1992) (faulting those who "naively" assume the best of agencies); *Mach Mining, LLC v*

Such "good government" concerns have prompted the United States to impose numerous procedural restrictions on agencies, with the cumulative effect being that administrative law is now characterized by a great many procedures.[2] And although there are dissenting voices (for instance, one might believe that courts are not institutionally competent to review agency reasoning),[3] these procedures are often thought of as "good," that is, they generally make things better rather than worse.[4] All else being equal then, such procedures should be embraced.

But on the other hand, not all else *is* equal—these procedures have costs of their own. As Professor Adrian Vermeule explains, even if regulatory procedures may encourage "the rationality of agency policymaking," they may also "clog[ ] the pipeline of agency policymaking."[5] In other words, administrative procedures carry with them "opportunity costs" as agencies are forced to delay regulatory action while officials check off procedural boxes.[6] When it comes to agency action, however, promptness can be a good thing; in fact, delay sometimes can be dangerous.[7] Hence the supposed dilemma: procedures are good because they enable public participation and help prevent agency mistakes, but they may also unduly hinder agency action, thereby thwarting

---

*Equal Employment Opportunity Commission*, 135 S Ct 1645, 1652 (2015) (explaining that we "need not doubt" the administrative state's "trustworthiness, or its fidelity to law, to shy away from" a world without checks and balances).

2 See Lisa Schultz Bressman, *Procedures as Politics in Administrative Law*, 107 Colum L Rev 1749, 1755 (2007) ("For as long as agencies have existed, administrative procedures (and judicial review) have controlled their decisionmaking.").

3 See Elizabeth Magill and Adrian Vermeule, *Allocating Power within Agencies*, 120 Yale L J 1032, 1056 (2011) (arguing that judicial review "tends to empower technocrats and lawyers at the expense of political appointees within agencies"); Thomas J. Miles and Cass R. Sunstein, *The Real World of Arbitrariness Review*, 75 U Chi L Rev 761, 772 (2008) (noting that in light of "the distinctive competence of agencies and courts," one might conclude that "questions of policy and fact should be resolved by agencies").

4 See Bressman, 107 Colum L Rev at 1751–52 (cited in note 2).

5 Adrian Vermeule, *Our Schmittian Administrative Law*, 122 Harv L Rev 1095, 1144 (2009).

6 Id.

7 See Matthew T. Wansley, *Regulation of Emerging Risks*, 69 Vand L Rev 401, 409 (2016) ("Regardless of whether the rulemaking process has become too demanding in general, the notice and comment requirements are crippling when agencies seek to regulate emerging risks."); Michael A. Livermore and Richard L. Revesz, *Regulatory Review, Capture, and Agency Inaction*, 101 Georgetown L J 1337, 1354 (2013) (noting the potential danger of "underregulation").

another good thing.[8] To the extent that good procedures prevent agencies from doing good things, we have a dilemma.[9]

Premised on this supposed dilemma, a large body of scholarship has grown up around the idea that when it comes to modern administrative law, the playing field is too heavily tilted in favor of procedure. The label given to this view is "ossification."[10] The thrust is that in today's world, it takes too much time and too many resources for agencies to act—particularly for notice-and-comment rulemaking.[11] The agency must prepare a detailed notice of proposed rulemaking that sets out the data it intends to use.[12] It must solicit input from the public and then respond, sometimes to thousands of comments.[13] The agency may also have to engage in cost-benefit analysis, which can be reviewed critically by the White House's Office of Information and Regulatory Affairs (OIRA).[14] All of this can take a long time—especially, perhaps, if OIRA is concerned about the project.[15] And after all of that, the agency's decision must satisfy the "hard look" standard of judicial review[16]—which can be challenging.[17] Indeed, because of hard-look review, the agency may be forced, de facto, to engage in massive pre-promulgation planning to avoid being condemned

8 Further, regulating agencies is costly, and it would be difficult to eliminate agency mistakes in a cost-justified manner. See Adrian Vermeule, *Optimal Abuse of Power*, 109 Nw U L Rev 673, 677–78 (2015) (urging the recognition that preventing all abuses of power is too costly).

9 See *Cambridge Academic Content Dictionary* 256 (Cambridge 2009) (defining "dilemma" as "a situation in which a choice has to be made between possibilities that will all have results you do not want").

10 See Charles W. Tyler and E. Donald Elliott, *Administrative Severability Clauses*, 124 Yale L J 2286, 2328 n 162 (2015) (collecting literature on ossification).

11 See generally Richard J. Pierce Jr, *Rulemaking Ossification Is Real: A Response to* Testing the Ossification Thesis, 80 Geo Wash L Rev 1493 (2012).

12 See Maeve P. Carey, *The Federal Rulemaking Process: An Overview* *5–6 (Congressional Research Service, June 17, 2013), archived at http://perma.cc/SU5L-T3SG.

13 See id.

14 See Cass R. Sunstein, *The Office of Information and Regulatory Affairs: Myths and Realities*, 126 Harv L Rev 1838, 1842, 1846 (2013); Emily Hammond Meazell, *Presidential Control, Expertise, and the Deference Dilemma*, 61 Duke L J 1763, 1793–94 (2012).

15 See Kathryn A. Watts, *Controlling Presidential Control*, 114 Mich L Rev 683, 699 (2016) (noting the claim that "OIRA has thwarted regulatory activity by silently sitting on rules, and, in some cases, delaying initiation of the review process"), citing Lisa Heinzerling, *A Pen, a Phone, and the U.S. Code*, 103 Georgetown L J Online 59, 61 (2014).

16 See *Motor Vehicle Manufacturers Association of the United States, Inc v State Farm Mutual Automobile Insurance Co*, 463 US 29, 41–44, 46–57 (1983); Merrick B. Garland, *Deregulation and Judicial Review*, 98 Harv L Rev 505, 526 (1985) (explaining the "origins of the hard look doctrine").

17 See Matthew C. Stephenson, *A Costly Signaling Theory of "Hard Look" Judicial Review*, 58 Admin L Rev 753, 764–65 (2006) (explaining why "hard look" can be especially labor intensive for agencies).

after the fact for not having addressed an "important aspect of the problem."[18] Faced with so many steps, some fear that agencies may give up and not issue rules at all and instead opt to use (or even abuse) tools like guidance documents.[19]

Although there are disputes about just how prevalent ossification is,[20] at the most basic level nearly everyone agrees that the procedures that give rise to ossification make it harder for agencies to regulate, at least at the margins. If agencies must satisfy more procedural requirements, it should take them longer to act—that is, unless they opt to divert resources from other projects. Either way, the agency's burden is increased, so one would expect less total administrative action, greater delays for the action that does get through, or both. The real disagreement then, at least as conventionally understood, boils down to a fight over whether these procedures are cost justified—that is, is the good that they generate weighty enough to offset the good that would come from more prompt regulatory action?[21] And if not, how should those procedures be reformed? At bottom, this supposed dilemma has been the launching pad for many important articles.[22]

An important premise of this literature, however, has largely gone unquestioned: Is this supposed dilemma real? I suggest

---

18 *State Farm*, 463 US at 43.

19 See Thomas O. McGarity, *Some Thoughts on "Deossifying" the Rulemaking Process*, 41 Duke L J 1385, 1386 (1992) (arguing that "agencies are beginning to seek out alternative, less participatory regulatory vehicles"). See also Aaron L. Nielson, *Beyond* Seminole Rock, 105 Georgetown L J 943, 985 (2017) (explaining the dynamic relationship of regulatory doctrines).

20 See, for example, Jason Webb Yackee and Susan Webb Yackee, *Testing the Ossification Thesis: An Empirical Examination of Federal Regulatory Volume and Speed, 1950–1990*, 80 Geo Wash L Rev 1414, 1475 (2012) (challenging the view that ossification is common); Mark Seidenfeld, *Why Agencies Act: A Reassessment of the Ossification Critique of Judicial Review*, 70 Ohio St L J 251, 320–21 (2009) (similar); William S. Jordan III, *Ossification Revisited: Does Arbitrary and Capricious Review Significantly Interfere with Agency Ability to Achieve Regulatory Goals through Informal Rulemaking?*, 94 Nw U L Rev 393, 439–41 (2000) (similar).

21 See Kent Barnett, *Codifying* Chevmore, 90 NYU L Rev 1, 60 (2015) (noting the "debate" over "the existence and extent of ossification" and "the benefits of searching judicial review"); Lynn E. Blais and Wendy E. Wagner, *Emerging Science, Adaptive Regulation, and the Problem of Rulemaking Ruts*, 86 Tex L Rev 1701, 1709 (2008) ("Yet even if ossification is occurring . . . there is no general consensus that the costs of ossification outweigh the benefits of close and sustained judicial oversight of administrative agencies by the federal courts."); Thomas O. McGarity, *The Courts and the Ossification of Rulemaking: A Response to Professor Seidenfeld*, 75 Tex L Rev 525, 529–30 (1997) (rejecting a "middle ground" that supposedly retains the benefits of hard-look review while reducing ossification), citing Mark Seidenfeld, *Demystifying Deossification: Rethinking Recent Proposals to Modify Judicial Review of Notice and Comment Rulemaking*, 75 Tex L Rev 483, 485 (1997).

22 See Connor Raso, *Agency Avoidance of Rulemaking Procedures*, 67 Admin L Rev 65, 67–68 (2015) (collecting citations).

not—or, at least, that any such dilemma, if it exists, differs considerably from what the ossification literature suggests. This is so because a "procedures make it hard for agencies to act" framework overlooks something important about administrative law: procedural restraints may *expand* an agency's regulatory menu rather than *contract* it. In other words, agencies sometimes may have more choices, not fewer, because they are subject to procedural restraints that slow regulatory action. Counterintuitively, then, ossification (that is, the idea that it takes a lot of time and resources for agencies to satisfy all of their procedural duties) may sometimes benefit agencies rather than harm them. This is so because ossification can act as a credible commitment mechanism against change. Because regulated parties know that an agency must survive a procedural gauntlet to change a regulatory scheme, they can have more confidence in that scheme's stability. Under certain circumstances, that stability can encourage more activity of the sort that the agency wishes to encourage.

In short, regulatory scholars have overlooked the value of what I call *sticky regulations*: regulations that cannot be changed or rescinded quickly. The reality is that administrative law operates across four dimensions, not just three, with the fourth dimension being time.[23] Agencies not only seek to regulate today's three-dimensional world (that is, our physical world of height, width, and depth), but they also often act to encourage the emergence of a preferred future that does not yet exist.[24] Thus, for instance, regulators create incentives designed to encourage regulated parties to develop technologies that help agencies accomplish their long-term goals.[25] Agencies, of course, might do the same when they create incentives for other types of long-term investments like creating workforce retraining programs, locating new facilities in economically disadvantaged regions, or opening charter schools. Yet such encouragement is not easy—especially after the Supreme Court's decision in *Federal Communications Commission*

[23] See Rebecca R. French, *Time in the Law*, 72 U Colo L Rev 663, 727 (2001) ("Hermann Minkowski['s] . . . book, *Time and Space* (1907), was the first to mention the 'fourth dimension,' a reference to time within Einstein's General Theory of Relativity.").

[24] See Jonathan Masur, *Judicial Deference and the Credibility of Agency Commitments*, 60 Vand L Rev 1021, 1038–45 (2007) (arguing that agencies and their regulatory missions benefit from the temporal stability of regulations).

[25] See, for example, D. Bruce La Pierre, *Technology-Forcing and Federal Environmental Protection Statutes*, 62 Iowa L Rev 771, 805–06 (1977) (explaining how agencies direct regulated parties to generate new technologies); Sarah Tran, *Expediting Innovation*, 36 Harv Envir L Rev 123, 137 (2012) (urging the Patent and Trademark Office to shift resources to encourage socially beneficial innovation).

*v Fox Television Stations, Inc.*[26] Indeed, it is now black-letter law that agency officials in time period one generally cannot bind their successors in time period two.[27] Agencies, however, often require private investment to meet long-term regulatory goals—investment that sometimes can be recouped only if the regulatory scheme does not materially change for years.[28] If regulated parties are not confident that the scheme will remain unchanged, then they will invest less in agency-favored priorities or perhaps leave the market altogether.[29]

This inability for agencies to inspire long-term confidence can make regulating more difficult. Because everyone knows that an agency can change its mind, private parties must worry about trusting the durability of an agency-created incentive—meaning an agency's ability to direct innovation through incentives is lessened. The upshot is that if regulated parties with whom the agency has a symbiotic relationship cannot trust the regulator (or must put a significant discount factor on that trust), then the agency's ability to regulate into the future is reduced, at least at the margins. This lack of trust harms *agencies*, not just regulated parties, because in a world in which regulated parties reasonably lack confidence in the stability of the regulatory scheme, agencies are less able to pursue policies with longer time horizons.

To effectively regulate into the future, agencies thus need a commitment mechanism[30]—some way to credibly convince regulated parties that administrative policy will not change too quickly. In other words, agencies need sticky regulations. Where in administrative law, however, can stickiness be found? The leading article addressing this question is Professor Jonathan Masur's *Judicial Deference and the Credibility of Agency Commitments*.[31] Masur focuses on how stare decisis can be used to create stability, and from that vantage point, he criticizes the Supreme Court's holding in *National Cable & Telecommunications Association v Brand X Internet Services*[32] that agencies are not always bound by

26 556 US 502 (2009).

27 See id at 515 (holding that an agency can change course if "the new policy is permissible under the statute, that there are good reasons for it, and that the agency *believes* it to be better").

28 See Masur, 60 Vand L Rev at 1041–42 (cited in note 24).

29 See id.

30 See id at 1060. See also Daryl J. Levinson, *Parchment and Politics: The Positive Puzzle of Constitutional Commitment*, 124 Harv L Rev 657, 697–704 (2011) (explaining constitutional commitment mechanisms).

31 See generally Masur, 60 Vand L Rev 1021 (cited in note 24).

32 545 US 967 (2005).

prior judicial interpretations of the statutes they administer.[33] In fact, Masur goes so far as to say that "[b]y abolishing the settling effect of judicial decisions, the Court has eliminated the *only*, albeit crude, method by which Congress, a regulated party, or even an agency itself could have fixed a policy . . . in place."[34] Masur is right that *Brand X* reduces an agency's ability to make credible commitments. But he is wrong that *Brand X* eliminated the "only" commitment mechanism in an agency's toolkit.

Instead, I show that ossification can act as an agency commitment mechanism, thereby allowing agencies to promulgate sticky regulations. The insight is simple: to the extent that regulated parties know that regulators cannot quickly change regulatory schemes, they can proceed with greater confidence to do what an agency in time period one would like them to do. If an investment requires a decade of steady returns to be profitable, investors need to know that the underlying scheme won't change in four years—for instance, when the next administration begins. And how can they know that? The procedures that are blamed for ossification. Even if agency officials in the future wish to change course in time period two, because of administrative law's many procedures, they cannot immediately do so, which creates the stickiness that agencies can use to induce private reliance. This is agency empowering.

The implications of this insight are significant. Once one recalls that agencies often have symbiotic relationships with those they regulate,[35] ossification's potential upside becomes apparent. An agency, for instance, cannot create a world with certain types of agency-favored automobiles if no one will build them.[36] Seen in this light, ossification sometimes may be a boon for agencies rather than a burden. The supposed dilemma at the heart of modern administrative law, in other words, is of a different character than scholarship to date suggests. The true dilemma is that agencies can either have long-term trustworthiness or short-term flexibility, but perhaps not both. If agencies can make rules easily (which in a sense benefits agencies), then their ability to regulate into the future is necessarily reduced (which in another sense harms agencies). Reformers therefore should not ask "what

33 Masur, 60 Vand L Rev at 1024 (cited in note 24).

34 Id (emphasis added).

35 See id at 1043.

36 See id at 1022 (explaining why "manufacturers rationally may decide to decline the offer implicit in [an agency's] new rule and not invest in the costly (but socially productive) new technology, frustrating the agency's regulatory aims").

can we do to hurry up the process?" but rather "how much procedural delay is necessary if we want to properly balance the regulatory benefits of long-term stability against the short-term costs that those benefits require?"

Indeed, if agencies could not make credible commitments, agency-created incentives would have to be much larger to achieve the same result. Basic economics suggests that in evaluating a potential investment opportunity, a regulated party considers how likely it is that incentives will remain in place. The less certainty there is that incentives will remain, the larger those incentives must be to offset the risk. Incentives, however, are not costless; agencies must either give up money or something else. To the extent that regulatory incentives can be sticky, therefore, they can also be smaller.

