

Climate Change, Federalism, and the Constitution

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Climate change is a global problem. There can be little doubt about its seriousness and the challenges it poses for our society. The Intergovernmental Panel on Climate Change's (IPCC) 2007 report explains the scientific consensus that concentrations of greenhouse gases (GHG) "have increased markedly as a result of human activities since 1750 and now far exceed pre-industrial values determined from ice cores spanning many thousands of years."² Moreover, climate change is already upon us, and its effects are being felt not only at the global level but in many localities. "Examples of observed changes caused by human releases of GHG include shrinkage of glaciers, thawing of permafrost, later freezing and earlier break-up of ice on rivers and lakes," as well as biological changes such as "shifts of plants and animal ranges, declines of some plant and animal populations, and earlier flowering of trees, emerging of insects, and egg-laying in birds."³ Further impacts await us.⁴

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² Contribution of Working Group I to the Fourth Assessment Intergovernmental Panel on Climate Change (IPCC), *Climate Change 2007: The Physical Science, Summary for Policymakers 1* (2007). The IPCC explains that "the understanding of anthropogenic warming and cooling influences on climate has improved since the Third Assessment Report (TAR), leading to "very high confidence that the globally averaged net effect of human activities since 1750 has been one of warming, with a radiative forcing of +1.6 [+0.6 to +2.4] W m²." *Id.* at 4. In ordinary English, this means that human activities have added about one and half watts per square meter of energy to the climate system, or put it another way, roughly the amount of energy that would be added if you divided the earth into 40'x40' squares and put a hundred watt light bulb in the middle of each of them. Each individual bulb isn't adding that much, but the surface of the earth is very large, so the total amount of energy adds up.

³ Donald A. Brown, *The U.S. Performance in Achieving its 1992 Earth Summit Global Warming Commitments*, 32 ENV'T. L. REP. 10, 741 (2002). For further details on climate change effects in the U.S., see CAMILLE PARMESAN & HECTOR GALBRAITH, *OBSERVED IMPACTS OF GLOBAL CLIMATE CHANGE IN THE U.S.* (2004), available at http://www.pewclimate.org/global-warming-in-depth/all_reports/observedimpacts/.

⁴ As Brown explains:

Many scientists and policy makers believe that a doubling of CO₂ from pre-industrial levels to 560 ppm [part per million] may be unavoidable in the 21st century. This is so because the world's political and economic system cannot respond rapidly enough to make faster changes in some major polluting sources such as gasoline-powered automobiles or coal-fired power plants. Some environmentalists, however, believe it is still possible to stabilize GHG [greenhouse gases]

Despite these nearly undeniable facts, the federal government—until now—has shown little initiative in addressing this serious issue.⁵ Perhaps surprisingly,⁶ however, state governments have moved much more aggressively.⁷ By 2006, every state had taken steps of some kind to address climate change.⁸ California has been the leader, with legislation aimed at

at 450 ppm, a level that would limit the temperature increase (in addition to that which has already been caused by human activities) to 1.5 to 2 °F during the next 100 years. Virtually nobody believes that it is possible to stabilize atmospheric concentrations below 450 ppm and concentrations could continue growing after that if third world countries do not implement aggressive reduction strategies, even if the most ambitious proposal currently under consideration were adopted. Even if all nations could have stabilized emissions in the year 2002, the concentrations of GHGs would continue to rise and would approach 500 ppm by the year 2100. After that, GHG concentrations in the atmosphere would continue to rise for several hundred years before stabilization would be achieved. Even to stabilize CO₂ at 1,000 ppm will require reductions of emissions below current levels.

Given the near inevitability of at least some additional temperature increases, we can expect further unavoidable impacts. Brown, *supra* note , at -- .

⁵ For a discussion of the limited federal role to date, see John C. Dernbach, *U.S. Policy, in GLOBAL CLIMATE CHANGE AND U.S. LAW* 61 (Michael B. Gerrard ed., 2007).

⁶ For speculations about the causes of this state-level response, see J.R. DeShazo and Jody Freeman, *Timing and Form of Federal Regulation: The Case of Climate Change*, 155 U. Pa. L. Rev. 1499, 1516-1538 (2007); Kirsten Engel, *State and Local Climate Change Initiatives: What Is Motivating State and Local Governments to Address a Global Problem and What Does This Say About Federalism and Environmental Law?*, 38 URBAN LAWYER 1015 (2006). The potential for states to play a renewed role in environmental policy innovation was apparent almost a decade earlier. See John P. Dwyer, *The Role of State Law in an Era of Federal Preemption: Lessons from Environmental Regulation*, 60 L. & CONTEMP. PROBS. 203, 226-227 (1997) (“Over the last generation, state agencies have surpassed federal agencies in resources and often in technical expertise, and many of the most innovative programs now originate in the states.”) For more skeptical views of state regulation as an alternative to federal dominance, see Daniel C. Esty, *Revitalizing Environmental Federalism*, 95 MICH. L. REV. 570 (1996) (though it should be noted that Esty does support decentralization under some circumstances); Jonathan B. Wiener, *Thank Globally, Act Globally: The Limits of Local Climate Policies*, 155 U. Pa. L. Rev. 1961 (2007).

⁷ State efforts are described in Barry Rabe, *Race to the Top: The Expanding Role of U.S. State Renewable Portfolio Standards*, SUSTAINABLE DEVELOPMENT LAW & POLICY (Spring 2007); Eleanor Stein, *Regional Initiatives to Reduce Greenhouse Gas Emissions*, in GLOBAL CLIMATE CHANGE AND U.S. LAW, *supra* note , at 315; David Hodas, *State Initiatives*, in GLOBAL CLIMATE CHANGE AND U.S. LAW, *supra* note , at 343; Robert B. McKinstry, *Laboratories for Local Solutions for Global Problems State, Local, and Private Leadership in Developing Strategies to mitigate the Causes and Effects of Climate Change*, 12 PENN ST. ENVTL. L. REV. 15 (2004). Local initiatives will not be considered separately in this article, but those are catalogued in J. Kevin Healy, *Local Initiatives*, in GLOBAL CLIMATE CHANGE AND U.S. LAW, *supra* note , at 421. A survey of state efforts can be found in Pace Law School Center for Environmental Legal Studies, *The State Response to Climate Change: 50-State Survey*, in GLOBAL CLIMATE CHANGE AND U.S. LAW, *supra* note , at 371 [hereinafter Pace Center].

⁸ Hodas, *supra* note , at 343.

reducing greenhouse emissions from automobiles and electrical generators, as well as an ambitious mandate to reduce emissions to 1990 levels by the end of the next decade.⁹ Thus, in the United States, the response to this global problem so far has primarily been at the state and local levels.

Federal climate change legislation seems increasingly likely, but at least some states are likely to continue pursuing independent climate change measures. Congress has the final word on the question of whether states can legislate on matters within Congress's legislative authority. Often, however, Congress remains silent or speaks ambiguously. We can expect this to be true of any forthcoming federal climate legislation: either the statute will not address preemption, or more likely, it will fail to do so with complete clarity. Courts, state governments, and the EPA will then be faced with the question of how much room remains for state climate regulations.

This Article will consider the constitutional authority of states to pursue climate change mitigation measures¹⁰ when Congress has not acted or has legislated but without clearly addressing the validity of state measures. In general, the Article supports a strong presumption of validity for state climate change regulation. The presumption can be overcome if a state law discriminates against interstate commerce, Congress expressly requires preemption or a clear conflict exists between federal and state law.

Part I of the Article surveys current state efforts in the arena of climate change and some of the federalism issues that have already been raised.¹¹ These activities cover a wide spectrum of policy options, as well as differing greatly in their scope and ambition. Some of these state activities may fade after Congress enters the field. But some states may wish to move faster than Congress or to address sources of greenhouse gases that Congress has not yet addressed.

The next two parts of the article are heavily doctrinal. Part II examines the application of the dormant commerce clause to state climate legislation, while Part III examines preemption doctrine. The bottom line is that state regulation has a good chance of surviving challenge if it avoids the most obvious constitutional pitfalls such as discriminating against interstate commerce, banning or burdening behavior explicitly authorized by federal law, taking steps with

⁹ Pace Center, *supra* note , at 375.

¹⁰ Some of the discussion in this Article is also relevant to state authority to adopt climate adaptation measures, at least some of which might raise similar constitutional problems. The primary focus, however, will be on mitigation. (For a neophyte in the climate change context, "mitigation" means reducing greenhouse gases and thereby limiting future climate change; "adaptation" means responding to predicted climate change in order to limit the impact on human society or ecosystems.)

¹¹ Some earlier discussion of the constitutional issues, see Stein, *supra* note , at 333-336.

foreign countries that directly contradict presidential or congressional initiatives, or attaching penalties to transactions that occur wholly outside state borders. But the bodies of law that cover the remaining set of state initiatives—the *Pike* balancing test for undue burdens on commerce, “obstacle” preemption based on federal statutes, implied foreign affairs preemption—are vague and provide little assurance about outcomes. The Supreme Court has failed to provide clear guidance to states about their regulatory authority. There are strong arguments, however, for giving state climate change regulations the benefit of the doubt when applying these amorphous standards.

Part IV considers how climate change might affect our thinking about the constitutional dimension of federalism, including our understanding of federal legislative authority. The creation of new markets in the guise of cap-and-trade schemes will make it even more difficult to draw lines around federal jurisdiction over interstate commerce. These markets, as well as the global web of interactions that constitute climate change, will also make it equally difficult to distinguish between local and national or global concerns. In short, the basic concepts of territoriality that underlie much of our federalism jurisprudence are being slowly washed away.

Courts should not be quick to invalidate state climate regulations, whether or not Congress has legislated. It is much more likely that society will be too timid in responding to climate change than that it will go too far; any fear of over-regulation by states would be largely misplaced. The courts should consequently content themselves with policing against the most obvious potential flaws in state legislation.

I. “While Congress Slept”: State Climate Initiatives

In considering the role of the states, it is important to keep in mind the large contributions that some states make to emissions and the varied trajectories of the states. From 1990-2001, the largest emitter (Texas) increased its emissions by 178 percent while the second largest (California) increased by only 85 percent.¹² Florida, although only fifth on the list, showed a 347 percent increase; on the other hand, New York, with a similar level of emissions, actually showed a slight decrease.¹³ There is plenty of room for further progress. American states rank with the least efficient energy users in the world such as Qatar.¹⁴ The good news is that there seems to be a lot of long-hanging fruit. If U.S. per capita emissions were the same as California’s, total U.S. emissions would be nearly cut in half (!).¹⁵ In any event, we can expect a

¹² Michael B. Gerrard, *Introduction*, in GLOBAL CLIMATE CHANGE AND U.S. LAW, *supra* note , at 10.

¹³ *Id.*

¹⁴ Hodas, *supra* note , at 345.

¹⁵ *Id.* at 346.

diversity of state responses to climate change even after federal legislation. The states that have been the most aggressive in the climate arena to date are probably the most likely to seek a continued role even after federal legislation.

We can gain some sense of what roles the state might try to play following federal climate regulation by considering the steps they have already taken. State efforts to address climate change have focused on two key sectors: electrical power and transportation. These sectors lend themselves to different regulatory approaches. Power generation and distribution are industrial activities that are already regulated through public utility laws and have a relatively few, large-scale emission sources. There are also choices between fuels of varying carbon intensities. Transportation in the United States is largely in the hands of individual consumers, and the only available fuel for nearly all of them is currently gasoline.

A. Regulation of Electricity Supply and Demand

Essentially, there are four ways to reduce carbon emissions from electrical generation: (1) switching fuels at existing plants to those with a higher energy content (and hence lower emissions per unit of electricity generated); (2) increasing the share of electricity from existing renewable sources compared with the share produced from fossil fuels; (3) increasing the construction of carbon-neutral (“renewable”) generating facilities while restricting fossil fuel generators; or (4) decreasing the total amount of electricity produced. States have used varying combinations of these techniques. The result is less a strategy than a plethora of loosely related initiatives that are difficult to describe in a coherent way. This section will merely touch upon some of the state initiatives.

