

What's It to You?: The Difficulty of Valuing the Benefits of Climate- Change Mitigation and the Need for a Public-Goods Test Under Dormant Commerce Clause Analysis

*Mary Bede Russell**

ABSTRACT: In an effort to minimize its contribution to climate change by reducing greenhouse gas emissions, California enacted California Senate Bill 1368. The bill prohibits utilities from purchasing electrical power from plants that emit more greenhouse gases than natural-gas-fired power plants. This burdens interstate commerce by prohibiting power purchases from out-of-state coal-fired plants and is likely to lead to a constitutional challenge under the dormant Commerce Clause. To address the validity of California Senate Bill 1368 under traditional dormant Commerce Clause analysis, one necessary step is to answer a question that has troubled scientists and economists for decades: What is the value of California's interest in reducing its contributions to climate change? This Note examines that interest and argues that its value is a political question that makes traditional dormant Commerce Clause analysis inappropriate. It proposes an alternative, threshold test under dormant Commerce Clause analysis to avoid inappropriate judicial valuations of public goods: Is the statute's burden necessary to create a public good that is most appropriately valued by the political process?

I. INTRODUCTION.....	730
II. BACKGROUND	732
A. CALIFORNIA AND THE STATE-LEVEL MOVEMENT TO REDUCE GREENHOUSE GAS EMISSIONS.....	732

* J.D. Candidate, The University of Iowa College of Law, 2009; B.A., Boston University, 2003. I would like to thank my parents, Joyce and David Russell, for their dedication to my education.

B.	<i>THE SCIENCE OF CLIMATE CHANGE</i>	734
C.	<i>FEDERAL VALUATION OF THE CLIMATE-CHANGE THREAT</i>	736
D.	<i>CLIMATE-CHANGE MITIGATION AS A PUBLIC GOOD AND THE PROBLEM OF DEFINING ITS VALUE</i>	738
E.	<i>THE “SURPRISE” OF STATE ACTION</i>	740
F.	<i>POTENTIAL DORMANT COMMERCE CLAUSE CHALLENGES TO STATE ACTIONS</i>	742
III.	ARGUMENT.....	743
A.	<i>TRADITIONAL DORMANT COMMERCE CLAUSE ANALYSIS OF CALIFORNIA SENATE BILL 1368 REQUIRES JUDICIAL VALUATION OF CALIFORNIA’S INTEREST IN REDUCING GHG EMISSIONS</i>	745
1.	California Senate Bill 1368 Under the Disproportionate-Burden Test.....	746
a.	<i>Is California Senate Bill 1368 a Trade Barrier?</i>	747
b.	<i>Does California’s Local Benefit Outweigh Its Discriminatory Effects?</i>	748
2.	California Senate Bill 1368 Under the <i>Pike</i> Balancing Test.....	750
B.	<i>THE VALUE OF CALIFORNIA’S INTEREST IN REDUCING GHG EMISSIONS IS A POLITICAL QUESTION</i>	751
1.	The Text of the Constitution Gives the Legislative Branch Authority to Define the Value of California’s Interest.....	752
2.	There Are No Judicially Discoverable and Manageable Standards for Defining the Value of California’s Interest ...	755
a.	<i>California’s Interest in Reducing GHG Emissions Is Indefinable</i>	756
i.	How Much Will Temperatures Rise?	758
ii.	How Will California’s Climate Respond to Warming?	759
iii.	What Will Climate Changes Cost?	760
b.	<i>The Southern District Court of New York Has Held that the Damages of GHG Emissions Have No Judicially Manageable Standards of Resolution</i>	762
IV.	A PROPOSAL FOR A PUBLIC-GOODS THRESHOLD TEST UNDER DORMANT COMMERCE CLAUSE ANALYSIS.....	764
A.	<i>THE THRESHOLD TEST ADDRESSES TWO ASPECTS OF PUBLIC GOODS THAT CALL FOR SPECIAL TREATMENT UNDER DORMANT COMMERCE CLAUSE ANALYSIS</i>	764
1.	The Difficulty of Valuing Public Goods with Judicially Manageable Standards.....	765

<i>WHAT'S IT TO YOU?</i>	729
2. The Necessity of Burdening Interstate Commerce to Create Public Goods	766
B. <i>CONSEQUENCES OF THE PUBLIC-GOODS TEST</i>	767
1. The Threshold Test as a Necessary Departure from Precedent.....	767
2. The Threshold Test as a Framework for Explaining Past and Predicting Future Precedent.....	768
a. <i>The Supreme Court's Dormant Commerce Clause Analysis Prohibits the Capture of, Rather Than the Creation of, Benefits</i>	769
b. <i>The Supreme Court Defers to Legislative Valuations of Environmental Benefits</i>	770
c. <i>The Supreme Court Has Held that a Government Effort to Create a Public Good Is a Necessary Remedy for Damages Even as an Incomplete Solution</i>	771
V. CONCLUSION	772

I. INTRODUCTION

California Senate Bill 1368 prohibits California utilities from entering into long-term contracts to purchase electrical power from in-state and out-of-state plants that produce more greenhouse gases (“GHG”) than natural-gas-fired plants.¹ The statute reaches beyond the state’s borders to ensure an actual reduction in emissions instead of simply moving emissions into neighboring states.² This restriction on interstate trade in GHG-intensive electrical power raises the question of the statute’s validity under dormant Commerce Clause analysis.³

Under dormant Commerce Clause analysis, courts invalidate state laws that inhibit the free flow of commerce between the states if the laws lead to inefficient results.⁴ This can be true even if, like California Senate Bill 1368, the state law burdens both in-state and out-of-state businesses.⁵ Under the Supreme Court’s dormant Commerce Clause analysis, courts balance the state interest served by a statute with the national interest in a single, unburdened marketplace to determine if the result is inefficient. This

1. S.B. 1368, 2005–2006 Leg., Reg. Sess. (Cal. 2006) (codified at CAL. PUB. UTIL. CODE § 8340 (West Supp. 2008)). See generally Patricia Weisselberg, *Shaping the Energy Future in the American West: Can California Curb Greenhouse Gas Emissions from Out-of-State, Coal-Fired Power Plants Without Violating the Dormant Commerce Clause?*, 42 U.S.F. L. REV. 185 (2007) (discussing the details of California Senate Bill 1368 and arguing that it does not violate the dormant Commerce Clause).

Greenhouse gases contribute to the “greenhouse effect,” which warms the earth’s average surface temperature by increasing the amount of solar energy that is trapped in the atmosphere. See ELIZABETH KOLBERT, *FIELD NOTES FROM A CATASTROPHE: MAN, NATURE, AND CLIMATE CHANGE* 41–44 (2006) (discussing the work of a nineteenth-century scientist who discovered this phenomenon). For the purposes of this Note, the term “GHG” includes carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. For a readable and comprehensive discussion of the measured impacts and possible future impacts of climate change on weather patterns, temperatures, and plant and animal life, see generally *id.*

2. See *infra* notes 74–77 and accompanying text (discussing the necessity of burdening interstate commerce to ensure that emissions are effectively reduced rather than simply “leaking” out of state).

3. See *infra* Part III.A (applying traditional dormant Commerce Clause analysis to California Senate Bill 1368); see also Yvonne Gross, *Kyoto, Congress, or Bust: The Constitutional Invalidity of State CO₂ Cap-and-Trade Programs*, 28 T. JEFFERSON L. REV. 205, 222 (2005) (“State-level approaches to regulating GHGs, while laudable, will inevitably impact interstate markets, thereby implicating the constitutional limits on state action imposed by the Commerce Clause.”).

4. See *infra* Part III.A.1–2 (discussing the Supreme Court’s dormant Commerce Clause tests for non-discriminatory state laws and state laws with discriminatory effects); see also Kirsten H. Engel, *The Dormant Commerce Clause Threat to Market-Based Environmental Regulation: The Case of Electricity Deregulation*, 26 *ECOLOGY L.Q.* 243, 326 (1999) (“Most commentators seem to agree that, although concern for economic efficiency may have had little to do with its origins, efficiency now explains much of modern dormant Commerce Clause jurisprudence.”).

5. See *infra* Part III.A (describing the Supreme Court’s tests for validity under dormant Commerce Clause analysis).

balancing necessarily requires courts to define the value of the state's interest served by a statute.

To define the interest that California Senate Bill 1368 serves, the courts must answer a question that economists and scientists have been struggling to answer for decades: What is the value of California's interest in reducing its GHG emissions?⁶ This question is inappropriate for judicial resolution because it falls under the Court's political-question doctrine as set forth in *Baker v. Carr*.⁷ Under this doctrine, the judicial branch abstains from answering questions that the Constitution's text gives another branch of government the authority to answer and that lack judicially discoverable and manageable standards for determining the answer.⁸ The value of California's interest in reducing GHG emissions is a political question because the text of the Constitution gives the legislative branch authority over the issue and there are no judicially manageable standards for defining an appropriate answer.⁹

It is difficult to define the value of reducing GHG emissions because it depends on a community's valuation of both the risk of climate change itself and how its own emissions contribute to this global problem.¹⁰ The wide variation among valuations of climate-change mitigation arises because climate-change mitigation is a public good.¹¹ This Note proposes a threshold test for public goods under dormant Commerce Clause analysis to address two unique characteristics of public goods that necessitate special treatment.¹² First, public goods are exceedingly difficult for scientists, economists, and politicians to value, which naturally brings them under the scope of the political-question rule against resolving questions with no judicially manageable standards.¹³ Second, as Kirsten Engel has argued, it is necessary to burden interstate commerce to create public goods.¹⁴ Environmental regulations give companies incentives to move out of state to avoid the regulations. If a state wants to create the public good of reducing the GHG emissions that contribute to the global problem of climate change,

6. See *infra* Part III.B.2.a (analyzing the difficulty in defining the value of California's interest in reducing GHG emissions).

7. See *Baker v. Carr*, 369 U.S. 186, 208–38 (1962) (articulating the elements of the political-question doctrine).

8. *Id.* at 210.