To be sure, I do not contend that all procedures are cost justified. Nor do I argue that every situation needs a sticky regulation. Instead, my point is more limited—it is too simplistic to condemn ossification (the shorthand label given to all of the procedures that agencies must satisfy before creating new rules) without considering those situations in which it may expand rather than contract an agency's options. Of course, it may make more sense for Congress to create different commitment mechanisms because the procedures that cause ossification are too blunt for this purpose or because they impose costs apart from agency delay. In fact, it is a fair question whether we should even *want* agencies to regulate into the future. Such analysis, however, should be the future of the ossification literature. Discussing ossification without considering how it creates the stickiness that agencies use to regulate across time is incomplete.

This Article proceeds as follows: Part I sets the stage by discussing ossification, agency efforts to regulate into the future, and credible commitment mechanisms in administrative law. Part II, in turn, sets forth this Article's theoretical contribution: that ossification can act as a commitment mechanism enabling the creation of sticky regulations, thus expanding an agency's long-term options. Part III then gives examples of sticky regulations in action. Finally, Part IV sets out a preliminary agenda for future scholarship. For instance, and perhaps most important, *should* agencies be able to use sticky regulations to regulate across time or is this power too dangerous? And if agencies should be able to promulgate sticky regulations, is ossification the best commitment mechanism or should Congress create a different one?

## I. Setting the Stage

This Part reviews the ossification literature, with a focus on those procedures that are said to delay or hinder regulatory action. Likewise, it explains the fourth dimension of administrative law—the idea that agency officials do more than regulate current conditions but also seek to direct future innovation and other sorts of long-run investment. And third, it discusses credible commitment mechanisms in the context of the regulatory state.

### A. The Ossification Thesis

It is no secret that agencies can do a lot through rulemaking. When an agency uses this tool, it can create a legal instrument that is just as "binding on regulated persons and entities as are the laws passed by Congress and signed by the President."[37] Because this device is so powerful, it is unsurprising that agencies often use rulemaking—including for significant policies.

At bottom, the ossification thesis argues that although rulemaking is used frequently, it should be used even more frequently. Rulemaking is not used as often as it should be, the thesis goes, because all three branches of the federal government have imposed onerous procedural requirements on rulemaking. Some scholars think that these procedures are bad in and of themselves, for instance, because they produce too many errors due to the judiciary's supposed inability to evaluate complex scientific matters,[38] or because they enable undue politicization of what should be a technocratic process.[39] Many believe, however, these procedures are good in that they improve the quality and legitimacy of the resulting regulations, but that they are not *good enough* to justify the burdens they impose on agencies.[40] Thus, on net, advocates of the thesis often urge that these procedures should be curtailed despite the good that they do because they prevent an even better thing—prompt action—from occurring.

---

37 Yackee and Yackee, 80 Geo Wash L Rev at 1416 (cited in note 20).

38 See, for example, Emily Hammond Meazell, *Super Deference, the Science Obsession, and Judicial Review as Translation of Agency Science*, 109 Mich L Rev 733, 755 (2011) (contrasting generalist judges and expert agencies).

39 See, for example, Sidney Shapiro, Elizabeth Fisher, and Wendy Wagner, *The Enlightenment of Administrative Law: Looking inside the Agency for Legitimacy*, 47 Wake Forest L Rev 463, 478–79 (2012) ("The countless meetings between industry interests and OIRA undoubtedly are about regulatory costs, and the public interest community lacks an equal opportunity to focus OIRA on regulatory benefits.").

40 See, for example, Vermeule, 122 Harv L Rev at 1144 (cited in note 5).

1. The APA's simple version of rulemaking.

When one speaks of rulemaking, what often is meant is notice-and-comment (or informal) rulemaking for legislative rules.[41] This type of rulemaking is generally governed by the procedures set out in § 553 of the Administrative Procedure Act[42] (APA).[43] For instance, an agency must publish a "notice of proposed rule making" in the Federal Register, "give interested persons an opportunity to participate in the rule making through submission of written data, views, or arguments," and then "[a]fter consideration of the relevant matter presented, the agency shall incorporate in the rules adopted a concise general statement of their basis and purpose."[44] The APA does not appear to call for much content in the notice of proposed rulemaking.[45] And beyond having to consider public comments, the agency's only responsibility is to "incorporate . . . a concise general statement of their basis and purpose."[46] These procedures were not always thought of as particularly onerous. For instance, "[t]he 'concise general statement of basis and purpose' for the original primary and secondary ambient air quality standards promulgated under the Clean Air Act Amendments of 1970 consisted of a single page in the *Federal Register* when they were promulgated in 1971."[47] Rulemaking thus was thought of as a "flexible and efficient process" to make policy.[48]

---

41 Formal rulemaking—with trial-like procedures—also exists, but it has been pushed into near desuetude. See Aaron L. Nielson, *In Defense of Formal Rulemaking*, 75 Ohio St L J 237, 242–53 (2014) (explaining the demise of formal rulemaking). See also Adam M. Samaha, *Undue Process*, 59 Stan L Rev 601, 670–71 (2006) (explaining how formal rulemaking may impose too many procedural burdens). And rulemaking for non-legislative rules also exists, though that literature is beyond the scope of this Article. See, for example, Cass R. Sunstein, *"Practically Binding": General Policy Statements and Notice-and-Comment Rulemaking*, 68 Admin L Rev 491, 513–15 (2016) (addressing the difficulty of distinguishing legislative rules from policy statements); David L. Franklin, *Legislative Rules, Nonlegislative Rules, and the Perils of the Short Cut*, 120 Yale L J 276, 282–89 (2010) (similar).

42 60 Stat 237 (1946), codified as amended in various sections of Title 5.

43 See 5 USC § 553.

44 5 USC § 553(b)–(c).

45 See 5 USC § 553(b) ("The notice shall include—(1) a statement of the time, place, and nature of public rule making proceedings; (2) reference to the legal authority under which the rule is proposed; and (3) either the terms or substance of the proposed rule or a description of the subjects and issues involved.").

46 5 USC § 553(c).

47 McGarity, 41 Duke L J at 1387 (cited in note 19), citing generally Environmental Protection Agency, National Primary and Secondary Ambient Air Quality Standards, 36 Fed Reg 8186 (1971), amending 42 CFR Part 410.

48 See McGarity, 41 Duke L J at 1385 (cited in note 19).

2. The modern version of rulemaking.

These bare-boned procedures, however, have been fleshed out over time—to the consternation of those who feel that too many procedures can be problematic. Indeed, in his pathbreaking article introducing the ossification thesis, Professor Thomas McGarity bemoaned that "[a]n assortment of analytical requirements have been imposed on the simple rulemaking model, and evolving judicial doctrines have obliged agencies to take greater pains to ensure that the technical bases for rules are capable of withstanding judicial scrutiny."[49] In today's world, no one would say that the procedures for notice-and-comment rulemaking are simple.

*a) Judicially created procedures.* The federal judiciary often receives the brunt of the blame for the rise of administrative proceduralism.[50] It has been claimed, for instance, that "judges on the [DC Circuit]—with considerable support from the surrounding political and academic communities—decided that the procedures for informal rulemaking provided by the APA were inadequate to allow effective legal control of agencies," and so replaced them with more stringent ones.[51] Whether this is an accurate summary is a question for another day. For our purpose here, however, it is enough to observe that the judiciary has come to enforce many procedural requirements.

The APA, for instance, does not explicitly say anything about requiring agencies to turn over the data they intend to use in the final rule as part of the notice of proposed rulemaking. Yet in 1973's *Portland Cement Association v Ruckelshaus*[52] decision, the DC Circuit declared that "[i]t is not consonant with the purpose of a rule-making proceeding to promulgate rules on the basis of inadequate data, or on data that, [to a] critical degree, is known only to the agency."[53] The result is the so-called *Portland Cement* doctrine, which requires agencies to provide that data up front. The reason for this doctrine is easy to see: How can the public meaningfully comment on agency proposals without even seeing

---

49 Id.

50 See Yackee and Yackee, 80 Geo Wash L Rev at 1425–26 (cited in note 20) ("Ossification scholars, including Professor McGarity, tend to fault all three branches of government for the gross inefficiencies in modern day rulemaking. Their main criticisms, however, are aimed at the courts."), citing McGarity, 41 Duke L J at 1396–1436 (cited in note 19).

51 Jack M. Beermann and Gary Lawson, *Reprocessing* Vermont Yankee, 75 Geo Wash L Rev 856, 857 (2007).

52 486 F2d 375 (DC Cir 1973).

53 Id at 393.

the agency's data?[54] But this enhanced participation comes at a cost. Agencies must be able to anticipate what data the final rule will be based on, requiring more work up front.

The judiciary has also played a role in fostering the "material comments" doctrine. Specifically, the APA has been interpreted such that not only must an agency solicit comments from the public, but it also must then respond to all "material" or "significant" ones—in other words, those comments that, if true, would cast real doubt on the agency's decision.[55] Again, the reason for such a procedure is obvious: How else can courts ensure that the public views are considered by agencies if agencies do not need to engage with those views on the record?[56] Indeed, due process itself arguably sometimes may require agencies to confront what regulated parties say.[57] Yet as commenting becomes easier, sorting through comments to determine which ones are material becomes harder.[58] Moreover, as the number of comments increases, the amount of analysis the agency must include in its decision also increases.

Likewise, courts enforce the "logical outgrowth" doctrine.[59] Specifically, courts have interpreted the APA to require a nexus between the proposed and final regulation in an attempt to

---

54 See *American Radio Relay League, Inc v Federal Communications Commission*, 524 F3d 227, 237 (DC Cir 2008) (stating that it is "a fairly obvious proposition that studies upon which an agency relies in promulgating a rule must be made available during the rulemaking in order to afford interested persons meaningful notice and an opportunity for comment").

55 See *City of Portland v Environmental Protection Agency*, 507 F3d 706, 714–15 (DC Cir 2007) ("EPA is required to give reasoned responses to all *significant* comments in a rulemaking proceeding. Significant comments are those which, if true, raise points relevant to the agency's decision *and which, if adopted, would require a change in an agency's proposed rule*.") (quotation marks and citations omitted).

56 See *Home Box Office, Inc v Federal Communications Commission*, 567 F2d 9, 35–36 (DC Cir 1977) ("[T]he opportunity to comment is meaningless unless the agency responds to significant points.").

57 See Evan J. Criddle, *When Delegation Begets Domination: Due Process of Administrative Lawmaking*, 46 Ga L Rev 117, 193 (2011) (noting due process concerns when "administrative agencies [ ] make federal law without engaging in an adequately fair and deliberative decision-making process").

58 See Bridget C.E. Dooling, *Legal Issues in e-Rulemaking*, 63 Admin L Rev 893, 900 (2011) (citation and quotation marks omitted):

> As currently designed, e-Rulemaking reduces the costs of viewing proposals and submitting comments, especially when the proposals and calls for comments are aggregated on a government-wide website such as Regulations.gov. The risk of this approach to e-Rulemaking is that quality input will be lost; malicious, irrelevant material will rise to the surface, and information will not reach those who need it.

59 See generally Phillip M. Kannan, *The Logical Outgrowth Doctrine in Rulemaking*, 48 Admin L Rev 213 (1996) (discussing the origins and applications of the doctrine).

ensure the fairness of the notice-and-comment process;[60] for instance, if an agency can pick something completely different from what was proposed, how could regulated parties provide meaningful comments? The DC Circuit thus has explained that allowing agencies to propose one thing and then issue something else "would hardly promote the purposes of the APA's notice requirement."[61] Again, however, this requirement makes rulemaking more difficult for agencies. In framing the notice of proposed rulemaking, after all, the agency must preemptively assess which possible paths it may choose and include them so that regulated parties can comment. This, too, increases the agency's burden.

After an agency has gone through all of these steps (and others, as explained below), its rule is subject to judicial review. In that review, courts will employ the hard-look doctrine to review the agency's policy judgments. Hard-look review, perhaps more than anything else, is blamed for ossification.[62] The doctrine "require[s] agencies to offer detailed explanations for their decisions, to provide strong justifications for any departures from past decisions, to permit widespread public participation in the rulemaking process, and to consider alternative regulatory measures to those proposed."[63] The Supreme Court famously embraced hard-look review in 1983's *Motor Vehicle Manufacturers Association of the United States, Inc v State Farm Mutual Automobile Insurance Co*[64] decision, explaining that at least as a general matter, an agency decision is

> arbitrary and capricious if the agency has relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise.[65]

Because agencies know that this hard-look review is waiting for them, they are forced to take a large number of procedural steps

---

[60] See id at 215–16.

[61] *CSX Transportation, Inc v Surface Transportation Board*, 584 F3d 1076, 1082 (DC Cir 2009).

[62] See Yackee and Yackee, 80 Geo Wash L Rev at 1426 (cited in note 20).

[63] Id.

[64] 463 US 29 (1983).

[65] Id at 43.

beforehand to prevent invalidation of their rules.[66] Just how "hard" this form of review is in practice is debated, but most agree that it causes agencies to expend more energy up front than they would without it.[67]

*b) Presidentially created procedures.* Courts, however, are not the only branch blamed for ossification—the White House is, too.[68] In particular, through the Office of Management and Budget (OMB) and OIRA, the White House has more often begun to insert itself into regulatory decisions. For instance, President Ronald Reagan issued Executive Order 12291—and later Executive Order 12498—which forced executive agencies to submit many proposed rules to the White House before they could go into effect, plus "major rules" became subject to cost-benefit analysis.[69] Although President Bill Clinton rescinded these orders, he issued an Executive Order of his own—Number 12866[70]—that in many respects required the same things.[71] These procedures, moreover, largely remain in effect today. In fact, "although President George W. Bush modified Clinton's Order No. 12,866 towards the end of his presidency, the changes have been characterized as 'largely symbolic' and, in any event, were promptly overturned by President Obama."[72] And "[a]fter returning to Clinton's Order No. 12,866, Obama eventually ordered changes of his own, but they too were [relatively] minor."[73]

This White House involvement in the regulatory process has prompted a great deal of scholarship. The purpose, at least in part, behind such presidential participation is to improve the content of rules, including by ensuring that the benefits of rules

---

66 See Yackee and Yackee, 80 Geo Wash L Rev at 1427–28 (cited in note 20) (alteration in original):

> How precisely does heightened judicial review lead to ossification? As Professor McGarity explains it, heightened standards of judicial review force agencies to undertake a "Herculean effort of assembling the record and drafting a preamble [explaining the rule as published in the *Federal Register*] capable of meeting judicial requirements for written justification."

67 See id at 1427 (collecting citations).

68 See id at 1428.

69 See Executive Order 12291 § 3(d) (1981), 3 CFR 127, 129.

70 See Executive Order 12866 (1993), 3 CFR 638.

71 See Elena Kagan, *Presidential Administration*, 114 Harv L Rev 2245, 2285–86 (2001) (arguing that Executive Order 12866 "retained the most important features of President Reagan's oversight system").

72 Aaron L. Nielson, *Visualizing Change in Administrative Law*, 49 Ga L Rev 757, 789 (2015) (citation omitted).

73 Id at 789–90. See also Jennifer Nou, *Agency Self-Insulation under Presidential Review*, 126 Harv L Rev 1755, 1768–70 (2013) (discussing this history).

outweigh their costs.[74] Even if that purpose is met—which critics sometimes doubt—there is, however, no question that this sort of review slows the regulatory process; in fact, "[t]he mere act of oversight itself may delay rule promulgation, as agencies must wait for OMB to review proposals and must respond to any OMB concerns."[75] Likewise, because agencies know that OIRA will scrutinize proposed rules, agencies again must engage in more work up front to satisfy that review.[76]

*c) Congressionally created procedures.* Finally, Congress also has created additional procedures for agencies beyond those set out in the APA. This is obviously true in those situations in which Congress requires an agency to engage in hybrid rulemaking, as with the Magnuson-Moss Act[77] and the Federal Trade Commission (FTC).[78] The FTC, for instance, must provide a notice that "stat[es] with particularity the text of the rule . . . and the reason for the proposed rule," and also a preliminary regulatory analysis that describes, among other things, whether there are "reasonable alternatives to the proposed rule."[79] After all of that, the FTC must provide an oral hearing if anyone asks for one,

---

74 See Sunstein, 126 Harv L Rev at 1864 (cited in note 14) ("OIRA is charged with ensuring (to the extent permitted by law) that the benefits of rules justify the costs and that the agency has selected the approach that maximizes net benefits. These two principles are exceedingly important, and they matter both to rulemaking agencies and in OIRA review.") (citation omitted); Yackee and Yackee, 80 Geo Wash L Rev at 1430 (cited in note 20) ("The modern regime of presidential oversight was intended to promote 'political accountability, interagency coordination, rational priority setting, and cost-effective rulemaking' and to 'curb[ ] . . . the regulatory excesses of overzealous bureaucrats bent on promoting their agencies' narrow agendas.'") (alterations in original), quoting Nicholas Bagley and Richard L. Revesz, *Centralized Oversight of the Regulatory State*, 106 Colum L Rev 1260, 1261 (2006).

