

A R T I C L E

Super Wicked Problems and Climate Change: Restraining the Present to Liberate the Future

by Richard J. Lazarus

Richard J. Lazarus is the Justice William J. Brennan Jr., Professor of Law and the Faculty Director of the Supreme Court Institute at Georgetown University. He has published articles and books on a wide variety of environmental law topics, with the challenges of environmental lawmaking serving as a frequent theme in his scholarship.

During the next four years, the new President, Barack Obama, and the new Congress are expected to join together in the first serious effort in the United States to enact sweeping national legislation to address global climate change. If they are successful, federal climate change legislation will be the first major environmental protection law in almost two decades, dating back to the Clean Air Act Amendments of 1990.¹ Given the enormity of the undertaking necessary to address climate change, the passage of federal climate change legislation will rival in historic significance one of the nation's greatest lawmaking moments—the passage in the 1970s of a series of extraordinarily demanding and sweeping pollution control and natural resource conservation laws.

The inherent problem with such lawmaking moments, however, is just that: they are moments. What Congress and the President do with much fanfare can quickly and quietly slip away in the ensuing years. This is famously so in environmental law.²

This Article's central thesis is that making it easy for subsequent lawmakers to unravel, undermine, or even formally change existing law is not always desirable, and it is certainly not an essential feature of our democratic lawmaking system. Lawmakers should instead be understood as possessing the

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Author's note: A paper presented at the International Studies Association 48th Annual Convention in Chicago on March 2, 2007, first introduced me to the notion of characterizing climate change as a "super wicked problem." See infra note 6 and accompanying text.

1. Pub. L. No. 101-549, 104 Stat. 2399 (codified in scattered sections of 42 U.S.C.).
2. See Daniel A. Farber, *Taking Slippage Seriously: Noncompliance and Creative Compliance in Environmental Law*, 23 HARV. ENVTL. L. REV. 297, 298-99 (1999); see also Richard J. Lazarus, *Congressional Descent: The Demise of Deliberative Democracy in Environmental Law*, 94 GEO. L.J. 619, 638-52 (2006).

authority to anticipate and respond in the first instance to the dynamic nature of lawmaking and its related challenges. To be sure, current lawmakers may well be making it more difficult for future legislators and agency officials to substitute their views of sound policy for the judgment of past lawmakers. Current lawmakers would not be doing so to enrich themselves at the expense of future generations. Instead, given the potentially catastrophic consequences of failing to reduce greenhouse gas emissions over the longer term, they would be acting for the very different purpose of safeguarding the ability of future generations, including their elected representatives, to have far greater control over their own lives. This is an especially legitimate basis for imposing lawmaking restraints notwithstanding their undemocratic effects.

The critical lesson for climate change legislation is that the pending lawmaking moment must include the enactment of provisions specifically designed to maintain the legislation's ability to achieve its long-term objectives. Climate change legislation is peculiarly vulnerable to being unraveled over time for a variety of reasons, but especially because of the extent to which it imposes costs on the short term for the realization of benefits many decades and sometimes centuries later. Because of its fundamentally redistributive character, there will invariably be politically and economically powerful interests, unhappy with the short-term costs of climate change legislation, seeking to relax the law's requirements either formally or informally. It is therefore not enough for Congress to enact a law that mandates tough, immediate controls on greenhouse gas emissions. Nor is it enough for Congress to build into the new law strong economic incentives that render more palatable the changes in business and individual behavior necessary for those mandates to be accomplished and promote overall economic efficiency.

Much more is needed. For climate change legislation to be successful, the new legal framework must simultaneously be flexible in certain respects and steadfast in others. Flexibility

is absolutely essential for climate change legislation in light of the enormity of the undertaking, both in its temporal and spatial reach, and the surrounding uncertainty concerning the wisdom of specific regulatory approaches. Yet the basic legal framework and legal mandate must also be steadfast enough to be maintained over the long term, notwithstanding what will be an unrelenting barrage of extremely powerful short-term economic interests that will inevitably seek the mandate's relaxation.

To that end, the law will need to include institutional design features that allow for such flexibility but insulate programmatic implementation to a significant extent from powerful political and economic interests propelled by short-term concerns. Such design features will include "precommitment strategies,"³ which deliberately make it hard (but never impossible) to change the law in response to some kinds of concerns. At the same time, the legislation should also include contrasting precommitment strategies that deliberately make it easier to change the law in response to other longer-term concerns that are in harmony with the law's central purpose, which is to achieve and maintain greenhouse gas emissions reductions over time.

Directed to all three branches of government, such institutional design features should therefore be deliberately asymmetric, making it easier to change the law in one substantive direction rather than another. Like the board game Chutes and Ladders, the design of climate change law should include *chutes* that make it harder for certain kinds of changes to be made and *ladders* that make it easier for other kinds of changes to be accomplished and for the overall statutory purpose to be achieved over time. Climate change law should further include a series of other structural features deliberately designed to keep the statute on track over time within the executive branch in particular. These features include a series of *requirements for consultation* with other agencies, scientific advisory committees, and stakeholders more insulated from short-term political pressures; *statutory and regulatory hammers* and *judicial review provisions* that ensure timely implementation; and *preemption triggers* that accommodate the prerogatives of competing sovereigns while also exploiting the resulting tension as leverage to further climate change policy.