9. See *infra* Part III.B (arguing that the value of California's interest in reducing GHG emissions is a political question).

10. See *infra* Part II.D (discussing the difficulty of valuing climate-change mitigation).

11. See *infra* Part II.D (defining public goods and discussing their value).

12. See *infra* Part IV.A (proposing a threshold test for public goods under dormant Commerce Clause analysis).

13. See *infra* Part IV.A.2 (discussing the necessity of burdening interstate commerce to create public goods).

14. See Engel, *supra* note 4, at 291 (“[A] state’s regulation of in-state actions triggering such extraterritorial harms should not violate the Commerce Clause.”).

it must do more than forbid coal-fired plants within its borders. It must regulate outside its borders to prevent utilities from purchasing power from out of state while still providing the same GHG-intensive power to in-state residents. Otherwise, the plants will still be emitting GHGs, just in another locale.

This Note argues that courts should avoid addressing the political question of the value of California's GHG-emission reductions created by California Senate Bill 1368. Instead, courts should apply a threshold question to screen and avoid valuing such public goods before applying dormant Commerce Clause analysis: Is the statute necessary to create a public good that is most effectively valued by the political process?¹⁵ If so, the courts should presume the statute's validity under the dormant Commerce Clause without performing the traditional dormant Commerce Clause analysis.

This threshold question would reduce the class of state laws subject to dormant Commerce Clause scrutiny. Some would argue that applying such a threshold question would effectively eliminate dormant Commerce Clause analysis and allow an inefficient patchwork of state regulation to create public goods that traditional dormant Commerce Clause analysis would invalidate.¹⁶ In Part IV, this Note addresses this problem in two ways. First, it argues that courts need to adopt this threshold test to avoid answering political questions nestled within its dormant Commerce Clause analysis. Second, it argues that the threshold test is not a departure from past precedent; rather, it logically extends Supreme Court precedents, which have deferred to local valuations of environmental benefits and have acknowledged the necessity of addressing climate change in small, incremental steps.¹⁷

II. BACKGROUND

A. CALIFORNIA AND THE STATE-LEVEL MOVEMENT TO REDUCE GREENHOUSE GAS EMISSIONS

California Senate Bill 1368 is part of a nationwide movement among states and regional organizations to reduce their contributions to climate

15. See *infra* Part IV (proposing a public-goods threshold test for dormant Commerce Clause analysis).

16. See Joseph Allan MacDougald, *Why Climate Law Must Be Federal: The Clash Between Commerce Clause Jurisprudence and State Greenhouse Gas Trading Systems*, 40 CONN. L. REV. 1431, 1450 (2008) (arguing that climate law must be federal because the patchwork of regulations goes against "our history and our structure [that] preserve these kinds of issues for federal government").

17. See *infra* Part IV.B (arguing that the proposed test can be understood as a departure from, or as a way of understanding, past precedent).

change by mandating reductions in GHG emissions.¹⁸ California's legislature enacted the bill as part of the California Global Warming Solutions Act, which commits the state to reducing its GHG emissions to the 1990 level—twenty-five percent below today's levels—by 2020.¹⁹ California Senate Bill 1368 established a GHG performance standard requiring utilities to purchase power from plants with GHG emissions less than or equal to the GHG emissions of natural-gas-fired power plants.²⁰ This requirement effectively prohibits the purchase of power from traditional coal-fired power plants, both inside the state and across state lines.

Other state governments and regional organizations across the country have also passed legislation and made interstate agreements mandating GHG-emission reductions.²¹ These include low-carbon electricity policies, transportation policies, agricultural policies, emission targets, and climate-action plans.²² The focus of the most ambitious state plans is the regulation of carbon-dioxide emissions from power plants.²³

18. See generally BARRY G. RABE, STATEHOUSE AND GREENHOUSE: THE EMERGING POLITICS OF AMERICAN CLIMATE CHANGE POLICY (2004) (chronicling the state GHG-regulation movement); The Pew Ctr. on Global Climate Change, Regional Initiatives, http://www.pewclimate.org/what_s_being_done/in_the_states/regional_initiatives.cfm?preview=1 (last visited Oct. 2, 2008) [hereinafter Regional Initiatives] (diagramming regional climate-change initiatives); The Pew Ctr. on Global Climate Change, State Action Maps, http://www.pewclimate.org/what_s_being_done/in_the_states/state_action_maps.cfm (last visited Oct. 2, 2008) [hereinafter State Action Maps] (outlining state action plans for climate change).

19. A.B. 32, 2005–2006 Leg., Reg. Sess. (Cal. 2006) (codified at CAL. HEALTH & SAFETY CODE §§ 38500–38599 (Electronic Supp. 2009)); see also Matthew Visick, *If Not Now, When? The California Global Warming Solutions Act of 2006: California's Final Steps Toward Comprehensive Mandatory Greenhouse Regulation*, 13 HASTINGS W.-NW. J. ENVTL. L. & POL'Y 249, 250–52 (2007) (discussing California Assembly Bill 32 and California Senate Bill 1368); Union of Concerned Scientists, AB 32: Global Warming Solutions Act, http://www.ucsusa.org/assets/documents/global_warming/ab-32-as-signed-fact-sheet-1.pdf (last visited Oct. 2, 2008) (summarizing the provisions of Assembly Bill 32).

20. S.B. 1368, 2005–2006 Leg., Reg. Sess. (Cal. 2006) (codified at CAL. PUB. UTIL. CODE § 8340 (West Supp. 2008)).

21. See RABE, *supra* note 18, *passim* (discussing the history, benefits, and limitations of state action on climate change); Regional Initiatives, *supra* note 18 (summarizing regional initiatives); State Action Maps, *supra* note 18 (presenting an interactive table of all state initiatives); see also Regional Greenhouse Gas Initiative Memorandum of Understanding 12 (Dec. 20, 2005), available at http://www.rggi.org/docs/mou_final_12_20_05.pdf, noted in Heddy Bolster, Note, *The Commerce Clause Meets Environmental Protection: The Compensatory Tax Doctrine as a Defense of Potential Regional Carbon Dioxide Regulation*, 47 B.C. L. REV. 737, 737 (2006) (describing this regional initiative in the northeastern United States); Kirsten H. Engel, *Mitigating Global Climate Change in the United States: A Regional Approach*, 14 N.Y.U. ENVTL. L.J. 54, 65–68 (2005) (outlining all regional initiatives as of 2005). See generally PEW CTR. ON GLOBAL CLIMATE CHANGE, LEARNING FROM STATE ACTION ON CLIMATE CHANGE (2007) [hereinafter LEARNING FROM STATE ACTION], available at http://www.pewclimate.org/docUploads/States%20Brief%20Template%20_March%202007_jgph.pdf (analyzing state actions on climate change).

22. See LEARNING FROM STATE ACTION, *supra* note 21, at 5–7 (chronicling state efforts in each of these categories); State Action Maps, *supra* note 18 (outlining state action plans for

The state plans imitate the efforts of the many foreign nations that have committed to GHG reductions. Under the Kyoto Protocol (“Kyoto”),²⁴ a treaty organized under the U.N. Framework Convention on Climate Change (“UNFCCC”),²⁵ thirty-six developed countries have committed to reducing their GHG emissions between 2005 and 2012.²⁶ Each country is bound to reduce its emissions by an assigned percentage below a baseline level or to purchase emissions credits from countries that have exceeded their prescribed reductions.²⁷ The United States has chosen not to ratify the Kyoto Protocol.²⁸

B. THE SCIENCE OF CLIMATE CHANGE

State and international actions are emerging as the international scientific community is achieving consensus about the causes and dangers of climate change. The Intergovernmental Panel on Climate Change (“IPCC”),²⁹ a scientific body that gathers and analyzes scientific information for the world’s policy makers, recently published its fourth report on the science of climate change, its likely impacts, and the options for addressing the problem.³⁰ The IPCC concluded that climate change’s “abrupt and irreversible” impacts “appear to be both larger and appearing earlier” than the panel’s conclusions in its 2001 report.³¹ Some of the changes that the

climate change). These measures often focus on electricity generation and efficiency because power generation is the biggest contributor of GHG emissions in the United States. See *Where to Start*, ECONOMIST, Sept. 7, 2006, at 81 (identifying the percentage contribution of GHG emissions from each economic sector).

23. Gross, *supra* note 3, at 206.

24. Kyoto Protocol to the United Nations Framework Convention on Climate Change, Dec. 10, 1997, 37 I.L.M. 22 [hereinafter Kyoto Protocol], available at <http://unfccc.int/resource/docs/convkp/kpeng.pdf>.

25. *Id.*

26. U.N. FRAMEWORK CONVENTION ON CLIMATE CHANGE, KYOTO PROTOCOL, STATUS OF RATIFICATION 1–7 (2006), http://unfccc.int/files/essential_background/kyoto_protocol/application/pdf/kpstats.pdf [hereinafter STATUS OF RATIFICATION].

27. Kyoto Protocol, *supra* note 24, art. 17.

28. STATUS OF RATIFICATION, *supra* note 26, at 7.

29. The World Meteorological Organization and the U.N. Environment Program established the IPCC “to assess on a comprehensive, objective, open and transparent basis the latest scientific, technical and socio-economic literature produced worldwide relevant to the understanding of the risk of human-induced climate change, its observed and projected impacts and options for adaptation and mitigation.” Intergovernmental Panel on Climate Change, About IPCC, <http://www.ipcc.ch/about/index.htm> (last visited Jan. 29, 2009). The IPCC remains neutral on policy matters by limiting its role to gathering data to provide policy makers with an objective source of information for policy choices. *Id.*

30. Richard Black, *UN Challenges States on Warming*, BBC NEWS, Nov. 17, 2007, <http://news.bbc.co.uk/2/hi/science/nature/7098902.stm>. Black reported that the “IPCC considered about 29,000 pieces of real-world evidence in compiling this report, as well as the projections of computer models.” *Id.*

31. *Id.* (quoting the IPCC report and a co-chair of the working group).