Because of the possibility of switching between energy sources, renewable portfolio standards are an important option for state regulators. These programs require that a certain percentage of retail electricity sales be derived from renewable sources. The programs are quite diverse in their ambition and effectiveness.¹⁶ California’s program has an especially ambitious 33 percent target by 2011.¹⁷ A similar effort involves public benefit funds, which surcharge consumers in order to create funding for investment in clean energy supply.¹⁸

¹⁶ Gerrard, *supra* note , at 22.

¹⁷ Hodas, *supra* note , at 356. Hodas provides a list of which sources are considered renewable by various states. The outliers are Minnesota, which includes only wind and biomass, and Rhode Island and Colorado, the only states to include small hydroelectric facilities. Three states also include energy efficiency as a “renewable source.” *Id.* Another interesting effort to encourage clean energy investment involves the use of carbon adders, which require utility companies to forecast future costs relating to climate change externalities and regulation as part of their costing of new facilities. *Id.* at 360-362. Rabe, *supra* note , contains a more detailed appraisal of renewable portfolio standards.

¹⁸ Hodas, *supra* note , at 359.

Some of the most interesting initiatives are regional rather than state-based.¹⁹ Regional programs include the Northeast Regional Greenhouse Gas Initiative (RGGI) (the best-known), as well as initiatives in New England, the Great Plains, the Southwest, and the West Coast.²⁰ Regional cooperation is feasible because two-thirds of Americans receive their power from regional transmission organizations.²¹ Coverage is incomplete, however – five companies are virtually outside these agreements but account for a quarter of the sector’s emissions.²² Approximately half of the states are involved in at least one regional initiative; this obviously leaves about half that are not.²³

Because REGGI (pronounced “Reggie”) is the most notable of these regional plans, it deserves a detailed discussion. REGGI is currently supported by the governors or legislators of Connecticut, Delaware, Maine, Maryland, New Hampshire, New Jersey, New York, and Vermont.²⁴ In addition, the governor of California has announced plans to become a trading partner of REGGI.²⁵ REGGI is aimed at creating a multistate trading system, capping emissions at current levels until 2015 and then achieving a ten percent reduction by 2019.²⁶ A continuing concern is leakage: the purchase of cheaper electricity from higher emitting sources outside the trading area.²⁷ Allowances will be initially allocated to generators on the basis of current emissions, but sources will also be allowed to offset emissions to a limited extent with verifiable reductions in other emission sources.²⁸

¹⁹ See Kirsten H. Engel, *Mitigating Global Climate Change in the United States: A Regional Approach*, 14 N.Y.U. ENVTL. L.J. 54 (2005).

²⁰ Stein, *supra* note , at 316. For more on systems other than RGGI, see *id.* at 336-330.

²¹ *Id.* at 317.

²² *Id.* at 318.

²³ Hodas, *supra* note , at 347.

²⁴ Stein, *supra* note , at 321.

²⁵ *Id.*

²⁶ *Id.*

²⁷ Stein, *supra* note , at 322. A related concern is shifting, that is, the possibility that California utilities will switch to less carbon intensive out-of-state sources (avoiding the leakage problem) but that the more intensive sources will simply be freed up to sell their power elsewhere in the nation.

²⁸ *Id.* at 324-325.

The most ambitious trading system will be established under California's A.B. 32. A.B. 32 requires California to reduce emissions to the 1990 level by 2020.²⁹ This law generated world-wide attention, including a statement by the British Prime Minister that its signing represented a "historic day for the rest of the world as well."³⁰ The Prime Minister and the Governor of California also entered an agreement to share best practices on market-based systems and to cooperate to investigate new technologies; similar agreements now exist between California and states and provinces in Australia and Canada.³¹ Although A.B. 32 does not mandate the use of cap-and-trade, there are strong arguments for using this mechanism.³²

Another prong of state regulation has been efficiency standards for electrical appliances. State appliance standards are normally subject to federal preemption, but DOE has proposed waiving preemption so that states can provide for higher energy conservation standards. At least ten states have set such standards, benefiting consumers in the process.³³ California estimates that by 2020 its standards will save consumers three billion dollars and eliminate the need for three new power plants.³⁴

Electricity regulation can produce significant federalism issues, which state regulators clearly need to address.³⁵ The primary problem is leakage: reducing in-state emissions may

²⁹ Erwin Chemerinsky et al., *California, Climate Change, and the Constitution*, 37 ENVTL. L. REP. 10053, 10053 (2007).

³⁰ *Id.* at 10654.

³¹ *Id.* at 10659. The question of whether agreements of this kind are valid is probed in Hannah Chang, *Foreign Affairs Federalism: The Legality of California's Link With the European Union Emissions Trading Scheme*, 37 ENVTL. L. REP. 10771 (2007).

³² See Lawrence H. Goulder, *California's Bold New Climate Policy*, THE ECONOMIST'S VOICE (September 2007), available at <http://www.bepress.com/ev/vol4/iss3/art5>.

³³ Hodas, *supra* note , at 364.

³⁴ *Id.*

³⁵ For an overview of these federalism issues, see Kirsten H. Engel, *The Dormant Commerce Clause Threat to Market-Based Environmental Regulation: The Case of Electricity Deregulation*, 26 ECOLOGY L.Q. 243 (1999). Engel argues that "barriers to interstate commerce should be considered constitutionally permissible when they result from state efforts to (1) retain the benefits of an incentive-based environmental market the state itself has created; (2) prevent the loss, to other jurisdictions, of the benefits generated where citizens collectively invest in industries using more environmentally sensitive production processes; or (3) stem the flow, to other states, of conventional economic benefits that result when a state forces industries to internalize the environmental costs of production and waste disposal." *Id.* at 250.

simply result in shifting supply to unregulated out-of-state sources.³⁶ In adopting utility regulation for greenhouse gases, the California Public Utility Commission has been very conscious of potential federalism issues. Its *Interim Opinion on Phase I Issues: Greenhouse Gas Emissions Performance Standards*,³⁷ discusses an array of potential legal objections to the standards. The rulemaking involves environmental performance standards for long-term supply contracts entered into by California power systems, which are based on the theory that future greenhouse limitations could imperil supplies or require costly retrofits which would be charged to consumers. Much of California's electricity comes from out of state, so the regulation clearly affects sales by out-of-state generators.

Opponents of the rule raised several preemption arguments. They suggested that the California rule would conflict with a presidential policy of avoiding unilateral reductions in U.S. CO₂ emissions in favor of multilateral agreements that would include developing nations. The PUC believed, however, that the foreign policy would be more accurately characterized as a refusal to enter into multilateral agreements that lacked binding restrictions on developing companies. The PUC considered it "unclear how California, which is not proposing to sign any international agreement here, could be undermining such a policy."³⁸

Opponents also claimed the proposed rule was preempted by various federal statutes.³⁹ In particular, they contended that the rule could interfere with the federal government's exclusive jurisdiction over electricity wholesalers. But the federal government does not regulate retail electrical firms, and the proposed regulation applied only to those firms (though it did limit their contracts with some generators via wholesalers.)

Finally, opponents argued that the regulation would violate the dormant commerce clause.⁴⁰ The PUC rejected the claim that the rule would have a discriminatory effect on out-of-state coal-fuel generation plants. In the PUC's view, this claim failed because the rule "does not discriminate based on geographic origin."⁴¹ Moreover, the regulation did not unduly burden

³⁶ The general issue of leakage is discussed in Wiener, *supra* note , at 1967-1970.

³⁷ Order Instituting Rulemaking to Implement the Commission's Procurement Incentive Framework and to Examine the Integration of Greenhouse Gas Emissions Standards into Procurement Policies, Decision 07-01-039 (January 25, 2007), available at <http://www.cpuc.ca.gov/>

³⁸ *Id.* at 193. For further discussion of the foreign affairs preemption issue in connection with climate change, see Chemerinsky et al., *supra* note , at 10662-10664, as well as text accompanying notes to , *infra*.

³⁹ PUC Order, *supra* note , at 199

⁴⁰ *Id.* at 206.

⁴¹ *Id.* at 207.

interstate commerce. It had substantial local benefits because of the potential harm to California from climate change and the “potential exposure of California consumers to future reliability problems in electricity supplies.”⁴² The burden on some out-of-state producers—mostly those in the Southwest, since hydropower producers in the Northwest would be unaffected⁴³—was reasonable in comparison with benefits, at least in the Commission’s mind.⁴⁴ The California PUC’s ruling is likely to be the starting point for protracted debate (not to mention litigation!) on the subject.

B. Transportation Regulation

The transportation sector is a critical part of climate change regulation. California again has taken the lead. Beginning with the 2009 model year, the California Air Resources Board has a mandate to reduce CO₂ emission from new car models by 30 percent on a fleet average basis.⁴⁵ A statute known as A.B. 1493 directs the California Air Resources Board to adopt regulations that achieve “the maximum feasible and cost-effective reduction of greenhouse gas emissions from motor vehicles.” The CARB may not, however, impose fees or taxes, ban SUVs or light trucks, or impose speed limits.⁴⁶ California is also moving toward adoption of a low-carbon fuel standard.⁴⁷

⁴² *Id.* at 213.

⁴³ *Id.* at 217-218.

⁴⁴ PUC Order, *supra* note , at 220. *See also* Peter Carl Norbert, Note, *Excuse Me, Sir, But Your Climate’s on Fire: California’s S.B. 1368 and the Dormant Commerce Clause*, 82 NOTRE DAME L. REV. 2067 (2007) (similar analysis of dormant commerce clause issues); Margaret Tortorella, *Will the Commerce Clause “Pull the Plug” on Minnesota’s Quantification of the Environmental Externalities of Electricity?*, 79 MINN. L. REV. 1547 (1995) (defending constitutionality of Minnesota law favoring utility contracts with renewable sources). An alternative to the California scheme would be for the state to act as exclusive purchasing agent for electricity, thereby taking advantage of the “market participant exception” discussed later in this article. *See* Brian H. Botts, *Regulating Greenhouse Gas “Leakage”: How California Can Evade the Impending Constitutional Attacks*, 19 ELECTRICITY J. (June 2006).

⁴⁵ Engel & Saleska, *Subglobal Regulation of the Global Commons: The Case of Climate Change*, 32 Ecology L. Q. 183, 221 (2005). The statutory mandate is A.B. 1493, also called the Pavley Act, which requires the state to issue regulations achieving the “maximum feasible and cost-effective reduction of greenhouse gas emissions” from vehicles. Cal. HSC §433018.5(a).

⁴⁶ Ann E. Carlson, *Federalism, Preemption, and Greenhouse Gas Emissions*, 37 U.C. DAVIS L. REV. 281, 294(2003).

⁴⁷ *See* deShazo and Freeman, *supra* note , at 1527.

Another method of attacking transportation-based emissions is litigation. A recent case filed by the State of California is illustrative.⁴⁸ In an action filed in federal district court against leading automobile manufacturers, the state alleges two causes of action for public nuisance, one under federal common law and one under California law. The complaint focuses on several key examples of damages. For instance, the state allegedly will be required to spend large sums on studies and infrastructure changes to its water systems. The Sierra Nevada snow pack, which is the source of much of the state's water, has been shrinking.⁴⁹ This decrease in snowpack is likely to increase flooding and interfere with the state's water system.⁵⁰ The complaint adds that "[a]ll of these impacts are the subject of State study and planning, which costs the State millions of dollars."⁵¹ Consequently, the state requests that the defendants be held jointly and severally liable for monetary damages.⁵² At present, the case is pending on appeal after the district court ruled that the litigation was precluded by the political question doctrine.⁵³

Federalism has been a significant issue in terms of vehicle regulation, particularly regarding the new car regulations authorized by A.B. 1493. The state's regulatory scheme has been challenged on several grounds. To begin with, the Clean Air Act prohibits any state from adopting concerning emissions from new vehicles. The sole exception is for California, which

⁴⁸ People of the State of California *ex rel.* Lockyer v. GM Corp., No. C06-05755 (N.D. Cal., filed Sept. 30, 2006).

⁴⁹ An explanation for non-Californians. The state derives much of its water from the snow pack. The problem is not so much a decrease in total precipitation, but the fact that the snow pack acts as a natural storage system, releasing water during the spring and summer when it is most in need for agriculture.