The purpose of this Article is to explain why such asymmetric institutional design features are a critical, legitimate aspect of global climate change legislation here in the United States and how such features might operate.

I. The Challenges of Climate Change Legislation: A "Super Wicked Problem"

Even once one accepts the current scientific consensus that significant global climate change is happening, human activities are a significant contributing cause of that change, and the associated public health and welfare impacts are sufficiently serious to warrant climate change legislation,⁴ craft-

ing that legislation is extraordinarily difficult. Scholars long ago characterized a public policy problem with the kinds of features presented by climate as a "wicked problem" that defies resolution because of the enormous interdependencies, uncertainties, circularities, and conflicting stakeholders implicated by any effort to develop a solution.⁵

Climate change has been fairly described as a "super wicked problem" because of its even further exacerbating features.⁶ First, time is not costless, so the longer it takes to address the problem, the harder it will be to do so.⁷ Another problematic characteristic of climate change is that those who are in the best position to address the problem are not only those who caused it, but also those with the least immediate incentive to act within that necessary shorter timeframe.⁸ A third feature is the absence of an existing institutional framework of government with the ability to develop, implement, and maintain the laws necessary to address a problem of climate change's tremendous spatial and temporal scope.⁹ They present significant obstacles both to the enactment of climate change legislation in the first instance and to its successful implementation over time.

The nature of U.S. lawmaking institutions presents obstacles to the enactment of climate change legislation and its maintenance over time. The kind of law needed to address climate change is precisely the kind of law—because of its enormously redistributive implications—that our lawmaking system deliberately makes difficult to enact in the first instance. Our lawmaking system also renders such laws especially vulnerable to second-guessing and derailment over time by Congress, executive branch officials, and judicial review.¹⁰

rant climate change legislation that seeks a major reduction of greenhouse gas emissions. In light of recent scientific studies, this Article assumes the propriety of such legislation and considers the next step of how best to draft that legislation to accomplish its goals. See INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, *Summary for Policymakers*, in CLIMATE CHANGE 2007: IMPACTS, ADAPTATION, AND VULNERABILITY 7, 8-22 (Martin Parry et al. eds., 2007), available at <http://www.ipcc.ch/pdf/assessment-report/ar4/wg2/ar4-wg2-spm.pdf> (last visited June 23, 2010) (summarizing the "impacts of climate change on natural, managed and human systems" and the adaptability and vulnerability of those systems); INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, *Summary for Policymakers*, in CLIMATE CHANGE 2007: THE PHYSICAL SCIENCE BASIS 1-18 (Susan Solomon et al. eds., 2007), available at <http://www.ipcc.ch/pdf/assessment-report/ar4/wg1/ar4-wg1-spm.pdf> (last visited June 23, 2010) (summarizing findings on global climate change and presenting options and long-term perspective to policymakers).

5. See generally Horst W.J. Rittel & Melvin M. Webber, *Dilemmas in a General Theory of Planning*, 4 POL'Y SCI. 155, 160-69 (1973) (introducing the term "wicked problems" to describe the nature of social policy problems); see also JEFF CONKLIN, *DIALOGUE MAPPING: BUILDING SHARED UNDERSTANDING OF WICKED PROBLEMS* 3-40 (2006).
6. See Kelly Levin et al., *Playing It Forward: Path Dependency, Progressive Incrementalism, and the "Super Wicked" Problem of Global Climate Change* 8-10 (July 7, 2007) (unpublished manuscript, on file with author), available at <http://environment.yale.edu/uploads/publications/2007levinbernsteincashoreandWicked-Problems.pdf>.
7. See *id.* at 8-9.
8. See *id.* at 9.
9. See *id.*
10. See *infra* Part III.

3. See *infra* note 13 and accompanying text.

4. The purpose of this Article is not to rehash the threshold question of whether human activities causing global climate change are sufficiently serious to war-

II. Climate Change's Lawmaking Moment and the Propriety of Precommitment Strategies

Missing from the current debate on Capitol Hill concerning climate change legislation is any meaningful consideration of the need for climate change laws that are not just momentary. The requirements of federal climate change legislation must be sufficiently steadfast to resist, over the longer term, the constant barrage of pressures launched by economically and politically powerful interests seeking to delay and relax the law's proscriptions for their own short-term gain. But it would be no less of a mistake for the law to be wholly inflexible and not subject to revision. Precisely because the effectiveness of any climate change law depends on its success over the long term, the law must admit the possibility of significant legislative or regulatory change in light of new information and changing circumstances.

The solution to this lawmaking conundrum is the careful use of asymmetric lawmaking processes designed to make some kinds of future lawmaking extremely hard to accomplish and other kinds much easier. Asymmetry will overcome the skewing that otherwise exists in our lawmaking fora that favors those with short-term interests over those with long-term interests. Anticipatory measures that change the design of normal lawmaking processes can make it harder for those naturally more powerful to secure the change in law they seek and also make it easier for those naturally less powerful to safeguard their competing interests.