IPCC “previously projected for around 2020 or 2030 are occurring now, such as the Arctic melt and shifts in the locations of various species.”³²

Worldwide, the IPCC has observed a warming of the climate system, marked by higher average air and ocean temperatures, melting of snow and ice, and rising sea levels.³³ It concluded with “very high confidence” that the warming is an effect of human activities, including agriculture and fossil-fuel use, which emit GHG into the atmosphere.³⁴ The IPCC stated, with “high confidence,” that this warming has led to changes in natural systems throughout the world, including hydrological system changes, increased ground instability in mountains and permafrost regions, earlier spring events, poleward shifts in plant and animal ranges, and shifts in ranges and changes in abundance of ocean life. It also reported, with a medium level of confidence, that there have been effects of temperature increases on:

- [A]gricultural and forestry management at Northern Hemisphere higher latitudes, such as earlier spring planting of crops, and alterations in disturbance regimes of forests due to fires and pests[;]
- [S]ome aspects of human health, such as heat-related mortality in Europe, changes in infectious disease vectors in some areas, and allergenic pollen in Northern Hemisphere high and mid-latitudes[; and]
- [S]ome human activities in the Arctic (e.g.[,] hunting and travel over snow and ice) and in lower-elevation alpine areas (such as mountain sports).³⁵

The IPCC reported with “high agreement and much evidence” that, under current climate-change mitigation policies, the continued worldwide growth in GHG emissions will lead to changes in the twenty-first century that are “very likely” to be larger than the changes that occurred in the twentieth century.³⁶ Specifically, the IPCC predicted that emissions will increase by twenty-five to ninety percent between 2000 and 2030 without further intervention by policy makers.³⁷ Under these predictions, the IPCC anticipates continued climate change with a variety of impacts on natural

32. *Id.* (quoting a co-chair of the working group).

33. INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, CLIMATE CHANGE 2007: SYNTHESIS REPORT, SUMMARY FOR POLICYMAKERS 2 (2007), http://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr_spm.pdf [hereinafter SYNTHESIS REPORT].

34. *Id.* at 5 (emphasis omitted).

35. *Id.* at 3.

36. *Id.* at 7 (emphasis omitted).

37. *Id.*

environments and human activities across the globe.³⁸ For example, it predicted drastic changes in river runoff and water availability—increasing in high-latitude areas and decreasing in already-dry regions in mid-latitude and semi-arid areas, like the western United States—with “high confidence.”³⁹ This will affect the food supply and health of human populations as well as the stability of natural ecosystems.⁴⁰ The IPCC scientists concluded that the human community needs to reverse its current path of increased GHG emissions *within a decade* if it wants to avoid the worst effects of climate change.⁴¹

C. FEDERAL VALUATION OF THE CLIMATE-CHANGE THREAT

Policy makers at the federal level in the United States have long agreed with the IPCC that human emissions of GHG have caused and will continue to cause climate change.⁴² Federal leaders, however, have not mandated GHG-emission reductions because of the widespread belief in the United States that the costs of reducing the country’s GHG emissions outweigh the

38. SYNTHESIS REPORT, *supra* note 33, at 8–13 (providing examples of impacts on natural environments and human activities).

39. *Id.* at 8.

40. *Id.* at 10.

41. Black, *supra* note 30.

42. See Cinnamon Carlarne, Commentary, *Notes from a Climate Change Pressure-Cooker: Sub-Federal Attempts at Transformation Meet National Resistance in the USA*, 40 CONN. L. REV. 1351, 1361–64 (2008) (outlining the lack of effective action on climate change in the executive and legislative branches at the federal level and explaining former President Bush’s climate-change plan); Peter Lehner, *Changing Markets to Address Climate Change*, 35 B.C. ENVTL. AFF. L. REV. 385, 387–88 (2008) (arguing that in the late 1980s, the U.S. government “did not dispute the science of climate change, that it was caused by human emissions of CO₂, which were rising, and that if we did not address those emissions soon, climate change was going to be a serious problem”); Roger A. Pielke, Jr., *The Case for a Sustainable Climate Policy: Why Costs and Benefits Must Be Temporally Balanced*, 155 U. PA. L. REV. 1843, 1855 (2007) (citing a poll of the U.S. Congress, which indicated that 55 senators and 251 representatives believed that climate change was real and caused by humans); Douglas Jehl & Andrew C. Revkin, *Bush, in Reversal, Won’t Seek Cut in Emissions of Carbon Dioxide*, N.Y. TIMES, Mar. 14, 2001, at A1 (explaining that former President George W. Bush acknowledged the problem during his 2000 election campaign); Lisa M. Jaeger, “Environmental Federalism” and U.S. Climate Change Policy 8 (May 24, 2004), http://www.ifri.org/files/CFE/Jaeger_Federalism_ClimateChange.pdf (explaining White House responses to climate change from 1998 to 2004).

Some elected officials, however, deny that science has proven the relationship between human activities and climate change. For example, Senator James Inhofe of Oklahoma called climate change the “greatest hoax ever perpetrated on the American people.” James M. Inhofe, U.S. Senator, Okla., Senate Floor Statement, Climate Change Update (Jan. 4, 2005), <http://inhofe.senate.gov/pressreleases/climateupdate.htm>; see also FRED PEARCE, WITH SPEED AND VIOLENCE: WHY SCIENTISTS FEAR TIPPING POINTS IN CLIMATE CHANGE 10–17 (2007) (articulating the challenges and responses to the theory that humans cause climate change). Pearce argues, “Most skeptics . . . fall into one of three categories: political scientists, journalists, and economists with little knowledge of climate science; retired experts who are aggrieved to find their old teachings disturbed; and salaried scientists with overbearing bosses to serve, such as oil companies or the governments in hock to them.” *Id.* at 10.

benefits of preventing climate change for the United States.⁴³ They estimate that the highest costs of mitigation will occur within the United States, while the majority of benefits will fall on developing nations in tropical regions whose economies are more dependent upon a stable climate.⁴⁴ Therefore, any money spent to reduce GHG emissions in the United States would amount to foreign aid to the countries that would have suffered the most severe effects of the mitigated climate change.

The White House and the Senate have explained that mandatory emission limits would be unwise because of the nature of the U.S. economy.⁴⁵ First, these leaders estimated that climate change would not cause significant harm to the nation's economy because the economy is not primarily based on agriculture or as susceptible to climate change as are the

43. See REIMUND SCHWARZE, LAW AND ECONOMICS OF INTERNATIONAL CLIMATE CHANGE POLICY 133 (2001) (explaining that the United States will bear a higher cost of reducing its GHG emissions than any Kyoto nation); see also Bjorn Lomborg, *The Truth About the Environment*, ECONOMIST, Aug. 4, 2001 ("Despite the intuition that something drastic needs to be done about such a costly problem, economic analyses clearly show that it will be far more expensive to cut carbon-dioxide emissions radically than to pay the costs of adaptation to the increased temperatures."). Federal leaders continue to encourage GHG emissions by subsidizing fossil-fuel use in a variety of ways. See *Lehner*, *supra* note 42, at 389 (stating that fossil fuels are subsidized through favorable tax treatment, direct subsidies, lenient environmental regulations, and highway funding).

44. Thomas C. Schelling, *The Cost of Combating Global Warming: Facing the Tradeoffs*, FOREIGN AFF., Nov./Dec. 1997, at 8, 8–9 (arguing that people in developing countries will be the beneficiaries of climate-change mitigation). Schelling explains:

There are three reasons the beneficiaries will be in the developing countries, which will be much more developed when the impact of climate change is felt. The first is simple: that is where most people live—four-fifths now, nine-tenths in 75 years.

Second, these economies may still be vulnerable, in a way the developed economies are not, by the time climate change occurs. In the developed world hardly any component of the national income is affected by climate. . . . In developing countries, in contrast, as much as a third of GNP and half the population currently depends on agriculture. . . .

Third, although most of these populations should be immensely better off in 50 years, many will still be poorer than the rich countries are now. The contribution to their welfare by reduced climate change will therefore be greater than any costs the developing world bears in reducing emissions.

Id.

45. The Senate passed a resolution promising to reject the Kyoto Protocol if it would (1) result in serious harm to the U.S. economy or (2) fail to address the emissions of developing countries. Byrd–Hagel Resolution, S. Res. 98, 105th Cong. (1997). Consequently, the Senate never put the Kyoto Protocol to a vote. Douglas Jehl, *U.S. Going Empty-Handed to Meeting on Global Warming*, N.Y. TIMES, Mar. 29, 2001, at A22, available at <http://query.nytimes.com/gst/fullpage.html?res=9504EEDA173FF93AA15750C0A9679C8B63>. Therefore, the Byrd–Hagel Resolution "was not a rejection of the [Kyoto Protocol], which has never been submitted for ratification." *Id.* (quoting correction published on Mar. 31, 2001).

economies of developing nations.⁴⁶ Second, they explained that mandatory emissions limits would cause domestic businesses to bear high costs that would put them at a disadvantage against businesses in countries that have not agreed to reduce their emissions.⁴⁷ Overall, they concluded that the benefits of preventing further climate change would not outweigh the costs to U.S. businesses.⁴⁸

*D. CLIMATE-CHANGE MITIGATION AS A PUBLIC GOOD AND THE
PROBLEM OF DEFINING ITS VALUE*

If the costs of GHG emissions were borne only by those who created them, this valuation would not be so difficult; the market itself could set the value of GHG-emissions mitigation.⁴⁹ The debate concerning the value of

46. See Jaeger, *supra* note 42, at 7 (explaining the George W. Bush Administration's understanding of these costs between 1998 and 2004). The George W. Bush Administration pointed to the cost of climate-change mitigation and the lack of domestic benefits in its rejection of mandatory-reduction policies and the Kyoto Protocol. *Id.*; see also Jason Scott Johnston, *Climate Change Confusion and the Supreme Court: The Misguided Regulation of Greenhouse Gas Emissions Under the Clean Air Act*, 84 NOTRE DAME L. REV. 1, 2 (2008) ("[T]he costs and benefits from climate change in the United States bears no resemblance to the pollution problems that Congress intended to deal with in the [Clean Air Act]."). Johnston explains that:

An extensive and very well established body of systematic empirical economic evidence shows that in the short-to-medium run, a warmer climate will be predominantly beneficial, rather than harmful, to the United States. In the longer run, investments to reduce greenhouse gas (GHG) emissions may pay off in a lessened probability of harmful climate change, but whether they do so will depend almost entirely upon the actions taken by other countries, in particular by China. . . .