⁵⁰ The complaint also addresses other alleged harms. According to the complaint, rising sea levels allegedly cause increased beach erosion and increased salt infiltration into the Sacramento Bay-Delta, which will require increased expenditures on levees. Furthermore, climate change is impacting extreme heat events, increasing the risk of injury or death (especially to the elderly). Finally, the complaint alleges that "[d]ozens of other impacts have begun or are anticipated with a high level of certainty, including increased risk and intensity of wildfires, risk of prolonged heat waves, loss of moisture due to earlier snow pack melt and related impacts on forests and other ecosystems, and a change in ocean ecology as water warms." *Id.*

⁵¹ *Id.*

⁵² *Lockyer*, "Relief Requested," paras. 1-2. The complaint also requests declaratory relief as well as attorneys fees. Similar litigation against electrical power generators is pending in the Second Circuit. *See Connecticut v. Am. Elec. Power Co.*, 406 F. Supp. 2d 265 (S.D.N.Y. 2005). For a detailed discussion of these lawsuits and the place of litigation in the overall effort against climate change, see Alice Kaswan, *The Domestic Response to Global Climate Change: What Role for Federal, State, and Litigation Initiatives* (forthcoming U.S.F. L. REV.).

⁵³ *See Connecticut v. American Electric Electric Company*, 406 F. Supp. 2d 265 (SDNY 2005). *See also California v. General Motors*, 2007 WL 272871 (ND Cal. Sept. 17, 2007). Reliance on the political question doctrine seems misplaced here, given the narrow scope of that doctrine as defined by the Supreme Court. On the other hand, a similar public nuisance suit was allowed to go forward in *North Carolina v. TVA*, 439 F. Supp. 2d 486 (2006).

can be granted a waiver from preemption if the EPA determines that the state standards are at least as stringent as the federal standards. Before the Supreme Court rejected its position, EPA contended that CO₂ was not an “emission” within the meaning of the statute, creating some puzzles about the application of the preemption and California waiver provisions.⁵⁴ Those issues have now been resolved, but the statute allows EPA to reject the waiver application on the ground that California had failed to establish the existence of “compelling and extraordinary circumstances.”⁵⁵

California also faces claims that its regulations are preempted by the federal CAFÉ (fuel efficiency) standards. The statute establishing the federal standards also preempts states from issuing any regulations that “relate to fuel economy standards.”⁵⁶ Reducing CO₂ from automobiles requires burning less gasoline; the question is whether the CARB can craft regulations that may indirectly have this effect without falling into the forbidden category. The state may once again take some cheer from *Massachusetts v. EPA*, where the federal government used a similar argument in support of its claim that EPA lacked jurisdiction over CO₂ under the Clean Air Act. The Court responded:

EPA finally argues that it cannot regulate carbon dioxide emissions from motor vehicles because doing so would require it to tighten mileage standards, a job (according to EPA) that Congress has assigned to DOT. But that DOT sets mileage standards in no way licenses EPA to shirk its environmental responsibilities. EPA has been charged with protecting the public’s “health” and “welfare,” a statutory obligation wholly independent of DOT’s mandate to promote energy efficiency. The two obligations may overlap, but there is no reason to think the two agencies cannot both administer their obligations and yet avoid inconsistency.⁵⁷

Obviously, this does not speak directly to the issue of state preemption, but it does suggest that the Court views fuel efficiency rules and limitations on CO₂ emissions as two very different matters.⁵⁸

⁵⁴ Carlson, *supra* note , at 295-296.

⁵⁵ *Id.* at 296-297.

⁵⁶ *Id.* at 304.

⁵⁷ 127 S. Ct. 1438, 1461-62 (2007).

⁵⁸ The Congressional Research Service concluded that California should qualify for a waiver, particularly in light of *Massachusetts v. EPA*. See *Report Finds California Has Strong Case to Get Approval of Vehicle Emissions Rules*, 38 ENVTL. REP. (Sept. 7, 2007). The Bush Administration later denied the waiver, see text accompanying note *infra*.

The first ruling on the validity of the California program came in *Green Mountain Chrysler Plymouth Dodge Jeep v. Crombie*.⁵⁹ The court considered that the federal agencies involved could work out any tensions between federal fuel economy standards and California's right to a waiver from EPA.⁶⁰ The court also found that the greenhouse gas regulations encompassed much more than a fuel economy mandate, particularly as concerned hydrocarbon and carbon monoxide emissions, and also because the regulations encompassed upstream emissions from refineries and other fuel sources.⁶¹ The court also found that the challengers had failed to prove that the rules were technologically or economically infeasible.⁶² Finally, the court rejected the argument that the California rules improperly intruded into the field of foreign affairs.⁶³ The court noted that the State Department had in fact praised state and local efforts in its reports to international agencies.⁶⁴

California's program also passed muster in a separate challenge, *Central Valley Chrysler-Jeep, Inc. v. Goldstone*.⁶⁵ Relying heavily on *Massachusetts v. EPA* for guidance about the relationship between the Clean Air Act and CAFÉ standards, a California district court ruled that if the California standards were approved by EPA, the Department of Transportation would have a duty to harmonize the CAFÉ standards with the California requirements. The district court also relied on *Massachusetts v. EPA* in concluding that an executive branch policy could not override the congressionally mandated standards for California's waiver request. The district court held that a claim of foreign policy preemption would require a showing that the state law conflicted with an international agreement or at least a program that derived from international negotiations, neither of which were present.

From the state's point of view, *Green Mountain Chrysler Plymouth Dodge Jeep* and *Central Valley Chrysler-Jeep* were promising rulings. Shortly after the latter decision, however,

⁵⁹ 508 F. Supp. 2d 295 (D. Vt. 2007).

⁶⁰ *Id.* at 356.

⁶¹ *Id.* at 352.

⁶² *Id.* at 357.

⁶³ *Id.* at 395.

⁶⁴ *Id.* at 396.

⁶⁵ -- F. Supp. 2d -- (E.D. Cal. 2007) (CV F 04-6663 AWILJO).

the EPA administrator rejected California's waiver request.⁶⁶ The state immediately announced its intention to litigate the refusal. Obviously, the federalism issues will not be settled in the immediate future.

Even if the CARB turns out to be unable to adopt across-the-board restrictions on CO₂ from vehicles, it may still be able to do so on a more limited basis. The Ninth Circuit recently upheld a requirement that state and local governments with large vehicle fleets purchase only low-emission vehicles, even though the Supreme Court had previously struck down a similar rule that covered private buyers.⁶⁷ Because the rules were adopted by a regional California authority rather than the state itself, they were not eligible for the "California waiver" discussed above.

The issues discussed in this section give the flavor of the kinds of actions states may take and the kinds of constitutional issues that those actions may raise.⁶⁸ Those constitutional issues revolve around the dormant commerce clause and federal preemption, which are explored at length in the next two sections.

II. The Dormant Commerce Clause

In a unified national economy, the existence of a multitude of differing state environmental laws can impede the flow of commerce. Yet, the states have often been in the lead in the environmental area because of pressing local problems. The conflict between the local interest in regulation and the economic interest of other states cannot be resolved effectively by the courts of any of the states involved. Obviously, both the state that is engaging in regulation and the states that are affected by the regulation have interests which disable them from providing a completely neutral forum. For this reason, the federal courts have emerged as the tribunals in which these conflicting interests can be assessed. This doctrine traces back to the

⁶⁶ See EPA, *America Receives a National Solution for Greenhouse Gas Emissions* (Dec. 19, 2007), available at <http://yosemite.epa.gov/opa/admpress.nsf/d0cf6618525a9efb85257359003fb69d/41b4663d8d3807c5852573b6008141e5!OpenDocument>.

⁶⁷ *Engine Mfrs. Ass'n v. South Coast Air Quality Maint. District*, 498 F.3d 1031 (9th Cir. 2007). The court relied on precedent holding that state proprietary activities are not preempted in the absence of a contrary indication from Congress. *Id.* at 1041. The court also remarked that "[i]t is possible that some aspects of the [market participant] doctrine have a constitutional dimension, protecting certain sovereign activities by the states from unconstitutional interference by the federal government." *Id.* at 1042. This seems to be a dubious proposition in light of *Garcia v. San Antonio Metro. Transit Authority*, 469 U.S. 557 (1985). The primary issue in the case was whether the market participant exception applied even though the rule applied to local governments as well as the state government itself. The court's conclusion that the doctrine did apply seems well-founded, since the federal constitution does not speak to the division of authority between state and local governments.

⁶⁸ For an overview of the evolution of federalism issues in environmental law, see Robert V. Percival, *Environmental Federalism: Historical Roots and Contemporary Models*, 54 MD. L. REV. 1141 (1995).

early years of the Nineteenth Century,⁶⁹ with perhaps the most influential opinion coming in the decade before the Civil War.⁷⁰ This section will describe the doctrine generally and then consider its application to state climate change regulations.

A. Doctrinal Overview

The basis for federal court involvement in these issues is the commerce clause of the Constitution.⁷¹ The commerce clause, on its face, is a grant of power to Congress, not a grant of power to the federal courts or a restriction on state legislation. Yet, since the early 19th century, the Supreme Court has construed the commerce clause as preventing certain kinds of state legislation even when Congress has not spoken. Various doctrinal explanations have been utilized in an effort to support judicial intervention, while the restrictions have been subject to changing formulations. For present purposes, however, we can ignore the rather tangled history of commerce clause theory and concentrate on the theory as it exists today.⁷²

At present, there are three strands to commerce clause theory. One test governs state legislation that discriminates against interstate commerce. Such legislation is virtually per se

⁶⁹ Early examples include *Gibbons v. Ogden*, 32 U.S. 1 (1824), and *Wilson v. Black Bird Creek Marsh Co.*, 27 U.S. 245 (1829).

⁷⁰ *Cooley v. Board of Wardens of the Port of Philadelphia*, 53 U.S. 299 (1851). In *Cooley*, the Court focused on whether there was a need for national uniformity in regulating a particular aspect of some activity (piloting ships into harbor).

⁷¹ A recent review of the doctrine in relation to state climate change regulation can be found in Chemerinsky et al., *supra* note , at 10656-10658.

⁷² For defenses of the doctrine's legitimacy, see Donald H. Regan, *The Supreme Court and State Protectionism: Making Sense of the Dormant Commerce Clause*, 84 MICH. L. REV. 1091 (1986); Richard Collins, *Economic Union as a Constitutional Value*, 63 N.Y.U. L. REV. 43 (1988); Mark Tushnet, *Rethinking the Dormant Commerce Clause*, 1979 WIS. L. REV. 125; Daniel Farber, *State Regulation and the Dormant Commerce Clause*, 3 CONST. COMM. 395 (1986). Although the Supreme Court's recent avowal of the values of federalism might lead one to expect a greater tolerance for state regulation that affects interstate commerce, the Court has not loosened restrictions on state regulation. See Richard H. Fallon, Jr., *The "Conservative" Paths of the Rehnquist Court's Federalism Decisions*, 69 U. CHI. L. REV. 429, 460-461 (2002). As Fallon explains:

[A] Court minded to pare back restrictions as a means of empowering state and local governments could easily do so – for example, by establishing that only expressly discriminatory taxes and tariff-like devices are forbidden. Among the most plausible explanations for the Court's failure to do so, despite the frequent dissenting protests of Justices Scalia and Thomas, is that the substantive conservatism of Justice O'Connor and Kennedy draws them to view the Commerce Clause as embodying antiregulatory, procompetitive ideals.

Id. at 471.

unconstitutional. A second test applies to the State's proprietary activities. Such activities are virtually immune from restriction under the dormant commerce clause. The third test applies to the remaining forms of state legislation. These forms of legislation are covered by a balancing test.

The first test is illustrated by *City of Philadelphia v. New Jersey*.⁷³ This case involved a New Jersey statute prohibiting the import of most waste originating outside the state. The Supreme Court struck down this restriction. The parties in the case disputed whether the purpose of the restriction was economic favoritism toward local industry or environmental protection of the state's resources from overuse. The Court found it unnecessary to resolve this dispute. According to the Court, the evil of protectionism can reside in legislative means as well as legislative ends. Whatever the state's ultimate purpose, it could not be accomplished by treating out-of-state items differently only because of their point of origin. The state could not solve its problems by isolating itself from the flow of interstate commerce. The Court conceded that certain quarantine laws have not been considered forbidden by the commerce clause even though they were directed against out-of-state commerce. The Court distinguished those quarantine laws, however, on the ground that in those cases the very movement of the articles risked contagion and other evils.

