STICKY REGULATIONS

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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 delay 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, pro-regulatory benefit: It allows agencies to promulgate "Sticky Regulations," i.e., 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 be benefited by 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.

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TABLE OF CONTENTS

EARLY DRAFT: PLEASE DO NOT CITE WITHOUT THE AUTHOR'S PERMISSION

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, 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 make sure that agencies live up to their obligations. After all, although agency officials no doubt try to do their best, like anyone else, they make mistakes.[1] 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," i.e., they generally make things better rather than worse. 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 Adrian Vermeule explains, even if regulatory procedures may encourage "the rationality of agency policymaking," they may also "clog[] the pipeline of agency policymaking."[4] In other words, administrative procedures carry with them "opportunity costs" as agencies are forced to delay regulatory action while officials check off procedural boxes.[5] Yet when it comes to agency action, promptness can also be a good thing; in fact, delay sometimes can be dangerous.[6] Hence the supposed dilemma: Procedures are good

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[1] *See, e.g.*, Richard H. Pildes & Cass R. Sunstein, *Reinventing the Regulatory State*, 62 U. CHI. L. REV. 1, 4 (1995) (noting potential pathologies); 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. EEOC, 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, e.g.*, 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, e.g.*, Elizabeth Magill & 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 & 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] Adrian Vermeule, *Our Schmittian Administrative Law*, 122 HARV. L. REV. 1095, 1144 (2009).

[5] *Id.*

[6] *See, e.g.*, Matthew T. Wansley, *Regulation of Emerging Risks*, 69 VAND. L. REV. 401,

because they protect due process and prevent agency mistakes, but they may also unduly hinder agency action, thereby thwarting another good thing. To the extent that good procedures prevent agencies from doing good things, we have a dilemma.[7]

Premised on this supposed dilemma, a large body of administrative law 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."[8] 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.[9] The agency must prepare a detailed notice of proposed rulemaking that sets out the data it intends to use.[10] It must solicit input from the public and then respond, sometimes to thousands of comments.[11] The agency may also have to engage in cost-benefit analysis, which may be reviewed critically by the White House's Office of Information and Regulatory Affairs ("OIRA").[12] All of this can take a long time—especially if OIRA is concerned about the project.[13] And after all of that, the agency's decision must satisfy the "hard look" standard of judicial review[14]—which is no walk in the park.[15] Indeed, to satisfy hard look review,

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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, *Regulatory Review, Capture, and Agency Inaction*, 101 GEO. L.J. 1337, 1354 (2013) (noting danger "of underregulation").

[7] *See, e.g.*, Adrian Vermeule, *Optimal Abuse of Power*, 109 N.W. U. L. REV. 673 (2015) (urging that preventing all abuses of power is too costly).

[8] *See, e.g.*, Charles W. Tyler & E. Donald Elliott, *Administrative Severability Clauses*, 124 YALE L.J. 2286, 2328 n.162 (2015) (collecting ossification literature).

[9] *See, e.g.*, Richard J. Pierce, Jr., *Rulemaking Ossification Is Real: A Response to Testing the Ossification Thesis*, 80 GEO. WASH. L. REV. 1493, 1493 (2012).

[10] *See, e.g.*, THE FEDERAL RULEMAKING PROCESS: AN OVERVIEW. CONGR. RES. SERV., *available at* http://fas.org/sgp/crs/misc/RL32240.pdf.

[11] *See id.*

[12] *See, e.g.*, Cass R. Sunstein, *The Office of Information and Regulatory Affairs: Myths and Realities*, 126 HARV. L. REV. 1838, 1847 (2013); Emily Hammond, *Presidential Control, Expertise, and the Deference Dilemma*, 61 DUKE L.J. 1763, 1794 (2012).

[13] *See, e.g.*, Kathyrn A. Watts, *Controlling Presidential Control*, 114 MICH. L. REV. 683, 700 (2016) (noting 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 GEO. L.J. ONLINE 59, 60–61 (2014)).

[14] *See generally* Motor Vehicle Mfrs. Ass'n v. State Farm Mutual Auto. Ins. Co., 463 U.S. 29 (1983); Merrick B. Garland, *Deregulation and Judicial Review*, 98 HARV. L. REV. 505, 526 (1985) (explaining "origins of the hard look doctrine").

[15] *See, e.g.*, Matthew C. Stephenson, *A Costly Signaling Theory of "Hard Look" Judicial Review*, 58 ADMIN. L. REV. 753, 764–65 (2006) (explaining that satisfying "hard look" review may be the most labor-intensive aspect of rulemaking for agencies).

the agency *de facto* may be forced to engage in massive pre-promulgation planning to avoid being condemned after the fact for not having addressed an "important aspect of the problem."[16] Faced with so many procedural 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.[17]

Although there are disputes about just how prevalent ossification is,[18] at the most basic level nearly everyone agrees that those same procedures that give rise to ossification make it harder for agencies to regulate, at least at the margins. If agencies must jump through more hoops, 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—i.e., is the "good" that they generate weighty enough to offset the "good" that would come from more prompt regulatory action?[19] And if not, how should those procedures be reformed? At bottom, this supposed dilemma—and the questions it prompts—has been the launching pad for many important articles.[20]

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[16] *State Farm*, 463 U.S. at 43.

[17] *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"); *cf.* Aaron L. Nielson, *Beyond* Seminole Rock, GEO. L.J. (forthcoming 2017) (explaining dynamic relationship of regulatory doctrines).

[18] *See, e.g.*, Jason Webb Yackee & Susan Webb Yackee, *Testing the Ossification Thesis: An Empirical Examination of Federal Regulatory Volume and Speed, 1950-1990*, 80 GEO. WASH. L. REV. 144 (2012) (challenging 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 (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 N.W. U. L. REV. 393 (2000) (similar).

[19] *See, e.g.*, Kent Barnett, *Codifying* Chevmore, 90 N.Y.U. L. REV. 1, 60 (2015) (explaining the "debate" over "the existence and extent of ossification" and "the benefits of searching judicial review"); Lynn E. Blais & 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 (1997) (rejecting a "middle ground" that supposedly retains the benefits of hard-look review while reducing ossification) (discussing Mark Seidenfeld, *Demystifying Deossification: Rethinking Recent Proposals to Modify Judicial Review of Notice and Comment Rulemaking*, 75 TEX. L. REV. 483 (1997)).

[20] *See, e.g.*, Connor Raso, *Agency Avoidance of Rulemaking Procedures*, 67 ADMIN. L.

An important premise of this literature, however, has gone unquestioned: Is this supposed dilemma real? I suggest 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 delay regulatory action. Counterintuitively then, ossification may sometimes benefit agencies rather than harm them.

How can this be true? Because regulatory scholars have overlooked the value of what I call *Sticky Regulations*, i.e., 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.[21] Agencies not only seek to regulate today's three-dimensional world, but they also often act to encourage the emergence of a preferred future that does not yet exist.[22] Thus, for instance, agencies regularly create incentives designed to encourage regulated parties to develop technologies that help agencies accomplish their long-term goals.[23] 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 *FCC v. Fox Television Stations, Inc.*[24] Indeed, it is now black-letter law that agency officials in time period one generally cannot bind their successors in time period two.[25] Agencies, however, often require investment by private parties to meet long-term regulatory goals—investment that can only be

REV. 65, 68 (2015) (collecting citations).

[21] *See, e.g.,* Rebecca French, *Time in the Law*, 72 U. COLO. L. REV. 663, 742 (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.").

[22] *See, e.g.*, Jonathan Masur, *Judicial Deference and the Credibility of Agency Commitments*, 60 VAND. L. REV. 1021, 1022 (2007).