The obvious objection to any such deliberate modifications of lawmaking processes, especially those that make future lawmaking more difficult, is that they are antidemocratic. These modifications allow the views of existing majorities to trump the views of future majorities who may well view sound public policy very differently. The shorthand reference to this objection, of course, is that the dead hand of the past or present should not be able to govern the future.

There are three compelling reasons why the dead hand concern is not persuasive as applied to the need for substantial lawmaking restraints in federal climate change legislation. The first is that such restraints, notwithstanding their seemingly antidemocratic implications, have a long and widely accepted history in domestic law, ranging from the Constitution's organization of the House and the Senate to a host of existing federal statutes that seek to insulate somewhat certain decisions from politics.¹¹ Second, the lawmaking restraints in federal climate change legislation would be deliberately asymmetric in order to further the options available to future generations, not restrict them. The final justification relates to the sheer impracticalities of failing to address over the longer term the threats that climate change now poses. Otherwise, current lawmakers will undercut the autonomy of future majorities by subjecting them to a natural environment that sharply curtails their options.

11. See *infra* Part II.B.

A Longstanding Tradition of Precommitment Strategies to Restrain Future Lawmaking

Lawmaking restraints in response to some kinds of especially challenging lawmaking problems are a well-established feature of lawmaking referred to as precommitment strategies.¹² The lawmaking structure and laws of the United States are riddled with precommitment strategies, many of which are clearly intended to anticipate likely errors in human judgment that might otherwise lead to systematic errors in lawmaking.¹³

Our constitutional system deliberately makes lawmaking difficult to guard against potential overreaction to more immediate impulses of the moment.¹⁴ Lawmaking authority is dispersed among the legislative, executive, and judicial branches and then further fragmented within each of those branches. Although fragmentation of lawmaking authority poses obstacles to climate change legislation, such fragmentation was designed, ironically, to prevent excessive lawmaking by present generations that would effectively bind the future.

B. The Propriety of Using Precommitment Strategies to Overcome Perceived Defects in Our Federal Lawmaking System

There is also significant historical precedent for modifying our nation's normal lawmaking system in response to perceived tendencies of our particular form of representative democracy to achieve unsound results in addressing certain kinds of problems.¹⁵ One such tendency, also implicated by climate change law, is the potential domination of lawmaking processes by those seeking to satisfy short-term, more narrowly defined interests at the expense of longer-term concerns.

For instance, Congress sometimes delegates lawmaking authority to executive branch agencies to remove members of Congress from especially difficult, politically controversial decisions that might upset their constituents because of the decisions' short-term and narrowly focused consequences.¹⁶ The same policy concerns have prompted Congress to include safeguards in the organization of executive branch

12. See Samuel Freeman, *Reason and Agreement in Social Contract Views*, 19 PHIL. & PUB. AFF. 122, 143 (1990); Thomas C. Schelling, *Enforcing Rules on Oneself*, 1 J.L. ECON. & ORG. 357, 363-64 (1985); R.H. Strotz, *Myopia and Inconsistency in Dynamic Utility Maximization*, 23 REV. ECON. STUD. 165, 165, 173 (1955); Richard H. Thaler & H.M. Shefrin, *An Economic Theory of Self-Control*, 89 POL. ECON. 392, 396-97 (1981).

13. See Jeffrey J. Rachlinski & Cynthia R. Farina, *Cognitive Psychology and Optimal Government Design*, 87 CORNELL L. REV. 549, 554, 589 (2002).

14. See THE FEDERALIST No. 10 (James Madison), Nos. 15, 51 (Alexander Hamilton); Jonathan R. Macey, *Cynicism and Trust in Politics and Constitutional Theory*, 87 CORNELL L. REV. 280, 296-99 (2002). These protections can be seen as counteracting heuristics and other cognitive biases. See William N. Eskridge Jr. & John Ferejohn, *Structuring Lawmaking to Reduce Cognitive Bias: A Critical View*, 87 CORNELL L. REV. 616, 639 (2002).

15. Of course, what constitutes "unsound" results often lies in the eye of the beholder. See Terry M. Moe, *The Politics of Structural Choice: Toward a Theory of Public Bureaucracy*, in ORGANIZATION THEORY: FROM CHESTER BARNARD TO THE PRESENT AND BEYOND, 116, 136, 138 (Oliver E. Williamson ed., 1990); Matthew D. McCubbins et al., *Administrative Procedures as Instruments of Political Control*, 3 J.L. ECON. & ORG. 243, 261, 264-71 (1987).

16. See Cass R. Sunstein & Edna Ullmann-Margalit, *Second-Order Decisions*, 110 ETHICS 5, 17 (1999).

agencies that insulate the agencies from shortsightedness and other likely cognitive errors in judgment.¹⁷

C. *The Practical Consequences of Global Climate Change and Their Impact on Future Generations*

The principal argument against precommitment strategies is that the present should not be able to bind the future.¹⁸ No doubt that argument has force in some contexts. But no less certainly it possesses comparatively little force if the very purpose of using precommitment strategies is, as in federal climate change law, to *preclude the present from binding the future*.