75 Yackee and Yackee, 80 Geo Wash L Rev at 1430 (cited in note 20).

76 See id ("Compiling cost-benefit (or regulatory impact) analyses can also be costly and time consuming. As agencies devote more resources to meeting White House analytic demands, they will have fewer resources to devote to their core regulatory functions.") (citation omitted).

77 Magnuson-Moss Warranty—Federal Trade Commission Improvement Act, Pub L No 93-637, 88 Stat 2183 (1975), codified at 15 USC § 2301 et seq.

78 See Jeffrey S. Lubbers, *It's Time to Remove the "Mossified" Procedures for FTC Rulemaking*, 83 Geo Wash L Rev 1979, 1982 (2015) ("The FTC's rulemaking procedures go far beyond the relatively streamlined notice-and-comment procedures mandated in Section 553 of the APA to which most agencies are subject."). But see William D. Dixon, *Rulemaking and the Myth of Cross-Examination*, 34 Admin L Rev 389, 423–38 (1982) (defending hybrid rulemaking).

79 Lubbers, 83 Geo Wash L Rev at 1982–83 (cited in note 78), quoting 15 USC §§ 57a(b)(1), 57b-3(b)(1).

which can include cross-examination.[80] And so on.[81] Even if Congress does not impose special procedures for everything that an agency does, moreover, it might do so for particular statutes. For instance, the Clean Air Act[82] sometimes requires hybrid rule-making by the Environmental Protection Agency (EPA).[83]

Congress also has enacted legislation that applies to rule-making in general. For instance, "the Regulatory Flexibility Act . . . requires agencies to prepare a special analysis whenever a proposed rule will pose a 'significant economic impact on a substantial number of small entities.'"[84] Similarly, the Paperwork Reduction Act of 1995[85] "requires agencies to consider how their rules may increase the information collection costs of the regulated public," while the National Environmental Policy Act of 1969[86] "requires agencies to prepare environmental impact statements for major federal actions that may significantly affect the environment."[87] And "the Unfunded Mandates Reform Act of 1995 generally requires agencies to meet a number of procedural requirements, including, significantly, cost-benefit analysis and a duty to identify the least burdensome regulatory approach, for rules that impose costs greater than $100 million or more in a year."[88] Congress has also "require[d] agencies to ascertain, if possible, how a rule will impact small businesses and to consider whether those effects could be minimized."[89]

3. The ossification thesis and proposed reforms.

Administrative law bubbles over with disagreement about each of these procedures. Scholars debate, for instance, whether OIRA review results in higher-quality regulation and whether

80 See Lubbers, 83 Geo Wash L Rev at 1983 (cited in note 78), citing 15 USC § 57a(b)(1)(C), (c)(2)(B).

81 See Lubbers, 83 Geo Wash L Rev at 1983–84 (cited in note 78) (listing additional procedures).

82 Pub L No 88-206, 77 Stat 392 (1963), codified as amended at 42 USC § 7401 et seq.

83 See Richard B. Stewart, Vermont Yankee *and the Evolution of Administrative Procedure*, 91 Harv L Rev 1804, 1822 n 66 (1978) ("The Clean Air Act Amendments of 1977 . . . amended § 307 of the Clean Air Act . . . to provide for use by the Environmental Protection Agency of hybrid 'paper hearing' rulemaking procedures that to a considerable extent codify the procedures evolved through lower court decisions and agency response.").

84 Yackee and Yackee, 80 Geo Wash L Rev at 1430–31 (cited in note 20), quoting 5 USC § 602(a)(1).

85 Pub L No 104-13, 109 Stat 163, codified at 44 USC § 3501 et seq.

86 Pub L No 91-190, 83 Stat 852, codified as amended at 42 USC § 4321 et seq.

87 Yackee and Yackee, 80 Geo Wash L Rev at 1431 (cited in note 20).

88 Nielson, 49 Ga L Rev at 784 (cited in note 72), citing 2 USC §§ 1532, 1535.

89 Nielson, 49 Ga L Rev at 784–85 (cited in note 72), citing 5 USC §§ 601–02.

hard-look review results in judicial invalidation of what should be valid regulations. Likewise, a great deal of scholarship questions whether the judiciary's interpretation of the APA is lawful.[90]

The ossification thesis (at least in its pure form, that is, ossification qua ossification) is different. Rather than challenging the efficacy or legality of these procedures, it contends that *even if* they introduce more fairness and rationality into the rulemaking process, they are not cost justified because they unduly hinder agencies, and agency agility is a good thing in its own right.[91] In short, "these various judicially, presidentially, and congressionally imposed constraints allegedly prevent[ ] agencies from promulgating necessary or desirable regulations, or at least excessively delay[ ] promulgation."[92]

Many scholars thus urge that rulemaking be simplified—sometimes in dramatic ways. For instance, Professor Frank Cross has sought "the total elimination of judicial review" as a solution to ossification,[93] while others urge greater use of "'soft glance' review" for "certain sensitive areas."[94] Some seek the elimination of "OMB-mandated cost-benefit analysis."[95] And others urge greater use of negotiated rulemaking, which they hope will require fewer procedures.[96] Thus, "the threat of ossification has led

90 See, for example, Beermann and Lawson, 75 Geo Wash L Rev at 882–88 (cited in note 51); Richard J. Pierce Jr, *Waiting for* Vermont Yankee *III, IV, and V? A Response to Beerman and Lawson*, 75 Geo Wash L Rev 902, 906–07 (2007); Richard J. Pierce Jr, *Waiting for* Vermont Yankee II, 57 Admin L Rev 669, 675–82 (2005); Paul R. Verkuil, *Judicial Review of Informal Rulemaking: Waiting for* Vermont Yankee II, 55 Tulane L Rev 418, 420–26 (1981).

91 See Vermeule, 122 Harv L Rev at 1144 (cited in note 5) (noting the "opportunity costs" of procedures intended to encourage "the rationality of agency policymaking").

92 Yackee and Yackee, 80 Geo Wash L Rev at 1418 (cited in note 20).

93 Id at 1434, citing generally Frank B. Cross, *Shattering the Fragile Case for Judicial Review of Rulemaking*, 85 Va L Rev 1243 (1999).

94 Barnett, 90 NYU L Rev at 61 (cited in note 21), citing Wendy E. Wagner, *Administrative Law, Filter Failure, and Information Capture*, 59 Duke L J 1321, 1409 (2010). See also Cristina M. Rodríguez, *Constraint through Delegation: The Case of Executive Control over Immigration Policy*, 59 Duke L J 1787, 1836 n 144 (2010) (discussing situations, such as immigration-related cases, in which courts might decline to engage in hard-look review).

95 Yackee and Yackee, 80 Geo Wash L Rev at 1434–35 (cited in note 20).

96 See id at 1433. See also David B. Spence, *The Shadow of the Rational Polluter: Rethinking the Role of the Rational Actor Models in Environmental Law*, 89 Cal L Rev 917, 956–57 (2001) ("One prescription for the ossification problem is the increased use of bargaining between interested stakeholders to identify better, more adaptive rules. Compared with more adversarial and formal procedures, informal bargaining enables stakeholders to share information and build trust . . . or so the argument goes.") (citation omitted).

scholars to propose a number of potentially far reaching reforms to the federal regulatory process."[97]

4. The empirical fight.

The extent to which the ossification thesis is accurate is disputed. Many scholars and policymakers believe, however, that ossification is a serious problem.[98] That said, one of the leading empirical studies on ossification casts some doubt on the thesis, at least if the thesis is stated robustly. In 2012, Professors Jason and Susan Webb Yackee examined rulemaking from 1950 to 1990 to explore whether there was a material change in the amount of time it takes to promulgate rules following the increase in procedural requirements in the 1970s. They conclude that "evidence that ossification is either a serious or widespread problem is mixed and relatively weak" and that there is reason to think that "agencies remain able to propose and promulgate historically large numbers of regulations, and to do so relatively quickly."[99] This view finds some empirical support from other studies.[100]

In response, Professor Richard Pierce has stated that "virtually all experienced administrative law scholars . . . accept[ ] the ossification hypothesis as true and important," and he urges that "[t]he hypothesis is supported by a large body of evidence."[101] Specifically, Pierce argues that the Yackee and Yackee study is flawed because it does not include the time leading up to the

---

97 Yackee and Yackee, 80 Geo Wash L Rev at 1436 (cited in note 20). Notably, Professor Mark Seidenfeld challenges the ossification thesis on the theory that sometimes we should not want agencies to act because agencies may have suboptimal incentives. See Seidenfeld, 70 Ohio St L J at 252–53 (cited in note 20).

98 There may be some support for this view. For instance, a recent report by an advocacy group finds that "since 1996, it has taken OSHA an average of 12 years to produce a single Economically Significant rule." Public Citizen, *Unsafe Delays* *5 (June 28, 2016), archived at http://perma.cc/L55R-EH6P.

99 Yackee and Yackee, 80 Geo Wash L Rev at 1421–22 (cited in note 20).

100 See, for example, Stephen M. Johnson, *Ossification's Demise? An Empirical Analysis of EPA Rulemaking from 2001–2005*, 38 Envir L 767, 770 (2008):

> I discovered that the rules finalized by EPA during that time period were finalized, on average, within 1.5 to 2 years after publication as proposed rules, much faster than the 3 to 5 years cited in many articles as the post ossification standard. . . . For rules finalized between 2001 and 2005, EPA generally took about the same amount of time to finalize rules subject to OMB review as it took for the agency to finalize rules not subject to OMB review.

See also, for example, Jordan, 94 Nw U L Rev at 396 (cited in note 20) ("My ultimate conclusion is that judicial review in the D.C. Circuit under the hard look version of the arbitrary and capricious standard generally did not significantly impede agencies in the pursuit of their policy goals during the decade under review.").

101 Pierce, 80 Geo Wash L Rev at 1494 (cited in note 11).

notice of proposed rulemaking.[102] He also says that the ossification thesis does not apply to *all* or indeed even *most* rulemakings.[103] Instead, "[o]ssification is a problem only in the context of the much smaller number of rulemakings that raise controversial issues where the stakes are high."[104] Indeed, "*[e]very* study of economically significant rulemakings has found strong evidence of ossification—a decisionmaking process that takes many years to complete and that requires an agency to commit a high proportion of its scarce resources to a single task."[105]

## B. The Fourth Dimension

The ossification debate largely focuses on the opportunity costs caused by the procedural requirements agencies must satisfy when they promulgate regulations. The focus is often on what rules have already been thwarted or that are being thwarted right now. This focus, although important, is also incomplete. Regulation also extends to the future. We all know humans often think beyond the here and now. Essentially every student investing in "human capital" is prioritizing future consumption over present pleasure. Similar analysis occurs within private organizations—especially in markets that require large amounts of capital. Such organizations also regularly think about how to obtain future profits.[106] Hence, it is not uncommon to make investments that will require years or even decades of future returns to pay off.

The future matters, however, to more than just private parties. Agencies also care. Sometimes, for instance, Congress requires agencies to take actions with an eye on future innovation.[107] And sometimes agencies do so without an explicit charge from Congress; a general grant of authority to regulate "in the

---

102 See id at 1495–96 ("First, by looking only at the time between issuance of the NPRM and issuance of the final rule, they understate significantly the total time needed to issue a rule through the notice and comment procedure.").

103 See id at 1497 ("The vast majority of the thousands of rulemakings conducted by agencies each year involve issues that are not particularly controversial or that do not have major economic consequences.").

104 Id at 1498.

105 Pierce, 80 Geo Wash L Rev at 1498 (cited in note 11), citing Yackee and Yackee, 80 Geo Wash L Rev at 1418 nn 15–19, 1419 n 22 (cited in note 20).

106 See Andrew A. Schwartz, *The Perpetual Corporation*, 80 Geo Wash L Rev 764, 805–08 (2012) (explaining why corporations have long investment horizons).

107 See, for example, La Pierre, 62 Iowa L Rev at 805–08 (cited in note 25) (discussing how Congress empowered the EPA to force industries to develop pollution-reduction technologies).

public interest" may be enough.[108] Agencies thus regularly create incentives to encourage regulated parties to develop the future in a certain way. And even if the agency is not creating a formal incentive, the efficacy of its rule may depend on the regulated community's cooperation. After all, the agency may want a certain amount of private participation, while investors may be willing to invest in a scheme at a certain "price" (broadly defined) but be wary of doing so if the price may increase substantially.

1. The fourth dimension of private behavior.

There is a great deal of literature discussing the trade-offs between present consumption and future investment.[109] The basic idea is that investors will invest in the future if the benefits of doing so outweigh the costs, with future benefits discounted using net present value calculations.[110]

The formula driving business decisions goes something like this: A company should invest if the current costs of doing so are less than the projected future benefit of doing so, with that future benefit being discounted by the time value of money.[111] And the

---

108 See, for example, Wendy M. Rogovin, *The Regulation of Television in the Public Interest: On Creating a Parallel Universe in Which Minorities Speak and Are Heard*, 42 Cath U L Rev 51, 69–79 (1992) (discussing the authority of the Federal Communication Commission (FCC) to regulate "in the public interest" and how this power can be used to create incentives).

109 See, for example, Daniel A. Farber and Paul A. Hemmersbaugh, *The Shadow of the Future: Discount Rates, Later Generations, and the Environment*, 46 Vand L Rev 267, 280 (1993):

> Generally, investment of resources today generates a larger quantity of resources available for future consumption. Thus, the future return from investment (which itself represents forgone present consumption) is essentially a future flow of consumption. The interest rate, and thus the discount rate, reflect the opportunity cost of relinquishing present consumption.

110 See id at 277:

> The basic principle underlying discounting is simple: A dollar today is worth more than a dollar at some time in the future. This is the same "time value" principle that underlies the concept of interest. . . . The term "present value" describes the current value to the recipient of a benefit that will be conferred in the future.

111 As a formal matter:

> The[ ] rules for selecting value-maximizing projects follow from the discounted cash flow process known as net present value analysis (NPV). Conventionally stated, NPV analysis compares the present value of a project's initial investment ($I_0$) with the present value of project net cash flow (NCF) over its life, all discounted at an appropriate risk-adjusted rate of return—essentially, the opportunity cost of capital:

projected benefit is measured by the good that will happen should the investment work, discounted by the probability of it not working. The upshot is that the more time an investment requires to generate returns, the greater those returns must be to justify that investment because money that will come later in time is worth less now. Moreover, the likelihood of obtaining those returns generally decreases the further into the future the investment goes because it becomes more difficult to predict what will happen, especially in dynamic industries.[112] In short, the riskier an investment is, the greater the potential returns must be to justify the risks.[113]

Even so, if the potential rewards are great enough, companies are willing to engage in long-term investment even though many projects will only be profitable, if at all, after many years. A factory, for instance, can cost tens of millions of dollars to build.[114] Such a huge investment almost certainly will not pay for itself in a single year. In deciding whether to build a factory today, and how to do so, a company must determine how much future revenue the factory will generate, and how likely it is that the factory will be able to generate that revenue. Such a calculation requires careful evaluation of potential risks and a keen eye focused on the future.

The same sort of analysis applies to decisions to engage in research and development. Entities will invest in developing new technologies if the monetary benefits of the technologies are substantial enough to justify the risk. Thus, the less likely it is that the research will result in a marketable product, the less

---

$$\mathrm{NPV} = -I_0 + \sum_{t=1}^{n} \frac{\mathrm{NCF}_t}{(1+k)^t}$$

Michael Curley, *Net Present Value Criteria*, in Cary L. Cooper and Chris Argyris, eds, V *The Blackwell Encyclopedia of Management: Managerial Economics* 139, 139 (Blackwell 1997).

112 See Maureen K. Ohlhausen, *The FCC's Knowledge Problem: How to Protect Consumers Online*, 67 Fed Commun L J 203, 207 (2015) ("This problem is especially acute [in] industries that are characterized by disruptive change, because it is even more difficult to predict future effects when industry structures and paradigms transform over time.").