[23] *See, e.g.*, D. Bruce La Pierre, *Technology-Forcing and Federal Environmental Protection Statutes*, 62 IOWA L. REV. 771 (1977) (explaining how agencies direct regulated parties to generate new technologies). *Cf.* Sarah Tran, *Expediting Innovation*, 36 HARV. ENVTL. L. REV. 123, 137 (2012) (urging the Patent and Trademark Office to shift resources to encourage socially beneficial innovation);

[24] 556 U.S. 502 (2009).

[25] *See, e.g., 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") (emphasis in original).

recouped if the regulatory scheme does not materially change for years.[26] If regulated parties are not confident that the scheme will remain unchanged, then they will invest less in agency-favored priorities[27]—that is, if they do not leave the market altogether.

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"[28]—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 Jonathan Masur's *Judicial Deference and the Credibility of Agency Commitments*.[29] Professor 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 Ass'n v. Brand X Internet Services* that agencies are not always bound by prior judicial interpretations of the statutes they administer.[30] 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."[31] Agencies, therefore, "have been stripped of the last remaining mechanism by which they might have credibly committed themselves to a course of policy and thereby induced skeptical

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[26] *See, e.g.*, Masur, *supra* note __, at 1022.

[27] *See id.*

[28] *See, e.g.*, THOMAS SCHELLING, CHOICE AND CONSEQUENCE 83–87 (1984); *cf.* Daryl J. Levinson, *Parchment and Politics: The Positive Puzzle of Constitutional Commitment*, 124 HARV. L. REV. 657 (2011) (explaining constitutional commitment mechanisms).

[29] *See* Masur, *supra* note __.

[30] *See id.* at 1024 (discussing 545 U.S. 967 (2005)).

[31] *Id.* (emphasis added).

outsiders to rely on the stability of the governing regulatory framework."[32] Professor Masur, of course, 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 will 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? *Enter 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 need in time period one 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—indeed, that some agencies cannot fulfill their missions without private innovation while some private parties enjoy the benefits of agency-created schemes[33]—ossification's upside becomes apparent. The Department of Transportation, for instance, cannot create a world with more electric automobiles if no one will build them.[34] Seen in this light, ossification—and the sticky regulations it enables—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 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). Wishing it away cannot solve this dilemma. Reformers therefore should not ask "what can we do to hurry up the process?" but rather "how much procedural delay is optimal if we want to properly balance the regulatory benefits of long-term stability against the short-term costs that those benefits require?"

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

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[32] *Id.* (emphasis added).

[33] *See id.* at 1043.

[34] *See generally 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").

limited—it is too simplistic to condemn ossification without considering those situations in which it may expand rather 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 agencies use to regulate across time is incomplete.

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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

To appreciate my theory, it is necessary to understand a few building blocks. In particular, I will review the ossification literature, with a focus on those procedures that are said to delay or hinder regulatory action. Likewise, this section will explain 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, I will discuss 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."[35] Because this device is so powerful, it is unsurprising that agencies often use rulemaking—including for significant policies.[36]

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 procedural requirements on rulemaking beyond those set out in the Administrative Procedure Act ("APA"). Some scholars think that these extra 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,[37] or because they enable undue politicization of what should be a technocratic process[38]). 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.

In a nutshell, the ossification thesis argues that regulatory procedures thwart agencies from being able to promptly act, even though prompt action is also a good thing. Thus, on net, the thesis urges that these procedures, *despite* being good in a world without opportunity costs, should be curtailed in a world with opportunity costs because they prevent an even better thing—prompt action—from occurring. Certainly the procedures that have come to govern modern rulemaking sometimes prevent promptness.

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[35] Yackee & Yackee, *supra* note __, at 1416.

[36] For instance, in 2012 alone, "executive agencies promulgated major rules costing approximately $20 billion—a sum, using constant dollars, greater than all the major rules promulgated during the first terms of President Obama's two immediate predecessors." Nielson, *supra* note __, at 42 (citation omitted).

[37] *Cf.* 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).

[38] *See, e.g.*, Sidney Shapiro *et al.*, *The Enlightenment of Administrative Law: Looking Inside the Agency for Legitimacy*, 47 WAKE FOREST L. REV. 463, 471 (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.").

i. 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.[39] This type of rulemaking is generally governed by the procedures set out in Section 553 of the APA.[40] And at least per the unadorned text of the APA, the procedural steps for notice-and-comment rulemaking do not appear to be particularly onerous.[41] For instance, agencies must publish a "notice of a proposed rulemaking" 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."[42] And even within these steps, the burden on agencies appears fairly light. The APA, for instance, does not appear to call for much content in the notice of proposed rulemaking.[43] And beyond having to consider public comments, the agency's only responsibility is to "adopt a concise general statement of their basis and purpose."[44]

And for a while, the conventional story goes, the APA was understood to not mandate an onerous process. 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

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[39] Formal rulemaking—with trial-like procedures—also exists, but it has been pushed into near desuetude. *See, e.g.*, Nielson, *supra* note __, at 242–53 (explaining demise of formal rulemaking); *see also* Adam M. Samaha, *Undue Process*, 59 STAN. L. REV. 601, 670 (2006) (explaining how formal rulemaking may impose too many procedural burdens). And rulemaking for non-legislative rules also exists, though that sprawling literature too is beyond the scope of this article. *See, e.g.*, Cass R. Sunstein, *"Practically Binding": General Policy Statements and Notice-and-Comment Rulemaking*, 68 ADMIN. L. REV. 491 (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. 277 (2010) (similar).

[40] 5 U.S.C. § 553.

[41] *See, e.g.*, Jack M. Beermann & Gary Lawson, *Reprocessing* Vermont Yankee, 75 GEO. WASH. L. REV. 856, 857–58 (2007).

[42] *Id.* § 553(b), (c).

[43] *See id.* § 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.").

[44] *Id*. § 553(c).

they were promulgated in 1971."[45] Rulemaking thus was thought of as a "flexible and efficient process" to make policy.[46]

ii. The Modern Version of Rulemaking

Those 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 path-breaking article introducing the ossification thesis, Professor 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."[47] In today's world, no one would say that the procedures for notice-and-comment rulemaking are always or perhaps even often simple.

(a) Judicially Created Procedures

The federal judiciary often receives the brunt of the blame for the rise of administrative proceduralism.[48] It is claimed, for instance, that "judges on the D.C. Circuit—with considerable support from the surrounding political and academic communities—decided that the procedures for informal rulemaking provided by the Administrative Procedure Act were inadequate to allow effective legal control of agencies," and so replaced them with more stringent ones.[49]

The APA, for instance, does not 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* decision, the D.C. 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."[50] The result is the so-called "*Portland Cement*" doctrine, which requires agencies to prospectively provide that data. The reason for this doctrine is easy to see: How else could the public meaningfully comment on

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[45] McGarity, *supra* note __, at 1387 (citing 36 Fed. Reg. 8186 (1971)).
[46] *Id.* at 1385.
[47] *Id.*
[48] *See* Yackee & Yackee, *supra* note __, at 1425–26 ("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.").
[49] Beermann & Lawson, *supra* note __, at 857.
[50] 486 F.2d 375, 393 (D.C. Cir. 1973).

agency proposals without even seeing the agency's data?[51] 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 upfront work.

The judiciary has also played an important 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, i.e., those comments that, if true, would cast real doubt on the agency's decision.[52] 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?[53] Indeed, due process itself arguably sometimes may require agencies to confront what regulated parties say.[54] Yet as commenting becomes easier, sorting through comments to determine which ones are material becomes harder.[55] 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, under which a final rule must be a "logical outgrowth" of the proposed rule.[56] Specifically, courts have interpreted the APA to require a nexus between the proposed and final regulation in an attempt to ensure the fairness of the notice-and-comment process; for instance, if an agency can pick something completely different

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[51] *See, e.g.*, Am. Radio Relay League, Inc. v. FCC, 524 F.3d 227, 237 (D.C. Cir. 2008) (stating that 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").

[52] *See, e.g.*, City of Portland v. EPA, 507 F.3d 706, 714–15 (D.C. 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.") (internal citations and quotations omitted).