Climate change legislation seeks primarily to protect the *future* at the expense of the *present*. The most serious threat that the present poses to the future is the potential devastation and global destabilization that can occur in the *absence* of legislation with such precommitment strategies.

The failure to enact and maintain climate change laws may also have irreversible consequences that would not only as a practical matter bind future generations but also potentially undermine their ability to govern themselves using the full range of options required for greater autonomy. It would be tragically wrong to posit that protection of the political prerogatives of the future precludes current generations from adopting laws that seek to preserve the options of future generations.

III. Precommitment Strategies for Federal Climate Change Legislation

For federal climate change legislation, asymmetric precommitment strategies will be necessary because of the tremendous lawmaking challenges presented by the science of climate change in combination with human nature. Some strategies should be focused on making it harder for otherwise disproportionately powerful short-term economic interests to undermine the legislation's implementation. Other strategies should, conversely, be designed to make the law's terms susceptible to influence by disproportionately politically weaker groups, in particular those seeking to protect the diffuse interests of future generations.

Described below are some preliminary ideas, many of which are traceable to strategies that Congress has previously embraced in other contexts. The ideas include tools such as *interagency, scientific advisory, and stakeholder consultation requirements* to promote certain voices; *statutory and regulatory hammers* to keep statutory implementation on track; *federal preemption and non-preemption triggers* to provide for regulatory innovation and to recognize state sovereign prerogatives; and *limited and enhanced judicial review provisions* to promote the effectiveness of oversight by potentially underrepresented interests and to diminish the power of those who are potentially unduly influential.

17. See Alan M. Jacobs, *Ties That Bind: Institutions, Uncertainty, and Politics of Long-Term Constraint* 29-30 (unpublished manuscript, on file with author), available at <http://faculty.arts.ubc.ca/Jacobs/Jacobs%20Constraints%20Paper%20-%20Workshop.pdf>.

18. See *supra* notes 15-17 and accompanying text.

Absent these kinds of asymmetric precommitment strategies, climate change legislation will most likely be eroded by short-term economic and political pressures.

A. Congress

The most significant restraint on Congress' ability to enact sweeping revisions to federal climate change legislation is already in place. It is much harder to achieve congressional passage of a significant law than to prevent its passage; there are many opportunities within existing legislative procedures for less powerful political interests to block a statute's enactment, even a statute supported by powerful political constituencies.¹⁹

There is a strong tendency in our existing legislative framework against destabilization of existing laws, including laws that may have been highly controversial when originally enacted.²⁰ Some have speculated that Congress could deliberately make more difficult the subsequent passage of legislative amendments designed to undermine the law's ability to achieve its objectives, while still allowing for the possibility that a whole new policy approach might be necessary. This flexibility could be accomplished by making the political cost of such amendments high enough to ensure that they could be enacted only with widespread and fairly overwhelming political support and therefore beyond the easy reach of powerful political forces driven by only short-term interests.

One potentially powerful technique would be to couple domestic climate change legislation with the United States' agreement to international treaty obligations by making clear that the former was intended to comply with obligations under the latter. Such international treaty obligations, although subject to abrogation, would significantly raise the political cost of any retreat from domestic legislation designed to fulfill those international obligations. Another possibility would be to design federal climate change legislation that would create a powerful political constituency with a strong economic incentive favoring the legislation's preservation. Such provisions should not be difficult to create. The tradable emissions program is expected to generate billions of dollars in revenue from the sale of emissions rights.²¹ Recipients of those funds will have a strong incentive to resist legislative amendments that threaten the continued availability of such financial support.

A more finely tuned design feature to resist future amendments proposed by narrow interest groups to relax the law's requirements would be to include language in the original bill that directly impeded the passage of such amendments or at least limited their effectiveness once passed. For instance,

19. Rui J.P. de Figueiredo Jr., *Electoral Competition, Political Uncertainty, and Policy Insulation*, 96 AM. POL. SCI. REV. 321, 322 (2002) ("Because of the multiplicity of veto points in the legislative process under a separation of powers system, new laws are extremely difficult to pass, for a minority can block new legislation.").

20. Cf. William N. Eskridge Jr. & John Ferejohn, *Super-Statutes*, 50 DUKE L.J. 1215, 1216 (2001) (describing how super-statutes "'stick' in the public culture").

21. See Peter Crampton & Suzi Kerr, *Tradeable Carbon Permit Auctions: How and Why to Auction Not Grandfather*, 30 ENERGY POL'Y 333, 334 (2002).

the original legislation could provide that future efforts to relax emissions reduction requirements would be legal only if accompanied at the time of congressional consideration by a congressionally delegated entity's formal analysis of the impact of the proposed relaxation on the law's ability to achieve its goals. The most serious constitutional objections to such a requirement could be addressed by making clear in the initial legislation that a future Congress would retain authority by majority vote to lift that procedural requirement completely or as applied to a particular amendment.

A lesser, but also potentially effective, limitation would be for the original legislation to declare a canon of construction for the statute's interpretation. For instance, the law could provide that any future amendments designed to relax the law's requirements for any particular activities would be presumed to last no more than a statutorily specified number of years, unless the amendment expressly provided otherwise.