. . . .

. . . [T]he economic evidence is extensive and extremely important: it shows that temperature increases in the two to three degree centigrade range are likely to provide many regions of the United States with large benefits in the form of the amenity value of a warmer climate, increased agricultural productivity, reduced deaths and disease due to cold weather, and increased value from warm weather recreational pursuits. . . .

To be sure, this same body of empirical work shows that some regions in the United States may be net losers from a warmer climate (even prior to 2100). But the costs of reducing GHG emissions fall disproportionately not on those states and regions that have the most to lose from a warmer climate and therefore potentially the most to gain from GHG emission reductions, but rather on states and regions that would actually likely be benefitted by a warmer climate.

Id. at 1–3.

47. Jaeger, *supra* note 42, at 7.

48. *Id.* There are some zero-cost opportunities for reducing emissions that decisionmaking bodies do not consider for political reasons. G. CORNELIS VAN KOOTEN, CLIMATE CHANGE ECONOMICS: WHY INTERNATIONAL ACCORDS FAIL 46 (2004).

49. Climate change has been called "the greatest market failure the world has ever seen." STERN REVIEW, THE ECONOMICS OF CLIMATE CHANGE, SUMMARY OF CONCLUSIONS, at viii,

preventing climate change compared to the costs of reducing GHG emissions arises because climate-change mitigation is a public good.⁵⁰ Public goods, like GHG-emission reductions, are defined by two characteristics: they are “nonrival,” in that one person’s enjoyment of the good does not reduce the amount available for others, and “nonexcludable,” in that no individual can be excluded from enjoyment of the goods.⁵¹

Since GHGs are “stock” pollutants that accumulate in the atmosphere of the globe regardless of their points of origin, each nation’s contribution to reducing GHG emissions is enjoyed by all nations equally; it is impossible to exclude nations who choose not to reduce emissions from enjoying a more stable climate.⁵² Therefore, it is in any single nation’s best interest to enjoy the benefits of the public good of GHG reductions and climate-change prevention without suffering the costs associated with these measures.⁵³ This is known as the free-rider problem. The problem arises any time a public good is created because all share a public good, but its costs are not evenly distributed.⁵⁴ Without legislation or international agreement binding all actors to contribute equally to the public good, economists expect a “race to the bottom,” with each state or nation seeking to avoid the costs of creating the public good by avoiding mandatory limits on emissions.⁵⁵ Under the free-rider theory,⁵⁶ reducing GHG emissions provides zero value to the states.

available at http://www.hm-treasury.gov.uk/d/Summary_of_Conclusions.pdf, quoted in Mary Christina Wood, *Nature’s Trust: A Legal, Political and Moral Frame for Global Warming*, 34 B.C. ENVTL. AFF. L. REV. 577, 602 n.107 (2007).

50. See NATHANIEL O. KEOHANE & SHEILA M. OLMSTEAD, *MARKETS AND THE ENVIRONMENT* 4 (2007) (“Carbon emissions abatement is what economists would call a global *public good*: everyone benefits from its provision, whether they have contributed or not.”); see also VAN KOOTEN, *supra* note 48, at 17 (explaining why reducing GHG is a public good); Engel, *supra* note 4, at 326 (defining climate change as a public good). The problem of public goods has been discussed for centuries, dating back at least as far as David Hume’s *A Treatise of Human Nature*, published in 1739. BRIAN H. BIX, *A DICTIONARY OF LEGAL THEORY* 173 (2004).

51. KEOHANE & OLMSTEAD, *supra* note 50, at 70; MARK BLAUG, *ECONOMIC THEORY IN RETROSPECT* 580–82 (5th ed. 1996).

52. *Id.*

53. In other words, countries release GHG into the atmosphere because they get the benefit without paying the full cost. KEOHANE & OLMSTEAD, *supra* note 50, at 3.

54. *Id.* at 4; see also CLIMATE AND TRADE POLICY: BOTTOM-UP APPROACHES TOWARDS GLOBAL AGREEMENT 116 (Carlo Carraro & Christian Egenhofer eds., 2007) (“Climate change control is a public good and, as is well known, the provision of public goods is fundamentally undermined by a free-rider problem.”).

55. Howard F. Chang, *Reasonable Emissions of Greenhouse Gases: Efficient Abatement for a Stock Pollutant*, 155 U. PA. L. REV. 1869, 1873 (2007) (“Given that abatement is a public good, we would normally expect private parties to use these technologies only if laws and public policies give them the appropriate incentives to do so.”); see also VAN KOOTEN, *supra* note 48, at 28 (“[C]entral estimates for marginal environmental benefits from CO₂ reductions are fairly low relative to marginal abatement cost.” (citations omitted)).

56. The free-rider theory has been discussed since the time of the classical thinkers, such as Adam Smith, David Hume, and Vilfredo Pareto; Mancur Olson set forth the theory in *The*

E. THE "SURPRISE" OF STATE ACTION

Since federal leaders have judged the value of this public good (mitigating climate change) to be less than the cost of creating it (reducing GHG emissions), commentators in the late 1990s expected states to refuse to voluntarily reduce their emissions.⁵⁷ However, many states are ready to pay the cost of reducing GHG emissions.⁵⁸ Commentators have described a variety of explanations for these "surprising" state actions.⁵⁹ The core reason

Logic of Collective Action: Public Goods and the Theory of Groups, published in 1965. BIX, *supra* note 50, at 71–72.

57. See Engel, *supra* note 21, at 55 n.4 (explaining that municipalities contradict economic theory when they enact climate-change policies); Dylan Golden, *The Politics of Carbon Dioxide Emissions Reduction: The Role of Pluralism in Shaping the Climate Change Technology Initiative*, 17 UCLA J. ENVTL. L. & POL'Y 171, 189 (1999) ("[I]ndividual state action to solve the warming problem is not politically feasible."). Some states have followed commentators' expectations by passing legislation prohibiting any GHG-emission regulations:

Alabama, Illinois, Kentucky, West Virginia, Wyoming, and Oklahoma are exceptions to the trend [of state action]. See ALA. CODE § 22-28A-3 (2003). This section states:

Effective immediately, the Director of the Alabama Department of Environmental Management shall refrain from proposing or promulgating any new regulations intended in whole or in part to reduce emissions of greenhouse gases, as such gases are defined by the Kyoto Protocol, from the residential, commercial, industrial, electric utility, or transportation sectors unless such reductions are required under existing statutes.

Id.; see also 415 ILL. COMP. STAT. 140/15 (2003); KY. REV. STAT. ANN. § 224.20-125 (Michie 2003); OKLA. STAT. tit. 27A. § 1-1-207 (2003); W. VA. CODE § 22-23-1 (2003); WYO. STAT. ANN. § 35-11-213 (Michie 2003).

David R. Hodas, *State Law Responses to Global Warming: Is It Constitutional to Think Globally and Act Locally?*, 21 PACE ENVTL. L. REV. 53, 53 n.3 (2003). As Kirsten H. Engel explained:

[M]ost individual U.S. states and cities emit comparatively small quantities of greenhouse gases. As a result, unlike the big emitting nations, cities and states cannot expect that unilateral cutbacks in their levels of greenhouse gas emission will result in much, if any, cost savings from reductions in the local impacts of climate change.

Engel, *supra* note 21, at 61–62.

58. See LEARNING FROM STATE ACTION, *supra* note 21, at 5–7 (chronicling state efforts); Gross, *supra* note 3, at 206 ("In the absence of any meaningful federal effort to regulate CO₂ emissions, states are beginning to explore local and regional measures to [implement policies addressing emissions].").

59. See J.R. DeShazo & Jody Freeman, *Timing and Form of Federal Regulation: The Case of Climate Change*, 155 U. PA. L. REV. 1499, 1517–18 (2007) ("At first glance, unilateral state action to address climate change is surprising."). DeShazo and Freeman explain:

Global warming is a classic public bad; it poses a global collective action problem. . . . States that generate these benefits for others (and for the world, really) may bear significant in-state costs. Generally, such conditions—significant costs and an inability to fully capture benefits—are the conditions under which we would expect to see either state inaction or a race to the bottom. Yet, instead, we see state leadership.

seems to be that state leaders do not agree with the conventional wisdom that their mitigation programs will create a net economic loss; they believe that the benefits of mitigating climate change outweigh the costs of reducing GHG emissions.⁶⁰ As public opinion throughout the country has changed from skepticism about the effects of climate change to fear of its past and future impact,⁶¹ state constituents want their states to act to prevent climate change, and their leaders are responding to their wishes.⁶²

State valuations of climate-change mitigation include three fundamental departures from the conventional wisdom. First, some believe that the long-term consequences of climate change will be harmful to their state economies, which depend on climate stability. For example, “[c]oastal states consider the impact of rising sea levels, agricultural states worry about lost productivity, and the dry Western states are alarmed by the prospect of worsening droughts.”⁶³ Second, states anticipate regulation at the federal level and believe that starting early will make their transition from fossil fuels more efficient.⁶⁴ Finally, states judge the costs of reducing GHG emissions to

Id. at 1518–19.

60. Carolyn Kousky & Stephen H. Schneider, *Global Climate Policy: Will Cities Lead the Way?*, 3 CLIMATE POL’Y 359, 367 (2003). Based on interviews with local officials and staff in twenty-three U.S. cities, Kousky and Schneider found that a large majority of cities claimed to be pursuing climate-protection policies that generated, or could generate, cost savings. *Id.* at 360–61; see also LEARNING FROM STATE ACTION, *supra* note 21, at 2 (describing motivations for state initiatives).