113 See, for example, Gregory C. Jantz, *Incentives for Electric Generation Infrastructure Development*, 2 Tex J Oil Gas & Energy L 373, 377 (2007):

> Utility companies will construct new power plants only if they can be reasonably certain that they will profit from the new generation. Coal and gas-fired power plants are a significant capital expenditure, costing in the range of one billion dollars . . . . Because prices in several regions now fluctuate due to market demand, it is more difficult to predict future profits. In the time it takes to build a coal or gas-fired power plant, competitive forces may move prices to where it is no longer profitable to complete the project.

114 See id.

likely it is that the research will be pursued in the first place. Similarly, the lower the expected revenue becomes for the potential product, the less likely it is that the research will be pursued. At least at the margins, as risk increases, investment decreases.

For reasons that are obvious from the foregoing, in deciding whether to invest in innovative technologies or other long-term projects, the regulatory framework that the entity operates within matters a great deal. Investment occurs "in the shadow of the law."[115] Private entities must account for the legal regime in determining how likely it is that they will be able to recoup a long-term investment. If a party believes, for instance, that a current technology will be outlawed in the space of five years, it will not build a factory that depends on that technology, at least if it suspects that the factory will not pay for itself during that period. Likewise, businesses consider regulatory incentives. If, for instance, building a factory in one way will result in tax or other forms of incentives, that fact will be considered in deciding how (and whether) to build a factory. Such an incentive would be considered in the "benefit" part of the entity's investment decision. Simply put, "incentives matter."[116]

2. The fourth dimension of administrative law.

Private entities, however, are not the only ones with an eye on the future. Agencies also often think long term in devising policies and strategies. To be sure, agencies often focus regulatory efforts on the here and now. For instance, when an agency bars certain types of currently available technologies from being used because of the immediate effects of those technologies, it is regulating the present. The same is true when agency officials decide whether a drug should be approved because it is safe enough in light of the current research, whether radio spectrum should be cleared so it can be put to better immediate uses, or whether certain roads should be routed this way or that because of current demand. These are the typical sorts of things that one imagines when one thinks of regulation.

Agencies, however, also look to regulate beyond the here and now—to encourage the development of the future. For example,

---

115 See generally, for example, Robert H. Mnookin and Lewis Kornhauser, *Bargaining in the Shadow of the Law: The Case of Divorce*, 88 Yale L J 950 (1979) (explaining how the law impacts bargaining in divorce negotiations).

116 Cass R. Sunstein, *Simpler: The Future of Government* 210 (Simon & Schuster 2013) (arguing that regulated parties make calculated decisions based on costs and benefits and that government officials can modify incentives).

imagine that you are an official serving in the Obama administration. You are told that two futures are possible. In one, green power[117] will constitute 50 percent of the total energy used in the United States in the year 2050. In the other, green power will constitute 20 percent of the total energy used. If you place a high value on green power, it is incredible to think that you would be indifferent between those two futures. Instead, if possible, common sense says that you would try to encourage the future with 50 percent.[118] Nor is this analysis ideological. Imagine, for instance that you are an agency official in the Department of Education serving in the Trump administration. You are told that two futures are possible. In one, half of students will have access to private schools via vouchers, while in the other, only 20 percent will. You too would not be indifferent between those two outcomes.[119] When agency officials think about how to encourage the development of the future rather than how to bring about immediate regulatory effects, they are entering the fourth dimension. And this happens more frequently than one might suspect.

With the future in mind, Congress sometimes requires agencies to enter the fourth dimension—for instance when it mandates use of technology-forcing rules.[120] This sort of regulation requires private entities to improve the technology that they use, for example by increasing energy efficiency. When it comes to air quality, Congress explicitly requires the EPA to impose standards that are designed to force regulated parties to create new technologies.[121] When agencies promulgate these sorts of

---

[117] See *What Is Green Power?* (EPA, Oct 20, 2017), archived at http://perma.cc/7MUE-Z4Y7 ("Green power is a subset of renewable energy and represents those renewable energy resources and technologies that provide the highest environmental benefit. EPA defines green power as electricity produced from solar, wind, geothermal, biogas, eligible biomass, and low-impact small hydroelectric sources.").

[118] See Alejandro E. Camacho and Robert L. Glicksman, *Legal Adaptive Capacity: How Program Goals and Processes Shape Federal Land Adaptation to Climate Change*, 87 U Colo L Rev 711, 751–52 (2016) (explaining how agencies were instructed "to consider climate impacts in long-term planning").

[119] See Libby Nelson, *Donald Trump's Huge, Ambitious School Voucher Plan, Explained* (Vox, Dec 2, 2016), archived at http://perma.cc/2PA9-W5RU ("[Betsy] DeVos and Trump want to oversee the biggest change to American public education in half a century.").

[120] See *American Petroleum Institute v Environmental Protection Agency*, 706 F3d 474, 480 (DC Cir 2013) ("[A]n agency may base a standard or mandate on future technology when there exists a rational connection between the regulatory target and the presumed innovation.").

[121] See *Union Electric Co v Environmental Protection Agency*, 427 US 246, 256–57 (1976) (citation omitted):

> [T]he 1970 Amendments to the Clean Air Act were a drastic remedy to what was perceived as a serious and otherwise uncheckable problem of air pollution. The Amendments place the primary responsibility for formulating pollution control

regulations, they are thinking about the future. After all, the desired technology does not yet exist.

Sometimes, however, agencies think about the fourth dimension without any express charge to do so. Agencies, for instance, may choose not to use a command-and-control approach to regulation but instead may pick a particular outcome that regulated parties must meet.[122] The purpose of choosing standards can also be to encourage innovation in a technology-forcing way. Some likewise argue that agencies sometimes can engage in other technology-forcing approaches, for instance through certain uses of so-called Pigouvian taxes in which regulated parties must pay for the social costs of their activities but are generally free to choose any form of technological approach to minimize those costs.[123]

The government can create incentives for regulated parties to innovate in ways that officials prefer, for example through use of grants, subsidies, or other forms of "inducement."[124] Congress, of course, often creates incentives,[125] for instance through tax policy.[126] Agencies can do the same thing. For instance, the Home Affordable Modification Program was "created by the Department

> strategies on the States, but nonetheless subject the States to strict minimum compliance requirements. These requirements are of a "technology-forcing character," and are expressly designed to force regulated sources to develop pollution control devices that might at the time appear to be economically or technologically infeasible.

122 See, for example, Bruce A. Ackerman and Richard B. Stewart, Comment, *Reforming Environmental Law*, 37 Stan L Rev 1333, 1334–36 (1985) ("[Best Available Technology] controls can ensure that established control technologies are installed. They do not, however, provide strong incentives for the development of new, environmentally superior strategies, and may actually discourage their development.").

123 See, for example, Jonathan S. Masur and Eric A. Posner, *Toward a Pigouvian State*, 164 U Pa L Rev 93, 109 (2015) ("Numerous agencies, operating under a wide range of organic statutes and regulating a wide swath of the economy, have the authority to implement Pigouvian taxes.").

124 See Ian Ayres and Amy Kapczynski, *Innovation Sticks: The Limited Case for Penalizing Failures to Innovate*, 82 U Chi L Rev 1781, 1790–99 (2015) (discussing various forms of innovation incentives). See also Cass R. Sunstein, *The Cost-Benefit State* 30 (John M. Olin Program in Law & Economics Working Paper No 39, 1996) (urging laws and policies be designed "to produce outcomes on the basis of incentives produced by democratic judgments") (emphasis omitted).

125 See, for example, *Davy v Central Intelligence Agency*, 550 F3d 1155, 1158 (DC Cir 2008) (explaining that Congress deliberately created an incentive to sue agencies).

126 See Stanley S. Surrey, *Tax Incentives as a Device for Implementing Government Policy: A Comparison with Direct Government Expenditures*, 83 Harv L Rev 705, 705 (1970) ("Suggestions are constantly being made that many of our pressing social problems can be solved, or partially met, through the use of income tax incentives."); *Westinghouse Electric Corp v Tully*, 466 US 388, 390 (1984) (explaining how Congress used "tax incentives for U.S. firms to increase their exports").

of Treasury and the Federal Housing Finance Agency" to "offer[ ] financial incentives to mortgage lenders to modify the home loans of borrowers in danger of foreclosure."[127] Likewise, the EPA, in consultation with the Department of Housing and Urban Development, has authority under the Clean Air Act to designate economic development zones.[128] The obvious purpose of such a designation is to encourage economic growth in some places rather than others.[129] Similarly, the Department of Energy and the Federal Energy Regulatory Commission may attempt to create incentives for energy distribution to unfold in some ways rather than others.[130] And the Fish and Wildlife Service is considering a program that "would give landowners credits for efforts they take that help declining species that are not listed as threatened or endangered under the Endangered Species Act. Later, the credits could be redeemed to offset actions that hurt a species if it becomes listed under the act."[131] In proposing this plan, the agency was open about its desire to create "incentives" for regulated

---

127 *Edwards v Aurora Loan Services, LLC*, 791 F Supp 2d 144, 147 (DDC 2011).

128 See 42 USC § 7503(a)(1)(B).

129 See Environmental Protection Agency, Review of New Sources and Modifications in Indian Country, 76 Fed Reg 38748, 38750 (2011) ("In addition, these rules will provide regulatory certainty to allow for environmentally sound economic growth in Indian country."). See also id at 38775 (describing a comment alleging that making Indian country an economic development zone "would create an incentive for industrial sources" to shift production there).

130 See, for example, *Public Utilities Commission of California v Federal Energy Regulatory Commission*, 367 F3d 925, 929 (DC Cir 2004):

> A primary purpose of the Federal Power Act, and its counterpart, the Natural Gas Act, "was to encourage the orderly development of plentiful supplies of electricity and natural gas at reasonable prices." . . . [T]he Commission correctly argues that using pricing incentives to increase the supply of energy available to customers is a valid, non-cost consideration in setting rates.

See also, for example, *Texaco, Inc v Department of Energy*, 663 F2d 158, 163 (DC Cir 1980) ("DOE recognized that the trans-Alaska pipeline had created a crude oil glut in the Western states, and sought to provide economic incentives for the production and transportation of California crude to Eastern refineries. DOE's program contemplated the use of exception relief from entitlement obligations.").

131 Ethan Howland, *FWS Proposes Credits for Species Conservation Efforts* (Roll Call, July 18, 2014) (available on Westlaw at 2014 WL 3538069).

parties to act in certain ways over the long run.[132] This sort of program is far from uncommon.[133]

The concept of "incentive," moreover, goes beyond labels. Sometimes agencies may want some amount of an activity, but yet not create something called an "incentive" for it. Imagine, for instance, a situation with two competing technologies. The agency may prefer one over the other.[134] It could create an incentive to choose that technology, or it could regulate the disfavored technology less favorably than the favored technology.[135] From the perspective of a regulated party, the two options are not that different. Indeed, in a sense, this is just a replay of the idea that tax credits and expenditures are interchangeable.[136] If the government has power to regulate, then its decision to not regulate can be seen as an incentive.

### C. Commitment Mechanisms in Administrative Law

An agency's ability to create incentives implicates the concept of commitment mechanisms—that is, devices to make promises

---

[132] See Fish and Wildlife Service, Endangered and Threatened Wildlife and Plants; Expanding Incentives for Voluntary Conservation Actions under the Endangered Species Act, 77 Fed Reg 28347, 28347 (2012) (advance notice of proposed rulemaking):

> We are considering whether and how we could revise our regulations to create incentives for landowners and others to take voluntary conservation actions to benefit species that may be likely to become threatened or endangered species, including revisions that could recognize the benefits of such conservation actions as offsetting the adverse effects of actions carried out after listing by that landowner or others.

[133] See, for example, *Mary V. Harris Foundation v Federal Communications Commission*, 776 F3d 21, 28 (DC Cir 2015) (allowing an agency to enforce a "bright-line rule" as an incentive for compliance); *Cassell v Federal Communications Commission*, 154 F3d 478, 480 (DC Cir 1998) ("The purpose of the finder's preference program was to create new incentives for persons to provide [the FCC] information about unconstructed, nonoperational, or discontinued private land mobile radio systems.") (quotation marks omitted); *Altamont Gas Transmission Co v Federal Energy Regulatory Commission*, 92 F3d 1239, 1247 (DC Cir 1996) ("The agency asserts that it simply created an incentive (by conditionally reducing PGT's rate of return) for the CPUC and PG&E to behave in a manner that advances the public interest, *i.e.*, to revise PG&E's rate structure.").

[134] It is, of course, dangerous when agencies pick winners and losers—agencies may not be very good at it. That danger is discussed in greater detail below. See text accompanying notes 222–26.

[135] See Ayres and Kapczynski, 82 U Chi L Rev at 1807–12 (cited in note 124) (arguing for consideration of "innovation sticks" to prompt desired innovation).

[136] See *Arizona Christian School Tuition Organization v Winn*, 563 US 125, 141–42 (2011) ("It is easy to see that tax credits and governmental expenditures can have similar economic consequences."). Of course, the idea that the government is offering an "incentive" by not regulating should not be taken too far in a free society. See id at 142 ("When Arizona taxpayers choose to contribute to STOs, they spend their *own* money.") (emphasis added).

credible. There also is a great deal of scholarship on commitment mechanisms—much of which has been developed in the context of game-theory economics.[137] The basic question is how to make promises trustworthy enough that recipients will believe that should the triggering event happen, the promised reaction will actually occur. A good example arises in the context of international relations. One nation may threaten another nation with war if the nation does some disfavored act. But how to make that threat credible so it is not dismissed as empty talk?[138] The more confidence that a recipient of a promise has in the promise, the greater likelihood that the recipient will act in response to the promise.

This is true in administrative law, too. Unfortunately, "the commitment of many regulatory bodies is fragile; it can break easily under pressure."[139] This is especially so because it is now a black-letter principle that so long as an agency has discretion over a subject, agency officials in time period one generally cannot bind future agency officials in time period two. This is true in at least two respects. When it comes to questions of policy, agencies are free to change course—a point that is especially potent after the Supreme Court's decision in *Fox*.[140] And when it comes to questions of law, agencies are also free to change course so long as the statute is ambiguous, even if a court has already interpreted the statute. This point was made clear in the Supreme Court's decision in *Brand X* that agencies are not always bound by prior judicial interpretations of the statutes they administer.[141] Combined, the principles from *Fox* and *Brand X* mean agencies have a great deal of power to change regulatory schemes.

In *Fox*, the Supreme Court addressed a change in FCC policy regarding "indecent expletives."[142] Initially, the FCC had required that the expletives be repeated, but the agency changed policy and concluded that repetition was not always required.[143] The Second Circuit concluded that this revised policy—which was

---

[137] For instance, Thomas Schelling was awarded the Nobel Prize for his research on credible commitment mechanisms. *The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel 2005: Robert J. Aumann, Thomas C. Schelling* (Nobel Media, Oct 10, 2005), archived at http://perma.cc/76NR-QR88.

[138] See Thomas C. Schelling, *The Strategy of Conflict* 6 (Harvard 1963).

[139] Glenn Blackmon and Richard Zeckhauser, *Fragile Commitments and the Regulatory Process*, 9 Yale J Reg 73, 74 (1992).

[140] See *Fox*, 556 US at 514–16.

[141] See *Brand X*, 545 US at 982–83.

[142] *Fox*, 556 US at 505.

[143] Id at 507.

applied to various instances of expletives on television—was unlawful because agencies wishing to "reverse[ ] course" face a higher standard of justification than those creating policy in the first instance.[144] The Supreme Court disagreed: "We find no basis in the Administrative Procedure Act or in our opinions for a requirement that all agency change be subjected to more searching review."[145] Although reiterating the principle that "the requirement that an agency provide reasoned explanation for its action would ordinarily demand that it display awareness that it *is* changing position," and stressing that "the agency must show that there are good reasons for the new policy," the *Fox* Court nonetheless declared that "the agency need not always provide a more detailed justification than what would suffice for a new policy created on a blank slate."[146] Many believe that *Fox* makes it easier for agencies to change their minds.[147] In any event, *Fox* shows that so long as agencies acknowledge that they are changing policy, officials in a later time period are not bound by the decisions reached by their predecessors.

*Brand X* is similar, at least in effect. In *Brand X*, "the Court held that when an agency adopts one interpretation of an ambiguous regulatory statute and the interpretation is judicially upheld, the agency remains free to adopt a different interpretation later, if the second interpretation would otherwise be entitled to *Chevron* deference."[148] The question in *Brand X* concerned the phrase "telecommunications service."[149] The Ninth Circuit had determined "that cable modem service was a 'telecommunications service,'" but the FCC, afterwards, reached a different conclusion.[150] The Supreme Court held that even though the Ninth Circuit had already construed this statute, the court still was obligated to defer to the agency's interpretation because the statute was ambiguous.[151] If the Ninth Circuit had previously held that the

---

144 See id at 514.

145 Id.

146 *Fox*, 556 US at 515.