A different tack would be to limit more directly the law-making avenue most susceptible to being used by powerful, narrowly focused interests seeking to gain short-term economic advantage: the appropriations process. One possible anticipatory response would be to include the above procedural hurdles or canons of statutory construction but target them directly to laws enacted exclusively through the appropriations process. The justification would be the shared understanding that the appropriations process does not lend itself to the careful deliberations generally warranted for major changes in substantive law.²²

A far bolder move, however, would be to insulate parts of the greenhouse gas emissions reduction and climate change adaptation programs from the appropriations process altogether. What Congress did with the Federal Reserve Board provides the legislative precedent. Implementation of federal climate change legislation will, assuming a tradable emissions program, generate billions of dollars in revenue.²³ Some of that revenue could be used to insulate the especially vulnerable aspects of the greenhouse gas regulation program from the appropriations process and therefore the short-term economic interests that tend to dominate that particular law-making avenue.

B. Executive Branch Lawmaking

There are many ways to design climate change legislation in anticipation of problems that may arise in the executive branch's administration of the law. Some measures could be designed to insulate agency officials to some extent from political pressures, especially those pressures likely to derive from short-term economic concerns, which undermine the law's effectiveness.²⁴ Other measures could be crafted to

enhance the influence of interests groups that are concerned about protecting future generations but which otherwise lack the necessary economic or political clout. Some of the possibilities worthy of consideration are catalogued and described below.

I. Insulating (Somewhat) Agency Officials From Politics

A variety of measures could be used to try to insulate agency officials from the short-term political pressures that could undermine a climate change statute's effective, fair, and impartial administration. The purpose of such insulating measures is to temper, not eliminate, the influence of politics on statutory implementation.²⁵ For instance, federal climate change legislation could define in some detail the qualifications and tenures of specific agency officials charged with particularly important and sensitive statutory responsibilities. Several possibilities are described below.

a. *Staggered terms of agency official appointment* that cut across presidential administrations and thereby promote political autonomy represent a classic legislative technique for reducing political influence. The staggered term alone sends a strong message that the person to be chosen is not a standard political appointee for whose appointment the President is owed heightened political deference.²⁶ The individual's qualifications are instead intended to transcend political loyalty and reflect an expertise grounded more directly in the statutory responsibilities and fiduciary responsibilities of the agency position under consideration.²⁷

b. *Length of the agency official appointment* is an important related design feature for promoting agency autonomy. The longer the appointment, the more a government official will potentially feel insulated from political pressures surrounding the implementation of the law for which she is responsible.²⁸ For the purposes of implementing climate change law, in particular, longer agency official terms are quite important because they are more in keeping with the longer-term agenda of climate change.²⁹

c. *Grounds for agency official removal* are another potentially effective design feature. Because political pressure on agency officials implementing climate change law is especially great, there might even be reason to limit their removal by procedural mechanisms beyond the substantive requirement of "for cause." There are myriad ways that this

22. See Lazarus, *supra* note 3, at 632-33.

23. See Crampton & Kerr, *supra* note 21, at 334 ("[A]n efficient auction could raise \$125 billion annually."); Robert N. Stavins, *A Meaningful U.S. Cap-and-Trade System to Address Climate Change*, 32 HARV. ENVTL L. REV. 293, 317 n.94 (2008).

24. See STEPHEN BREYER, *BREAKING THE VICIOUS CIRCLE: TOWARD EFFECTIVE RISK REGULATION* 62-63 (1993) (discussing the advantages of insulation of agencies in terms of "rules, practices, and procedures").

25. See *id.* at 77-78.

26. See B. Dan Wood & John Bohte, *Political Transaction Costs and the Politics of Administrative Design*, 66 J. POL. 176, 185-86 (2004) (noting the effect of staggered terms, as well as other devices, on agency autonomy versus "political responsiveness").

27. There is already plenty of precedent for such an approach to appointment of agency officials. The Federal Reserve Board is an obvious example. See 12 U.S.C. §244; BD. OF GOVERNORS OF THE FED. RESERVE SYS., *THE FEDERAL RESERVE SYSTEM: PURPOSES AND FUNCTIONS* 3 (9th ed. 2005), available at http://www.federalreserve.gov/pf/pdf/pf_complete.pdf.

28. See Wood & Bohte, *supra* note 26, at 186 (noting the potential effect of term length on the level of agency autonomy).

29. See Amihai Glazer & Vesa Kanninen, *Short-Term Leaders Should Make Long-Term Appointments*, 14 INT'L TAX PUB. FIN. 55, 56-57 (2007) (discussing the importance of long-term appointments in general).

design feature could be crafted to narrow the grounds for removal while maintaining the safety valve that allows for removal in case of an extreme circumstance of dereliction of duty or judgment.³⁰

d. *Agency official qualifications and disqualifications* could also be statutorily prescribed. Such express qualifications and disqualifications help to ensure that the best-qualified individual receives an appointment. The qualifications (and disqualifications) serve to limit significantly those who can be brought to the President's attention as possible nominees, empower the Senate to take more seriously its role in confirmation, and provide senators with a touchstone for evaluating credentials.