[53] *See, e.g.*, Home Box Office, Inc. v. FCC, 567 F.2d 9, 35–36 (D.C. Cir. 1977) ("[T]he opportunity to comment is meaningless unless the agency responds to significant points ….").

[54] *See, e.g.*, 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").

[55] *See, e.g.*, Bridget C. E. Dooling, *Recent Developments*, *Legal Issues in E-Rulemaking*, 63 ADMIN. L. REV. 893, 900 (2011) ("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.'") (citation omitted).

[56] *See* Phillip M. Kannan, *The Logical Outgrowth Doctrine in Rulemaking*, 48 ADMIN. L. REV. 213 (1996) (discussing the origins and applications of the doctrine).

than what was proposed, how could regulated parties provide meaningful comments? The D.C. 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."[57] 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, 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.[58] 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."[59] The Supreme Court famously adopted "hard look" review in 1983's *State Farm* 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."[60] Because agencies know that this "hard look" review is waiting for them, they are forced to take a large number of procedural steps beforehand to prevent invalidation of their rules.[61] Just how "hard" this form of review is in practice is debated, but most agree that it causes agencies to expend more energy upfront than they would without it.[62]

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[57] CSX Transportation, Inc. v. STB, 584 F.3d 1076, 1082 (D.C. Cir. 2009).

[58] *See* Yackee & Yackee, *supra* note __, at 1426.

[59] *Id.*

[60] Motor Vehicle Mfrs. Ass'n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 43 (1983).

[61] *See* Yackee & Yackee, *supra* note __, at 1427–28 ("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.'") (citation omitted).

[62] *See id.* at 1427 (collecting citations).

(b) Presidentially Created Procedures

Courts, however, are not the only branch blamed for ossification—the presidency is too. In particular, and especially since President Reagan, the White House—through the Office of Management & Budget ("OMB") and OIRA—has more often begun to insert itself into regulatory decisions. For instance, Reagan issued Executive Order 12,291, and later Executive Order 12,498, which forced executive agencies to submit proposed rules to the White House before they could go into effect, plus "major rules" became subject to cost-benefit analysis.[63] Although President Clinton rescinded these orders, he issued an Executive Order of his own—No. 12866[64]—that in many respects required the same things.[65] These procedures, moreover, largely remain in effect today. In fact, "although President George W. Bush modified Clinton's Order No. 12866 towards the end of his presidency, the changes have been characterized as 'largely symbolic' and, in any event, were promptly overturned by President Obama."[66] And "[a]fter returning to Clinton's Order No. 12866, Obama eventually ordered changes of his own, but they too were [relatively] minor."[67]

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 outweigh their costs.[68] Even if that purpose is met, however, which critics often seem to doubt, there is no question that

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[63] *See* Exec. Order No. 12,291, 3 C.F.R. 127 (1981), revoked by Exec. Order No. 12,866, 3C.F.R. 638 (1994).

[64] Exec. Order No. 12866 (Sept. 30, 1993).

[65] *See, e.g.*, Kagan, *supra* note __, at 2285–86 (arguing that E.O. 12,866 retained "the most important features of President Reagan's oversight system").

[66] Aaron L. Nielson, *Visualizing Change in Administrative Law*, 49 GA. L. REV. 757, 790 (2015) (internal citations and quotations omitted).

[67] *Id. See also* Jennifer Nou, *Agency Self-Insulation Under Presidential Review*, 126 HARV. L. REV. 1755, 1768-70 (2013) (discussing this history).

[68] *See, e.g.*, Sunstein, *supra* note __, at 1864 ("[B]y Executive Order, 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."); Yackee & Yackee, *supra* note __, at 1430 ("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.'") (quoting Nicholas Bagley & Richard L. Revesz, *Centralized Oversight of the Regulatory State*, 106 COLUM. L. REV. 1260, 1261 (2006)).

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."[69] Likewise, because agencies know that OIRA will scrutinize proposed rules, agencies again must engage in more work upfront to satisfy that review.[70]

(c) Congressionally Created Procedures

Finally, Congress also has created additional procedure 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 Federal Trade Commission ("FTC") and the Magnuson-Moss Act.[71] The FTC, for instance, must provide an advanced notice of proposed rulemaking, which is a very specific notice that "states 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.[72] After all of that, the FTC must provide an oral hearing if anyone asks for one, which can include cross-examination.[73] And so on.[74] Even if Congress does not impose special procedures for everything that an agency does, it might do so for particular statutes. For instance, the Clean Air Act sometimes requires hybrid rulemaking by the Environmental Protection Agency ("EPA").[75]

Congress also has enacted legislation that applies to rulemaking in general. For instance, "the Regulatory Flexibility Act … requires agencies to prepare a special analysis whenever a proposed rule will pose a 'significant

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[69] Yackee & Yackee, *supra* note __, at 1430.

[70] *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.").

[71] *See, e.g.*, 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."). *Cf.* William D. Dixon, *Rulemaking and the Myth of Cross-Examination*, ADMIN. L. REV. 34 (1982) (defending hybrid rulemaking).

[72] *See* Lubbers, *supra* note __, at 1982-83.

[73] *See id.* at 1983.

[74] *See id.* at 1983–84 (listing additional procedures).

[75] *See* Richard Stewart, Vermont Yankee *and the Evolution of Administrative Procedure*, 91 HARV. L. REV. 1805, 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.").

economic impact on a substantial number of small entities.'"[76] Similarly, the Paperwork Reduction Act "requires agencies to consider how their rules may increase the information collection costs of the regulated public," while the National Environmental Policy Act "requires agencies to prepare environmental impact statements for major federal actions that may significantly affect the environment."[77] 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."[78] 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."[79]

iii. 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 or whether "hard look" review results in judicial invalidation of what should be valid regulations. Likewise, a great deal of scholarship—often traveling under the moniker of "*Vermont Yankee II*"[80]—questions whether the judiciary's interpretation of the APA is lawful.

The ossification thesis (at least in its pure form, i.e., 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 hinder agencies, and agency agility is a good thing in its own right.[81] 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."[82]

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[76] Yackee & Yackee, *supra* note __, at 1430–31 (quoting 5 U.S.C. § 602(a)(1)).
[77] *See id.* at 1431.
[78] Nielson, *supra* note __, at 784 (citing 2 U.S.C. §§ 1532, 1535)
[79] *Id.* (citing 5 U.S.C. §§ 601–602).
[80] *See, e.g.*, Beermann & Lawson, *supra* note __; *see also* Richard J. Pierce, Jr., *Waiting for Vermont Yankee III, IV, and V? A Response to Beerman and Lawso*n, 75 GEO. WASH. L. REV. 902, 906–07 (2007); Richard J. Pierce, Jr., *Waiting for Vermont Yankee II*, 57 ADMIN. L. REV. 669 (2005); Paul R. Verkuil, *Judicial Review of Informal Rulemaking: Waiting for Vermont Yankee II*, 55 TUL. L. REV. 418 (1981).
[81] *See, e.g.*, Vermeule, *supra* note __, at 144 (noting the "opportunity costs" of procedures intended to encourage "the rationality of agency policymaking").
[82] Yackee & Yackee, *supra* note __, at 142.

Many scholars thus urge that rulemaking be simplified—sometimes in dramatic ways. For instance, Frank Cross has sought "the total elimination of judicial review" as a solution to ossification,[83] while others urge greater use of "'soft-glance' review" for "certain sensitive areas."[84] Some seek the elimination of "OMB-mandated cost-benefit analysis."[85] And others still pursue, for instance, greater use of negotiated rulemaking, which they hope will require fewer procedures.[86] In sum, "the threat of ossification has led scholars to propose a number of potentially far reaching reforms to the federal regulatory process."[87]

iv. 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. And there is 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."[88]

That said, the leading empirical study 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

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[83] *See id.* at 1434 (citing, *inter alia*, Frank B. Cross, *Shattering the Fragile Case for Judicial Review of Rulemaking*, 85 VA. L. REV. 1243 (1999)).