147 See, for example, Jodi L. Short, *The Political Turn in American Administrative Law: Power, Rationality, and Reasons*, 61 Duke L J 1811, 1813 (2012) ("Justice Scalia's analysis in *Fox* signaled . . . a broadened acceptance of political justifications for changes in agency policy."); Ronald M. Levin, *Hard Look Review, Policy Change, and* Fox Television, 65 U Miami L Rev 555, 559–60 (2011) ("The *Fox* case provided Scalia an opportunity to prevail on his colleagues—or at least enough of them to compose a majority—to embrace this more accommodating attitude toward agencies' changing their minds.").

148 Levin, 65 U Miami L Rev at 560 (cited in note 147).

149 *Brand X*, 545 US at 974.

150 Id at 979–80.

151 See id at 980–82.

statute was unambiguous, only then could the court deny *Chevron*[152] deference.[153] In other words, even a court decision upholding one reading of a statute is not always sufficient to prevent an agency from reversing course and reinterpreting the statute. In this way, "the thrust of [*Brand X* and *Fox*] was similar: The agency should be free to revise its position without being unduly impeded by either judicial precedent (*Brand X*) or the agency's own prior views (*Fox*)."[154]

The effect of *Brand X* and *Fox* is to make it easier for agencies to change policy. But an unintended consequence is that these cases remove commitment mechanisms to support agency incentives. As Professor Masur has observed, scholars "have overlooked the deleterious effects that *Brand X*'s extension of agency flexibility may have upon both outside parties and *the agencies'* ability to accomplish their own regulatory objectives. *Brand X* adds an element of flexibility—and therefore instability—to agency authority," thus making agency commitments less credible.[155] If the Court had gone the other way, it would have created a "mechanism" by which an agency could generate "a constraining judicial decision, thus credibly committing itself to a given policy."[156] Without such a mechanism, Masur fears that regulated parties will be less likely to trust agency-created incentives, thus hindering an agency's ability to pursue favored longer-term policies.[157]

Masur's is the leading analysis on the downsides of weak commitment in administrative law, but he is not the only one to recognize the problem. Rather, economists too have identified the risk, especially in the context of rate regulation. A body of economics literature worries that once a capital-heavy project has been completed, rate-setting regulators will not respect sunk costs.[158] Because regulators and regulated parties cannot enter

---

152 See generally *Chevron U.S.A. Inc v Natural Resources Defense Council, Inc*, 467 US 837 (1984).

153 *Brand X*, 545 US at 982 ("A court's prior judicial construction of a statute trumps an agency construction otherwise entitled to *Chevron* deference only if the prior court decision holds that its construction follows from the unambiguous terms of the statute and thus leaves no room for agency discretion.").

154 Levin, 65 U Miami L Rev at 560 (cited in note 147).

155 Masur, 60 Vand L Rev at 1038–39 (cited in note 24).

156 Id at 1039.

157 See id at 1040–41 (warning that "because neither agencies nor private parties can ever definitively settle or anchor the law, agencies will have great difficulty persuading private parties to rely on agency interpretations").

158 See Howard A. Shelanski and J. Gregory Sidak, *Antitrust Divestiture in Network Industries*, 68 U Chi L Rev 1, 29–30 & n 90 (2001) (collecting citations).

into long-term contracts to prevent agencies from picking a suboptimal rate in terms of recouping investment, regulated parties are less willing to invest in the first place, at least at the margins.[159] After all, "even when a commitment is made, a regulator's promise of rates is much less costly to reverse than a firm's investment of capital."[160] And although "[c]onstitutional guarantees" like due process "protect firms from outright, literal expropriation without compensation," the "regulator can [still] rule that the firm's profits are unreasonably high" and so dash the investment strategy.[161] This can harm the agency by reducing investment by regulated parties, even if the agency wants more investment. It follows that agencies can sometimes benefit from commitment mechanisms.[162]

Yet where can an agency find a credible commitment mechanism? In the private sector, this problem is solved by contract. One party will promise not to change the deal, and a court will act as a credible commitment mechanism to prevent that promise from being empty talk. When it comes to administrative law, however, an agency cannot contract not to change the regulatory scheme. Considering this problem, economists have latched onto a potential commitment mechanism: repeat-player dynamics. In particular, the fact that agencies know that if regulatory change ends up preventing regulated parties from recouping investments today, such parties will be less likely to continue to invest tomorrow. Such "once burned" regulated parties may opt to leave the market altogether rather than be burned again. Recognizing this, regulators may be careful before acting because "[t]he need for future investment funds binds regulators to good behavior in the present."[163] Yet economists also recognize that a repeat-player dynamic is not a perfect commitment mechanism, especially in industries in which there is not "a steady stream of demand for

159 See Blackmon and Zeckhauser, 9 Yale J Reg at 76 (cited in note 139) ("Because public utility systems require very large and long-lived investments, commitment is an especially important issue for utilities and regulators."); id at 77 ("The fragility of regulatory commitments makes it more difficult and expensive to attract capital. A rational firm anticipates its vulnerability and will not sink its capital unless it believes that the regulator will keep her commitments.").

160 Id at 77.

161 Id.

162 See Jean-Jacques Laffont and Jean Tirole, *A Theory of Incentives in Procurement and Regulation* 53–54, 86–103 (MIT 1993) ("In the absence of a detailed long-term contract, the regulated firm may refrain from investing in the fear that once the investment is in place, the regulator would pay only for variable cost and would not allow the firm to recoup its sunk cost.").

163 Blackmon and Zeckhauser, 9 Yale J Reg at 100 (cited in note 139).

new capital."[164] In sum, legal scholars and economists have recognized the value of agency commitment mechanisms but have also concluded there may not always be one.

## II. STICKY REGULATIONS: THE THEORY

Now consider ossification—and the sticky regulations it creates. Although there is empirical disagreement about how prevalent ossification is, it is common ground among many administrative-law scholars that at least for the most significant regulations, agencies may spend years—sometimes more than a decade—to finalize a single rule.[165] Agencies may even forgo issuing rules altogether because of how hard it can be.[166] Especially for those who believe that the value of regulation often outweighs its costs, this is lamentable. The result is many proposals to reduce ossification.

But what if procedural burdens sometimes help agencies rather than hurt them? This may be the case once sticky regulations are accounted for. Without what has come to be known as ossification, it would be more difficult for agencies to accomplish certain long-term objectives. Ossification enables agencies to more credibly commit to regulatory programs because regulated parties know that even if the agency wanted to change the scheme in the future, it would be difficult to do so—the same procedures that make it hard to create policy also make it hard to rescind policy.[167] Ossification thus acts as a commitment mechanism. Absent this mechanism, basic economics suggests that regulated parties sometimes would be less likely to participate in the market, or at least to participate as much as the agency would like, because the investment would be riskier.[168] This is especially true in capital-intensive

164 Id.

165 See, for example, Pierce, 75 Geo Wash L Rev at 919 (cited in note 90) (discussing how major rulemaking can take "many years to complete").

166 See McGarity, 41 Duke L J at 1386 (cited in note 19) ("Perhaps of even more concern to regulatees and the general public is recent evidence that agencies are beginning to seek out alternative, less participatory regulatory vehicles to circumvent the increasingly stiff and formalized structures of the informal rulemaking process."). See also Heather S. Fredriksen, Comment, *The Roadless Rule That Never Was: Why Roadless Areas Should Be Protected through National Forest Planning Instead of Agency Rulemaking*, 77 U Colo L Rev 457, 469–70 (2006) (discussing how "agencies are unwilling to invest their efforts in new rulemaking that is likely to be overturned by the courts").

167 See Fredriksen, Comment, 77 U Colo L Rev at 469–70 (cited in note 166) ("The ossification theory, however, also applies to prevent revocation.").

168 See Victor P. Goldberg, *Regulation and Administered Contracts*, 7 Bell J Econ 426, 432–36 (1976) (explaining that regulated parties require at least some confidence that the market will be stable over the long run).

industries in which it takes years to recoup investments. Without confidence that the scheme will remain relatively stable, capital holders may decline to act as the agency prefers.

This can be a problem for agencies that require private-sector cooperation to achieve long-term objectives. An agency thus can be better off if it can credibly tell regulated parties what the rules will be going forward. Doing so expands the scope of what an agency can do, at least in one sense—the future. To be sure, that ability to induce greater reliance by regulated parties comes at a price. The agency cannot change a policy at will, thus reducing the scope of what it can do in another sense—the present. But for agencies that place greater weight on the future than the present, the trade-off between short-term flexibility and long-run stability may cut in favor of ossification.

In short, this Article's theoretical contribution is straightforward. Because of ossification, it is more difficult for agencies to promulgate rules, meaning that regulated parties know ex ante that even if the agency ends up having a change of heart about the incentives it has created, it will take years of laborious efforts for that agency to do anything about it—a daunting prospect that may discourage the agency from even beginning to think about upsetting the status quo. No matter what happens in the future, the agency cannot snap its fingers and reshuffle the deck. This operates as a credible commitment mechanism against change. And because the procedural restraints on the agency are external (that is, they are enforced by courts and the White House), that mechanism is even more credible. Ossification, viewed this way, provides the stickiness that regulated parties need to trust agency incentives, at least at the margins. And this allows agencies to better accomplish long-term goals. Each step in this analysis is explained below.

## A. Ossification Slows Regulatory Change and Increases Certainty

The primary concern with ossification qua ossification is that whatever the benefits of additional procedures may be, they come at too steep of an opportunity cost because they slow agency action.[169] Indeed, adherents to the ossification thesis fret that it can take

[169] See notes 91–92 and accompanying text.

years, even a decade, to promulgate a single rule.[170] At the same time, ossification is said to be especially potent for the most significant regulations.[171] These points are contested, but for purposes here, the first step of my analysis takes ossification as a given. Because of ossification, assume that agencies cannot quickly change the rules.[172] On this assumption, the only way an agency can avoid spending a lot of time on regulatory change is by diverting resources away from other priorities. Even if an agency does divert resources, moreover, it still cannot just wish the law changed and make it so; procedural requirements inevitably take some time. The result is that after a regulation has become final, regulated parties know that it cannot be changed immediately.

The next step in the analysis involves simple microeconomics. Almost by definition, the more difficult it is for an agency to change its policy, the less likely it is that the agency will do so. It is a basic economic principle that as purchases become more "expensive," generally less of the good is demanded because the opportunity cost increases. The same principle presumably applies in this context; as it becomes more "expensive" for agencies to change rules because of the time and resources they must expend to satisfy the relevant procedures, presumably there will be less change. Agencies do not have infinite resources and so have to prioritize. An example might help. Professor McGarity worries that because of ossification, agencies shift away from rulemaking in favor of less formal—in other words, less procedurally burdensome—alternatives.[173] But why would agencies do this? Because, from an economics perspective, those other forms of agency action are less "expensive." In other words, substitution

---

170 See, for example, Pierce, 75 Geo Wash L Rev at 919 (cited in note 90) ("It is almost unheard of for a major rulemaking to be completed in the same presidential administration in which it began. A major rulemaking typically is completed one, two, or even three administrations later.").

171 See, for example, Pierce, 80 Geo Wash L Rev at 1498 (cited in note 11) (explaining that ossification corresponds only "roughly to what the White House refers to as economically significant rules"). Counterintuitively, if the skeptics of the ossification thesis are correct that procedural requirements do not meaningfully delay regulatory change, the analysis in this Article may counsel in favor of additional procedures to ensure that delay does occur—that is, so long as policymakers believe that allowing agencies to make credible commitments is valuable.

172 See Thomas J. Miles and Cass R. Sunstein, *Do Judges Make Regulatory Policy? An Empirical Investigation of* Chevron, 73 U Chi L Rev 823, 868–69 (2006) ("[A]dministrative law already ensures a high degree, and perhaps an excessively high degree, of stability. It is both time consuming and difficult to make a regulation . . . . To say the least, new presidents cannot immediately change agency policy as they see fit.").

173 See McGarity, 41 Duke L J at 1386 (cited in note 19).

is occurring.[174] But less formal mechanisms are also inferior in some respects. They do not create as much stability because they can also be changed more easily.

To the extent that procedures make it harder for agencies to change the law, one can predict that the law will change less often once those procedures have been used. This dynamic creates increased regulatory certainty because regulated parties can be more confident that the regulatory scheme promulgated through formal procedures will not evolve. In this way, procedures that delay agency action create greater certainty, that is, a decreased risk that the agency will decommit from its promulgated policy.[175]

Ossification, importantly, is also something that is imposed on agencies, meaning that although agencies can try to speed things along, they cannot evade ossification (to the extent it is real) altogether. For instance, courts engage in hard-look review; if the agency does not do what is necessary to satisfy that review, a federal judge will invalidate the agency action. In this way, a federal court ensures that the agency cannot quickly change its mind. From the perspective of creating stickiness, the fact that a federal judge—who is not part of the agency—is waiting in the wings to prevent the agency from changing the incentive scheme is valuable.[176]

The same is true for White House review. OIRA, like a court, can also create greater regulatory certainty, for similar reasons. Although presumably regulated parties "trust" OIRA less than they do courts because OIRA is run by the same administration as the agency, the fact that OIRA is at least a step removed from the agency can only help create certainty.

That these procedures are external to the agency therefore makes ossification a more credible commitment. If the procedures were not external, then when new officials really wanted to change the underlying policy, they might just seek to change the commitment mechanism too. It is a principle of game theory that

---

174 See Nielson, 105 Georgetown L J at 964 (cited in note 19) (explaining substitution).

175 See Randy J. Kozel and Jeffrey A. Pojanowski, *Administrative Change*, 59 UCLA L Rev 112, 156–57 (2011) ("[S]tability usually is best promoted by limiting the frequency and degree of legal change.").

176 For an example of courts facilitating commitment mechanisms in another context, see Pierre-Hugues Verdier and Mila Versteeg, *International Law in National Legal Systems: An Empirical Investigation*, 109 Am J Intl L 514, 525 (2015) (explaining how courts can be used as "commitment mechanisms" when it comes to treaty compliance).

"[t]hird parties can play a valuable role in making threats credible."[177] This is hardly surprising. If the point of the commitment mechanism is to credibly commit one party, the commitment becomes more credible to the extent that that very party has no control over the execution of the commitment. This insight applies to ossification.[178]

## B. Increased Regulatory Certainty Can Expand Agency Options

Now comes the counterintuitive part: regulatory certainty expands agency options. Recall the investment formula used by private entities. An entity should invest if today's costs of doing so are less than the projected future benefit, with that future benefit being discounted by the time value of money and the likelihood that the benefit will be obtained.[179] Under this formula, the riskier future benefits are, the less valuable they are. And the less valuable tomorrow's benefits are, the less money will be spent on investment today. The upshot is that the riskier an investment is, the less of the investment there will be. This can be bad for agencies. After all, if the agency creates a policy because it wants investment to help achieve one of the agency's goals, the agency's inability to credibly commit to that policy is a problem.

Consider the following stylized example. Imagine that the president has directed the EPA to promulgate new regulations that would require (or create incentives for)[180] existing electricity-generation companies (EGCs) to source increasing percentages of their electricity from, say, next-generation nuclear fission plants over time. Imagine further that GenCorp is an EGC with operations throughout the western United States. In order to comply with the EPA's desires, GenCorp will have to invest enormous sums of money in next-generation nuclear power plants. It will also take several years for these investments to generate income

---

177 Brigham Daniels, *When Agencies Go Nuclear: A Game Theoretic Approach to the Biggest Sticks in an Agency's Arsenal*, 80 Geo Wash L Rev 442, 482 (2012).

178 See Margaret H. Lemos, *The Consequences of Congress's Choice of Delegate: Judicial and Agency Interpretations of Title VII*, 63 Vand L Rev 363, 380 (2010) (observing that "rulemaking also might be more stable than" some believe "because of ossification of the rulemaking process").

179 See notes 110–11 and accompanying text.

180 As explained above, it does not matter which because, as a matter of economics, an incentive or a decision to regulate one thing more than another can be interchangeable. See note 136 and accompanying text. As this example demonstrates, therefore, credible commitment mechanisms can be valuable whenever the agency wants to encourage certain capital-heavy investment, even if the agency does not formally create an incentive for that investment.

for the company because it is so difficult and time consuming to construct nuclear power stations. Assume further that although GenCorp's leadership believes the EPA's proposed nuclear policy is generally sensible, it is worried that the president is likely to leave office soon and that his successor is unlikely to share his energy policy views.