As it turned out, *Philadelphia v. New Jersey* was simply the first in a series of cases in which the Court has thwarted efforts by states to control the flow of garbage. One recurrent issue involves the converse of *Philadelphia v. New Jersey*: rather than attempting to exclude garbage imports, the government was trying to ban garbage exports.

Many municipalities adopted flow control ordinances that require all waste generated in the locality to be sent to a designated facility. The main reason for the requirement was to assure a sufficient flow of waste in order to finance expensive new, state of the art waste disposal facilities. A five Justice majority in *C & A Carbone, Inc. v. Town of Clarkstown*⁷⁴ found that flow control was facially discriminatory and struck it down under the *Philadelphia v. New Jersey* test. The majority pointed to several alternatives to flow control, including the use of property taxes to subsidize the local disposal facility. Justice O'Connor concurred in the result. She considered the ordinance to be nondiscriminatory but struck it down as an undue burden on commerce under the balancing test discussed below. Applying the same balancing test, Justice Souter and two other dissenters would have upheld the local ordinance. He argued that none of the alternatives to flow control were as desirable, and that the locality should be free to impose on its own residents the increased costs caused by flow control. As *Carbone* illustrates, what

⁷³ 437 U.S. 617 (1978).

⁷⁴ 511 U.S. 383 (1994).

constitutes discrimination is sometimes in the eye of the beholder: what five Justices considered to be patent discrimination, the other four did not find to be discriminatory at all.

Under *Philadelphia v. New Jersey*, state efforts to control the flow of goods across state lines are highly suspect. Thus, it is critical for climate change measures to be neutral as between local and out-of-state sellers and buyers. Since climate change effects are unaffected by the location of the activity, there is little justification for discrimination as a policy matter, even apart from constitutional constraints.

The second class of state regulations involved proprietary or quasi proprietary activities by the State.⁷⁵ Here, the leading case is *Hughes v. Alexandria Scrap Corp.*⁷⁶ This case involved a Maryland bounty system for old, abandoned cars. Prior to 1974, no title certificate was needed by the scrap processor in order to claim the bounty. After 1974, Maryland processors needed only to submit an indemnity agreement in which their suppliers certified their own rights to the hulks. In contrast, out of state processors were required to submit title certificates or police certificates. The legislation was challenged by a Virginia processor. The Court held that this statute was valid because the State was not exercising a regulatory function but rather had itself entered the market in order to bid up prices.⁷⁷

The Court's most recent decision in this area illustrates how exercises of proprietary authority can be used to avoid the restrictions of *Philadelphia v. New Jersey*. In *United Haulers Ass'n, Inc. v. Oneida-Herkimer Solid Waste Management Authority*,⁷⁸ a city ordinance required all local waste haulers to bring their waste to a city-owned facility. The Court found this distinction from *Carbone* (where the facility had been privately-owned) to be critical:

The only salient difference is that the laws at issue here require haulers to bring waste to facilities owned and operated by a state-created public benefit corporation. We find this difference constitutionally significant. Disposing of trash has been a traditional government activity for years, and laws that favor the government in such areas-but treat

⁷⁵ For discussion of this issue, see Dan Coenen, *Untangling the Market-Participant Exemption to the Dormant Commerce Clause*, 88 MICH. L. REV. 395 (1988); Mark Gergen, *The Selfish State and the Market*, 66 TEX. L. REV. 1097 (1988).

⁷⁶ 426 U.S. 794 (1976).

⁷⁷ As Justice Stevens noted in his concurrence, the interstate commerce at issue would never have existed except for the state's bounty system. *Id.* at 815. Because the state's failure to create such commerce would have been unobjectionable under the commerce clause, Justice Stevens believed that out-of-state processors had no grounds for complaint if they were excluded from this commerce. *Id.* at 815-16. Justice Brennan filed a strong dissent. *Id.* at 817.

⁷⁸ 127 S. Ct. 1786 (2007)

every private business, whether in-state or out-of-state, exactly the same-do not discriminate against interstate commerce for purposes of the Commerce Clause. Applying the Commerce Clause test reserved for regulations that do not discriminate against interstate commerce, we uphold these ordinances because any incidental burden they may have on interstate commerce does not outweigh the benefits they confer on the citizens of Oneida and Herkimer Counties.⁷⁹

The Court explained the reasons for drawing this distinction as follows:

The contrary approach of treating public and private entities the same under the dormant Commerce Clause would lead to unprecedented and unbounded interference by the courts with state and local government. The dormant Commerce Clause is not a roving license for federal courts to decide what activities are appropriate for state and local government to undertake, and what activities must be the province of private market competition. In this case, the citizens of Oneida and Herkimer Counties have chosen the government to provide waste management services, with a limited role for the private sector in arranging for transport of waste from the curb to the public facilities. The citizens could have left the entire matter for the private sector, in which case any regulation they undertook could not discriminate against interstate commerce. But it was also open to them to vest responsibility for the matter with their government, and to adopt flow control ordinances to support the government effort. It is not the office of the Commerce Clause to control the decision of the voters on whether government or the private sector should provide waste management services.⁸⁰

The Court did not exempt the ordinance entirely from judicial review, however, but then went on to consider its validity under the test usually applied to nondiscriminatory state laws. Presumably, the ordinance did not qualify for the proprietary function exemption because the government was imposing a restriction on up-stream participants in the market (and where they could sell) rather than simply restricting its own transactions. But the proprietary aspect of the ordinance did result in its being classified as non-discriminatory even though it in effect banned out-of-state disposal of waste.

Nondiscriminatory state legislation is not as suspect as legislation which is discriminatory on its face. Nevertheless, there is a real risk that the state may pass legislation without adequately considering its impact elsewhere in the country or that apparently neutral legislation is actually designed to favor local businesses. In order to guard against these risks, the Court subjects

⁷⁹ *Id.* at 1790.

⁸⁰ *Id.* at 1796.

nondiscriminatory state legislation to a balancing test. Balancing tests are not always predictable in their application. This one is no exception.

The use of this balancing test has been attacked by Justice Scalia, some lower court judges, and several scholars.⁸¹ These critics have assembled several arguments against the use of a balancing test to assess nondiscriminatory legislation. If a state law does not discriminate against interstate commerce, they argue, the federal courts should not second-guess the state legislature about the balance between a statute's costs and benefits. Moreover, ill-advised but nondiscriminatory statutes are subject to a built-in political check, because the adversely affected local industry will lobby for repeal. Thus, these laws can be handled by the political process without judicial intervention. Finally, these critics argue, the judicial balancing in these cases is unhappily reminiscent of the era in which courts routinely overturned statutes they considered unwise, an approach that has long since been repudiated in other contexts. Although these arguments against the balancing test have some force, so far they have failed to make much headway on the Court.

The Court's most recent application of this test was the *Oneida* case discussed above. The Court held that the benefits of the flow-control regime clearly outweighed any possible burden on interstate commerce:

The ordinances give the Counties a convenient and effective way to finance their integrated package of waste-disposal services. While "revenue generation is not a local interest that can justify *discrimination* against interstate commerce," we think it is a cognizable benefit for purposes of the *Pike* test.

At the same time, the ordinances are more than financing tools. They increase recycling in at least two ways, conferring significant health and environmental benefits upon the citizens of the Counties. First, they create enhanced incentives for recycling and proper disposal of other kinds of waste. Solid waste disposal is expensive in Oneida-Herkimer, but the Counties accept recyclables and many forms of hazardous waste for free, effectively encouraging their citizens to sort their own trash. Second, by requiring all waste to be deposited at Authority facilities, the Counties have markedly increased their ability to enforce recycling laws. If the haulers could take waste to any disposal site, achieving an equal level of enforcement would be much more costly, if not impossible. For these reasons, any arguable burden the ordinances impose on interstate commerce does not exceed their public benefits.⁸²

⁸¹ See *CTS Corp. v. Dynamics Corp.*, 481 U.S. 69 (1987) (Scalia, J., concurring). For academic criticism, see Julian Eule, *Laying the Dormant Commerce Clause to Rest*, 91 YALE L.J. 425 (1982); Richard Sedler, *The Negative Commerce Clause As a Restriction on State Regulation and Taxation: An Analysis in Terms of Constitutional Structure*, 31 WAYNE ST. L. REV. 885 (1985).

Oneida is at least a signal that the majority of the Court is not engaged in a campaign to aggressively expand the dormant commerce clause, which is good news for state climate change regulators.

B. State Climate Regulations and the Dormant Commerce Clause

Assuming that states do not make the mistake of discriminating against out-of-state firms,⁸³ their regulations will be reviewed under the *Pike* balancing test. In applying the balancing test, one key factor is the strength of the state’s regulatory interest.

States should be able fairly easily to show the strength of their interest, given what we now know about climate change. One of the most predictable impacts is sea level rise, which will affect every coastal state. The Supreme Court has already found this harm to be serious enough and foreseeable enough to be a basis for standing by state governments. In *Massachusetts v. EPA*, the Court emphasized the existence of a semi-sovereign state interest in responding to climate change because of the threat posed to the state’s citizens and even to its territory (as a result of sea level rise.):

These rising seas have already begun to swallow Massachusetts’ coastal land. Because the Commonwealth “owns a substantial portion of the state’s coastal property,” it has alleged a particularized injury in its capacity as a landowner. The severity of that injury will only increase over the course of the next century: If sea levels continue to rise as predicted, one Massachusetts official believes that a significant fraction of coastal property will be “either permanently lost through inundation or temporarily lost through periodic storm surge and flooding events.” Remediation costs alone, petitioners allege, could run well into the hundreds of millions of dollars.⁸⁴

⁸² *United Haulers*, 127 S. Ct. at 1798.

⁸³ As other commentators have explained in the context of California electricity regulation,

If California aims to stop leakage by treating electricity generated outside of California differently than electricity generated inside California, the state will almost certainly lose when facing a lawsuit based on dormant Commerce Clause grounds. This means that California should avoid making policy distinctions between in-state energy and out-of-state energy and create a process that is blind to the location of energy production. Similarly, if California attempts to stop leakage by attempting to regulate outside of California, the state will likely lose. This means that the incidence of regulation – the events upon which regulatory requirements are imposed – ought to be easily describable as occurring within California.

Chemerinsky et al., *supra* note , at 10658.

⁸⁴ *Id.* at 1456.

In addition, the IPCC has found that it “is *very likely* that hot extremes, heat waves, and heavy precipitation events will continue to become more frequent.”⁸⁵ It also concurs that we are likely to see changes in tropical storms such as hurricanes: “Based on a range of models, it is *likely* that future tropical cyclones (typhoons and hurricanes) will become more intense, with larger peak wind speeds and more heavy precipitation associated with ongoing increases of tropical SSTs.”⁸⁶ These are surely serious harms in the judicial scales.

One possible argument is that, although the state’s interests are weighty, state legislation can only have a minimal effect in attaining those goals. The Court rejected a similar argument in *Massachusetts v. EPA*⁸⁷ in considering the argument that a federal action was too minor to have any effect on climate change by itself:

Agencies, like legislatures, do not generally resolve massive problems in one fell regulatory swoop. They instead whittle away at them over time, refining their preferred approach as circumstances change and as they develop a more nuanced understanding of how best to proceed.⁸⁸

Similar reasoning suggests that state efforts to combat climate change should not be downgraded because they are only capable making small steps toward curing what is, after all, a very large problem. Moreover, at least one circuit has recognized that an otherwise insignificant local effort can acquire significance because of its potential to inspire imitators.⁸⁹

Another aspect of dormant commerce clause doctrine may also pose obstacles to state regulation. The Supreme Court has sometimes spoken of a restriction on “extra-territorial” legislation under the dormant commerce clause. In *Carbone*, for example, the Supreme Court said that it would be illegitimate for a state to ban the export of waste for the purpose of

⁸⁵ Contribution of Working Group I to the Fourth Assessment Intergovernmental Panel on Climate Change, *Climate Change 2007: The Physical Science Summary for Policymakers* 19 (2007)

⁸⁶ IPCC, *supra* note , at 15.

⁸⁷ 127 S. Ct. 1438 (2007).

⁸⁸ *Id.* at 1457.