Where other policy makers see an unjustifiable cost, proponents of these state laws see a market failure that needs to be corrected to prevent future costs to the environment and the people who rely on it. VAN KOOTEN, *supra* note 48, at 17.

61. ENVTL. & ENERGY STUDY INST., CLIMATE CHANGE FACT SHEET: RECENT POLLING ON PUBLIC PERCEPTIONS OF CLIMATE CHANGE 2 (2008), http://www.eesi.org/files/climate_polling_factsheet_072808.pdf.

62. See DeShazo & Freeman, *supra* note 59, at 1519–20 (explaining that recent polling data in California, New York, and the Regional Greenhouse Gas Initiative states of the Northeast “show strong public support for state regulatory efforts”). Alliances lobbying for GHG mitigation include some “strange bedfellows,” including conservative religious groups and liberal environmental organizations. *A Survey of Climate Change: Doing It Their Way*, ECONOMIST, Sept. 7, 2006.

63. LEARNING FROM STATE ACTION, *supra* note 21, at 2; CAL. CLIMATE CHANGE CTR., OUR CHANGING CLIMATE: ASSESSING THE RISKS TO CALIFORNIA (2006) [hereinafter OUR CHANGING CLIMATE], available at <http://www.energy.ca.gov/2006publications/CEC-500-2006-077/CEC-500-2006-077.PDF>.

64. CAL. PUB. UTIL. CODE § 8340, hist. n.1(f) (West Supp. 2008) (“The Public Utilities Commission [and the Energy Commission] both have concluded, and the Legislature finds, that federal regulation of emissions of greenhouse gases is likely during this decisionmaking timeframe.”); *Id.* hist. n.1(g) (“It is vital to ensure all electricity load-serving entities internalize the significant and underrecognized cost of emissions recognized by the PUC with respect to the investor-owned electric utilities, and to reduce California’s exposure to costs associated with future federal regulation of these emissions.”); *Id.* hist. n.1(i) (“A greenhouse gases emission performance standard for new long-term financial commitments to electrical generating resources will reduce potential financial risk to California consumers for future pollution-control costs.”).

be lower than the nationwide models because they see some short-term benefits to mitigation strategies.⁶⁵ These benefits include development of alternative fuels, renewable energy, high-tech industries, the possibility of profitable emission-trading schemes, and environmental improvements such as clean air.⁶⁶

F. *POTENTIAL DORMANT COMMERCE CLAUSE CHALLENGES TO STATE ACTIONS*

In the absence of federal action on climate change, state GHG reductions that burden interstate commerce will face challenges under the dormant Commerce Clause.⁶⁷ To decide if these state laws are inefficient and, therefore, invalid under dormant Commerce Clause analysis, courts will need to define the value of a state's interest in reducing GHG emissions to balance it with the federal interest in unburdened interstate commerce.⁶⁸

Part III of this Note analyzes California Senate Bill 1368 under the Court's traditional dormant Commerce Clause analysis and concludes that the outcome will depend on the value of the state's interest in reducing its GHG emissions. It argues that courts should not define this value because it is a political question under the Supreme Court's criteria in *Baker v. Carr*.

Part IV proposes a new threshold question to ask before engaging in traditional dormant Commerce Clause analysis: Is this law's burden on interstate commerce necessary to create a public good that is most appropriately valued by the political process? If a state law's burden on interstate commerce is necessary to create a public good that is most appropriately valued by the political process, the Court would uphold the law and not subject it to traditional dormant Commerce Clause analysis.

This threshold question is necessary to avoid judicial resolution of political questions that arise within dormant Commerce Clause analysis. Public goods raise these difficult questions because of two unique characteristics: (1) a state must isolate its market to create public goods at the state level and (2) public goods are difficult to value because they are

65. See Pielke, *supra* note 42, at 1849–50 (describing the short-term benefits of mitigation and explaining that “[t]his approach to climate change is contrary to the dominant approach, in which costs and benefits are temporally mismatched”).

66. CAL. PUB. UTIL. CODE § 8340, hist. n.1(d). The California legislature states:

To the extent energy efficiency and renewable resources are unable to satisfy increasing energy and capacity needs, the Energy Action Plan II establishes a policy that the state will rely on clean and efficient fossil fuel fired generation and will ‘encourage the development of cost-effective, highly-efficient, and environmentally-sound supply resources to provide reliability and consistency with the state’s energy priorities.’

Id.; see also LEARNING FROM STATE ACTION, *supra* note 21, at 2.

67. Gordon P. Erspamer & Stacey M. Sprenkel, The Commerce Clause Implications of California’s Climate Change Initiatives (June 2007), <http://www.mofo.com/news/updates/files/12444.html> [hereinafter Commerce Clause Implications].

68. *Id.*

nonmarket in nature. Part V analyzes the consequences of the proposed test and concludes that it can be understood as either a necessary departure from past precedents or as their logical extension.

III. ARGUMENT

Commentators expect that industry stakeholders will challenge the validity of California Senate Bill 1368 under the dormant Commerce Clause.⁶⁹ Stakeholders question California Senate Bill 1368's validity because it acts as a trade barrier by preventing coal-fired power producers from doing business in the state.⁷⁰ Specifically, the California Public Utilities Commission set an emission performance standard under the statute of 1100 pounds of CO₂ per megawatt hour, which is far less than traditional coal plants emit.⁷¹ This standard applies to both public and investor-owned utilities and prohibits new construction of, new long-term power purchase agreements with, and major plant investment in, any plant that exceeds the emission standard.⁷² The standard applies to both in-state and out-of-state facilities.⁷³

The California legislature believes that these extraterritorial controls are necessary to prevent in-state emission reductions from being negated by "leakage."⁷⁴ Leakage is "a reduction in emissions of greenhouse gases within the state that is offset by an increase in emissions of greenhouse gases outside the state."⁷⁵ Leakage prevents a state from effectively reducing its impact on climate change. Mitigation legislation must prevent industries that emit GHG from simply moving into neighboring states or countries to

69. *Id.* See generally CAL. ENERGY COMM'N, STAFF-PROPOSED REGULATIONS FOR IMPLEMENTING THE GREENHOUSE GASES EMISSION PERFORMANCE STANDARD FOR LOCAL PUBLICLY OWNED ELECTRIC UTILITIES (2007), available at <http://www.energy.ca.gov/2007publications/CEC-700-2007-001/CEC-700-2007-001.PDF> (proposing final rules). Final regulations have set a single standard for baseload generation for both public utilities and investor-owned utilities. Cal. Energy Comm'n, SB 1368 Emission Performance Standards, http://www.energy.ca.gov/emission_standards (last visited Jan. 26, 2009).

70. Cal. Pub. Util. Comm'n, Interim Opinion on Phase 1 Issues: Greenhouse Gas Emissions Performance Standard, Decision 07-01-039 (Jan. 25, 2007), http://www.cpuc.ca.gov/word_pdf/FINAL_DECISION/64072.pdf [hereinafter Interim Opinion].

71. *Id.*

72. S.B. 1368, 2005–2006 Leg., Reg. Sess. (Cal. 2006) (codified at CAL. PUB. UTIL. CODE § 8340 (West Supp. 2008)).

73. Interim Opinion, *supra* note 70, at 2.

74. CAL. PUB. UTIL. CODE § 8340, hist. n.1(k) (West Supp. 2008) ("In order to have any meaningful impact on climate change, the Governor's goals for reducing emissions of greenhouse gases must be applied to the state's electricity consumption, not just the state's electricity production.").

75. CAL. HEALTH & SAFETY CODE § 38505(j) (West 2006 & Supp. 41B 2008).

avoid the mandatory limits.⁷⁶ In the case of California Senate Bill 1368, the law's restrictions on GHG emissions must apply to energy consumed in the state rather than produced in the state to avoid leakage.⁷⁷

The dormant Commerce Clause problem arises because, as the Supreme Court has stated:

Our system, fostered by the Commerce Clause, is that every farmer and every craftsman shall be encouraged to produce by the certainty that he will have free access to every market in the Nation, that no home embargoes will withhold his export, and no foreign state will by customs duties or regulations exclude them. Likewise, every consumer may look to the free competition from every producing area in the Nation to protect him from exploitation by any. Such was the vision of the Founders; such has been the doctrine of this Court which has given it reality.⁷⁸

Since California Senate Bill 1368 prevents the producers of high-GHG-emitting power from selling their product *freely* in the state, the bill is invalid under the dormant Commerce Clause if its value is insufficient to outweigh this burden.⁷⁹ This Note argues that this value is a political question that is inappropriate for judicial resolution.

76. See Bolster, *supra* note 21, at 761 (“A regulatory approach that adequately addresses leakage may require a second regulation imposing a cap on the emissions associated with electricity imported into the region . . .”).

The problem of leakage is not confined to interstate regulation issues. Some authors claim that every GHG-mitigation scheme in every country will lead to leakage of some kind that renders it useless to reduce GHG emissions. VAN KOOTEN, *supra* note 48, at 41; Gross, *supra* note 3, at 229 (“Indeed, due to concerns about leakage and contract shuffling, it is not certain that a state-level employed program would achieve any net reductions in CO₂ emissions.”). Another view, as van Kooten explains:

If some (industrialized) countries implement emissions trading or carbon taxes, the price of fossil fuels will increase and less oil, coal and natural gas will be consumed in those countries. However, reduced consumption by industrial countries will reduce the global demand for fossil fuels, lowering world prices and, consequently, increasing consumption in developing countries that have not undertaken mitigation efforts. Likewise, large-scale investments to enhance timber growth for carbon sequestration will reduce stumpage prices, which hasten harvesting and trigger land-use changes elsewhere that partially offset the original carbon uptake benefit. Indeed, the leakage may be as much as 100% or even more of a terrestrial sequestration project.

VAN KOOTEN, *supra* note 48, at 41–42 (citations omitted).