[84] Barnett, *supra* note __, at 61 (citing Wendy E. Wagner, *Administrative Law, Filter Failure, and Information Capture*, 59 DUKE L.J. 1321, 1409 (2010); Cristina M. Rodríguez, *Constraint Through Delegation: The Case of Executive Control over Immigration Policy*, 59 DUKE L.J. 1787, 1836 n.144 (2010)).

[85] Yackee & Yackee, *supra* note __, at 1434–35.

[86] *See id.* at 1433–34; *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, 957–58 (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.").

[87] *See id.* at 1436. Notably, Professor Mark Seidenfeld challenges the ossification thesis on the theory that sometimes we should not want agencies to act because agencies may have sub-optimal incentives. *See* Mark Seidenfeld, *Why Agencies Act: A Reassessment of the Ossification Critique of Judicial Review*, 70 OHIO ST. L.J. 251, 253 (2009).

[88] *See, e.g.*, PUBLIC CITIZEN, UNSAFE DELAYS (June 28, 2016).

numbers of regulations, and to do so relatively quickly."[89] This view finds some empirical support from other studies.[90]

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."[91] Specifically, Pierce argues that the Yackee and Yackee study is flawed because it does not include the time leading up to the notice of proposed rulemaking.[92] He also says that the ossification thesis does not apply to *all* or indeed even *most* rulemakings.[93] 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."[94] 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."[95] Where regulation is most momentous, in other words, ossification may be most apparent.

B. The Fourth Dimension of Administrative Law

The ossification debate largely focuses on the opportunity costs caused by procedural requirements agencies must satisfy when they promulgate regulations. In this way, the focus is often on what regulations have already

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[89] Yackee & Yackee, *supra* note __, at 1421–22.

[90] *See, e.g.*, Stephen M. Johnson, *Ossification's Demise? An Empirical Analysis of EPA Rulemaking from 2001–2005*, 38 ENVTL. 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."); Jordan, *supra* note __, at 396 ("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.").

[91] Pierce, *supra* note __, at 1494.

[92] *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 ….").

[93] *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.").

[94] *Id.* at 1498.

[95] *Id.* (citing Yackee & Yackee, *supra* note __, at 1418 nn.15–19, 1419 n.22).

been thwarted or that are being thwarted right now. But 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 think about future profits, not just today's.[96] 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. Agencies thus regularly create incentives to encourage regulated parties to develop the future in a certain way.

i. The Fourth Dimension of Private Behavior

There is a great deal of literature discussing the trade-offs between present consumption and future investment.[97] The basic idea is that companies—and individuals—will invest in the future if the benefits of doing so outweigh the costs, with future benefits "discounted" using net present value calculations.[98]

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.[99] And the projected benefit is measured by the

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[96] *See, e.g.*, Andrew A. Schwartz, *The Perpetual Corporation*, 80 GEO. WASH. L. REV. 764, 785 (2012) (explaining why corporations have long investment horizons).

[97] *See, e.g.*, Daniel Farber, *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.").

[98] *See id.* ("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.").

[99] As a formal matter:

> The rules for selecting value-maximizing projects follow from the discounted cash flow process known as net present value (NPV) analysis. Conventionally stated, NPV analysis compares the present value of a project's initial investment (I0) 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:

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 decrease the farther into the future the investment goes because it becomes more difficult to predict what will happen, especially in dynamic industries.[100] Therefore, the riskier an investment is, the greater the potential returns must be to justify the risks.[101]

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.[102] 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 likely it is that the research will be pursued in the first place. Similarly, the lower the expected income becomes for the potential product,

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

MICHAEL D. CURLEY, THE BLACKWELL ENCYCLOPEDIA OF MANAGEMENT.

[100] *See, e.g.*, Maureen K. Ohlhausen, *The FCC's Knowledge Problem: How to Protect Consumers Online*, 67 FED. COMM. 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.").

[101] *See, e.g.,* 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.").

[102] *See id.*

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, in other words, occurs "in the shadow of the law."[103] After all, 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 be much less likely to build a factory that depends on that technology, at least if it suspects that the factory will not pay for itself in less than ten years. 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. In short, "incentives matter."[104]

ii. 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, imagine that you are an official serving in the Obama Administration. You are told that two futures are possible. In one, "green" power[105] will constitute 50% of the total energy

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[103] *Cf.* Robert H. Mnookin & Lewish Kornhausert, *Bargaining in the Shadow of the Law: The Case of Divorce*, 88 YALE L. J. 950 (1979) (explaining how the law impacts bargaining).

[104] *See, e.g.*, CASS SUNSTEIN, SIMPLER: THE FUTURE OF GOVERNMENT 210 (2013) (arguing that regulated parties make calculated decisions based on costs and benefits and that government officials can modify incentives).

[105] *See EPA: What Is Green Power?*, https://www.epa.gov/greenpower/what-green-power ("Green power is a subset of renewable energy and represents those renewable energy

used in the United States in the year 2050. In the other, green power will constitute 20% 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%.[106] 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% will. You too would not be indifferent between those two outcomes.[107] 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 regulations.[108] 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.[109] When agencies promulgate these sorts of regulations, they are

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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.").

[106] *See, e.g.*, Alejandro E. Camacho & 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").

[107] *See* Libby Nelson, *Donald Trump's Huge, Ambitious School Voucher Plan, Explained*, Dec. 2, 2016, http://www.vox.com/2016/12/2/13767668/donald-trump-education-betsy-devos-school-vouchers ("[Betsy] DeVos and Trump want to oversee the biggest change to American public education in half a century.").

[108] *See, e.g.*, Am. Petroleum Inst. v. EPA, 706 F.3d 474, 480 (D.C. 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.").

[109] *See, e.g.*, Union Electric Co. v. EPA, 427 U.S. 246, 256–57 (1976) ("[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 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.").

thinking about the future. By definition, the desired technology does not yet exist at the time of the rule's promulgation.

Sometimes, however, agencies think about the fourth dimension without any express charge to do so. Agencies, for instance, may choose not to use a "best available technology" scheme (under which the agency chooses the technology that regulated parties must use, usually based on what is the state of the art in the industry) or another type of "command-and-control approach" to regulation but instead they may pick a particular outcome that regulated parties must meet.[110] The purpose of choosing standards can also be to encourage innovation in a technology-forcing way. Some likewise argue that agencies often can engage in other technology-forcing approaches, for instance through 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.[111] Agencies may also punish failures to innovate in other ways[112]—which again is a decision based on an analysis of the future.

And perhaps more common still, 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."[113] Congress, of course, often creates such incentives,[114] for instance through tax policy.[115]

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[110] *See, e.g.*, Bruce A. Ackerman & Richard B. Stewart, *Reforming Environmental Law*, 37 STAN. L. REV. 1332 (1985) ("BAT 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.").

[111] *See, e.g.*, Jonathan S. Masur & Eric A. Posner, *Toward a Pigouvian State*, 164 U. PENN. 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.").

[112] *See, e.g.*, Ian Ayres & Amy Kapoznyski, *Innovation Sticks: The Limited Case for Penalizing Failures to Innovate*, 82 U. CHI. L. REV. 1781 (2015) (arguing in favor of using "innovation sticks" to prompt desired innovation).

[113] *See id.* at 1790–99 (discussing various forms of innovation incentives). *Cf.* CASS R. SUNSTEIN, THE COST-BENEFIT STATE 30 (1996) (urging laws and policies be designed "to encourage nongovernmental actors to … produce outcomes on the basis of incentives produced by democratic judgments").

[114] *See, e.g.*, Davy v. CIA, 550 F.3d 1155, 1158 (D.C. Cir. 2008) (explaining that Congress deliberately created an incentive to sue agencies).