⁸⁹ *Procter & Gamble Co. v. Chicago*, 509 F.2d 69, *cert. denied*, 421 U.S. 978 (1975). In *Procter & Gamble*, the court upheld a Chicago city ordinance banning the sale of detergents containing phosphates. The Illinois River had nutrient concentrations well above the level where phosphates would be a limiting factor on algae, but the court viewed Chicago’s ordinance as a first step toward limiting nutrients in that river. The court also found that the city had a “legitimate interest in banning phosphate detergents as an example for other communities presently releasing their sewage in Lake Michigan.” *Id.* at 81.

protecting the environment outside of its borders. In a case dealing with liquor pricing, the DCourt struck down a state law requiring liquor wholesalers to give “most favored nation” treatment to New York retailers, on the ground that this indirectly constrained the prices that the wholesalers could charge outside of the state, thereby “projecting” its law into other states.⁹⁰ The Court has not, however, done much to explain this rule or justify it.⁹¹ Where the commerce clause does not apply, the rule about extraterritoriality is much more lenient and allows state regulation except where the state has no meaningful connection with the regulated activity.⁹²

The extraterritoriality problem is illustrated by the California PUC regulation discussed earlier.⁹³ Recall that the regulation restricted long-term contracts by California utilities with suppliers, requiring that the suppliers meet greenhouse emissions requirements. Opponents argued that the PUC would be in effect regulating emissions by out-of-state generators.⁹⁴ The PUC replied that the regulation did not have the effect of limiting contracts that out-of-state generators might make with non-California utilities, nor did the state directly regulate the conduct of out-of-state firms, as opposed to regulating contracts with those firms.⁹⁵

The problem is that the ban on extraterritoriality is logically incoherent. None of the cases in which the Court has discussed this issue involved explicit regulation of out-of-state activities. Rather, they involved either regulations that strongly impacted competition in out-of-state markets or that were purportedly based in part on a desire to create out-of-state benefits. The problem is that in a unified national market, any important state regulation is likely to have some spillover effects on other markets. (Consider, for example, how Delaware’s dominant role in corporate law affects the activities of corporations that do business around the world, many of which actually have no connection with Delaware except for their charters.) This will be especially true of a state with California’s economic clout. Moreover, it seems artificial to count the out-of-state harms of a regulation against the state law, but not to count the out-of-state benefits in its favor. Extraterritorial impacts are the justification for having a balancing test,

⁹⁰ *Brown-Forman Distillers Corp. v. N.Y. State Liquor Auth.*, 476 U.S. 573 (1986). The Court held a similar law applying to beer sales to be per se invalid because “the practical effect of the regulation is to control conduct beyond the boundaries of the State,” preventing brewers from engaging in competitive pricing in a neighboring state based on prevailing market conditions. *Healy v. Beer Inst.*, 491 U.S. 324 (1989).

⁹¹ For discussion of the extraterritoriality rule, see Daniel A. Farber, *Stretching the Margins: The Geographic Nexus in Environmental Law*, 48 STAN. L. REV. 1247 (1996).

⁹² *Allstate Ins. Co. v. Hague*, 449 U.S. 302 (1981).

⁹³ See text accompanying notes to , supra.

⁹⁴ PUC Order, supra note , at 221.

⁹⁵ *Id.* The PUC relied on *Gravquick A/S v. Trimble Navigation Int’l Ltd.*, 323 F.3d 1219, 1224 (9th Cir. 2003).

rather than some unusual circumstance that warrants the creation of special rules. Rather than forming a basis for a per se rule, it would be better to consider these effects on out-of-state markets as simply part of the balancing test. Failing that, the extraterritoriality concept should be confined to the cases of direct interference with the regulatory authority of other states, lest it swallow up the balancing test.

III. Preemption

The dormant commerce clause is an implicit constitutional limitation on state authority. It applies regardless of whether Congress has legislated in the same areas as the state or whether the President has taken a position on a subject. State authority is also subject to additional restrictions when the federal government has acted. Typically, these restrictions take effect when Congress has enacted relevant legislation that in some way conflicts with state law. More rarely, a presidential or congressional action relating to foreign affairs may also preempt a state. Despite the purported attachment of some Justices to states' rights, preemption doctrine has been alive and well, perhaps because the same Justices who believe in the states also believe in deregulation.⁹⁶ When Congress passes climate change legislation, we can expect a spate of preemption claims.

A. Statutory Preemption

In this section we will be concerned with the validity of state regulations in areas where Congress has acted, unlike the dormant commerce clause which operates regardless of federal legislation.⁹⁷ It is clear, of course, that in cases of direct conflict with federal law, the state statute must give way.⁹⁸ The Supremacy Clause of the Constitution provides:

⁹⁶ As Richard Fallon puts it,

Whereas one might expect pro-federalism Justices to disfavor claims of federal preemption of state law, substantive conservatism may help to explain why the Court has so frequently upheld preemption claims in recent years. Because federal preemption eliminates state regulatory burdens, preemption rulings have a tendency – welcome to substantive conservatives – to minimize the regulatory requirements to which businesses are subject.

Richard H. Fallon, Jr., *The “Conservative” Paths of the Rehnquist Court’s Federalism Decisions*, 69 U. CHI. L. REV. 429, 471 (2000).

⁹⁷For general discussions of preemption doctrine, see Ted Ruber, *Preempting the People: The Judicial Role in Regulatory Concurrency*, 81 CHI.-KENT L. REV. 1029 (2006), Paul S. Weisland, *Federal and State Preemption of Environmental Law: A Critical Analysis*, 24 HARV. ENVTL. L. REV. 237 (2000), and Caleb Nelson, *Preemption*, 86 VA. L. REV. 225 (2000).

This Constitution, and the Laws of the United States which shall be made in Pursuance thereof; and all Treaties made, or which shall be made, under the authority of the United States, shall be the Supreme Law of the Land; and the Judges in every State shall be bound thereby, any Thing in the Constitution or Laws of any State to the Contrary notwithstanding.⁹⁹

Congress has the power to preempt state laws simply by enacting an express statutory provision to that effect.¹⁰⁰ The presence of a contradiction between federal mandates and state law, however, is often less obvious.¹⁰¹

The Supreme Court has set forth various factors which are to be considered in preemption cases where the statute does not directly address preemption.¹⁰² First, the federal regulatory scheme may be so pervasive and detailed as to suggest that Congress left no room for the state to supplement it. Or the statute enacted by Congress may involve a field in which the federal interest is so dominant that enforcement of state laws is precluded. Other aspects of the regulatory scheme imposed by Congress may also support the inference that Congress has completely foreclosed state legislation in a particular area. This is often called “*Afield*” preemption.¹⁰³ Even where Congress has not completely foreclosed state regulation, a state statute is void to the extent that it actually conflicts with a valid federal statute. Such a conflict can be found where compliance with both the federal and state regulations is impossible, or more

⁹⁸ For a survey of recent cases in which state environmental regulation has been held preempted, see Gobert L. Glickman, *From Cooperative to Inoperative Federalism: The Perverse Mutation of Environmental Law and Policy*, 41 WAKE FOREST L. REV. 719, 787-791 (2006).

⁹⁹ U.S. CONST. art. VI.

¹⁰⁰ See *Shaw v. Delta Airlines*, 463 U.S. 85 (1983). Administrative agencies may also have this power where authorized by Congress. See *Hillsborough County v. Automated Medical Labs.*, 471 U.S. 85 (1983). Similarly, if Congress determines that state regulation should not be preempted by a federal statute, Congress may expressly say so in a “savings clause” in the statute.

¹⁰¹ Preemption doctrine has not received nearly the attention it should, particularly from advocates of federalism. See Ernest A. Young, *The Rehnquist Court’s Two Federalisms*, 83 TEX. L. REV. 1, 130-134 (2004) (“The first priority of federalism ought to be limiting the preemptive impact of federal law on state regulation.”).

¹⁰² When the statute addresses the subject, the issue is one of express preemption. For a jaundiced view of such statutory provisions, see Kirsten H. Engel, *Harnessing the Benefits of Dynamic Federalism in Environmental Law*, 56 EMORY L.J. 159, 184 (2006) (preemption can be considered “an unpleasant by-product of interest group law making.”)

¹⁰³ This form of preemption is discussed in *Rice v. Santa Fe Elevator Corp.*, 331 U.S. 218, 230 (1947).

often, where the state law interferes with the accomplishment of the full objectives of Congress.¹⁰⁴

These factors are obviously rather vague and difficult to apply. The Supreme Court has done little to create any more rigorous framework for analysis. Therefore, the only way to get some degree of understanding of the field is to examine particular cases in order to see what kinds of situations have been found appropriate for application of the preemption doctrine.

A recent Supreme Court case illustrates the continuing relevance of preemption doctrine to environmental regulation. In the *Engine Manufacturers* case,¹⁰⁵ the California air pollution agency with authority over the L.A. region had issued “fleet rules” that required certain operators of vehicle fleets, such as street sweepers and taxi companies, to purchase alternative fuel vehicles and low or zero emissions vehicles already approved for sale in California and commercially available. A provision of the Clean Air Act prohibits any state or political subdivision from adopting a “standard relating to the control of emissions from new motor vehicles or new motor vehicle engines.” (As noted earlier, there is a special exception for certain California laws that did not apply in this case because the regulation was not statewide and there was no waiver application.) In an opinion by Justice Scalia, the Court held that the Southern California rule was invalid on the basis of the plain statutory language: the rule related to emission characteristics of a vehicle or engine, which thus constituted a “standard” preempted by the federal statute. The Court was unmoved by the fact that mobile source emissions were the leading contributor to air toxic and air pollution in the region. Similar preemption issues may be raised by state laws addressing emission of greenhouse gases by vehicles.¹⁰⁶

Every preemption case in a sense is unique. Apart from some vague and usually unhelpful maxims, little can be said about this area of law that is of much help in deciding individual cases; indeed, critics contend that, “[n]otwithstanding its repeated claims to the contrary, the Supreme Court’s numerous preemption cases follow no predictable jurisprudential or analytical pattern.”¹⁰⁷ The question before the court in each case is whether Congress in passing a particular statute would have been willing to allow the state to impose certain kinds of regulations in the same area. This is essentially an issue of statutory construction. It can only be resolved by close attention to the language of the federal statute, to its legislative history, to its

¹⁰⁴ One example is *McDermott v. Wisconsin*, 228 U.S. 1215 (1913), where following federal labeling rules would have resulted in food being mislabeled under state law.

¹⁰⁵ *Engine Mfrs. Ass’n v. South Coast Air Quality Mgmt. District*, 541 U.S. 246 (2004).

¹⁰⁶ See Ann E. Carlson, *Federalism, Preemption, and Greenhouse Gas Emissions*, 37 U.C. DAVIS L. REV. 281 (2003).

¹⁰⁷ Viet D. Dinh, *Reassessing the Law of Preemption*, 88 GEO. L.J. 2085, 2085 (2000).

purposes, and the content and effect of the state law in question. Thus, the best advice for lawyers in analyzing preemption problems is to probe the legislative materials and the extent to which the state statute would have a practical effect on the implementation of the federal statute. The results of such inquiries, however, are not necessarily clear.

Perhaps in response to difficulty of applying the standard preemption tests, the Supreme Court has enunciated a presumption against preemption. For example, in a decision dealing with state tort remedies against cigarette companies, the Court said that it “start[s] with the assumption that the historic police powers of the States [are] not to be superseded by . . . Federal Act unless that [is] the clear and manifest purpose of Congress.”¹⁰⁸ It is not clear, however, how significant this presumption is in practice. The Court does quite often find that states laws are preempted by federal statutes even where reasonable minds (sometimes including four Justices) might disagree with that conclusion.¹⁰⁹ States will undoubtedly rely on this generalized presumption in their defense of climate change regulation, but how much actual ground they will gain that way is unclear.

Another wrinkle on federal preemption is provided by decisions of federal administrative agencies to preempt state law. The Supreme Court has given weight to such regulations.¹¹⁰ Whether strong deference to agency views on preemption is appropriate remains controversial.¹¹¹ Depending on whether the federal EPA is supportive of state regulation, its views on preemption issues may either assist states or create an additional obstacle to state climate regulation.

B. Foreign Affairs Preemption

Apart from statutory preemption, state laws may also be subject to challenge because they trammel on federal prerogatives over foreign affairs. Unfortunately, constitutional doctrine

¹⁰⁸ *Cipollone v. Liggett Group, Inc.*, 505 U.S. 504 (1992).