77. CAL. PUB. UTIL. CODE § 8340, hist. n.1(k).

78. H.P. Hood & Sons, Inc. v. Du Mond, 336 U.S. 525, 539 (1949).

79. State climate-change legislation will also face challenges under the preemption doctrine. See Ann E. Carlson, *Federalism, Preemption, and Greenhouse Gas Emissions*, 37 U.C. DAVIS L. REV. 281, 296 (2003) (stating that the “preemption provision prohibit[ing] states from regulating ‘emissions’ from mobile sources . . . suggest[s] that states cannot regulate greenhouse gas emissions”); Note, *Foreign Affairs Preemption and State Regulation of Greenhouse Gas Emissions*, 119 HARV. L. REV. 1877, 1881–89 (2006) (discussing state GHG regulation under the

A. *TRADITIONAL DORMANT COMMERCE CLAUSE ANALYSIS OF CALIFORNIA SENATE BILL 1368 REQUIRES JUDICIAL VALUATION OF CALIFORNIA'S INTEREST IN REDUCING GHG EMISSIONS*

Dormant Commerce Clause analysis promotes efficiency within the national market to protect the national welfare.⁸⁰ Nearly all laws that discriminate on their face against out-of-state businesses are invalid under the dormant Commerce Clause for creating a market inefficiency by capturing a benefit for in-state businesses at the expense of more efficiently performing out-of-state businesses.⁸¹ For example, in *Maryland v. Louisiana*, the Court invalidated a state law encouraging businesses to make energy

Foreign Affairs Preemption Doctrine). State automobile-emission laws are currently being challenged under the Preemption Doctrine in California, Rhode Island, and Vermont. *See Green Mountain Chrysler Plymouth Dodge Jeep v. Crombie*, 508 F. Supp. 2d 295, 393–94 (D. Vt. 2007) (holding that the state's automobile-emission standards did not violate the principles of express preemption, field preemption, conflict preemption, or foreign-policy preemption); *Cent. Valley Chrysler Valley Jeep, Inc. v. Witherspoon*, No. CV-F-04-6663 REC LJO, 2006 WL 1883363, at *2 (E.D. Cal. July 7, 2006) (challenging the preemption doctrine in California); *Lincoln-Dodge, Inc. v. Sullivan*, Nos. 06-70T, 06-69T, 2007 WL 4577377, at *1–2 (D.R.I. Dec. 21, 2007) (same in Rhode Island).

80. *See* U.S. CONST. art. I, § 8, cl. 3 (“Congress shall have the power . . . To regulate Commerce . . . among the several States . . .”). Dormant Commerce Clause analysis was established as a constitutional principle in *Gibbons v. Ogden*, 22 U.S. (9 Wheat.) 1, 12 (1824). The Court found that:

[If] the power of commercial regulation, possessed by Congress, be, in regard to the great branches of it, exclusive; and if this grant of New-York be a commercial regulation, effecting commerce, in respect to these great branches, then the grant is void, whether any case of actual collision had happened or not.

Id. at 26–27. This negative command prevents a state from “jeopardizing the welfare of the Nation as a whole” by “plac[ing] burdens on the flow of commerce across its borders that commerce wholly within those borders would not bear.” *Okla. Tax Comm'n v. Jefferson Lines, Inc.*, 514 U.S. 175, 180 (1995).

81. *See* *Hughes v. Oklahoma*, 441 U.S. 322, 337–38 (1979) (applying dormant Commerce Clause analysis to invalidate an Oklahoma state law restricting the number of minnows out-of-state businesses could transport out of the state with no corresponding control on in-state businesses). The Court explained, “[F]acial discrimination invokes the strictest scrutiny of any purported legitimate local purpose and of the absence of nondiscriminatory alternatives.” *Id.* at 337. The Court only allows facially discriminatory state laws to remain in effect if they serve a legitimate state interest “that cannot be served as well by . . . nondiscriminatory means.” *Maine v. Taylor*, 477 U.S. 131, 140 (1986). The Court further explained this difference when it upheld a Maine statute forbidding the importation of baitfish:

The Commerce Clause significantly limits the ability of States and localities to regulate or otherwise burden the flow of interstate commerce, but it does not elevate free trade above all other values. As long as a State does not needlessly obstruct interstate trade . . . , it retains broad regulatory authority to protect the health and safety of its citizens and the integrity of its natural resources.

Id. at 151 (citation omitted). The Court upheld the statute because it found that the statute's purpose in protecting the state's natural resources was legitimate. *Id.*

investments in one state over other states.⁸² The law was not designed to create benefits or efficiencies for the nation's economy, but rather to capture benefits or efficiencies for one state while burdening the national market with inefficiencies.

Although California Senate Bill 1368 does not discriminate on its face against out-of-state power producers, the bill is invalid if it falls under one of the Court's two categories of facially neutral state laws that burden interstate commerce:⁸³ (1) laws that effectively act as trade barriers by disproportionately burdening out-of-state businesses and that are unnecessary to achieve an important nondiscriminatory benefit within the state ("the disproportionate-burden test"),⁸⁴ or (2) laws that burden in-state and out-of-state businesses equally but fail to achieve significant local interests to justify their burdens on interstate commerce ("the *Pike* balancing test").⁸⁵ Both of these tests require courts to balance the state's interests served by the law with the federal interest in unburdened interstate commerce, and both would require courts to value California's interest in reducing its GHG emissions—an exercise that would require resolution of a political question.⁸⁶

1. California Senate Bill 1368 Under the Disproportionate-Burden Test

Neutral laws creating trade barriers with discriminatory effects are just as harmful to the efficiency of interstate commerce as those that facially discriminate to achieve a trade barrier. Therefore, they are subject to the same strict scrutiny as facially discriminatory laws, and courts uphold them only if (1) the burdens they place on interstate commerce allow the state to protect its residents from market hazards such as health or safety issues, and (2) those protections cannot be accomplished through less burdensome means.⁸⁷

For example, the Court invalidated a North Carolina law requiring all apples sold in the state to bear "no grade other than the applicable U.S.

82. *Maryland v. Louisiana*, 451 U.S. 725, 757–60 (1981).

83. *See FERC v. Mississippi*, 456 U.S. 742, 757 (1982) (referring to electric energy as "a basic element of interstate commerce").

84. *See infra* notes 87–90 and accompanying text (discussing dormant Commerce Clause scrutiny for laws with disproportionate burdens on out-of-state industries).

85. *See Pike v. Bruce Church, Inc.*, 397 U.S. 137, 142 (1970) (articulating and applying a balancing test for nondiscriminatory state laws that burden interstate commerce).

86. *See infra* Part III.B (arguing that the value of California's interest in climate-change mitigation is a political question).

87. *See Minnesota v. Clover Leaf Creamery Co.*, 449 U.S. 456, 474 (1981) (upholding a state law that regulated all milk bottles equally to protect the state's environment); *see also Dean Milk Co. v. City of Madison*, 340 U.S. 349, 354 (1951) (explaining that a Wisconsin city ordinance that restricted milk imports to protect the health of residents was invalid because there were other "reasonable nondiscriminatory alternatives, adequate to conserve legitimate local interests").

grade or standard.”⁸⁸ Although the law was not discriminatory on its face, it prohibited apple producers in the State of Washington from labeling their apples with the Washington State grade, which consumers nationwide recognized and preferred.⁸⁹ The law disadvantaged Washington apple producers because they were not allowed to take advantage of that consumer preference, but the law had “no similar impact on the North Carolina apple industry and thus operated to its benefit.”⁹⁰ This law failed the disproportionate-burden test because the state interest in prohibiting a variety of labels to reduce consumer confusion did not justify its inefficient effects as a trade barrier.

a. Is California Senate Bill 1368 a Trade Barrier?

California Senate Bill 1368 creates a disproportionate burden on out-of-state power producers compared to in-state power producers because of the nature of the energy market in the state.⁹¹ This market has three key features that disproportionately place the effects of California Senate Bill 1368's restrictions on out-of-state producers. First, California depends on imported power for about one third of its energy needs.⁹² Second, there are almost no coal-fired plants operating in the state.⁹³ Finally, coal-burning plants outside of California provide about twenty percent of California's electricity.⁹⁴ Traditional coal-fired power plants, which do not use the rare and expensive modern sequestration systems, generate significantly more GHG emissions than California Senate Bill 1368's performance standard would allow. Therefore, California would effectively ban power from out-of-state coal plants.

California Senate Bill 1368 would not have a similar effect on most in-state power producers because coal makes up only seven percent of in-state

88. *Hunt v. Wash. State Apple Adver. Comm'n*, 432 U.S. 333, 335 (1977) (quoting N.C. GEN. STAT. § 106-189.1 (1973)).

89. *Id.* at 351.

90. *Id.*

91. *See Gross, supra* note 3, at 225–26 (describing the potential economic impacts of a California cap-and-trade program); *Visick, supra* note 19, at 271–72 (arguing that California Senate Bill 1368 “will have a significant discriminatory effect on interstate commerce”); *Commerce Clause Implications, supra* note 67 (“Critics who suggest that SB 1368 is discriminatory in effect base their argument on the characteristics of the California energy market, which . . . is dependent on imported energy and devoid of domestic coal plants.”). However, some constitutional-law scholars have argued that California's climate-change measures do not have discriminatory effects and, therefore, avoid the strict scrutiny of the disproportionate-burdens test. Erwin Chemerinsky et al., *California, Climate Change, and the Constitution*, 37 ENVTL. L. REP. 10,653, 10,659 (2007) (concluding that “California's legislation will survive a legal challenge under the dormant Commerce Clause if it avoids strict scrutiny” and suggesting ways that California can avoid this classification).

92. *Commerce Clause Implications, supra* note 67.

93. *Id.*

94. *Id.*

power.⁹⁵ The California Climate Action Team has predicted that a comprehensive GHG-mitigation program “will produce net economic gains for the state, including 83,000 jobs and approximately \$4 billion in gross income.”⁹⁶ Although California Senate Bill 1368 is only a small part of the state’s comprehensive program, it may bring economic benefits to clean in-state power producers.