[115] *See, e.g.*, 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 Elec. Corp. v. Tully, 466 U.S. 388, 391 (1984) (explaining how Congress used "tax incentives for U.S. firms to increase their exports") (internal citations omitted).

Agencies can do the same thing. For instance, the Home Affordable Modification Program was "created by the Department 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."[116] 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.[117] The obvious purpose of such a designation is to encourage economic growth in some places rather than others.[118] 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.[119] And the Fish & 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."[120] In proposing this plan, the agency was open about its desire to create "incentives" for regulated parties to act in certain ways over the long-run.[121] This sort of program is far

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[116] Edwards v. Aurora Loan Services, LLC, 791 F. Supp. 2d 144, 147 (D.D.C. 2001).

[117] *See* 42 U.S.C § 7503(a)(1)(B).

[118] *See* Review of New Sources and Modifications in Indian Country, 76 Fed. Reg. 38748, 38750 ("In addition, these rules will provide regulatory certainty to allow for environmentally sound economic growth in Indian country."); *see also id.* at 38875 (commentator explaining that making Indian Country an economic development zone would "would create an incentive for industrial sources" to shift production there).

[119] *See, e.g.*, Public Utilities Comm'n of California v. FERC, 367 F.3d 925, 929 (D.C. Cir. 2002) ("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.") (internal citations omitted); Texaco, Inc. v. Dep't of Energy, 663 F.2d 158 (D.C. 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.").

[120] Ethan Howland, *FWS Proposes Credits for Species Conservation Efforts*, CQ ROLL CALL, 2014 WL 3538069 (July 18, 2014).

[121] *See* Proposed Rule, Endangered and Threatened Wildlife and Plants; Expanding Incentives for Voluntary Conservation Actions Under the Endangered Species Act, 77 Fed. Reg. 28347-01 (May 14, 2012) ("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.").

from uncommon. Rather, agency-created incentives are ubiquitous in the modern administrative state.[122]

C. Commitment Mechanisms in Administrative Law

An agency's ability to create incentives implicates the concept of commitment mechanisms, *i.e.*, devices to make promises credible. Of course, there also is a great deal of scholarship on commitment mechanisms—much of which has been developed in the context of game-theory economics.[123] 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.[124] 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?[125] 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."[126] This is especially so because it is now a black-letter principle of administrative law 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

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[122] *See, e.g.*, Mary V. Harris Found. v. FCC, 776 F.3d 21, 28 (D.C. Cir. 2015) (allowing agency to enforce bright-line rule as an incentive for compliance); Cassell v. FCC, 154 F.3d 478 480 (D.C. 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.…' The program, the FCC said, 'would enhance spectrum efficiency by identifying more unused channels and reassigning them to persons who will use them effectively.' Under the finder's preference program, if an applicant presents the FCC with evidence that leads to the cancellation of a license due to the licensee's noncompliance with certain regulations, the applicant is entitled to seek a dispositive preference for the recovered frequencies.") (internal citations omitted); Altamont Gas Trans. Co. v. FERC, 92 F.3d 1239 (D.C. 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"); *id.* at (rejecting attempted incentive as beyond the agency's jurisdiction).

[123] For instance, Thomas Schelling was awarded the Nobel Prize for this research on credible commitment mechanisms.

[124] *See, e.g.*, Daniels, *supra* note __, at 474 (explaining the challenge of making an agency promise that is "serious enough that it manipulates the target's behavior by altering the target's belief about how the agency will act if the target does not comply")

[125] *See, e.g.*, SCHELLING, *supra* note __, at 6.

[126] Glenn Blackmon & Richard Zeckhauser, *Fragile Commitments and the Regulatory Process*, 9 YALE J. REG. 73, 73 (1992).

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 *FCC v. Fox Television Stations, Inc.*[127] 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 *National Cable & Telecommunications Ass'n v. Brand X Internet Services* that agencies are not always bound by prior judicial interpretations of the statutes they administer.[128] 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."[129] Initially, the FCC had required that the expletives be repeated, but the agency changed policy and concluded that repetition was not always required. Specifically, "[i]n 2004, the Commission took one step further by declaring for the first time that a nonliteral (expletive) use of the F- and S-Words could be actionably indecent, even when the word is used only once."[130] The Second Circuit concluded that this revised policy—which was 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.[131] 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."[132] 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."[133] Many believe that *Fox* makes it easier for agencies to change their minds.[134] In any event, *Fox* shows that so long as agencies

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[127] 556 U.S. 502, 515 (2009).
[128] 545 U.S. 967 (2005).
[129] 556 U.S. at 505.
[130] *Id.* at 508.
[131] *Id.* at 514.
[132] *Id.*
[133] *Id.*
[134] *See, e.g.*, 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.

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."[135] The question in *Brand X* concerned the phrase "telecommunications service." The Ninth Circuit had determined "that cable modem service was a 'telecommunications service,'" but the FCC, afterwards, reached a different conclusion.[136] 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.[137] If the Ninth Circuit has previously held that the statute is unambiguous, only then could the court deny *Chevron* deference.[138] 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*)."[139]

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.[140] 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

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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.").

[135] *See* Levin, *supra* note __, at 560.

[136] 545 U.S. at 979.

[137] *Id.* at 978.

[138] *Id.* 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.").

[139] *Id.*

[140] Masur, *supra* note __, at 1038–39.

given policy."[141] Without such a mechanism, he fears that regulated parties will be less likely to trust agency incentives, thus hindering an agency's ability to pursue favored long-term policies.[142]

Professor 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.[143] Because regulators and regulated parties cannot enter 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.[144] 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."[145] And although "constitutional 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.[146] This can harm agencies by reducing the total amount of investment. It follows that agencies benefit from commitment mechanisms.

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.[147] Considering this problem, economists have latched onto

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[141] *Id.* at 1039.

[142] *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").

[143] *See* Howard A. Shelanski & J. Gregory Sidak, *Antitrust Divestiture in Network Industries*, 68 U. CHI. L. REV. 1, 29–30 & n.90 (2001) (collecting citations).

[144] *See* Blackmon, *supra* note __, at 76 ("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.").

[145] *Id.* at 77.

[146] *Id.* at 76.

[147] *See, e.g.*, JEAN-JACQUES LAFFONT AND JEAN TIROLE, A THEORY OF INCENTIVES IN PROCUREMENT AND REGULATION 53-127 (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

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. In other words, the fact that regulators play a "repeat game" with those they regulate can itself act as a commitment mechanism since "[t]he need for future investment funds binds regulators to good behavior in the present."[148] 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 new capital" since such situations are less likely to result in predictable games.[149]

In short, legal scholars and economists have recognized the value of agency commitment mechanisms but have also concluded there may not always be one. In fact, Professor Masur laments that in the aftermath of *Brand X*, there may *never* 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. Agencies may even forego issuing rules altogether because of how hard it can be. Especially for those who believe that the value of regulation generally outweighs its costs, this is lamentable. The result is many policy proposals to reduce ossification.

But what if ossification sometimes helps agencies rather than hurts them? This may be the case once sticky regulations are accounted for. Without 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.[150] Ossification thus acts as a commitment mechanism. Absent this

recoup its sunk cost.").

[148] *Id.* at 100.

[149] *Id.*

[150] *See, e.g.*, Heather S. Fredriksen, *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 (2005) ("The ossification theory, however, also applies to

mechanism, basic economics suggests that regulated parties would be less likely to participate in the market, or at least to participate as much as the agency would like them to do so, because the investment would be riskier.[151] This is especially true in capital-intensive industries in which it takes years to recoup investments. Without confidence that the scheme will remain relatively stable, capital-holders may decline to act like 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 (or some other commitment mechanism, if were to be created).

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—which daunting prospect 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 (i.e., 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. To the Extent Ossification Occurs, It Slows Regulatory Change

The primary concern with ossification qua ossification is that whatever the benefits of additional procedures may be, they come at too steep of an

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prevent revocation.").