¹⁰⁹ See Calvin Massey, “Joltin’ Joe has Left and Gone Away”: *The Vanishing Presumption Against Preemption*, 66 ALB. L. REV. 759 (2003).

¹¹⁰ See *Geier v. American Honda Motor Co.*, 529 U.S. 861 (2000) (Court holds action against car company for improper design of airbag preempted in part on the potential interference of such a tort action with the Department of Transportation’s decision to phase in new airbag requirements); *Medtronic, Inc. v. Lohr*, 518 U.S. 470 (1986) (suggesting that agency views on preemption are entitled to consideration by the courts). In other settings, the Court has upheld regulations that had preemptive effect. See *Hillsborough County*, 471 U.S. 707.

¹¹¹ For arguments against such deference, see David C. Vladeck, *Preemption and Regulatory Failure*, 33 PEPP. L. REV. 95 (2005), and Nina Mendelson, *Chevron and Preemption*, 102 MICH. L. REV. 737 (2004). See also Catharine M. Sharkey, *Preemption by Preamble: Federal Agencies and the Federalization of Tort Law*, 56 DEPAUL L. REV. 227 (2007).

seems to be in flux on this issue.¹¹² Climate change is obviously a global problem that will ultimately require concerted international action, but this does not necessarily mean that it is part of that realm of “foreign affairs” reserved to the federal government. The case law, alas, is maddeningly underdeveloped.

The Supreme Court has issued two recent opinions dealing with implied restrictions on state regulatory authority affecting foreign affairs.¹¹³ The first case was *Crosby v. National Foreign Trade Council*.¹¹⁴ In 1996, the state of Massachusetts passed a law that prohibited state or local governments from doing business with companies that were themselves doing business with Burma. The Court held that the state law was preempted by federal legislation imposing sanctions on Burma. Congress has enacted initial sanctions but gave the President the power to end the sanctions if he certified that Burma had made progress on human rights; he also had the power to re-impose sanctions in case of back-sliding and to suspend sanctions in the interest of national security. The Court found it implausible that Congress would have given such broad authority to the President while allowing states to undermine the effect of his decisions. Also, the state sanctions went further than the federal sanctions. Hence, the Court concluded that the state law interfered with the President’s statutory discretion to control economic sanctions against Burma.

Moreover, the Court also held that the state law conflicted with the congressional directive for the President to help develop a multinational Burma strategy. In effect, the state law would under-mine the President’s ability to engage in effective diplomacy. Indeed, the state law had already resulted in WTO complaints against the United States, causing conflict rather than promoting international cooperation in dealing with Burma. As the Court said, the

¹¹² For discussions of the evolving doctrine, see Jack Goldsmith, *Statutory Foreign Affairs Preemption*, 2000 SUP. CT. REV. 175, 177 (2001) (Courts should “eschew independent judicial foreign policy analysis” and “preempt state law only on the basis of policy choices traceable to the political branches in enacted law.”); Chemerinsky et al., *supra* note , at 10659-10664 (reviewing the doctrine’s development and application to state climate change legislation).

¹¹³ Two earlier decisions are also worth noting. In *Toll v. Moreno*, 458 U.S. 1 (1982), the Court struck down a state law that imposed higher college tuition on certain aliens (those with special visas for individuals affiliated with certain international organizations and their families.) The Court noted the “preeminent role of the Federal Government with respect to the regulation of aliens within our borders.” *Id.* at 10. The court held that states may not impose additional burdens on any category of legal aliens without Congressional approval. *Id.* at 12-13. In *Banco Nacional de Cuba v. Sabbatino*, 376 U.S. 398, 425 (1964), the Court held that states have no power to determine the validity of the acts of foreign nations in contravention to the federal act of state doctrine. “We are constrained to make it clear,” the Court said, “that an issue concerned with a basic choice regarding the competence and function of the Judiciary and the National Executive in ordering our relationships with other members of the international community must be treated exclusively as an aspect of federal law.” *Id.*

¹¹⁴ 530 U.S. 363 (2000).

state laws “compromise the very capacity of the President to speak for the Nation with one voice in dealing with other governments.”¹¹⁵

The Court’s more recent ruling in *American Insurance Ass’n v. Garamendi*,¹¹⁶ is more difficult to interpret. The state of California had passed legislation dealing with World War II-era insurance policies held by European Jews, many of which were either confiscated by the Nazis or dishonored by insurers who denied the existence of the policy or claimed that it had lapsed from unpaid premiums. Ultimately, the Allied governments had mandated restitution to Nazi victims by the West German government. Unfortunately, although a large numbers of claims were paid, many others were noted, and large-scale litigation resulted after German reunification. The U.S. government entered into negotiations to try to resolve the dispute, as a result of which Germany entered into an agreement with Germany. Under the agreement, the German government agreed to establish a foundation with 10 billion deutsch marks of funding to compensate the victims of insurance company recalcitrance, while the federal government pledged to try to get state and local governments (and courts) to respect the agreement as a complete settlement. In the meantime, California passed a law requiring any insurer doing business in the state to disclose information about all policies sold in Europe between 1920 and 1945. California officials were unmoved by a protest from the federal government that the statute would possibly derail its agreement with Germany.

The Court divided 5-4. Interestingly, the line-up did not correspond to the usual liberal-conservative split on the Court. The majority included a conservative (Chief Justice Rehnquist) and four of the Court’s centrist judges (Souter, O’Connor, Kennedy, and Breyer), while the dissent contained liberals (Ginsburg and Stevens) as well as the Court’s most conservative members (Scalia and Thomas).

The majority found the California law invalid as an interference with presidential foreign policy. According to the majority, the consistent presidential policy had been to encourage voluntary settlement funds in preference to litigation or coercive sanctions. California sought to place more pressure on foreign companies than the president had been willing to exert. This clear conflict between express foreign policy and state law was itself a sufficient basis for preemption. As the Court said, California was using an iron fist where the President has consistently chosen kid gloves. The majority found the preemption issue particularly clear, given the weakness of the state’s interest in terms of traditional state legislative activities.

Justice Ginsburg’s dissent made several cogent points. First, the state law only mandated information disclosure rather than coercing payment of claims. Second, the President had not

¹¹⁵ *Id.* at 381.

¹¹⁶ 539 U.S. 396 (2003).

entered into any formal executive agreement purporting to settle the claims of American holocaust survivors or their descendants against foreign insurance companies. Third, Justice Ginsburg said, upholding the state law “would not compromise the President’s ability to speak with one voice for the Nation”; “[t]o the contrary,” by declining to do so, “we would reserve foreign affairs preemption for circumstances where the President, acting under statutory or constitutional authority, has spoken clearly to the issue at hand.”¹¹⁷

Garemeni, if read broadly, would preempt virtually any state regulation dealing with a matter that was also the subject of foreign negotiations. This might include many issues of great importance to states. A key aspect of the case is that California was using a very small local interest in protecting a small number of its residents to force foreign entities to take actions regarding events outside its borders (concerning the issuance or failure to pay on foreign insurance policies), and both the events and California’s policy overwhelmingly affected non-U.S. interests. Moreover, the issue was one that arose only because of the past acts of a foreign sovereign (Germany). Thus, the aspect of the issue completely dwarfed any state dimension. In the arena of climate change, as *Massachusetts v. EPA* makes clear, the state’s interest is much stronger, and furthermore, the regulations are directed at modifying future conduct that takes place entirely within the state. Finally, as *Massachusetts v. EPA* also observed, there is as yet no clearly articulated presidential policy that would preclude domestic regulation.

Another related restriction on state authority is the Compact Clause, which provides that “No State shall, without the Consent of Congress . . . enter into any Agreement or Compact with another State, or with a foreign Power.”¹¹⁸ As applied to the interstate agreements, the Supreme Court has not construed this provision to ban all agreements between states, but only those that are “directed to the formation of any combination tending to the increase of political power in the States, which may encroach upon or interfere with the just supremacy of the United States.”¹¹⁹ On this basis, the Court upheld the formation of a multistate tax commission formed to develop tax policy for individual states, when that policy would be adopted separately by each state.¹²⁰ The commission had the power to conduct audits using subpoenas in any of the member states’ courts, including audits of multinational corporations. Thus, the states may be limited in their ability to form multi-state regulatory authorities without Congressional approval. Policy coordination between states does not seem to pose the same kind of challenge to national authority.

¹¹⁷ *Id.* at 442.

¹¹⁸ U.S. CONST. art. I, § 10, cl. 3.

¹¹⁹ *Virginia v. Tennessee*, 148 U.S. 503, 519 (1893).

¹²⁰ *U.S. Steel Corp. v. Multistate Tax Comm’n*, 434 U.S. 452 (1978).

It is not clear how seriously we should take foreign affair preemption in the arena of climate change. Due to the lack of federal activity, there is little possibility of a direct conflict with any executive or congressional action; and since the president has not yet pursued binding international climate change obligations, there are no negotiations to be interfered with.¹²¹ To the extent that any international contacts have been made by states, they do not seem to involve any direct exercise of governmental power by a joint entity or any binding obligation on the state to enact legislation. Without at least an assertion by the President that state climate regulations are undermining the nation's foreign policy, there seems little basis for finding foreign affairs preemption.

Moreover, the Supreme Court's only ruling on climate change to date, *Massachusetts v. EPA*,¹²² contains some signals that might undermine a preemption claim. First, *Geramendi* includes the strength of the state's regulatory interest as a factor in assessing foreign affairs preemption. As we have seen, *Massachusetts v. EPA* speaks strongly to the legitimacy and strength of the states' interest in addressing climate change. This assessment of the seriousness of the state's interest should weigh in its favor in considering foreign affairs preemption.

Second, although not directly addressing foreign affairs preemption, the Court made it clear that foreign affairs consideration could not override the otherwise plain language of federal pollution legislation. Responding to the government's claim that regulating carbon dioxide emissions under existing federal law might "impair the President's ability to negotiate with 'key developing nations' to reduce emissions," the Court said:

Although we have neither the expertise nor the authority to evaluate these policy judgments, it is evident they have nothing to do with whether greenhouse gas emissions contribute to climate change. Still less do they amount to a reasoned justification for declining to form a scientific judgment. In particular, while the President has broad authority in foreign affairs, that authority does not extend to the refusal to execute domestic laws. In the Global Climate Protection Act of 1987, Congress authorized the State Department-not EPA-to formulate United States foreign policy with reference to environmental matters relating to climate. See § 1103(c), 101 Stat. 1409. EPA has made no showing that it issued the ruling in question here after consultation with the State Department. Congress did direct EPA to consult with other agencies in the formulation of its policies and rules, but the State Department is absent from that list. § 1103(b).¹²³

¹²¹ See Note: *Foreign Affairs Preemption and State Regulation of Greenhouse Gas Emissions*, 119 HARV. L. REV. 1877 (2006).

¹²² 127 S. Ct. 1438 (2007).

¹²³ *Id.* at 1463.

In terms of its bearing on preemption of state law, this language has its limits, since that issue was not before the Courts. Nevertheless, the Court seemed skeptical of claims that domestic climate change actions should be invalidated because of interference with presidential foreign policy efforts. Assuming that changes in the make-up of the Court do not lead to a retreat from *Massachusetts v. EPA*, the implication seems to be favorable for state legislation on the subject – though the sparse Supreme Court case law on foreign affairs preemption and its somewhat Delphic pronouncements definitely leave uncertainty about the ultimate outcome.¹²⁴

IV. The Future of Climate Change Federalism

Federal action on climate change seems increasingly likely. Federal legislation will potentially raise two federalism issues. First, does Congress have the power to legislate over all aspects of the problem? Issues of federal power regarding climate change were not discussed earlier in this article because they have not yet arisen, but sooner or later, they will arise if Congress becomes serious about addressing the full spectrum of climate issues. Second, once Congress has acted, what remaining role may the states play? This is partly a matter of preemption and partly involves the dormant commerce clause.

A. Federal Power and Climate Change Adaptation

Until recently, it could be safely said that the commerce power was effectively unlimited. Cases such as *Hodel v. Indiana*¹²⁵ gave such a high degree of deference to Congress that almost any imaginable statute seemed likely to be upheld. For this reason, the Court's decision in *United States v. Lopez*¹²⁶ surprised many observers. A majority of the Court in *Lopez* departed from almost sixty years of past practice by ruling that Congress had exceeded its powers under the commerce clause in a regulation of private activity. Specifically, the Court struck down a federal statute prohibiting the possession of firearms in the vicinity of schools.