Therefore, a court could very well conclude that California Senate Bill 1368 acts as a trade barrier against out-of-state power producers. There is some evidence, however, that this would not be a just result because California Senate Bill 1368 may actually harm the California economy as a whole. California’s Attorney General estimates that in-state businesses will suffer the most under California Senate Bill 1368.⁹⁷ He explained that the California Electricity Commission “currently estimates that more in-state than out-of-state baseload generation facilities would fail to meet the [energy performance standard] and that more imported electricity than locally generated electricity” may meet the standard.⁹⁸

b. Does California’s Local Benefit Outweigh Its Discriminatory Effects?

The Court has upheld some state laws in spite of the appearance that the purpose of the statute was to confer a benefit on local businesses.⁹⁹ As Justice Blackmun explained, “if discrimination results from a statute, the burden falls upon the state or local government to demonstrate legitimate local benefits justifying the inequality and to show that less discriminatory alternatives cannot protect the local interests.”¹⁰⁰

The California General Assembly set forth the purposes of California Senate Bill 1368 in the text of the bill.¹⁰¹ “The Legislature finds and declares” a list of the statute’s purposes:

95. *Id.*

96. DeShazo & Freeman, *supra* note 59, at 1518 n.56 (discussing CAL. CLIMATE ACTION TEAM, CAL. ENVTL. PROT. AGENCY, REPORT TO GOVERNOR SCHWARZENEGGER AND THE LEGISLATURE 65 (2006), http://www.climatechange.ca.gov/climate_action_team/reports/2006_report/2006-04-03_FINAL_CAT_REPORT.PDF).

97. See Commerce Clause Implications, *supra* note 67 (explaining the California Attorney General’s position that California Senate Bill 1368 will burden in-state businesses more than out-of-state businesses).

98. Interim Opinion, *supra* note 70, at 209–10 (internal citations and quotations omitted).

99. See *Minnesota v. Clover Leaf Creamery Co.*, 449 U.S. 456, 460 (1981) (upholding a facially neutral regulation despite evidence that it was designed to “promote the economic interests of certain segments of the local dairy and pulpwood industries at the expense of the economic interests of other segments of the dairy industry and the plastics industry” (quoting the district court’s findings)).

100. *Exxon Corp. v. Governor of Md.*, 437 U.S. 117, 136 (1978) (Blackmun, J., concurring in part and dissenting in part).

101. S.B. 1368, 2005–2006 Leg., Reg. Sess. (Cal. 2006) (codified at CAL. PUB. UTIL. CODE § 8340 (West Supp. 2008)).

- [1] Global warming will have serious adverse consequences on the economy, health, and environment of California.
- [2] [To meet the goals of] the Governor, [who,] in Executive Order S-3-05, has called for the reduction of California's emission of greenhouse gases to 1990 levels by 2020.
- [3] To . . . encourage the development of cost-effective, highly-efficient, and environmentally-sound supply resources to provide reliability and consistency with the state's energy priorities.
- [4] [To] . . . internalize the significant and underrecognized cost of emissions . . . and to reduce California's exposure to costs associated with future federal regulation of these emissions.
- [5] [To] . . . reduce potential financial risk to California consumers for future pollution-control costs.
- [6] [To] . . . reduce potential exposure of California consumers to future reliability problems in electricity supplies.
- [7] In order to have any meaningful impact on climate change, the Governor's goals for reducing emissions of greenhouse gases must be applied to the state's electricity consumption, not just the state's electricity production.¹⁰²

These objectives relate to the conclusions of the California Energy Commission's 2005 Integrated Energy Policy Report, which articulated these goals and recommended what became the law under California Senate Bill 1368: an emission-performance requirement at "the levels achieved by a new combined-cycle natural gas turbine."¹⁰³

However, dormant Commerce Clause analysis charges courts with more than "merely accept[ing] without analysis purported local interests."¹⁰⁴ Rather, the Court "independently identifies the character of the interests and judges for itself whether alternatives will be adequate."¹⁰⁵ Therefore, it is unlikely that courts will accept the legislature's stated purposes, but rather, will conduct an independent analysis of the character of those state interests and judge their value.¹⁰⁶

102. *Id.* These purposes are listed in the statute under letters "a" through "m." However, this Note combines them into the seven key interests that they represent.

103. CAL. PUB. UTIL. CODE § 8340, hist. n.1(l) (West Supp. 2008); *see* CAL. ENERGY COMM'N, 2005 INTEGRATED ENERGY POLICY REPORT E-14 (2005), <http://www.energy.ca.gov/2005publications/CEC-100-2005-007/CEC-100-2005-007-CTF.PDF> (discussing the state's energy needs and proposals for meeting those needs in the future).

104. *Exxon Corp.*, 437 U.S. at 137.

105. *Id.*

106. *See infra* Part III.B.2.a (arguing that California's interest in reducing GHG emissions is indefinable).

2. California Senate Bill 1368 Under the *Pike* Balancing Test

If courts find that the differing burdens on in-state and out-of-state power companies are not discriminatory in effect, then they will analyze the statute under the *Pike* balancing test for non-discriminatory state laws that burden interstate commerce.¹⁰⁷ Under this test, if the statute “regulates even-handedly to effectuate a legitimate local public interest, and its effects on interstate commerce are only incidental, it will be upheld unless the burden imposed on such commerce is clearly excessive in relation to the putative local benefits.”¹⁰⁸

Pike v. Bruce Church, Inc. invalidated an Arizona statute that sought to prohibit in-state produce growers from exporting their produce unless they crated and labeled the produce within the state. The Court concluded that the state had a legitimate local interest in “having the company’s cantaloupes identified as originating in Arizona.”¹⁰⁹ However, the Court found that the statute’s burden on interstate commerce was excessive in relation to that local benefit because it prevented a cantaloupe producer from exporting its crop without building and operating an “unnecessary \$200,000 packing plant in the State” instead of using an out-of-state packager.¹¹⁰ The Court concluded that the “State’s tenuous interest . . . cannot constitutionally justify” its burden on the producers and on interstate commerce.¹¹¹

Similarly, California Senate Bill 1368’s validity under the *Pike* balancing test will depend on whether California’s value in reducing GHG emissions is merely “tenuous.” Some commentators have argued that this interest is certainly tenuous because it does not effectively solve the global problem of climate change.¹¹² On the other hand, the Supreme Court has recently rejected a similar argument in the context of standing in *Massachusetts v. EPA*.¹¹³ It found that plaintiffs had standing to challenge the EPA’s failure to regulate GHG emissions from motor vehicles under the Clean Air Act because, although “regulating motor-vehicle emissions will not by itself reverse global warming, it by no means follows that we lack jurisdiction to decide whether EPA has a duty to take steps to *slow* or *reduce* it. . . . A reduction in domestic emissions would slow the pace of global emissions increases”¹¹⁴ Both of these arguments are logical, and the outcome of

107. *Pike v. Bruce Church, Inc.*, 397 U.S. 137, 142 (1970).

108. *Id.*

109. *Id.* at 145.

110. *Id.*

111. *Id.*

112. Visick, *supra* note 19, at 273.

113. *Massachusetts v. EPA*, 549 U.S. 497 (2007).

114. *Id.* at 499–500.

California Senate Bill 1368 under dormant Commerce Clause analysis will depend on how the judiciary values California's interest.

B. THE VALUE OF CALIFORNIA'S INTEREST IN REDUCING GHG EMISSIONS IS A POLITICAL QUESTION

Political questions are those that are "more effectively resolved by the political branches of government and are therefore inappropriate for judicial resolution."¹¹⁵ There are two different ways to understand this doctrine. First, commentators have described it as a constitutional imperative confining the judiciary to its constitutionally prescribed bounds, which cannot include the areas granted to other branches.¹¹⁶ Second, other commentators have described it as a prudential doctrine in which the judiciary avoids answering political questions because "certain issues simply do not lend themselves to principled judicial resolution."¹¹⁷

There are two logical ways to define the value of California's interest in reducing its GHG emissions: it is either valueless because the state cannot stop climate change, or it is of great value to the future of the planet because reducing GHG emissions can help mitigate the problem. The unpredictability of the outcome of judicial definition of this value reveals that this is a political question as outlined in *Baker v. Carr*: "[p]rominent on the surface of any case held to involve a political question is found a textually demonstrable constitutional commitment of the issue to a coordinate political department; or a lack of judicially discoverable and manageable standards for resolving it"¹¹⁸

Dormant Commerce Clause analysis itself has its source in judicial precedent rather than statutory grant.¹¹⁹ It is also known as the negative commerce power because it stems from the Constitution's affirmative grant of authority to Congress to regulate commerce among the states. From this grant of authority to Congress, the Court infers a denial of authority for

115. Martin H. Redish, *Judicial Review and the "Political Question,"* 79 NW. U. L. REV. 1031, 1031 (1985).

116. *Id.* at 1032 (summarizing Professor Wechsler's argument in Herbert Wechsler, *Toward Neutral Principles of Constitutional Law*, 73 HARV. L. REV. 1, 6-9 (1959), and describing the political-question doctrine).

117. *Id.* (summarizing Professor Bickel's argument in A. BICKEL, *THE LEAST DANGEROUS BRANCH* 183-98 (1962)).

118. *Baker v. Carr*, 369 U.S. 186, 217 (1962); see Chemerinsky et al., *supra* note 91, at 10,664 ("Because of the subjective nature of [dormant Commerce Clause analysis], the upshot of judicial review is often difficult to predict. Part of the challenge is that this balancing test requires the reviewing court to balance incommensurate values.").

119. See *Camps Newfound/Owatonna, Inc. v. Town of Harrison*, 520 U.S. 564, 620 (1997) (Thomas, J., dissenting) (arguing that the Court should not apply dormant Commerce Clause analysis to invalidate state laws because it should "confine itself to interpreting the text of the Constitution, which . . . leaves to Congress the policy choices necessary for any further regulation of interstate commerce").

states to regulate the same.¹²⁰ Since the source of dormant Commerce Clause analysis is judicial opinions, the question of a law's validity under dormant Commerce Clause analysis is, by definition, a justiciable question. However, in the case of California Senate Bill 1368, dormant Commerce Clause analysis includes a nonjusticiable political question nestled within it: What is the value of California's state interest in reducing its GHG emissions?