[151] *See, e.g.*, 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).

opportunity cost because they slow agency action.[152] Indeed, adherents to the ossification thesis fret that it can take years, even a decade, to promulgate a single rule.[153] At the same time, ossification is said to be especially potent for the most significant regulations.[154] 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.[155] 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, which is something that an agency generally is reluctant to do. Even if an agency does divert resources, moreover, is still cannot just wish the law changed and it is so; procedural requirements inevitably take time.[156]

B. Delaying Regulatory Change Can Increase Regulatory Certainty

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. Agencies do not have infinite resources. Thus, to the extent that procedures make it harder for agencies to change the law, one can assume that the law will change less often. This creates increased regulatory certainty because regulated parties can be more confident that the regulatory scheme will not evolve. In this way, procedures that delay agency action create greater certainty, i.e., stickiness, since "stability usually is best promoted by limiting the frequency and degree of legal change."[157]

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[152] *See infra* __.

[153] *See, e.g.*, Richard J. Pierce, Jr., *Waiting for* Vermont Yankee III, IV, and V? *A Response to Beermann and Lawson*, 75 GEO. WASH. L. REV. 902, 919 (2007) ("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.").

[154] *See, e.g.*, Pierce, *supra* note __, at 1498 (explaining that ossification only applies to "roughly to what the White House refers to as economically significant rules").

[155] *See, e.g.*, Thomas J. Miles & Cass R. Sunstein, *Do Judges Make Regulatory Policy? An Empirical Analysis 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.").

[156] 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.

[157] Randy J. Kozel & Jeffrey A. Pojanowski, *Administrative Change*, 59 UCLA L. REV. 112, 137 (2011).

C. Ossification is External to the Agency, Creating Additional Certainty

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.[158]

The same is true for White House review. OIRA, like a court, also can create regulatory certainty, and 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 stability.

The fact 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 settled principle of game theory that "[t]hird parties can play a valuable role in making threats credible."[159] After all, a third party has a different "'incentive structure.'"[160] 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. Hence, as Professor Margaret Lemos has observed, "rulemaking also might be more stable than" some believe "because of ossification of the rulemaking process."[161]

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[158] *Cf.* Pierre-Hugues Verdier & Mila Versteeg, *International Law in National Legal Systems: An Empirical Investigation*, 109 AM. J. INT'L L. 514, 525 (2015) (explaining how courts can be used as "commitment mechanisms" when it comes to treaties).

[159] Daniels, *supra* note __, at 482.

[160] *Id.* (quoting SCHELLING, *supra* note __, at 202).

[161] Margaret Lemos, *The Consequences of Congress's Choice of Delegate: Judicial and Agency Interpretations of Title VII*, 63 VAND. L. REV. 363, 380 (2010).

D. Increased Regulatory Certainty Can Expand Agency Options

Now comes the counterintuitive part: Regulatory certainty helps agencies. 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.[162] Under this formula, the riskier future benefits are, the less valuable they are since the potential benefits must be discounted by the probability that they will not be obtained, 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 wants investment to happen consistent with agency policy, the agency's inability to to credibly commit to that policy is a problem.

Consider the following stylized example. Imagine that the president has directed the EPA to promulgating new regulations that would require existing electricity generation companies ("EGCs") to source increasing percentages of their electricity from 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 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 be a single-term president 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 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

[162] *See infra* __.

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%.[163] This means that GenCorp must weigh a sum-certain investment of $100 million against a 90% 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.[164]

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%. 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 investment. (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. 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.)

This simple example demonstrates how changing the amount of risk changes the amount of investment. Or as Professor Masur observes, "[a]ny 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."[165] 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 by private enterprises by reducing the risk that regulators will deem an activity prohibited."[166] 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]

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[163] It is unlikely to be zero for a variety of reasons. First, even without political risk, nuclear power plants are expensive and difficult to build; there is some chance GenCorp simply won't be able to complete the project.

[164] 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.

[165] Masur, *supra* note __, at 1041.

[166] Mark Seidenfeld, *Bending the Rules: Flexible Regulation and Constraints on Agency Discretion*, 51 ADMIN. L. REV. 429, 434–35 (1999).

demand a higher rate of return. These costs, in turn, discourage investment by decreasing the net present value of payoffs from such investment."[167] Hence, as Professor Masur has concluded, if regulated parties "cannot be certain that future projects will not 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."[168] 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.[169]

E. Ossification Thus Can Expand Agency Options By Creating Sticky Regulations

Finally, 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. Thus, ossification, which acts as a credible commitment mechanism, expands agency options, at least when it comes to the future. In other words, ossification creates sticky regulations, and sticky regulations are useful for agencies that seek to create long-term incentives.

According to the anti-ossification camp, agencies should be free to quickly promulgate one rule, but then just as quickly turn around and promulgate another rule. Granted, that flexibility empowers agencies in some respects, namely, 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.[170] *But this is the trade-off.* And for agencies that value the future more than the present, the ability to

[167] *Id.* (citing RICHARD BREALEY & STEWART MYERS, PRINCIPLES OF CORPORATE FINANCE 61–63, 112–14, 175–78).

[168] Masur, *supra* note __, at 1041.

[169] *See id.* ("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.").

[170] *See, e.g.*, 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.").

make credible commitments matters because agencies have more long-term options, including creating more effective incentives, 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.

So where does that certainty come from? Ossification. 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*. Indeed, one of the reasons why rulemaking is valuable *depends* on it being difficult to make rules. Henry Friendly, for instance, urged greater use of rulemaking because it creates long-term stability.[171] But the only way rulemaking can do that is through something like ossification. 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."[172] If agencies could instantly change rules, the *Accardi* principle would have little heft since an agency would only rarely be tempted to evade its own rules. Yet it is because changing rules is hard that the *Accardi* principle enables credible commitments.

This observation is significant. For instance, in an interesting recent article, Matthew Wansley urges that "cost-benefit analysis" be used as a commitment mechanism, with the idea being that in a single rulemaking, "[a]n agency could mandate that one technology"—or, his preference, a standard—"be used" in the here and now, but also "precommit to adopt a more expensive technology when it becomes cost-benefit justified."[173] Wansley argues that this would allow regulations to evolve as technology changes, while minimizing the problem of ossification since it would all be done in one fell swoop.[174] Yet whatever one thinks of such a proposal (and I have my doubts it

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[171] HENRY FRIENDLY, THE FEDERAL ADMINISTRATIVE AGENCIES: THE NEED FOR BETTER DEFINITION OF STANDARDS (1962).

[172] Elizabeth Magill & Adrian Vermeule, *Allocating Power Within Agencies*, 120 Yale L.J. 1032, 1064 (2011) (citing United States ex rel. Accardi v. Shaughnessy, 347 U.S. 260 (1954); Thomas W. Merrill, *The* Accardi *Principle*, 74 GEO. WASH. L. REV. 569 (2006)).

[173] *See, e.g.*, Matthew Wansley, *Cost-Benefit Analysis as Commitment Device*, 87 TEMP. L. REV. 447, 475 (2015).

[174] *See id.* at 480 ("In the current system, problems of agency inaction and rulemaking ossification inhibit firms from anticipating regulation. The way to spur anticipation is to reduce the uncertainty about future regulation, and the commitment device's partial automaticity achieves the reduction.") (citing Richard L. Revesz & Allison L. Westfahl Kong, *Regulatory Change and Optimal Transition Relief*, 105 N.W. U. L. REV. 1581, 1595 (2011)).

would work in practice), there is a problem: Why is that "precommitment" credible? The mere fact that it is put in a rule means little if everyone knows that rules can be immediately changed. If regulated parties know that the next administration can simply undo what the prior administration did, then they might choose to "anticipate" a more rigorous regulatory standard coming into effect and begin to prepare for it, or they might "anticipate" that the entire regulatory scheme will be undone and work towards that end instead.[175] In reality, regulated parties no doubt would consider both options and try to devise a multi-faceted strategy that accounts for the probability of either event occurring.