¹²⁴ Some of the uncertainties about foreign affairs preemption are described in Chang, *supra* note , at 10784:

The current state of the foreign affairs preemption doctrine and its future direction are unclear. Whether there is even any real doctrine of dormant foreign affairs preemption, or when it applies; whether the dormant foreign Commerce Clause has broader preemptive effect than the dormant Commerce Clause are just a few of the many unanswered questions that plague the jurisprudence.

For an argument for giving *Geramendi* a narrow reading, see Kimberly Breedon, *Geramendi's Unspoken Assumptions: Assessing Executive Foreign Affairs Preemption Challenges to State Regulation of Greenhouse Gases*, 37 *Env. L. Rep.* 10897 (2007).

¹²⁵ 452 U.S. 314 (1981).

¹²⁶ 514 U.S. 549 (1995).

Chief Justice Rehnquist's opinion for the five-Justice majority in *Lopez* attempted to erect a limit on the commerce power, without overruling any cases or imperiling any well-entrenched federal programs. The opinion begins by invoking the original understanding that federal powers are "few and defined," while state powers are "numerous and indefinite."¹²⁷ Rehnquist emphasized that the original function of this division of powers was to assist in preserving liberty.¹²⁸ Admittedly, he added, the scope of federal power had greatly increased in the post-New Deal era, partly because of "great changes" in the economy and partly because of a desire to eliminate what were considered "artificial" restraints on federal power.¹²⁹ Having analyzed the post-New Deal case law, however, Rehnquist concluded that the school gun law did not fall squarely within the previously recognized scope of congressional power, and he declined to expand that scope further.¹³⁰ In reaching this conclusion, he noted that the statute related to education, traditionally a core area of state concern; that Congress had made no findings at the time about the effect of the prohibited activity on interstate commerce; and that the statute required no proof of any nexus between the defendant's activity and interstate commerce.¹³¹

The Supreme Court has yet to declare any federal environmental regulation to be outside of the scope of the Congress's commerce power (though it has sometimes found that statutes violated state governmental immunities). Nevertheless, the Court used *Lopez* as a justification to read the Clean Water Act narrowly in *Solid Waste Agency of Northern Cook County [SWANCC] v. U.S. Army Corps of Engineers*.¹³² The question before the Court was whether SWANCC needed a federal permit before filling an abandoned gravel pit. Under the statute, federal jurisdiction covers "navigable waters," further defined as the "waters of the United States." The government asserted jurisdiction over the gravel pit under the Army Corps' "migratory bird" regulation, which claims jurisdiction over intrastate waters that can be used by migratory birds. The Supreme Court held that the regulation went beyond the Corps' statutory authority. The Court expressed considerable doubt about whether the commerce clause would support the migratory bird rule, and construed the statute to avoid this constitutional doubt. Finding "nothing approaching a clear statement from Congress," the Court rejected what it viewed as a "significant impingement of the States' traditional and primary power over land and water use."

¹²⁷ *Id.* at 552.

¹²⁸ *Id.*

¹²⁹ *Id.* at 556.

¹³⁰ *Lopez*, 514 U.S. at 567-68.

¹³¹ *Id.* at 561-68.

¹³² 531 U.S. 159 (2001).

A more recent case¹³³ attempts (not very successfully) to provide guidelines on which wetlands fall within the federal government's statutory authority but notably fails to explore potential constitutional concerns.¹³⁴

The scope of *Lopez* remains unclear. In *Gonzalez v. Raich*,¹³⁵ the Court placed an important limitation on *Lopez* by reaffirming that Congress can regulate purely local activities if they are part of a class of activities that have a substantial cumulative effect on interstate commerce, where excluding the local activities from regulation might undermine the regulation of the interstate market. Justice Scalia emphasized in a concurring opinion that the regulation in *Lopez* had not been part of a larger regulation of economic activity.¹³⁶

Climate change provides a powerful example of the folly of drawing artificial distinctions between the local and the interstate, or between economic and non-economic activities, when Congress addresses complex systemic issues. All carbon dioxide sources and sinks are relevant to addressing climate change, making distinctions between types of sources irrelevant in terms of policy.

Artificial restrictions on jurisdiction make particularly little sense in terms of establishing a cap-and-trade scheme. For example, suppose that as part of the federal response to *SWANCC*, the government were to allow banking of isolated wetlands (over which it does not have jurisdiction) to be used for mitigation by developers of other wetlands over which it does have jurisdiction.¹³⁷ Such use of isolated wetlands for mitigation would not exceed the commerce power, for the only actual regulation which takes place involves non-isolated wetlands over which the government does have jurisdiction. That the owners of such covered wetlands choose to meet their mitigation obligations through restoration or preservation of isolated wetlands is not the government's regulatory mandate. Similarly, cap-and-trade schemes could allow the federal government to reach what might otherwise be very localized activities that would be arguably outside its authority under *Lopez*. For instance, firms might enter into agreements with cities to

¹³³ *Rapanos v. United States*, 547 U.S. 715 (2006).

¹³⁴ For attempts to sort out the mess, see Bradford C. Mank, *Implementing Rapanos – Will Justice Kennedy's Significant Nexus Test Provide a Workable Standard for Lower Courts, Regulators, and Developers?*, 40 IND. L. REV. 291 (2007); Jon A. Mueller, *Adjacent Wetlands: Is Your Nexus Significant?* *Rapanos v. United States*, 38 ENVTL. REP. 585 (Mar. 9, 2007). A recent illustrative case is *Friends of Pinto Creek*, 504 F.3d 1007 (oth Cir. 1007).

¹³⁵ 545 U.S. 1 (2005).

¹³⁶ For discussion of the environmental implications of *Raich*, see Bradford C. Mank, *After Gonzales v. Raich: Is the Endangered Species Act Constitutional Under the Commerce Clause?*, 78 U. COLO. L. REV. 375 (2005).

¹³⁷ Some difficult design questions might be posed by such a system in order to prevent credits for lands that would not have been developed in any event.

ban the use of wood fireplaces in homes, as a way of offsetting the firms' carbon emissions. This is an illustration of the *Raich* phenomenon – what could not be regulated in isolation may very well fall within the valid sweep of a systematic federal regulatory scheme.

Arguably, once a banking system is established, the banking system itself becomes a form of interstate commerce, justifying federal regulation because the isolated wetlands are now directly involved in interstate transactions. This may seem like a form of boot-strapping, but in theory the federal government's power over commerce should not depend on whether the market in question is "natural" or created by government intervention. For example, the market in federal bonds is surely a form of interstate commerce subject to federal regulation. No doubt that Court would be quite skeptical if it appeared that a trading system was established or intrastate actors included within the market solely to establish a foothold for the commerce power. But the Court might be more sympathetic if the federal market merely subsumed preexisting state markets or if the inclusion of the intrastate sources took place as the result of private initiatives.

Thus, a carbon trading system might well provide for a wide variety of offsets, some of which might not be within direct congressional regulatory authority. Such offsets could include regulatory actions by state and local governments (which Congress could not mandate under the so-called "anti-commandeering" doctrine). Offsets might also include noncommercial activities (enforceable agreements by groups of individuals to cease using wood fires in the home, plant trees, or modify their automobile usage). Some of these efforts to influence individual behavior may not be successful or may not be sufficiently easy to monitor, but they should not be ruled out in principle. Once they become part of the offset system, however, these activities cannot plausibly be described as being beyond the domain of the federal government.

The wetlands example also suggests another argument against limiting federal jurisdiction. The Court has cut back on federal jurisdiction, particularly as applied to "isolated" wetlands that lack a clear nexus to navigable waters. Climate change will profoundly reshape the nation's wetlands. Rising sea levels will impact coastal wetlands, while inland wetlands will be impacted by precipitation and temperature changes. The ecological functions of wetlands will be dislocated across the nation. All of this is part of a global phenomenon, and it seems a bit inane to say that some of the wetland impacts are purely the concern of local governments while others fall within national jurisdiction. Global climate change does not respect these boundaries.

It would be especially ironic to decide that some aspects of the climate change problem were outside of federal jurisdiction. Given the slew of attacks on state regulations for invading what challengers consider to be a matter of exclusively national policy, it would be peculiar to then decide that aspects of climate change were so intrinsically local that federal action was barred.¹³⁸

¹³⁸ Federal climate regulation might also be upheld, even if it went beyond the limits of the commerce power, if it were required by an international treaty. See *Missouri v. Holland*, 252 U.S. 416 (1920).

Traditionally, state and local governments have been the major regulators of land use and urban development. Responding to climate change may result in changes in this tradition. Given the national and international scope of climate change, the need for an integrated national strategy for controlling emissions and planning adaptation is strong. The Supreme Court should not create constitutional barriers to meeting this national need.

B. The Role of the States After Congress Awakens

Assuming that Congress enacts fairly comprehensive climate change regulation, the continuing role of the states becomes an open question. That question may be settled without any need for considering constitutional issues. Perhaps states and localities will lose interest in climate change or will be content to assume whatever responsibilities Congress delegates to them without going further. Or perhaps Congress will settle the matter with either clear preemption language or strong savings clauses. Assuming that states remain active and that Congress does not speak clearly to the question, however, dormant commerce clause and preemption issues are likely to arise. How should courts approach them?

Some of the potential problems are illustrated by *Clean Air Markets Group v. Pataki*,¹³⁹ which involved SO₂ rather than greenhouse gases. The issue in *Clean Air Markets* was whether a New York law was preempted because it undermined the cap-and-trade system for SO₂ established by Congress. New York is a recipient of SO₂ deposition from upwind states (mostly Midwestern) in the form of acid rain. In an effort to reduce SO₂ emissions, the state required that New York utilities attach a restrictive covenant to any SO₂ allowances they sell which prohibits subsequent transfer to any of the upwind states. The state PUC also assessed “an air pollution mitigation offset” upon any New York utility whose allowances are sold or traded to an upwind state. The allowance equaled the sales price, so that in effect the sales price was confiscated by the state. Not surprisingly, the court held that the New York statute was preempted. The court pointed out that, “[a]lthough it does not technically limit the authority of New York utilities to transfer their allowances, it clearly interferes with their ability to effectuate such transfers.”¹⁴⁰ Allowing states to require restrictive covenants on transfer would obviously burden the interstate market. Although the Second Circuit did not find it necessary to reach the issue, the District Court also held that the statute violated the dormant commerce clause.¹⁴¹ In the court’s view, the

¹³⁹ 338 F.3d 82 (2003).

¹⁴⁰ *Id.* at 88.

¹⁴¹ *Clean Air Markets Group v. Pataki*, 194 F. Supp. 2d 147 (N.D.N.Y. 2002).

statute was designed to interfere with the interstate market in pollution allowances and was therefore impermissibly protectionist.¹⁴²

The extent to which preemption poses a threat to state regulators depends in part on the type of regulation. Assume that the federal government has adopted a trading scheme, augmented by new product efficiency standards. In terms of the new product standards, Congress is likely to address preemption directly, either by continuing existing standards as discussed earlier,¹⁴³ or by providing alternative language addressing preemption. These cases will present mundane issues of statutory interpretation. Similarly, if Congress establishes a trading system, states may also regulate activities that are outside of the trading system completely—for example, by imposing green building standards or requiring new development to be accessible to public transportation. These kinds of traditionally local regulations should pose no constitutional problems.

More difficult questions are presented by state regulation of activities that are either subject to the trading system directly or qualify as potential offsets for traded emissions. In terms of the offsets, the effect of state regulations could be to restrict offset opportunities and thereby raise compliance costs. If we assume that Congress struck a precise balance between the desired level of emission reductions and cost, an argument might be made that the restrictions upset that delicate balance. But this argument should not succeed.

Presumably, the main purpose of the cap-and-trade scheme is to reduce emissions from the industry itself, rather than coerce the industry into bribing others to reduce their emissions.