2. Structuring the Implementation Process to Diminish the Influence of Short-Term Interests Likely to Be Unduly Influential and to Promote Consideration of Longer-Term Interests Otherwise Unlikely to Receive Their Due Weight

A second category of institutional design features pertains to techniques for ensuring that certain kinds of factors are given due consideration and that others are not given undue weight during the executive branch's implementation of climate change legislation. These techniques can promote accountability, deliberativeness, impartiality, and transparency and ensure that specific factors that are anticipated to be undervalued instead receive their due.³¹ Several possibilities are described below.

a. *Interagency consultation requirements* are one standard mechanism for Congress to promote a fuller consideration of relevant factors and therefore reduce the prospects of a narrow, short-term interest hijacking a law's implementation.³² Formal consultation not only provides the action agency with relevant information that may prompt the agency to reach a different decision, but it also places the consultant agency's views in the administrative record.³³ As a result, should the agency taking action ignore the consultant agency's counsel or refuse to engage in the consultation altogether, it may very

quickly find itself vulnerable to a successful lawsuit brought by those disappointed by the agency's decision.³⁴

Such an interagency consultation requirement might well be appropriate for climate change legislation given the wide-ranging implications of climate change rules and therefore the number of other agency offices with potentially relevant expertise. It could also be deliberately enlisted to make it difficult for any one agency to create exceptions or otherwise modify the climate change law's requirements.

b. *Creation of a new expert governmental entity* would be an even more direct way for Congress to ensure that certain interests are given due weight during agency implementation of climate change legislation. This office would provide an authoritative voice guided by career government experts who were more insulated from political pressures.³⁵ For climate change, Congress could take the bold step of creating an office with the formal responsibility of safeguarding the interests of future generations. That office could be provided with a range of authorities and responsibilities, from mere reporting authority and formal consultation rights to actual veto authority over certain kinds of decisions.

c. *Provisions for consideration of more neutral, objective scientific expertise* during statutory implementation can also provide a means for Congress to guide a statute's future implementation within the executive branch. Expert scientific consultation can both diminish the influence of politically powerful short-term economic interests and promote consideration of longer-term consequences if supported by scientific evidence. With the necessary safeguards to protect against the natural tendency of special interests to seek to capture the scientific review process itself, federal climate change legislation should be able to offer multiple opportunities for Congress to build into the implementation process expert scientific consultation requirements that keep the statute on its long-term track and prevent its short-term derailment.³⁶ Such expert scientific advice can serve, moreover, as an especially important check to ensure that any future efforts to significantly redirect the statutory focus based on a newly discovered understanding of climate science or available technology find support in actual scientific advances rather than political science fiction.³⁷

30. A statute might describe the removal grounds in some detail to make it clear that the grounds are not entirely open-ended. One could create a procedure for considering a claim that grounds for removal were present and provide for a board to review the merits of that claim. The board members themselves could represent a cross-section of relevant perspectives, including those more likely to be sensitive to longer-term concerns.

31. See ADRIAN VERMEULE, *MECHANISMS OF DEMOCRACY: INSTITUTIONAL DESIGN WRIT SMALL 4-5* (2007) (proposing mechanisms that advance these core values of democratic constitutionalism).

32. Interagency consultation requirements are a regular feature of environmental statutes. For instance, the Endangered Species Act (ESA) requires that federal agencies subject to §7 of the Act consult with the Secretary of the Interior (for terrestrial wildlife or plants) or the Secretary of Commerce (for marine life) if they believe that an endangered or threatened species may be adversely affected by a contemplated agency action. See 16 U.S.C. §1536(a)(1), ELR STAT. ESA §7(a)(1).

33. See *id.*

34. See, e.g., *Am. Bird Conservancy, Inc. v. FCC*, 516 F.3d 1027, 1031, 38 ELR 20052 (D.C. Cir. 2008) (striking down the FCC categorical exclusion of communication towers from National Environmental Policy Act analysis for failing to provide for required consultation with the Fish and Wildlife Service).

35. See BREYER, *supra* note 24, at 70-71 (describing the insulation of the French Conseil d'Etat). To some extent, this proposal resembles what EPA Administrator William Reilly did at the close of his tenure. He created the EPA Administrative Appeals Court, which hears and decides appeals of challenges to rulings by EPA administrative law judges. Administrator Reilly adopted this reform for the purpose of "inspiring confidence in the fairness of Agency adjudications." Changes to Regulations to Reflect the Role of the New Environmental Appeals Board in Agency Adjudications, 57 Fed. Reg. 5320 (Feb. 13, 1992).

36. See Holly Doremus, *Scientific and Political Integrity in Environmental Policy*, 86 TEX. L. REV. 1601, 1640-52 (2008) (describing a series of controversies involving alleged political manipulation of science in the administration of environmental laws).