For a proposal like Wansley's to succeed, the agency needs regulations to be sticky because then the regulated party would know that the higher standard would, in fact, go into effect. Precommitting to something, in other words, does not work unless that precommitment is credible. Ossification can provide the heft that makes it credible—*which can benefit agencies*.

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; both liberals and conservatives should be able to identify regulatory policies that would benefit from the commitment-mechanism effects of sticky regulations.

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

[175] *Id.*

> 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 NHTSAs new rule and not invest in the costly (but socially productive) new technology, frustrating the agency's regulatory aims.[176]

Although this is just a hypothetical, it has the 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 Professor Masur's analysis, the agency can't—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 Professor 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's 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.

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[176] Masur, *supra* note __, at 1022.

B. Clean Energy

The preceding example was a hypothetical. But there are real examples too. Consider "clean energy." It is no secret that many agencies want to encourage greater use of certain types of fuels while at the same time political opponents criticize such efforts as too costly. The ability of agencies to create durable incentives depends on ossification. Indeed, without ossification, the regulated parties that the agencies hope to induce to action will have strong reasons to hold back, especially because they know that a new administration—with its own priorities—may soon be in power.

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."[177] In particular, the proposal hopes "to make 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 encourages "EE projects in low income communities."[178] The idea is to advance the development of new favored technologies and the rollout of those technologies, thus boosting "the widespread 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."[179] The program, moreover, is designed to be optional; no one has to do it.[180] As of late December 2016, EPA had received thousands of comments regarding the CEIP.[181]

The CEIP, however, is also quite controversial. You see, the CEIP is related to the Obama Administration's broader Clean Power Plan, a rule that was stayed by the Supreme Court pending judicial review and which is currently before the en banc D.C. Circuit. Because of the Supreme Court's stay of the Clean Power Plan, Republicans attacked the Obama Administration for even proposing a new CEIS rule.[182] Likewise, industry

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[177] EPA Clean Power Plan Fact Sheet: Clean Energy Incentive Program, https://www.epa.gov/cleanpowerplan/fact-sheet-clean-energy-incentive-program.

[178] *Id.*

[179] *Id.*

[180] *See id.*

[181] *See* Clean Energy Incentive Program (CEIP) Design and Implementation Rule, https://www.regulations.gov/docket?D=EPA-HQ-OAR-2016-0033.

[182] *See* Jeremy Dillon, *House Republicans claim EPA is violating court stay on Clean Power Plan*, ROLL CALL ("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

groups argued that it if this incentive program is ever implemented, the incentives should extend to other competing fuels such as "natural gas, nuclear, biomass and waste heat power."[183]

In other words, the situation involving the CEIP is quite similar to the hypothetical proposed by Professor Masur. As there, an agency 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) is just a proposed rule, while the incentive program in Professor Masur's hypothetical was a final rule. Likewise, unlike in Professor Masur's hypothetical, today regulated parties know for certain that the other political party in fact will determine the fate of the agency-created incentives. President Trump, after all, won the election.

Presumably those who bemoan ossification think that the EPA under President Obama should just be able to implement CEIP without having to issue a lengthy proposed notice of rulemaking, sorting through thousands of comments, and dealing with high-stakes litigation. Yet what would happen in such a world? Afterwards, no one would trust the incentives because the new administration would simply cancel them or change the scheme, for instances by including competing fuels in the incentive program (thus increasing the competition for the initially selected fuels, making investment in those fuels less valuable). Accordingly, although regulatory procedures may prevent CEIP from going into effect, at least in the form that President Obama's EPA proposed, that does not mean that ossification harmed the incentive scheme. To the contrary, the only way that the program could have ever worked is because of ossification.

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."[184] This program was created in the 1990s and then revised through regulatory

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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.").

[183] Ethan Howland, *Industry groups urge EPA to stop clean power incentives*, ROLL CALL (Nov. 4, 2016).

[184] U.S. Dept. of Agriculture, Environmental Quality Incentives Program, https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/financial/eqip/.

amendment in 2016 to include, among other things, efforts "to encourage development of wildlife habitat."[185] Unlike the CEIP, however, this incentives program was placed in a final rule.[186] Now, regulated parties can more fully embrace those incentives because even if the Trump Administration determines that those incentives 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.

This observation that ossification can help rather than hobble environmental regulation is contrary to a great deal of conventional wisdom in environment law, which embraces 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."[187] 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.[188]

C. Internet Access

It is also no secret that expanded access to the internet has become an important government priority in recent years. One way that the FCC has sought to accomplish this policy goal is through a rule to update the so-called "Lifeline" program to create incentives for telecommunications providers to provide low-income families with subsidized internet access. This example too demonstrates the pro-agency 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.[189]

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[185] Environmental Quality Incentives Program, https://www.federalregister.gov/documents/2016/05/12/2016-10161/environmental-quality-incentives-program-eqip.

[186] *See* 7 C.F.R. § 1466.

[187] Michael A. Livermore, *Reviving Environmental Protection: Preference Directed Regulation and Regulatory Ossification*, 25 VA. ENVTL. L.J. 311, 386 (2007).

[188] *Cf.* Todd S. Aagaard, *Environmental Law's Heartland and Frontiers*, 32 PACE ENVTL. L. REV. 511, 523(2015) ("[O]ssification helps maintain the stability of environmental law's core.").

[189] Lifeline Program for Low-Income Consumers, https://www.fcc.gov/general/lifeline-

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."[190] Importantly, the FCC did so deliberately to encourage deployment of internet resources in communities that do not yet have them.[191] 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."[192]

This regulatory amendment, however, was also quite controversial. For instance, two out of the five FCC Commissioners voted against it. As 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."[193] Importantly, Pai also was unhappy with the incentives because, in his view, they were not sufficiently technology-forcing, but instead will "consign[] Lifeline consumers to second-class broadband services for the foreseeable future."[194]

If you ran a telecommunications company, would you eagerly participate in the amended Lifeline program without ossification? Of course not—all the more so now that Commissioner Pai has taken the gavel as Chairman Pai.[195]

program-low-income-consumers.

[190] *Id.*

[191] *See* Lifeline and Link Up Reform and Modernization, Telecommunications Carriers Eligible for Universal Service Support, Connect America Fund, 81 Fed. Reg. 33026-01, 33029 (May 24, 2016) ("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.").

[192] *Id.* at 33039.

[193] *See* In the Matter of Lifeline and Link Up Reform and Modernization, Telecommunications Carriers Eligible for Universal Service Support, Connect America Fund, 33 FCC Rcd. 3962, 4163 (April 27, 2016) (dissenting statement of Commissioner Ajit Pai).

[194] *Id.* at 4159.

[195] *See, e.g.*, Harold Furchtgott-Roth, *Trump Designates Ajit Pai As Chairman Of FCC*, (Jan. 22, 2017), http://www.forbes.com/sites/haroldfurchtgottroth/2017/01/22/president-

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). Yet regulated parties are not the only ones who benefit from regulatory stability: agencies do too.

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 sections have explained why this is so. This section, 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.

A. Do 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 because the incentives they put in effect are stable. So far, however, I have skipped 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 regards to the future), it is not obvious that this is desirable. Although this question no doubt 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?[196] And if the procedures that cause ossification are lawful (discussed below), then because of these procedures,

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trump-designates-ajit-pai-as-chairman-of-fcc/#57bbb5ed4d10.

[196] 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.

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. Alas, there is reason to fear that agencies cannot pick winners and losers especially well because they lack sufficient information.[197] As consequence, many argue that allowing agencies to participate in the marketplace is a recipe for waste—or potentially even graft—because agency officials do not have enough information to make better decisions than the market.[198] Alternatively, it is possible that failing entities are more likely to be successful lobbyists, which also leads to inefficient outcomes.[199] Given such pathologies, why trust agencies to create incentives for future behavior?