¹⁴² As the district court put it,

Defendants argue that the statute is not protectionist because it burdens in-state units (with lower value allowances resulting from the restrictive covenant) rather than out-of-state interests. Defendants contend that the statute cannot be protectionist because it is aimed at protecting natural resources, not protecting in-state businesses. These arguments miss the point. Protectionism is about a state isolating itself from a common problem by restricting the movement of articles of commerce in interstate commerce. [citing *Philadelphia v. New Jersey*] Here, the common problem is cost-effectively meeting reduced SO₂ emissions requirements to reduce acid deposition. The Congress determined that a way of helping electric utilities across the country approach the problem was to establish a nationwide system of trading SO₂ allowances, in the fashion of a commodities market. As the New York legislature recognized, allowance trading can decrease the cost of reducing SO₂ emissions. What New York has done with the Air Pollution Mitigation Law is to deem itself most affected by acid deposition and place restrictions on the trade of SO₂ allowances to states it finds to be the highest sources of acid deposition within its borders. This it cannot do.

Id. at 160. The court also found that in any event the New York law would fail the balancing test, since it burdened commerce without producing any significant benefit to the state (since in fact Midwestern utilities had unused allowances of their own). *Id.* at 162-163.

¹⁴³ See *supra* text accompanying notes to (appliance standards) and notes to (new vehicles).

Thus, the cost of obtaining offsets should have a secondary effect on allowance prices rather than being the main driver of allowance supply. Moreover, offset schemes generally require that the offset activity not be otherwise mandated by law—the point of the offset activity is to obtain new reductions in emissions from other sources, rather than give the industry credit for reductions that would have happened otherwise. Thus, state laws restricting activities that might otherwise be the subjects of offsets should not interfere with the goals of the trading scheme in a significant way. Assuming that the state restrictions are nondiscriminatory, the restrictions should also survive a balancing analysis under the dormant commerce clause, given the state’s substantial interest in reducing emissions and the modest impact on the availability of offsets to interstate purchasers.

A more difficult question is posed where the states regulate the very activity that is the subject of trading. For example, suppose that Congress establishes a national CO₂ trading system for electrical generators but that a state prohibits its utilities from entering into long-term supply contracts with high emitters, perhaps coupled with direct emissions limitations on in-state generators.¹⁴⁴ Also assume that the statute says nothing directly about preemption. Utilities with high levels of emissions will presumably attack the state prohibition under *Clean Air Markets*. The Second Circuit’s decision seems distinguishable because the court emphasized how directly the state was seeking to intervene in the interstate market.

A preemption argument might nevertheless be mounted. To the extent that it merely results in shifting supply contracts between existing suppliers, the state prohibition merely rearranges supply relationships but does not affect the economics of power generation—every generator continues to produce the same amount of electricity with the same amount of emission control, buying or selling the same number of allowances as it would otherwise. But presumably this is not the state’s goal in mandating the shift: it would hope to provide incentives to retrofit existing sources or to build new, low-emitting sources. The state’s regulation of its own in-state generators would presumably have the same goal. This could indirectly affect emissions prices by reducing demand and perhaps, if the sources are a large part of the market, by reducing liquidity.

It should take a strong showing, however, that these impacts are substantial and contrary to the congressional goals before preemption becomes a plausible argument. These effects should also pose little problem under the dormant commerce clause—inevitably, when a state reduces some form of consumption, it lowers demand in the national market (even if only slightly), thereby decreasing production levels but shifting consumption to other states. This is a normal and innocuous effect of state regulation. The best argument against the validity of the scheme would be that the trading scheme was not only supposed to create incentives but to free

¹⁴⁴ Compare the California regulations discussed *supra* at text accompanying notes to .

industry to attain the national goals however it chose, but this policy of unfettered industry decision-making is not necessarily inherent in the use of a cap-and-trade scheme.

The real problem, however, is that the state's actions by themselves will not affect national CO₂ emissions because reducing sources of emissions simply frees up allowances that other generators can use. Thus, the state's restrictions will only be effective in reducing national emissions if the state can prohibit sources from trading the resulting allowances. Congress might in fact want to prohibit generators from trading allowances that have been freed up because of legal restrictions imposed by state law. If Congress does not do so, however, there seems to be a strong argument for preemption in absence of an applicable savings clause.¹⁴⁵ Despite preemption, a state might nevertheless want to adopt restrictions on in-state utilities, even without the ability to block trades, either because of concerns about future regulatory changes (for example, a lowering of the federal cap) that might impact prices and supplies for its consumers, or simply in the hopes of forcing improvements in technology.¹⁴⁶

It seems inevitable that states will play a role in climate mitigation, either because they can regulate activities that are outside of whatever scheme Congress employs or because Congress has enlisted them in implementation of federal goals, as it has under the Clean Air Act already. Except where states attempt to prohibit participation in federally sanctioned markets or discriminate against out-of-state emitters, state regulations should generally survive constitutional challenge.

There is considerable controversy over whether, in general, there should be a presumption against preemption.¹⁴⁷ In the case of climate change, at least, there are strong pragmatic arguments that reinforce the usual federalism-based contentions. First, climate change involves an enormous collective action problem, since solving it will involve the combined activities of every major economy in the world. It is a truism that public goods tend to be undersupplied, and climate is the most public of all public goods. Thus, we should embrace

¹⁴⁵ Preemption of efforts to block interstate allowance sales is supported by the Second Circuit's *Pataki* ruling and by commentators. See Robert L. Glicksman and Richard E. Levy, *A Collective Action Perspective on Ceiling Preemption by Federal Environmental Regulation: The Case of Global Climate Change*, 102 Nw. U. L. Rev. – (forthcoming) (Aug. 14, 2007 draft at p. 55).

¹⁴⁶ Arguably, a state would not need to resort to measures directly addressing greenhouse gas emissions by generators. Instead, it could impose more stringent limitations on total emissions of conventional pollutants per hour generated. Such restrictions would inevitably favor plants that had high fuel efficiency or used renewable energy sources.

¹⁴⁷ For a review of the contending arguments, see Note, *New Evidence on the Presumption Against Preemption: An Empirical Study of Congressional Responses to Supreme Court Preemption Decisions*, 120 HARV. L. REV. 1604, 1607-1611 (2007). See also *Cipollone v. Liggett Group*, 505 U.S. at 518 (calling for judges to give express preemption clauses a narrow reading).

climate actions, by whoever they are undertaken, for it is more likely that the actions will be too little than that they will be too much.

Second, climate change also involves a major externality, with the activities of the current generation potentially imposing massive costs on future generations. Again, the odds are that the activity causing the externality will be set too high. Perhaps more significantly, this also means that many of those who are most affected have no voice in today's political process. They are the most underrepresented of all underrepresented groups – not only do they have no vote, but they have no capacity to speak for themselves. Courts have often acted to protect underrepresented groups,¹⁴⁸ and some canons of interpretation seem designed for this purpose.¹⁴⁹ A presumption against preemption of state climate regulation would fit within this tradition.

The argument against preemption may also gather some strength from the lesser known provisions of the National Environmental Policy Act of 1969 (NEPA), the statute which mandates environmental impact statements. Although the statute is best known for that mandate, it also contains other provisions, including a broad statement of environmental policy. NEPA calls on the government to use “all practicable means, consistent with other essential considerations of national policy” to achieve a list of environmental goals. These goals include directives to “fulfill the responsibilities of each generation as trustee of the environment for succeeding generations,” “assure for all Americans safe, healthful, productive, and esthetically and culturally pleasing surroundings.” The statute also declares the “critical importance of restoring and maintaining environmental quality to the overall welfare and development of man.”¹⁵⁰ The Supreme Court has ruled that a court has no power to review whether a particular agency action comports with these policies, assuming a valid impact statement exists.¹⁵¹ Nevertheless, Congress evidently intended these policies to guide the development of federal law. In section 102(1) of NEPA, Congress directed that “to the fullest extent possible” the “policies, regulations and public laws of the United States shall be interpreted and administered in accordance with the policies set forth in this chapter.

In many ways, NEPA was ahead of its time in laying out a general approach to environmental issues. Section 101(a) declares that “it is the continuing policy of the Federal Government, *in cooperation with State and local governments* . . . to use all practicable means and measures [to] fulfill the social, economic, and other requirements of present and *future*

¹⁴⁸ See JOHN HART ELY, *DEMOCRACY AND DISTRUST: A THEORY OF JUDICIAL REVIEW* (Harvard Univ. Press 1980).

¹⁴⁹ For example, the canon requiring interpretation of ambiguous treaties and federal statutes in favor of Indian tribes.

¹⁵⁰ NATIONAL ENVIRONMENTAL POLICY ACT § 101, 42 U.S.C. § 4331(a).

¹⁵¹ *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332 (1989).

generations of Americans.” In a similar vein, section 101(b) makes it “the continuing responsibility of the Federal Government to use all practicable means, consistent with other essential considerations of national policy, to improve and coordinate Federal plans, functions, programs, and resources to the end that the Nation may--(1) fulfill the responsibilities of each generation as trustee of the environment for succeeding generations . . .”

Putting these directives together with section 102(1)’s mandate, a presumption against climate preemption would not be difficult to defend even on formalist grounds, simply as a matter of applying NEPA. Moreover, NEPA’s invocation of the rights of future generations reinforces the normative argument that courts should, in doubtful cases, weigh in on behalf of the interests of those generations by encouraging climate initiatives at every level of government. In addition, we should also consider other benefits of state initiatives in the field of climate change, such as the possibility that the states could act as laboratories to test new policies to address this novel problem.¹⁵²

Of course, there may be good reasons to limit state regulation of some particular aspects of climate change, such as the costs of non-uniform regulation or the exigencies of international negotiations. But courts are in a very poor position to identify these problems or to balance them against the benefits of state regulation. Congress should be left with the responsibility for carving out exceptions from state regulatory authority. It is likely that the federal round of federal legislation on climate change will not be the last, for this is a problem that will be with us for decades if not generations, and the first round of regulatory efforts are unlikely to be the perfect solution. It is not unreasonable to expect Congress to address any over-reaching by states in the course of this on-going legislative process.

Given that the political system is likely to undersupply climate regulation, courts should provide a friendly reception to any and all climate regulation, rather than subjecting it to skeptical scrutiny. State regulation is not always desirable, particularly when Congress has itself addressed a problem. Courts can fairly easily weed out the most dubious forms of state regulation, involving discrimination against out-of-state firms or direct contradiction of federal law. But they are poorly situated to deal with the remaining, more debatable instances of state regulation, and they should leave it to Congress to balance the virtues of state regulation against any indirect interference with national interests.

* * * *

Science has shown us just how tightly what happens at the small scale is coupled with what happens at the large scale. Climate is affected by millions of small-scale decisions about what appliances to use, what car to drive, how often to drive, and where to live, as well as by the

¹⁵² The role of the states as innovators is stressed in Alexandra B. Klass, *State Innovation and Preemption: Lessons from Environmental Law* (on file with author).

decisions of major corporations about energy investments. In turn, climate will have effects on all of these decisions. Thus, we cannot properly say that climate change is either a local or a global affair—it involves the very local as well as the completely global.

As we have seen, current law interdicts certain kinds of state regulations but leaves the bulk of state regulation subject to judicial oversight under vague standards of “undue burden” or posing an “obstacle” to federal law. *Massachusetts v. EPA* does not speak directly to this issue, but contains some cautions against unduly minimizing the interests of the states in the area of climate change. There are other cogent reasons why state climate regulations should enjoy a clear presumption of validity. Under-regulation is a greater risk than over-regulation in the climate area, given the huge collective action problem in addressing the climate issue and the fact that some of the primary stakeholders are future generations who have no political voice. Moreover, the federal government’s general environmental policy, as enunciated in sometimes forgotten but still-valid provisions of NEPA, clearly favors federal-state cooperation and respect for the interests of later generations. Congress will probably be engaged in an on-going process of legislation regarding climate, and any over-reaching by states can best be addressed legislatively.

Climate change poses formidable challenges to our governance system. Our governance system by and large, informally if not constitutionally, assigns some matters to local authorities and others to the federal government. Response to climate change, both in terms of mitigation and adaptation, will cut across these lines. Our society will have to be creative in responding and remolding familiar doctrines where necessary to allow us to respond to the realities of the situation. It may seem unfamiliar and strange for states to be regulating on an issue that has such global repercussions as climate change, but as Justice Brandeis said in his famous dissent in *New State Ice Co. v. Liebmann*,⁸¹ “[i]f we would guide by the light of reason, we must let our minds be bold.”⁸⁵

⁸¹285 U.S. 262 (1932).

⁸⁵*Id.* at 311.