37. See *id.* at 1643-44 (advocating for neutral expert advice to enhance integrity in environmental policymaking).

d. *Participatory rights for selected stakeholders* can also be expressly provided for in the lawmaking process in order to ensure that important but less politically powerful voices are heard during statutory implementation. There is much statutory precedent for such a feature. Some precedents are in the form of federal advisory committees and provide for an advisory function with varying degrees of actual influence.³⁸ Other bodies' formal authority exists within the statutorily prescribed lawmaking process, such as the scientific committees just described.³⁹ The Clean Air Act,⁴⁰ the Taylor Grazing Act,⁴¹ and the Magnuson-Stevens Fishery Conservation and Management Act⁴² all provide instances when Congress sought to provide stakeholders outside the federal government with significant authority in the implementation of a federal statute.

As applied to climate change legislation, however, this kind of design feature would need to be structured completely differently and could be far more effective in promoting its objective. In these prior statutory schemes, Congress provided additional political leverage to already-powerful interests, such as the large commercial fishing interests, which no doubt helped secure the legislation's initial passage.⁴³ The concern for climate change legislation, however, should be just the opposite: not that long-term interests will trump short-term, but that long-term interests will get bargained away over time by a steady barrage of short-term pressures. For this reason, the kind of stakeholders that would warrant a heightened role in the lawmaking process for climate change would be those who give voice to long-term interests of future generations.⁴⁴

Finally, the role of such stakeholder councils in the implementation of climate change law could also be substantially modified. A council might be alternatively designed to ensure that statutory implementation stays on track, that is, to provide the oversight necessary to make sure that it is not derailed. A council could also be designed to ensure that if new scientific information surfaces indicating that even

tougher measures are required, the statute's implementation would be modified accordingly.

3. Maintaining and, if Necessary, Accelerating the Executive Branch's Implementation of Climate Change Legislation

A third category of design features anticipates the many roadblocks that will occur during the process of statutory implementation within the executive branch, especially over the long term. These features deliberately build into the original statutory scheme mechanisms that directly limit the effectiveness of the roadblock. The statutory objective is to prevent the executive branch from frustrating congressional objectives by delaying the law's implementation.

a. For instance, Congress can create a lawmaking shortcut that allows *laws to be made in the absence of executive branch action within a specified time period*. This can occur if Congress would actually prefer executive branch lawmaking but anticipates that roadblocks may prevent the agency from acting in a sufficiently expeditious manner. Both to encourage the agency to act, and to ensure that law is made without undue delay, Congress can create a lawmaking scheme that is triggered by default in the event that the agency fails to act by the statutorily specified deadline. Moreover, an especially demanding congressional scheme that is triggered by default provides powerful economic interests that might normally have been seeking to delay agency lawmaking efforts with every incentive to ensure that the agency meets its deadline.

Drafters of climate change legislation might well want to consider including lawmaking shortcuts that precommit to certain climate change emissions reduction requirements in the absence of the necessary subsequent action taken by the executive branch agency charged with the law's implementation. The potential is considerable that those resisting imposition of climate change emissions reduction requirements will seek to delay their implementation. But by anticipating that potential and precommitting to certain legal standards in the event of delays greater than a specified time period, climate change legislation can effectively both reduce the incentive for such obstructionist efforts and ensure that a lengthy legal vacuum does not result.

b. Congress could also create a lawmaking shortcut by separating the policy question of what standard should apply in a particular factual circumstance from the distinct factual inquiry of whether that circumstance is actually present. A *statutorily prescribed standard triggered by a subsequent agency finding* allows Congress to dictate what the regulatory requirements or other regulatory measures must be to address different degrees of environmental hazards but then leave to another entity the responsibility (and potential political heat) of making the finding that triggers the standard. Congress, in effect, precommits to a series of lawmaking standards that someone else then triggers.

Climate change legislation could utilize this kind of precommitment device. Congress could precommit to increasingly stringent standards depending, for instance, on the

38. See Federal Advisory Committee Act, 5 U.S.C. App. 1 (2006).

39. See *supra* notes 37-38 and accompanying text.

40. Under the Clean Air Act, there are "interstate transport commissions" made up of representatives of state governments and EPA with authority to make recommendations for strategies to address interstate air pollution. 42 U.S.C. §§7506a-c, ELR STAT. CAA §176a-c.

41. Under the Taylor Grazing Act, as supplemented by the Federal Land Policy and Management Act, resource advisory councils consisting of members "representative of the various major citizens' interests concerning the problems relating to land use planning or the management of the public lands" are provided certain formal advisory responsibilities. 43 U.S.C. §1739(a).

42. Pursuant to the Magnuson-Stevens Act, eight regional fishery management councils play a critical role in the Act's administration. See 16 U.S.C. §1852. These councils have the primary responsibility for both proposing and then initially allocating individual tradable rights in most fisheries, known as individual tradable quotas. See *id.* §1854(c)(3). Their recommendations become law upon review and approval by the Secretary of Commerce. *Id.* §1854(a).

43. Katrina Miriam Wyman, *From Fur to Fish: Reconsidering the Evolution of Private Property*, 80 N.Y.U. L. REV. 117, 184-88 (2005); see, e.g., 16 U.S.C. §1852.