Assume that it will cost GenCorp a net present value of $100 million to bring its mix of generation assets in line with the EPA's proposal, and that it anticipates net present value revenues of $125 million from that investment if the current president's preferences, reflected in the regulation, hold in the future. In order to determine whether to make the up-front investment (and leaving aside for the moment any penalties that might accrue for its failure to do so), GenCorp must discount its anticipated $25 million profit from investing in nuclear power against the possibility that its investment will ultimately be unsuccessful.

What will GenCorp do? Well, it depends on how easy it will be for the next administration to change the rules. First consider "Ossification World." In Ossification World, GenCorp will assign a relatively high expected value to its investment. Or, put differently, it will not discount its anticipated future revenue stream too steeply on the basis of federal-level administrative-law political risk. In Ossification World, the appropriate discount rate might be as little as, say, 10 percent.[181] This means that GenCorp must weigh a sum-certain investment of $100 million against a 90 percent chance of a $125 million return. Thus, the expected value of GenCorp's investment in nuclear generation would be: ($125 million * 0.90) – $100 million = $12.5 million.[182]

Now consider "Ossification-Free World"—that is, one in which agencies can change or even reverse course in a relatively nimble fashion. In Ossification-Free World, GenCorp estimates that it must discount its post-nuclear projected revenue stream by 30 percent. In this scenario, the expected value of GenCorp's nuclear investment is negative: ($125 million * 0.7) – $100 million = –$12.5 million. In such a case, it would make sense for GenCorp to not make the

181 It is unlikely to be zero for a variety of reasons. For example, even without political risk, nuclear power plants are expensive and difficult to build, so there is some chance GenCorp simply will not be able to complete the project.

182 For purposes of this example, I assume only binary outcomes rather than the full spectrum of possible outcomes. The math would get more complicated with a more nuanced payoff model, but the intuitions would not change.

investment.[183] Of course, once a company has already entered the market, its strategy might change; once a company has started selling energy, it may be hard to simply stop, even if the incentives change.[184] But in the long run, if the incentives are not there, the company can always exit the market and the agency-desired investment will not occur.[185]

This simple example demonstrates how changing the amount of risk changes the amount of investment. Or as Professor Masur observes, "Any change in the background regulatory rules governing an industry is likely to upset the settled expectations of the firms and interested groups working in the affected field, leading to disruptions and increased costs as pre-existing programs become unworkable and new projects become necessary."[186] The inverse is also true: stability encourages investment.

This point should not be controversial. Implicitly accounting for ossification's ability to create regulatory stability, others have recognized that "[r]ules foster investment in productive enterprises by reducing the risk that regulators will deem an activity prohibited."[187] As Professor Mark Seidenfeld has explained, "[t]he greater uncertainty" there is "about whether an activity will be prohibited," the more "risk costs" there are "for which investors [will] demand a higher rate of return. These costs, in turn, discourage investment by decreasing the net present value of payoffs from such investment."[188] Hence, as Masur has concluded, if regulated parties "cannot be certain that future projects will not

---

183 See James C. Brau, Andrew L. Holmes, and Benjamin M. Blau, *Principles of Finance* ch 11 (MyEducator 8th ed 2017), online at http://www.myeducator.com/reader/web/1380b/ (visited Sep 30, 2017) (Perma archive unavailable):

> Understanding net present value as the difference between what we will receive (in today's dollars) and what we have to pay (in today's dollars) leads us to the NPV decision rule. This rule states that if a project has a positive NPV we should accept it, and if it has a negative NPV we should reject it.

See also id:

> Note that since we discount all the cash flows in our equation for NPV at the required rate of return, a positive NPV means that we earn *more* than our required return. A negative NPV means that we earn *less* than our required return. If NPV were ever exactly equal to zero, we would be earning exactly our required rate of return ($k$) and would therefore be indifferent.

184 See Isabelle Royer, *Why Bad Projects Are So Hard to Kill*, 81 Harv Bus Rev 48, 53–55 (Feb 2003).

185 See id at 55–56.

186 Masur, 60 Vand L Rev at 1041 (cited in note 24).

187 Mark Seidenfeld, *Bending the Rules: Flexible Regulation and Constraints on Agency Discretion*, 51 Admin L Rev 429, 434–35 (1999).

188 Id at 435 n 16, citing Richard Brealey and Stewart Myers, *Principles of Corporate Finance* 61–63, 112–14, 175–78 (McGraw-Hill 1981).

be frustrated by significant alterations in the regulatory landscape," the result will be "to compel risk- and uncertainty-averse industries to forego potentially productive investments and lead to avoidable negative outcomes."[189] And by parity of reasoning, any effort to reduce change in the regulatory scheme will reinforce settled expectations, leading to fewer disruptions, and so more investment.[190]

Relatedly, to the extent that agency commitments are credible, agency incentives can be smaller. The less risk associated with an incentive, the smaller the incentive has to be to spur the same level of activity. This is obviously a very simplified example, but imagine the following scenario: If it is 100 percent certain that doing some favored activity will result in a $5,000 reward, a certain amount of that activity will result. If it is only 50 percent certain, however, that doing the favored activity will be rewarded, the award must be $10,000 for the same amount of that favored activity to occur. For purposes here, this means that the stickier the agency's regulations, the less the agency has to offer to generate the same amount of encouragement. To the extent that incentives are costly for agencies (and they surely are, whether the cost is measured in money, some other tangible resource, or in surrendered regulatory authority),[191] this point is significant.

### C. Ossification Thus Can Expand Agency Options by Creating Sticky Regulations

And now the conclusion: *agencies* benefit from being able to incentivize innovation and investment of the sort that the agency prefers, and a credible commitment mechanism helps agencies create such incentives. Ossification, which acts as a credible commitment mechanism, accordingly sometimes expands agency

---

189 Masur, 60 Vand L Rev at 1042 (cited in note 24).

190 See id at 1041:

> More importantly, fluid agency interpretations and re-interpretations make it more costly for affected entities or other stakeholders to adjust their conduct to conform to agency rules, and thus regulated actors may refrain from making costly investments or embarking upon new projects that may be endorsed under one regulatory regime but prohibited under another one that could be soon forthcoming.

191 Agencies are generally understood to appreciate flexibility; indeed, this idea is a key part of the debate over deference to agency interpretations of their own regulations. See, for example, *Thomas Jefferson University v Shalala*, 512 US 504, 525 (1994) (Thomas dissenting) (explaining that "vague regulations . . . maximize[ ] agency power"). When an agency promulgates a clear rule, it is giving up some of its discretion.

options because agencies backed by credible commitment mechanisms are better able to encourage regulatory cooperation at a cheaper price.

According to many, agencies should be free to quickly promulgate one rule, but then just as quickly turn around and promulgate another rule.[192] Granted, that flexibility empowers agencies when it comes to regulating the present. Yet such short-term flexibility comes at a cost: regulated parties cannot take agencies at their word, meaning agencies lack long-term flexibility. It is hard to say in the abstract which sort of flexibility is more valuable.[193] *But this is the trade-off*. And for agencies that value the future more than the present, the ability to make credible commitments matters because agencies have more long-term options if regulated parties trust that agency policies are durable. Before investing in a capital-intensive project, regulated parties want certainty that the regulatory rug will not be pulled out from under them. And the agency may benefit if regulated parties have that certainty.

Ossification can provide that certainty. Even though the APA does not allow the agency to contract not to change the law, the fact that agencies must conduct "Herculean" efforts to change a rule provides certainty, at least de facto.[194] Indeed, one of the reasons why rulemaking is valuable depends on it being difficult to make rules. Private entities are not going to throw away money just because an agency wants them to; the numbers have to add up. Ossification thus is why the so-called *Accardi* principle that "obliges an agency to follow its own rules" provides "agencies a mechanism to make limited credible commitments about the stability of their policies."[195] If agencies could instantly change rules, the *Accardi* principle often would have little heft because an agency would only rarely be tempted to evade its own rules; it

---

192 See, for example, McGarity, 41 Duke L J at 1462 (cited in note 19).

193 See Note, *Implementing* Brand X*: What Counts as a Step One Holding?*, 119 Harv L Rev 1532, 1549 (2006):

> Advocates of greater flexibility for agencies preach on the dangers of ossification—frozen regulatory policy unable to adapt to evolving understandings and circumstances. Proponents of stability emphasize the reliance parties place on existing laws and the tremendous costs created by destabilization. One cannot say a priori whether flexibility or stability is more desirable—which direction we ought to move toward at any given point depends on current conditions.

194 McGarity, 41 Duke L J at 1401 (cited in note 19).

195 Magill and Vermeule, 120 Yale L J at 1064 (cited in note 3), citing generally *United States v Shaughnessy*, 347 US 260 (1954) ("Accardi"). See also Thomas W. Merrill, *The* Accardi *Principle*, 74 Geo Wash L Rev 569, 612–17 (2006) (discussing the utility of the *Accardi* principle).

would simply change them.[196] It is because changing rules is hard that the *Accardi* principle enables credible commitments.

### D. The Theory's Limits

As the foregoing demonstrates, the benefits of sticky regulations are most apparent when an agency hopes to encourage behavior, especially behavior that requires a lot of capital and potentially years of activity before the investment can be recouped. In that sort of situation, it is intuitive that a credible commitment mechanism enables agencies to better regulate into the future. There are limits, however, to this analysis. Sometimes, an agency is not especially concerned about long-term incentives. Instead, it just wants a particular activity to stop. In that situation, the agency may not care much about the benefits of stickiness. (To be clear, even then, agency officials might appreciate it if, for instance, they worry that their successors will not share their evaluation of the danger. But that is a different sort of concern.) The agency is not trying to encourage private actors to do something voluntarily; it simply is telling private actors not to do some particular activity. Yet the same procedures (generally) apply in both contexts.[197] Sticky regulations therefore are not always valuable.[198]

## III. STICKY REGULATIONS: THREE EXAMPLES

So far, the analysis in this Article has been theoretical. But the implications of sticky regulations are quite practical. In fact, looking at concrete examples, it is easy to see how ossification expands an agency's ability to regulate across time. This is true regardless of ideology; those in essentially any ideological camp

---

[196] Though perhaps not retroactively. See *Bowen v Georgetown University Hospital*, 488 US 204, 208–09 (1988) (explaining that retroactive rulemaking is generally not allowed).

[197] Agencies that want to stamp out some practice immediately may be better positioned to use the APA's "good cause" exception, see 5 USC § 553(b)(3)(B), (d), if, for instance, the reason the agency wants to move quickly is because the activity is especially dangerous.

[198] Likewise, if ossification is an overstated problem, then the threat of it may not be meaningful enough for the agency to gain the benefits of a credible commitment mechanism. That may counsel in favor of additional procedures or some other mechanism to create stability. Similarly, as explained below, there may be better ways to create credible commitment mechanisms than through procedural requirements. For instance, it may make sense to allow agencies to promulgate irrevocable regulations. For purposes here, however, it is enough to recognize that stickiness can be valuable. Whether the current system creates the right amount of stickiness or does so in the right way are different, albeit related, questions.

should be able to identify regulatory policies that would benefit from the commitment-mechanism effects of sticky regulations.[199]

### A. Auto Safety

Let's begin with the example set forth in the opening of Professor Masur's article. Although it is a hypothetical, it illustrates why agencies would like to be able to offer credible commitment mechanisms:

> Consider the following situation: In late 2004, towards the end of President George W. Bush's first term, the National Highway Transportation Safety Administration ("NHTSA"), pursuant to its congressionally delegated authority, promulgates a rule that would relax inspection and testing regimes for automobile manufacturers—thereby saving those firms substantial amounts of money—if the manufacturers independently deployed cutting-edge vehicle safety technology. The research and development of this technology will require significant up-front expenditures, and automobile manufacturers must decide whether to invest the funds necessary to bring the technology to market. However, the cost-benefit analysis is not so straightforward. The predicament, as the automobile firms understand it, is that this regulatory regime may not last long enough to result in long-term cost savings. Several of the potential Democratic nominees for the 2004 presidential campaign oppose this regulation, and, if President Bush were to lose the election, the incoming administration would possess the unilateral authority to discard this new rule in favor of the previous status quo (or any other reasonable arrangement). In light of this uncertainty, automobile manufacturers rationally may decide to decline the offer implicit in NHTSA's new rule and not invest in the costly (but socially productive) new technology, frustrating the agency's regulatory aims.[200]

---

[199] Before addressing these examples, it is important to observe that I have not identified any citable evidence that regulated parties consider stickiness when making investment decisions; I was able to obtain confirmation on background, however, from a knowledgeable insider. Whether that confirmation should be dismissed as mere anecdote is difficult to evaluate, especially because private businesses are reluctant to share their internal business strategies. It is also important to recall that the entire ossification thesis is disputed. If the facts do not support the thesis, regulated parties would not account for ossification.

[200] Masur, 60 Vand L Rev at 1022 (cited in note 24) (citation omitted).

Although this is just a hypothetical, it has a ring of truth to it. It is easy to imagine agencies trading reduced burdens on regulated parties in exchange for increased innovation by those parties. It also is easy to see why manufacturers here may be reluctant to take the agency at its word.

How can the agency solve the problem? In Masur's analysis, the agency is stuck—because of *Brand X*, regulated parties cannot be confident that the policy will stay in place. The agency, of course, could promise that nothing will change, but that promise would have no teeth. The agency also could promulgate a schedule of dates, but that would have no teeth either; the agency in the future could always just amend that schedule or rescind the rule altogether and replace it with something else. Thus, on Masur's account, the agency cannot achieve what it wants, or at least as much of it as it wants; if an agency tries to induce market participants to incur the costs necessary to implement the technology, regulated parties will ignore it.

But what if ossification can act as a commitment mechanism? If you were a manufacturer in this hypothetical, you would know that the incoming administration may want to change the policy. But you would also know that the new administration could not do so quickly or easily. Because the incentives were created by a rule, even a committed new administration could not instantly change the policy, but instead would have to go through a new round of rulemaking. To the extent that this is an important policy (and the fact that political candidates were talking about it on the campaign trail suggests that it is important), then ossification would hinder the new administration from undoing what the prior administration had just done.

To be sure, regulated parties would not have complete confidence in the agency-created incentives; it is possible that the new administration would, in fact, eventually change the policy, despite the difficulties imposed by ossification. But the odds of that change occurring—especially quickly—are reduced in a world with ossification. Thus, at the margins, regulated parties would have more confidence in the agency-created incentives, and so would be more likely to act on them. The agency in time period one benefits.

### B. "Clean Energy"

The preceding example was a hypothetical. But there are real examples, too. Consider "clean energy." During the Obama administration, the White House directed agencies to encourage greater use of certain types of fuels.[201] Political opponents sometimes criticized such efforts.[202] This political dynamic illustrates the power of sticky regulations; absent ossification, the amount of participation in "clean energy" programs presumably would be less because everyone would know that any incentives created would be subject to elimination. Indeed, now that President Donald Trump is in office, many of the Obama administration's policies are being revisited.[203] It is safe to say the policies with the most staying power will be those that have gone through notice-and-comment rulemaking.[204] It also seems likely that private companies recognize that fact when they decide whether to invest.

Consider, for instance, the fate of the Clean Energy Incentive Program (CEIP). EPA, under the Obama administration, proposed an ambitious incentives program "to reward early investments in renewable energy (RE) generation and demand-side energy efficiency (EE) measures that generate carbon-free [forms of energy] . . . during 2020 and/or 2021."[205] In particular, the proposal, had it been adopted, would have "ma[d]e additional allowances or Emission Rate Credits (ERCs) available to states to encourage early reductions from zero-emitting wind or solar power projects and EE projects," and further encouraged "EE projects in low income communities."[206] The idea was to advance the development of new favored technologies, thus boosting "the widespread

201 See, for example, Joseph P. Tomain, *The Politics of Clean Energy: Moving beyond the Beltway*, 3 San Diego J Climate & Energy L 299, 334 (2011–2012) (explaining that "the Obama administration has invested political capital favoring clean energy initiatives through increased R&D for clean energy, a smart grid initiative and opposition to fossil fuel subsidies") (citation omitted).

202 See, for example, Aaron Tucker, *Government Intervention in Clean Energy Technology during the Recession*, 42 Tex Envir L J 347, 348–49 (2012), citing Matthew L. Wald, *Republicans Attack on Handling of Stimulus Money and Green Jobs* (NY Times, Sept 22, 2011), available at http://www.nytimes.com/2011/09/23/science/earth/23energy.html (visited Oct 26, 2017) (Perma archive unavailable) (explaining concerns that "political cronyism" may be at play in putative efforts to achieve clean energy, and that shifting toward solar power through incentive programs is "controversial").