And if that were not bad enough, empowering agencies to regulate into the future creates a "dead hand" problem—policies that are not currently popular nonetheless remain on the books.[200] 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.[201] That "dead hand" dynamic may be inevitable in Congress,[202] but

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[197] *See, e.g.*, F.A. Hayek, *The Use of Knowledge in Society*, 35 AM. ECON. REV. 519, 527 (1945).

[198] *See, e.g.*, Paul Noe, *Analyzing the Destruction of Human Capital by Regulations*, 63 ADMIN L. REV. 203, 209 (2011).

[199] *See* Richard E. Baldwin & Frédéric Robert-Nicoud, *Entry and Asymmetric Lobbying: Why Governments Pick Losers*, 5 J. OF THE EUROPEAN ECONOMIC ASSOCIATION 1064 (2007) (explaining the "losers' paradox" in which failing companies are better rent extracters because thriving industries induce more entry, making it harder to recoup lobbying rents).

[200] *See, e.g.*, David J. Barron & 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 ….").

[201] *See, e.g.*, Frank H. Easterbrook, *Textualism and the Dead Hand*, 66 GEO. WASH. L. REV. 1119, 1120 (1998)

[202] *See id.* ("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."). *Cf.* Eric. A. Posner & Adrian Vermeule, *Legislative Entrenchment: A Reappraisal*, 111 YALE L.J. 1665, 1703 (2002)

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, especially because agencies also benefit from regulated parties being able to trust them, thus encouraging agencies to at least keep expectations of stability in mind.[203] And even without ossification, it still takes some time to change a policy—even the bare-bones procedures in the APA cannot be satisfied instantaneously. So no 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. It could regulate more easily now, but its ability to regulate long-term would be reduced. For agencies that place a high value on the future, this is a bad trade; for other agencies, perhaps this is a good one. Whether it benefits society depends on whether agencies that are benefited by ossification are good at creating the sorts of incentives and the like that ossification strengthens.

But what about from the perspective of the regulated party? In one sense, if regulated parties know the baseline rule (either a world with ossification or a world without ossification), they can decide whether to participate in the market or to do something else. Where is the unfairness in that? Yet in another sense, this analysis is problematic. After all, perhaps regulated parties should have a *constitutional* expectation that government cannot move too quickly. There is a serious argument that the law-making process set out in Article I was designed to make it hard to make laws.[204] Congress has gotten around

(urging that Congress should be able to bind future iterations of itself).

[203] Indeed, perhaps ordinary principles of reasoned decisionmaking should sometimes require agencie 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 Television*. *See* Vermeule, *supra* note __, at 687 ("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 in agency decisionmaking in the interest of unclogging the channels of administrative change.") (discussing *FCC v. Fox Television Stations, Inc.*, 556 U.S. 502 (2009)).

[204] *See, e.g.*, Dep't of Trans. v. Ass'n of Am. R.R.s, 135 S.Ct. 1225, 1236 (2015) (Alito,

some of that difficulty by delegating authority to agencies.[205] It is disquieting, however, that regulated parties have lost some of the ability to trust government programs that the Constitution's lawmaking structure appears to provide. So perhaps we should encourage ossification under the theory of the "second best."[206] Regulatory stability may not be closer to the constitutional ideal than a world in which agency decisions can be changed at the snap of a finger.

Likewise, 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 ossification. But the procedures that are said to cause ossification are intended to protect the due process rights of regulated parties and better ensure good governance.[207] If we do not want agencies to regulate across time, then should we *eliminate* those procedural safeguards?

Here is not the right 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 may implicate important principles. Going forward, the ossification literature would be richer if scholars, apart from the examining empirical questions such as when and where ossification arises, began considering these normative and 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 (and so sticky regulation) 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.[208]

J., concurring) ("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.") (internal citations omitted).

[205] *See, e.g.*, John Manning, *Lawmaking Made Easy*, 10 GREEN BAG 2d 202 (2007).

[206] *See, e.g.*, 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).

[207] *See, e.g.*, 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.").

[208] *See, e.g.*, Beermann & Lawson, *supra* note __, at 894.

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"?[209] Arguably not.[210] On the other hand, some of the procedures that supposedly cause ossification are plainly lawful. For example, it is Congress that has required agencies to comply with the Regulatory Flexibility Act. And it is hard to say in a country in which "the executive Power shall be vested in a President"[211] that the President cannot oversee how federal agencies execute the law, so presumably OIRA's role in overseeing how agencies use their authority is safe as a matter of positive law, at least in ordinary circumstances. 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, i.e., 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. After all, if ossification were not lawful, one should encourage Congress to make it lawful by statute, which Congress undoubtedly can.

That said, if ossification in fact benefits agencies, the fact may have a legal consequence. In our system, stare decisis is real, and the Supreme Court has already blessed "hard look" review.[212] To overrule such a statutory decision, the Court requires a "special justification."[213] 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 jettisoned because of the harm caused to agencies 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

[209] 5 U.S.C. § 553(b).

[210] *See, e.g.*, Am. Radio Relay League, Inc. v. FCC, 524 F.3d 227, 246 (D.C. Cir. 2008) (Kavanaugh, J., concurring) ("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).").

[211] U.S. CONST. art. II, § 1, cl. 1.

[212] *See* Motor Vehicle Mnfrs. Ass'n v. State Farm Mutual Auto. Ins. Co., 463 U.S. 29 (1983).

[213] *See, e.g.*, Kimble v. Marvel Entm't LLC, 135 S.Ct. 2401, 2415 (2015)

themselves seem to bemoan ossification. If ossification is valuable because it enables agencies to make credible commitments, thus supposedly expanding what agencies can do, why would agency officials dislike it?

There are at least two answers. For one, agency officials may not realize the fact that ossification is benefitting them. The way that the benefit works is hardly obvious, so officials may not see it. If the benefit were to disappear, however, these officials may quickly realize just how valuable it was. For another, agency officials are not the same thing as agencies. Current agency leadership cares a great deal about the rule that they are working on. They would love to have *their* rules go into effect without ossification, but would they really want someone else's rules to go into effect—say, rules designed by the next administration to amend or even rescind their rules—without ossification? To ask is to answer.

D. Does This Mean All Procedures Are Cost Justified?

Even if I am correct that 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 regards to the future because of regulatory stickiness), 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 procedure 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 are used. In other words, I do not claim that ossification is perfect, all delay is good, or all procedures always make sense.

On the other hand, sometimes delay perhaps should even be longer than what ossification today generates; for industries in which capital is best spent over, say, 25 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 analytical 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.

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.[214] 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. I concede that my "ossification as credible commitment mechanism" insight does not apply to all situations, and when it does not apply, the "ossification is problematic" argument is much more plausible. 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 thus should be the project of future scholarship.

F. Is Ossification Too Expensive?

At the same time, some might object that even if we want agencies to make credible commitments, there are less costly ways to do it 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—i.e., rules that the agency cannot change for some set period of time—and save everyone a lot of time and money?[215]

This objection may be valid in some respects, but it is important to

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[214] *See, e.g.*, Blackmon, *supra* note __, at 76 ("Weak commitment or no commitment at all incurs no costs when the utility's actions do not involve an irreversible investment and thus will create no appropriable quasi-rent. In other words, if the utility is not risking capital, then consumers gain nothing from the regulatory commitment to a particular action.").

[215] *See* Masur, *supra* note __, at 1063 ("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.").

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—i.e., 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 you get the point: It is incomplete to attack ossification without even considering the fact that in some respects it benefits, rather than harms, agencies.

CONCLUSION

In a perfect world, there would be no opportunity costs—we could have our cake and eat it too. 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 protect due process 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 retilted 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 the supposed dilemma within administrative law is one. 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 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 far-reaching. The ossification literature is 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—can be good for agencies. Delay, after all, is necessary to encourage regulated parties to trust agency incentives, thus making agency action credible over the long-run. 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 optimal 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.