44. Alan M. Jacobs, *The Politics of When: Redistribution, Investment, and Policymaking for the Long Term*, 38 BRIT. J. POL. SCI. 193, 218-19 (2008) (commenting on how organized interest groups can "represent one of the few mechanisms forcing governments to take long-run outcomes seriously").

degree of greenhouse gas emissions reductions deemed necessary. This precommitment would allow Congress to make the critical policy determination regarding which kinds and combinations of regulatory measures and economic incentives would be best to achieve different levels of emissions reductions. But at the same time, Congress could leave to a more detached, politically insulated body the decision regarding how serious the climate change problem truly was, how much temperature could rise, and therefore how much reduction of emissions was in fact necessary. Such a scheme has the added benefit of simultaneously allowing for steadfastness in the overall policy objective, for an established legislative decision regarding the distribution of compliance costs, and for flexibility for change in applicable legal requirements in response to the latest scientific information about climate change.

c. A statutory provision for *non-, limited-, or conditional federal preemption* of state climate change law could be another effective technique for ensuring that federal climate change legislation stays on track over the long term. The extent to which federal law preempts state climate change law is likely to be one of the most significant policy disputes in the drafting of the federal legislation during the next four years.⁴⁵ Industry's desire for federal preemption of state climate law is one of the reasons why many in the industry affirmatively want federal legislation: to eliminate the potential burden of having to comply with multiple and varying state law requirements.⁴⁶ Both the states and many environmentalists, however, believe no less strongly that the state police power authority to address climate change should not be preempted, especially in light of what they perceive as decades of foot-dragging on the issue by the national government.⁴⁷

Congress could draft a federal preemption provision that both strikes a balance between these competing concerns and serves as a very significant check on the federal government's implementation of climate change legislation. For instance, not only could any such provision narrowly define the scope of federal preemption to leave significant room for state law that supplements and in no manner conflicts with federal requirements, but the federal statute could make the ultimate scope of federal preemption expressly dependent on the success of federal efforts. Congress could use any number of benchmarks to measure success or lack of success. The lifting of federal preemption, or the mere threat of a lifting of

federal preemption, might well be enough to provide federal officials and industry with the incentives necessary to jumpstart a stalled federal program.

d. Finally, lawmaking design features could even seek to remove altogether anticipated litigation roadblocks to statutory implementation by *limiting judicial review* of some kinds of agency decisions and *promoting judicial review* of other kinds of agency decisions. Congress could define these limits by focusing on types of decisions or types of plaintiffs in determining which kinds of lawsuits threaten timely implementation and which kinds of lawsuits are, by contrast, necessary to spur timely implementation.

IV. Conclusion

Lawmaking moments do not happen very often, at least for environmental law. Soon, however, the nation is likely to have an exceedingly important lawmaking moment with the passage of long-overdue domestic climate change legislation. The ultimate success of that legislation, however, depends on advance recognition by Congress that lawmaking moments are only that—"moments." Congress should, accordingly, include within climate change legislation institutional design features, such as precommitment strategies, that deliberately make it hard for powerful, short-term political and economic pressures to undo that legislation. In application to climate change legislation, moreover, any per se objection to precommitment strategies based on concerns about their antidemocratic effects should go unheeded. Such precommitment strategies are a well-established design feature of our lawmaking processes, embraced both by the Framers of our Constitution and by prior Congresses. If, as here, the impact on future generations of present generations' failing to address climate change is so potentially devastating, the greater threat to future generations by far would be the failure of present generations to restrict lawmaking to safeguard the future.

The challenge to develop the right mix of precommitment strategies is considerable and the risk of any particular law being perversely hijacked can never be eliminated. But through the kind of asymmetric hurdles and shortcuts that I have described, Congress could diminish the risk of short-term pressures undermining whatever legislation it passes and increase the chance that the concerns of future generations would not be forgotten during the decades required for the new law's ambitious objective to be achieved.⁴⁸

45. See Daniel A. Farber, *Climate Change, Federalism, and the Constitution*, 50 ARIZ. L. REV. 879, 900-10, 921-23 (2008) (discussing preemption in the context of climate change law).

46. See William W. Buzbee, *Asymmetrical Regulation: Risk, Preemption, and the Floor/Ceiling Distinction*, 82 N.Y.U. L. REV. 1547, 1569-70 (2007); Eric Lipton & Gardiner Harris, *In Turnaround, Industries Seek U.S. Regulations: A Broad Tactical Shift; Trying to Fend Off Suits, Foreign Competitors, and State Efforts*, N.Y. TIMES, Sept. 16, 2007, at A1.

47. See Lisa Heinzerling, *Climate, Preemption, and the Executive Branches*, 50 ARIZ. L. REV. 925, 925-29 (2008); Felicity Barringer & William Yardley, *Bush Splits on Greenhouse Gases With Congress and State Officials*, N.Y. TIMES, Apr. 4, 2007, at A1.

48. As of the time of this Article's going to press (early 2010), none of the major climate change bills pending before Congress included any significant or systematic efforts to enlist precommitment strategies in the form of either hurdles or shortcuts in anticipation of problems likely to plague the law's subsequent implementation.