203 See, for example, Matthew Daly and Jill Colvin, *Trump Signs Order Rolling Back Obama's Anti–Global Warming Projects* (Chi Trib, Mar 28, 2017), available at http://www.chicagotribune.com/news/nationworld/politics/ct-trump-climate-change-executive-order-20170328-story.html (visited Oct 26, 2017) (Perma archive unavailable) (explaining that Trump revoked a moratorium on coal leases and ordered the relevant agencies to begin rescinding the Clean Power Plan).

204 See *Clean Air Council v Pruitt*, 862 F3d 1, 9 (DC Cir 2017) ("'[A]n agency issuing a legislative rule is itself bound by the rule until that rule is amended or revoked' and 'may not alter [such a rule] without notice and comment.'"), quoting *National Family Planning and Reproductive Health Association, Inc v Sullivan*, 979 F2d 227, 234 (DC Cir 1992).

205 *Fact Sheet: Clean Energy Incentive Program* (EPA, May 9, 2017), archived at http://perma.cc/5LFP-MVHZ.

206 Id.

development and deployment of wind and solar, which is essential to longer term clean energy and climate strategies and consistent with the Clean Air Act's directive to advance newer technologies."[207] The incentive program, moreover, was designed to be optional; no one would have to do it.[208] As of late December 2016, EPA had received thousands of comments regarding the CEIP.[209]

The CEIP, however, was quite controversial. Indeed, it was related to the Obama administration's broader Clean Power Plan, a rule that was stayed by the Supreme Court pending judicial review and is currently before the en banc DC Circuit.[210] Especially because of the Supreme Court's stay, Republicans attacked the Obama administration for proposing a new CEIP rule.[211] Likewise, industry groups argued that if this program is implemented, the incentives should extend to other competing fuels, such as "natural gas, nuclear, biomass and waste heat power."[212]

In other words, the situation involving the CEIP was quite similar to the hypothetical proposed by Masur. As there, an agency, at least in time period one, would like to encourage certain behavior, but the incentive program it has developed to do so is controversial to the other side of the political aisle. The primary difference between the situations is that the CEIP's incentive program (largely) was just a proposed rule, while the incentive program in Masur's hypothetical was a final rule. Likewise, unlike in Masur's hypothetical, we now are in time period two, and regulated parties know for certain that the other political party in fact will determine the fate of the agency-created incentives. Again, Trump, after all, won the election. One of the first

---

207 Id.

208 See id.

209 See *Clean Energy Incentive Program Design Details* (Regulations.gov, June 30, 2016), archived at http://perma.cc/Q4X7-V337.

210 See *North Dakota v Environmental Protection Agency*, 136 S Ct 999, 1000 (2016) (granting the stay).

211 See Jeremy Dillon, *House Republicans Claim EPA Is Violating Court Stay on Clean Power Plan* (Roll Call, May 13, 2016) (available on Westlaw at 2016 WL 2762611):

> The letter cites as violations of the stay an EPA decision to move forward in proposing the Clean Energy Incentive Program, which would give "emission reduction credits" to states that adopt renewable technology investments early in the process of complying with the blocked Clean Power Plan, as well as continuing efforts to write "Model Trading Rules," which would act as guidance for states in complying with the CPP.

212 Ethan Howland, *Industry Groups Urge EPA to Stop Clean Power Incentives* (Roll Call, Nov 4, 2016) (available on Westlaw at 2016 WL 6542499).

things that the Trump administration did was withdraw the proposed CEIP rule.[213]

Presumably many of those who bemoan ossification think that the EPA under President Barack Obama should have just been able to implement CEIP without having to go through a lengthy procedural process. Yet what would have happened in such a world? After the incentives were created, no one would trust them fully because the new administration could simply cancel them or change the scheme just as quickly. Put another way, although regulatory procedures may have prevented CEIP from going into effect, that does not mean that those procedures harmed the incentive scheme. To the contrary, the only way that the program could have ever worked is because those procedures generated stickiness.

This point perhaps is more easily understood when one also considers the Department of Agriculture's Environmental Quality Incentives Program, which is "a voluntary program that provides financial and technical assistance to agricultural producers to plan and implement conservation practices that improve soil, water, plant, animal, air and related natural resources on agricultural land and non-industrial private forestland."[214] This program was created in the 1990s and then revised through regulatory amendment in 2016 to include, among other things, efforts "to encourage development of wildlife habitat."[215] Unlike the CEIP, however, this revised incentives program was placed in a final rule.[216] Now, regulated parties can more fully embrace those incentives because even if the Trump administration determines that they should be changed, agency officials will not be able to do so quickly. Regulated parties thus have more reason to trust the incentives and participate in the scheme.[217]

---

[213] See Environmental Protection Agency, Withdrawal of Proposed Rules: Federal Plan Requirements for Greenhouse Gas Emissions from Electric Utility Generating Units Constructed on or before January 8, 2014; Model Trading Rules; Amendments to Framework Regulations; and Clean Energy Incentive Program Design Details, 82 Fed Reg 16144, 16144 (2017).

[214] *Environmental Quality Incentives Program* (USDA), archived at http://perma.cc/XJL5-3AP6.

[215] Department of Agriculture, Environmental Quality Incentives Program (EQIP), 81 Fed Reg 29471, 29472 (2016), amending 7 CFR Part 1466.

[216] See 7 CFR Part 1466.

[217] For another example, consider the fate of the Obama administration's "methane" rule; the Trump administration tried to stay the rule's effectiveness but was not allowed to do so. See *Clean Air Council*, 862 F3d at 4. Had the rule not gone through notice-and-comment procedures, however, the new administration could have eliminated it without any delay.

The observation that ossification can help rather than hobble environmental regulation is contrary to a great deal of conventional wisdom in environmental law, which seems to embrace the idea that "[i]f we are going to, as a society, continue and expand our social commitment to protecting the environment, reducing ossification is of the utmost importance."[218] But the conventional wisdom does not offer a complete analysis of the situation. True, ossification means that older standards remain in effect for longer and that some new proposals will never go into effect. Yet if agencies wish to create durable incentives for regulated parties to invest in clean energy (or *anything* else), ossification can be a valuable tool because it creates sticky regulations.[219] This same principle holds true for Trump. If he wishes for his regulatory initiatives to have staying power (and so to encourage robust participation by regulated parties), he would be well served by going through the full rulemaking process. Otherwise, fewer will be willing to invest the capital necessary to, say, open a new coal facility.

### C. Internet Access

Expanded access to the internet also has become an important priority in recent years. One way that the Federal Communications Commission (FCC) has sought to accomplish this policy goal is through a regulation to update the "Lifeline" program to create incentives for telecommunications providers to provide low-income families with subsidized internet access.[220] This example too demonstrates the regulatory power of ossification.

Since the mid-1980s, the Lifeline program has provided low-income families with subsidized phone service. Although the program is complicated, simply stated, the way it works is that telecommunications companies that provide agency-favored services to low-income consumers at reduced prices receive rewards from the agency. Initially, the program applied to long-distance telephone service. It was later expanded to mobile phones.[221]

---

[218] Michael A. Livermore, *Reviving Environmental Protection: Preference-Directed Regulation and Regulatory Ossification*, 25 Va Envir L J 311, 386 (2007).

[219] See Todd S. Aagaard, *Environmental Law's Heartland and Frontiers*, 32 Pace Envir L Rev 511, 523 (2015) ("[O]ssification helps maintain the stability of environmental law's core.").

[220] See *Lifeline Program for Low-Income Consumers* (FCC, Oct 25, 2017), archived at http://perma.cc/8T82-Y8UT.

[221] See id.

Recently, however, the scheme was amended in a significant way. Specifically, in 2016, the FCC "adopted a comprehensive reform and modernization of the Lifeline program. In the 2016 Lifeline Modernization Order, the Commission included broadband as a support service in the Lifeline program."[222] Importantly, the FCC did so deliberately to encourage deployment of internet resources in communities that do not yet have them.[223] And the FCC did so in a technology-forcing way: "One of the reasons behind adopting minimum service standards was our belief that such standards would 'remove the incentive for providers to offer minimal, un-innovative services.' If providers were able to collect support for services that did not meet our standards," they might "continue to offer low-quality services."[224]

This regulatory amendment, however, was also quite controversial. For instance, two out of the five FCC commissioners voted against it.[225] As then-Commissioner Ajit Pai explained in dissent, although "modernizing the Lifeline program to support affordable, high-speed Internet access for our nation's poorest families is a worthy goal," the FCC "must be fiscally responsible and clean up the rampant waste, fraud, and abuse in the program so that the dollars we spend go to those families."[226] Importantly, Pai also was unhappy with the incentives because, in his view, they were not technology forcing enough, but instead would "consign[ ] Lifeline consumers to second-class broadband services for the foreseeable future."[227]

If you ran a telecommunications company, would you eagerly participate in the amended Lifeline program without ossification? Presumably not—all the more so now that Commissioner Pai has

---

222 Id.

223 See Federal Communications Commission, Lifeline and Link Up Reform and Modernization, Telecommunications Carriers Eligible for Universal Service Support, Connect America Fund, 81 Fed Reg 33026, 33029 (2016), amending 47 CFR Part 54 ("The Commission has previously recognized that providing federal support for low-income consumers' purchase of BIAS will broaden the base of consumers able to purchase such services, thereby increasing consumer demand and incentives to deploy broadband in areas where broadband is not yet available."). See also id at 33026 ("We also take important steps to improve the management and design of the program . . . with the goal of providing incentives for broadband providers to participate and increasing competition and meaningful broadband offerings to Lifeline subscribers.").

224 Id at 33038.

225 See *In the Matter of Lifeline and Link Up Reform and Modernization*, 31 FCC Rec 3962, 4163–78 (2016) (Pai dissenting); id at 4179–85 (O'Rielly dissenting).

226 Id at 4163 (Pai dissenting).

227 Id (Pai dissenting).

taken the gavel as Chairman Pai.[228] From the perspective of regulated parties, the sticky regulations that come from ossification are valuable because now they can trust—or at least trust more—that the incentives will not disappear (which would scramble their investment strategies) or be substantially changed (which also would impact their investment strategy, especially to the extent that sunk costs are involved). Of course, this does not mean that it is certain that the Lifeline program's incentives will continue; indeed, there is a fair chance that they may be modified (especially because the program is controversial across the aisle).[229] But the discount factor a company uses to decide whether to invest in the program is lower because the current incentives have gone through the rulemaking process. Hence, it is reasonable to think that the agency has achieved greater participation in the program because of regulatory stickiness.

## IV. Further Considerations

Ossification, to the extent it is real, limits an agency's ability to change the rules quickly, thus decreasing an agency's menu of options in one respect. But it also enhances an agency's ability to make credible commitments, thus increasing an agency's menu of options in another respect. Which effect is more beneficial no doubt depends on the agency and program. The preceding parts have explained why this is so. This Part, however, addresses more difficult questions, including whether we want agencies to be able to issue sticky regulations in the first place. It also addresses counterarguments to the thesis that sticky regulations may help rather than hurt agencies. The purpose of this Part is not necessarily to answer these questions but instead to identify them as questions.

### A. Should We Want Administrative Law to Extend across Time?

By making it harder for agencies to act to change policy today, regulated parties know that it is more likely that the policy will exist tomorrow. To the extent that agencies wish to encourage regulated parties to go down certain paths rather than others, this is a good thing. Agencies are better able to direct innovation

---

228 See Harold Furchtgott-Roth, *President Trump Designates Ajit Pai as Chairman of FCC* (Forbes, Jan 22, 2017), archived at http://perma.cc/9YW2-XGSC.

229 See Kelly Knaub, *FCC to Take Action on Lifeline Program, Chairman Pai Says* (Law360, Sep 14, 2017), archived at http://perma.cc/BS3L-FP26.

because the incentives they put in effect are stable. This analysis, however, skips over an important question: Do we want agencies engaged in such long-term regulation? Although ossification increases an agency's regulatory menu (at least with regard to the future), it is not obvious that this is desirable. Although this question merits deeper thinking, here are some initial thoughts.

To begin, as a matter of positive law, agencies can often regulate into the future. In fact, sometimes they are required to do so, for instance when Congress orders technology-forcing regulation. Likewise, if agencies have been delegated authority to regulate "in the public interest," why can't they use that power with an eye on the future?[230] And if the procedures that cause ossification are lawful (as discussed below), then because of these procedures, agencies can better accomplish long-term goals.

The harder question therefore is not one of law, but of policy. *Should* Congress empower agencies to create long-term incentives? The answer to this question, no doubt, depends on how confident we are that agencies are good at using sticky regulations. If agencies can use sticky regulations to create better long-term outcomes than would occur absent sticky regulations, then the argument in favor of such a power is strengthened. Alas, there is reason to fear that agencies are not especially good at long-term regulation. For instance, many have observed that agencies do not pick winners and losers especially well,[231] presumably because they lack sufficient information[232] or because of political pressures.[233] Hence, some argue that allowing agencies to participate in the marketplace is a recipe for waste—or potentially even graft—because agency officials cannot make better decisions than the market.[234]

230 Of course, if Congress gives an agency an instruction that is focused on today, the agency would act unlawfully if it tried to structure incentives with an eye on the future.

231 See, for example, Michael Abramowicz, *Perfecting Patent Prizes*, 56 Vand L Rev 115, 217–18 (2003) ("Government has a poor record picking 'winners' in industrial policy.").

232 See Peter Lee, *Social Innovation*, 92 Wash U L Rev 1, 46 (2014) ("As F.A. Hayek influentially described, the information needed to create an optimal economic order is widely dispersed throughout society and is very difficult to concentrate within a single entity, such as a government body."), citing F.A. Hayek, *The Use of Knowledge in Society*, 35 Am Econ Rev 519, 519 (1945).

233 See Abramowicz, 56 Vand L Rev at 131 n 48, 218 (cited in note 231) (explaining that "losers" on the merits may attempt to use regulation as a tool to combat the "winners").

234 See, for example, Paul Noe, *Analyzing the Destruction of Human Capital by Regulations*, 63 Admin L Rev 203, 209 (2011). Alternatively, it is possible that failing entities are more likely to be successful lobbyists, which also leads to inefficient outcomes. See Richard E. Baldwin and Frédéric Robert-Nicoud, *Entry and Asymmetric Lobbying: Why Governments Pick Losers*, 5 J Eur Econ Assoc 1064, 1065–66 (2007) (explaining the "losers' paradox" in which failing industries are better rent extractors).

At the same time, empowering agencies to regulate into the future creates a "dead hand" problem—policies that are not currently popular nonetheless remain on the books.[235] This problem, of course, also applies to Congress; because it is hard to make law through bicameralism and presentment, it is hard to unmake law through bicameralism and presentment, meaning that laws that could not be enacted today continue to govern society.[236] That "dead hand" dynamic may be inevitable in Congress,[237] but should it be extended to agencies too? Or, for purposes of political accountability, should we prefer a world in which agencies cannot go too far ahead of today's status quo?

To evaluate this question as a policy matter, it is necessary to understand what would happen in a world without ossification. No doubt, regulated parties would still place *some* trust in the agency's policy; after all, if the policy is good, the next administration is likely to keep it. In any event, agencies may be encouraged to at least keep expectations of stability in mind.[238] And even without ossification, it still takes some time to change a policy. So no

---

[235] See David J. Barron and Todd D. Rakoff, *In Defense of Big Waiver*, 113 Colum L Rev 265, 271 (2013) ("The desire to overcome the dead hand of the past was a central impetus for the modern administrative process.").

[236] See generally Frank H. Easterbrook, *Textualism and the Dead Hand*, 66 Geo Wash L Rev 1119 (1998).

[237] See id at 1120:

> Decisions of yesterday's legislatures (and the 104th Congress is as "dead" for this purpose as the 50th or the 10th) are enforced not only because the Constitution does not treat laws as radioactive (there is no legal half-life) but also because affirming the force of old laws is essential if sitting legislatures are to enjoy the power to make new ones. It is hard to tackle a problem if your law winks out of existence in two years or less (much less, since most laws are enacted in a legislature's final weeks or months). Wags may say that laws are not sold but only rented, and this is so in the sense that sitting legislatures can undo yesterday's interest-group deal (or charge a political price for leaving it alone), but the lease is generally long-term, in order to promote political and social stability.

See also Eric A. Posner and Adrian Vermeule, *Legislative Entrenchment: A Reappraisal*, 111 Yale L J 1665, 1703 (2002) (arguing against the idea that Congress's ability to bind itself in the future is especially objectionable).

[238] Indeed, perhaps ordinary principles of reasoned decisionmaking should sometimes require agencies to think about the long-term effects of regulatory change on stability. The Supreme Court, however, did not seem to take that view in *Fox*. See Vermeule, 109 Nw U L Rev at 687 (cited in note 8):

> A more convincing account of *Fox Television* is that the Court was worried about granting a new license for ossification. . . . Allowing agencies to satisfice, even in contexts where satisficing is not obviously a rational course, removes one margin—the margin of comparative policy evaluation—on which regulated entities may press in order to thwart and delay the course of policymaking. The tradeoff, in other words, is that the Court is willing to accept a degree of irrational satisficing

matter what, there is at least some external restraint—some *stickiness*—on an agency's ability to change policy.

Even so, absent the procedures that are said to cause ossification, the amount of reliance would decrease. How should we think about this? From the agency's perspective, the net effect is complex, for reasons already discussed. But what about from the perspective of the regulated party? In one sense, if regulated parties were informed that agencies could change rules quickly, they could decide whether to participate in the market or to do something else. If one can choose whether to participate, where is the unfairness? Yet this entire analysis may be problematic. After all, perhaps regulated parties should have a *constitutional* expectation that the government cannot move too quickly. There is a serious argument that the lawmaking process set out in Article I was designed to make it hard to make laws.[239] So perhaps we should encourage ossification, and the stability it generates, under the theory of the "second best."[240] Whether this point is correct, of course, is disputed. And even if is correct, it is hard to know what the implications should be. These questions are far beyond the scope of this Article. But they are the sorts of questions that sticky regulations may implicate.

The inverse of this Article's key insight is also true. Perhaps the only way to *prevent* agencies from being able to regulate across time is by eliminating the procedures that are said to cause ossification. But those procedures are intended to protect the rights of the public and help prevent agency mistakes.[241] If we do not want agencies to regulate across time, then should we *eliminate*

---

> in agency decisionmaking in the interest of unclogging the channels of administrative change.

239 See *Department of Transportation v Association of American Railroads*, 135 S Ct 1225, 1237 (2015) (Alito concurring) (citations omitted):

> Our Constitution, by careful design, prescribes a process for making law, and within that process there are many accountability checkpoints. It would dash the whole scheme if Congress could give its power away to an entity that is not constrained by those checkpoints. The Constitution's deliberative process was viewed by the Framers as a valuable feature, not something to be lamented and evaded.

See also John F. Manning, *Lawmaking Made Easy*, 10 Green Bag 2d 191, 202 (2007).

240 See generally Peter B. McCutchen, *Mistakes, Precedent, and the Rise of the Administrative State: Toward a Constitutional Theory of the Second Best*, 80 Cornell L Rev 1 (1994).

241 See William F. Pedersen, *Contracting with the Regulated for Better Regulations*, 53 Admin L Rev 1067, 1087 (2001) ("Yet many of the administrative process reforms now blamed as causes of ossification . . . were hailed at the time, and are still supported, as necessary corrections to the narrow and self-centered focus of the rulemaking agencies.") (quotation marks omitted).

those procedural safeguards? This Article's analysis, after all, cuts both ways. In other words, there is no silver bullet; if agencies can regulate easily, there is less stability and regulated parties will not fully trust agency-created policies. Yet if it is difficult for agencies to regulate, there will be more stability (which can benefit agencies and regulated parties), but that also means that agency policies may have longer shelf lives. The best approach may require finding the optimal amount of difficulty in light of those trade-offs. But how to do that?

This is not the place for a full exploration of these questions. Rather, my purpose is to begin to sketch them out. Ossification allows agencies to better regulate across time; whether that is a good thing or not is a complicated question that implicates numerous important considerations. Going forward, the ossification literature would be richer if scholars, apart from examining empirical questions about the costs and benefits of regulatory procedures, began considering these normative and perhaps sometimes even constitutional questions about the proper role of agencies in society's intertemporal choices.

### B. Is Sticky Regulation Lawful?

Another question that I have skipped over so far is whether, beneficial or not, the procedures that create ossification are lawful. Reading the APA, there is some reason to think that the modern rulemaking process is more rigorous than the framers of the APA intended.[242] For instance, is the *Portland Cement* doctrine a correct application of the APA requirement that the agency shall provide a "[g]eneral notice of proposed rule making" that contains just "a description of the subjects and issues involved"?[243] Arguably not.[244] On the other hand, some of the procedures that supposedly cause ossification are undoubtedly lawful. For example, Congress required agencies to comply with the Regulatory Flexibility Act.[245] And it is hard to say in a country in which "[t]he executive Power

242 See Beermann and Lawson, 75 Geo Wash L Rev at 894–95 (cited in note 51).

243 5 USC § 553(b).

244 See *American Radio Relay League, Inc v Federal Communications Commission*, 524 F3d 227, 246 (DC Cir 2008) (Kavanaugh concurring in part, concurring in the judgment in part, and dissenting in part) ("I write separately to underscore that *Portland Cement* stands on a shaky legal foundation (even though it may make sense as a policy matter in some cases)."). On the other hand, there are potential counterarguments. See, for example, Nielson, 49 Ga L Rev at 780 n 129 (cited in note 72).

245 Pub L No 96-354, 94 Stat 1164 (1980), codified at 5 USC § 601 et seq.

shall be vested in a President"[246] that the president cannot oversee how federal agencies execute the law. Whether courts have misread the APA, however, is trickier.

Ultimately, for purposes here, however, this is not a relevant question. The focus of this Article is ossification qua ossification, that is, the idea that delay may benefit agencies by better enabling them to make credible commitments across time. If it is true that ossification has that effect, and if we conclude that such an effect is a good thing on balance, then whether judicially caused ossification is lawful is a question for another time and another place. Given these assumptions, if ossification were not lawful, we should encourage Congress to make it lawful by statute, which Congress undoubtedly can.

That said, if ossification benefits agencies, that fact may have a legal consequence. In our system, stare decisis is real, and the Supreme Court has already blessed hard-look review.[247] To overrule such a statutory decision, the Court requires a "special justification."[248] Absent the analysis in this Article, the supposed harms caused by ossification may be claimed to be a special justification for eliminating hard-look review. To the extent, however, that this Article is correct, that special-justification argument should falter. Because it is not clear whether ossification harms or helps agencies on balance, any argument that hard-look review should be overruled faces a much steeper climb.

### C. Might Agency Officials Dislike Sticky Regulation despite Its Benefits?

One possible objection to my thesis is the fact that agency officials themselves sometimes seem to bemoan procedural requirements that are said to cause ossification.[249] If procedural delay is valuable because it enables agencies to make credible commitments, why would agency officials dislike it?

This is a fair objection. Even so, perhaps agency officials do not realize that the very "ossification" that they bemoan is, in fact, benefiting them. The way that the benefit works is hardly obvious,

[246] US Const Art II, § 1, cl 1.

[247] See *State Farm*, 463 US at 42–44.

[248] *Kimble v Marvel Entertainment, LLC*, 135 S Ct 2401, 2409 (2015).

[249] See J.B. Ruhl and James Salzman, *In Defense of Regulatory Peer Review*, 84 Wash U L Rev 1, 40 n 155, 41 (2006) (explaining that numerous agency officials objected to mandated peer review because it may "lead to increased costs and delays"), quoting Carol M. Browner, et al, Letter to Joshua B. Bolton regarding the Proposed Bulletin on Peer Review and Information Quality (Center for Progressive Reform, Jan 9, 2004), archived at http://perma.cc/H2KS-54WM.

so officials may not see it. Agency officials no doubt expect that regulations will spur desired conduct and so are not surprised when it happens, nor do they necessarily think deeply about why it happens. Yet if stickiness were to disappear, these officials may quickly realize just how valuable it was.

For instance, it is safe to say that many officials during the Obama administration who at the time privately rued how difficult it was to create regulations may be singing a different tune now. Because of all of those procedures, the Trump administration cannot simply flip a switch and undo what the Obama administration was able to accomplish through rulemaking. Thus, it is harder for the Trump administration to shift away from the incentives and other devices created by the Obama administration to encourage certain behaviors. This point, of course, is not ideological. If the Trump administration wishes its own policies (and the behaviors that those policies encourage) to have greater staying power, it too will benefit from sticky regulations. The very fact that it is hard to change policy means it is hard to change it back. This last year has demonstrated this point with clarity, in ways that perhaps were not as obvious before now. Hence, it is possible that agency officials are beginning to appreciate ossification.

Another possibility is that many agencies are primarily concerned with regulations for which a credible commitment mechanism is not especially important. The same procedures, however, largely apply to both types of rules. Thus, some officials who bemoan ossification may do so because its benefits accrue to officials at *other* agencies. And those agencies that benefit from stickiness may not speak up, or may not speak as loudly.

### D. Does This Mean All Procedures Are Cost Justified?

Another concern is that even if ossification serves as a commitment mechanism, and even if such a commitment mechanism expands the scope of what an agency can do (at least with regard to the future), it does not follow that all procedures are justified. There is a trade-off; agencies can regulate better in the future, but cannot regulate as well during the present. Likewise, some procedures may be better than others. Even if delay is good, and even if two procedures both produce equivalent delay, it does not follow that we should be indifferent about which of the procedures is used. In other words, even if ossification can be a valuable commitment mechanism, that does not mean that ossification is perfect, all delay is good, or all procedures always make sense.

On the other hand, perhaps delay sometimes should even be longer than what ossification today generates; for industries in which capital is best spent over, say, twenty-five years, the current amount of ossification may not be sufficient to maximize intertemporal credibility. Does that mean there should be more procedures? It is enough for purposes here to say that if the procedural requirements that cause ossification were eliminated tomorrow, agencies would have less regulatory power than they do today, at least when it comes to regulating the future. Without the ability to promulgate sticky regulations, agencies could not induce the sort of long-term investment and innovation that is available in a world in which regulations can be sticky. How best to achieve that stickiness merits further reflection.

### E. Is Ossification Too Blunt an Instrument?

Relatedly, another objection might go something like this: Even accepting the idea that ossification makes regulatory schemes stickier, thus allowing regulated parties to rely on them to a greater degree, it does not follow that ossification is useful across the board. Rather, although there may be some situations in which agencies are benefited by a greater ability to induce reliance, there may be many other situations in which agencies have no real interest in inducing such reliance. Yet the procedures that cause ossification do apply across the board, whether agencies are benefited by them or not. Thus, the dilemma in administrative law between procedural protections and prompt regulatory action might still apply in a great many situations.

It is no doubt true that there are situations in which the value of regulating into the future is not especially significant. Thus, to the extent that the procedures that cause ossification are posited to "push over" the cost-benefit edge by their additional benefit of better inducing regulatory reliance, that argument does not always work. Yet the important contribution of this Article is that there are also regulatory scenarios, and not just a few, in which ossification and the sticky regulations it enables are a benefit to agencies. Identifying when agencies are benefited by credible commitment mechanisms should be the project of future scholarship.

### F. Is Ossification Too Expensive?

Another possible rejoinder to sticky regulations is that even if we want agencies to make credible commitments, there are less costly ways to do so than ossification. Ossification is expensive; it requires massive amounts of agency and judicial resources, to say nothing of the private resources necessary to pursue litigation. If delay is the mechanism that allows agencies to better regulate the future, why not just allow agencies to promulgate irrevocable rules—that is, rules that the agency cannot change for some set period of time—and save everyone a lot of time and money?[250]

This objection may be valid in some respects, but it is important to recognize that it is not a response to ossification qua ossification. The conceptual problem with ossification is said to be that even though procedures are good, they are not cost justified because of their opportunity costs. If objections to ossification are not focused on those opportunity costs, then ossification qua ossification is doing no work in the analysis. If delay is on net good because of its commitment-mechanism potential (which bolsters agency-created incentives), then the question is what should be done during the waiting period. If procedures on the whole are cost justified, then the fact that they are expensive is neither here nor there.

Put another way, because ossification allows agencies to create sticky regulations, it is incomplete to condemn ossification because of the opportunity costs that come with a system in which agencies cannot always act quickly. Even if one concludes that those opportunity costs outweigh the "good government" benefits that procedures are intended to foster, the point of this Article is that there are other benefits of ossification—especially an agency's greater ability to regulate into the future. If that stickiness benefit offsets the opportunity costs that ossification is said to cause, then the relevant question is whether the procedures that cause ossification are justified on their own terms. It is only if those procedures are not cost justified on their own terms—that is, with ossification playing no role—that we would care about them. Of course, if the benefit of sticky regulations only partially offsets ossification's costs, the ultimate analysis becomes more complicated. But for purposes here, it is enough to observe that the situation is more complex than scholarship to date suggests.

---

[250] See Masur, 60 Vand L Rev at 1062–63 (cited in note 24) (citation omitted):

> Consider as a thought experiment a statute that permitted agencies to select the option during notice-and-comment rulemaking of promulgating "permanent regulations," a sub-species of typical agency regulations. An agency could identify elements of a "permanent regulation"—certain interpretations of a statute, particular policy choices, or decisions at any level of precision—as irreversible and unalterable by the agency once issued, unless struck down by a court.

### G. What If an Agency Does Not Want Stickiness?

Finally, what if an agency does not want stickiness? Or, more realistically, what if an agency wants less stickiness than ossification currently creates? This is a problem. If agencies believe that they will not be able to easily change the regulation, they may be more reluctant to promulgate it at all. This may encourage agencies to regulate through other procedural devices (despite the public benefits of rulemaking, such as greater public participation)[251] or to do nothing. One possible solution to this is for the agency to promulgate regulations with sunset provisions. This is not a perfect solution because ossification (to the extent the thesis is true) makes it difficult for the agency to act quickly, though, perhaps, there would be less opposition to a lower-stakes regulation. In any event, at least it is one tool an agency has to prevent locking itself in.[252] Perhaps other tools can be developed as well.[253]

## CONCLUSION

In a perfect world, there would be no opportunity costs. But we live in a world of dilemmas. Many say that administrative law is an example of this. Rulemaking procedures are good in that they help encourage participation and prevent mistakes. But they come at a cost; they delay regulatory action, and prompt regulatory action can itself be a good thing. Thus, the story goes, it is necessary to strike the right balance between procedural protections and agency promptness. And within this framework, a great many administrative-law scholars contend that the balance should be tilted more heavily in favor of agencies because the good that procedures enable is outweighed by the good that they foreclose.

Some dilemmas, however, are false—or at least are different than commonly understood. There is reason to think that this supposed dilemma within administrative law is one of these. The very delay and difficulty that is so lamented might, in fact, sometimes benefit agencies by allowing them to better regulate into the future. If agencies could immediately change the rules, regulated parties would be much less willing to accept what agencies say. And for that reason, regulated parties would be much less

---

251 See Nielson, 105 Georgetown L J at 988 (cited in note 19).

252 See Nathan Cortez, *Regulating Disruptive Innovation*, 29 Berkeley Tech L J 175, 182 (2014) ("Agencies can experiment with binding regulation. For example, agencies might use regulatory sunsets to better calibrate how long the intervention endures."). The pros and cons of sunset provisions are beyond the scope of this Article.

253 Another possible solution is to decrease the value of the offered incentive; the stickiness generated by procedures will be the same, but there will be less participation.

willing to trust incentives. To the extent that uncertainty discourages the sort of innovation that the agency prefers, it narrows an agency's long-term options. So to the extent that ossification reduces uncertainty, it expands an agency's options. Of course, that expansion comes at a price; it is harder for the agency to immediately pivot. The total change in the agency's long-run options—the trade-off between short-run and long-run flexibility—depends on the specific scheme. But the point here is that there are two effects of ossification: one involving the present and another involving the future.

The implications of this realization are potentially far reaching. The ossification literature is largely premised on the idea that delay is bad for agencies. On that understanding, reform makes much more sense. But this Article shows that delay—an essential ingredient of sticky regulations—sometimes can be good for agencies. The ossification literature therefore is too simplistic. It is not true that ossification presents a straightforward dilemma between procedural protections and agency flexibility. Instead, making it easier for agencies to act today might make it harder for them to achieve a goal that can only be realized tomorrow. The right question, therefore, is not "how can we speed up agency action," but rather "what is the right amount of agency delay?" Answering that more nuanced question should be the future of the ossification literature.

But for here at least, the point is simple: ossification has an upside, and sticky regulations are far too important to be overlooked any longer.