1. The Text of the Constitution Gives the Legislative Branch Authority to Define the Value of California's Interest

The Supreme Court has refused to decide some questions because the Constitution gives the legislative branch authority to resolve them. In *Luther v. Borden*, the Court refused to decide what made up the "republican form of government" that the Constitution guarantees and, therefore, which government of Rhode Island was properly entitled to power after a period of political unrest.¹²¹ The Court explained that "[u]nder this article of the Constitution it rests with Congress to decide what government is the established one in a State."¹²²

Congress can effectively invalidate California Senate Bill 1368 under its Commerce Clause power by preempting it with federal legislation.¹²³ Congress can also uphold California Senate Bill 1368 and protect it from judicial challenges under dormant Commerce Clause analysis by giving states permission to regulate interstate commerce in a given area.¹²⁴ Congress essentially has the same power that the judiciary would have in evaluating California Senate Bill 1368: to decide if the state interest in reducing GHG emissions is valuable enough to justify its burdens on interstate commerce.¹²⁵

120. See *Gibbons v. Ogden*, 22 U.S. (9 Wheat.) 1, 93 (1824) (commenting that the provision of the Constitution that "specifies those powers which the States are precluded from exercising . . . negatives the exercise of that power to the States"). But see Martin H. Redish & Shane V. Nugent, *The Dormant Commerce Clause and the Constitutional Balance of Federalism*, 1987 DUKE L.J. 569, 571 ("[T]he simple fact is that there is no dormant commerce clause to be found within the text or textual structure of the Constitution.").

121. *Luther v. Borden*, 48 U.S. (7 How.) 1, 1-2, 26 (1849).

122. *Id.* at 42.

123. See *supra* note 79 (discussing federal-preemption challenges to state climate-change laws).

124. See Visick, *supra* note 19, at 279 ("Congress can shield California's greenhouse gas regulations from claims under the dormant Commerce Clause by passing a resolution authorizing California to interfere with interstate commerce as necessary to prevent leakage.").

125. *W. & S. Life Ins. Co. v. State Bd. of Equalization*, 451 U.S. 648, 652-53 (1981) ("If Congress ordains that the States may freely regulate an aspect of interstate commerce, any action taken by a State within the scope of the congressional authorization is rendered invulnerable to Commerce Clause challenge."), discussed in ERWIN CHEMERINSKY, *CONSTITUTIONAL LAW: PRINCIPLES AND POLICIES* 449 (3d ed. 2006).

One could argue that all dormant Commerce Clause analysis is inappropriate under the political-question doctrine because any state law can be either preempted or approved by congressional action. For example, Martin Redish and Shane Nugent have argued that “while the framers selected what they deemed especially egregious or disruptive state economic practices for express constitutional prohibition, they apparently decided that in the great majority of situations the exercise of state authority should be presumed valid, subject solely to the political check of Congress’s preemptive power.”¹²⁶

Redish and Nugent were especially concerned that judicial oversight through dormant Commerce Clause jurisprudence would upset a precarious balance of power between Congress and the states:¹²⁷

By vesting initial oversight power in the judiciary, rather than Congress, the dormant commerce clause shifts the political inertia against the states in the regulation of interstate commerce, and leaves federal oversight of state regulation in the hands of the governmental body traditionally thought to be least responsive to state concerns.¹²⁸

Similarly, Justice Thomas has argued that the Court should “confine itself to interpreting the text of the Constitution, which . . . leaves to Congress the policy choices necessary for any further regulation of interstate commerce.”¹²⁹ Justice Thomas concluded that dormant Commerce Clause jurisprudence “undermines the delicate balance in what we have termed ‘Our Federalism,’” and that “every Member of the current Court and a goodly number of our predecessors have at least recognized these problems, if not been troubled by them.”¹³⁰

126. Redish & Nugent, *supra* note 120, at 597.

127. *Id.*

128. *Id.* at 617.

129. *Camps Newfound/Owatonna, Inc. v. Town of Harrison*, 520 U.S. 564, 620 (1997) (Thomas, J., dissenting).

130. *Id.* at 611–12 (footnotes omitted) (quoting *Younger v. Harris*, 401 U.S. 37, 44 (1971)). Justice Thomas also argued that dormant Commerce Clause analysis “has no basis in the text of the Constitution, makes little sense, and has proved virtually unworkable in application.” *Id.* at 610. In 2008, Justices Thomas and Scalia made similar arguments in concurrences to *Department of Revenue v. Davis*, 128 S. Ct. 1801, 1821–22 (2008).

The Court has justified its dormant Commerce Clause analysis by explaining that it did not want to burden Congress with the task of validating or invalidating countless local and state laws. *Duckworth v. Arkansas*, 314 U.S. 311, 316 (1941) (Jackson, J., concurring) (“[T]hese restraints are individually too petty, too diversified, and too local to get the attention of a Congress hard pressed with more urgent matters.”); see also Daniel A. Farber, *Climate Change, Federalism, and the Constitution*, 50 ARIZ. L. REV. 879, 892 (2008) (describing this issue). Farber explains:

The tension between the local interest in regulation and the economic interests of other states cannot be resolved effectively by the courts of any of the states

Whether one agrees with Redish and Nugent's argument that all dormant Commerce Clause jurisprudence is a usurpation of state power and unnecessary in the face of congressional power to overrule the states, their criticisms are especially poignant within the unique political situation that has arisen in the debate over the value of mitigating climate change. State regulations of GHG emissions respond to the worldwide problem of climate change in the absence of a federal solution.¹³¹ However, past efforts to lobby Congress to take on climate change have failed. Other states still value climate-change mitigation at zero because of skepticism about the science of climate change or the free-rider problem.¹³² The activist states responded to their inability to win a majority in Congress with the only means they had to address their growing concerns: state-level regulation.

Although these state initiatives achieve some reductions in GHG emissions, their most powerful force against climate change may be their role in efforts to lobby Congress. "Individual state actions create a patchwork of policies around the country that is . . . inefficient for business[. . .]. This patchwork, however, often inspires the regulated community to lobby the federal government for national action."¹³³

Under the specter of state regulations, industry stakeholders are lobbying Congress to act. Some anticipate federal regulations in the future and believe that the uncertainty of not being able to prepare adequately for future regulation is costly.¹³⁴ Others hope that a federal statute will expressly

involved. . . . Thus, Congress is the ideal forum for resolving these conflicts, but it often cannot attend to these issues because of more pressing legislative concerns.

Id.

131. See *supra* Part II.E (noting the emergence of state regulation in the absence of federal action).

132. See *supra* Part II.C (discussing Congress's valuation of the costs and benefits of mitigating climate change).

133. Bolster, *supra* note 21, at 760. Industries have responded in similar ways in other environmental negotiations. For example, in an EPA negotiation of new rules for clean fuels, states threatened to issue their own rules if they found that the federal rules were too weak. Matthew L. Wald, *U.S. Agencies Use Negotiations to Pre-empt Lawsuits over Rules*, N.Y. TIMES, Sept. 23, 1991, at A1. The industry's fear that this threat would create "a patchwork system of gasoline regulations" was an "incentive for the industry to reach an agreement." *Id.*

134. Dru Stevenson, *Special Solicitude for State Standing: Massachusetts v. EPA*, 112 PENN. ST. L. REV. 1, 64 (2007) ("If the regulated industry perceives rulemaking to be inevitable at some point in the future, but subject to a wide range of possible tracks, then it reduces uncertainty significantly to get the initial regulatory phase out of the way."). Stevenson related this to the principle of Knightian uncertainty, which differentiates between risk, the odds of which are known, and uncertainty, concluding that:

[T]he decreased uncertainty resulting from more regulation can provide a benefit that offsets—or even outweighs—the greater compliance costs that those regulations impose on the regulated industry. Increased compliance costs may lower net revenues (mistakenly called "profits" in common parlance), but greater uncertainty can lower investment or share prices, independent of the company's earnings statement.

preempt state laws, reducing the costs of a patchwork of regulations and also averting the strictest of state standards.¹³⁵

If state laws mandating GHG reductions are invalid under the dormant Commerce Clause, industries would not have this impetus to lobby Congress. Therefore, invalidation would be a tremendous victory for those who support business-as-usual under the legislation-devoid status quo. It would take away the states' power to act individually when they believe their federal legislative body is bogged down in outdated economics.¹³⁶ As Redish and Nugent feared, invalidation of California Senate Bill 1368 would shift "the political inertia against the states."¹³⁷ It would leave federal valuation of GHG-emission reductions "in the hands of the governmental body traditionally thought to be least responsive to state concerns."¹³⁸

2. There Are No Judicially Discoverable and Manageable Standards for Defining the Value of California's Interest

Under the political-question doctrine, the Court will not answer questions that require it "to enter upon policy determinations for which judicially manageable standards are lacking."¹³⁹ The Supreme Court has recently discussed the impracticality of judicial cost-benefit analysis for the purpose of defining state interests under its dormant Commerce Clause analysis. It refused to value a system of state tax incentives for government bonds to apply the *Pike* balancing test.¹⁴⁰ After setting forth a list of absurdly difficult questions that would be required to make this valuation, the Court explained that:

What is most significant about these cost-benefit questions is not even the difficulty of answering them or the inevitable uncertainty of the predictions that might be made in trying to come up with answers, but the unsuitability of the judicial process and judicial forums for making whatever predictions and reaching whatever answers are possible at all. . . .

Id.; see also Albert C. Lin, *The Unifying Role of Harm in Environmental Law*, 2006 WIS. L. REV. 897, 965 ("As with the concept of harm generally, whether risk constitutes harm is ultimately a question of social norms.").

135. See generally Golden, *supra* note 57 (describing the role of state action in shaping federal policy).

136. RABE, *supra* note 18, at 38–73 (describing the economics of state climate-change policy). As Paul Hawken has explained, when an industry articulates the costs and benefits of resource use, "we are not being schooled in classical economics, nor in neoclassical economics, but in Exxonian economics that are at the service of corporate development." PAUL HAWKEN, *THE ECOLOGY OF COMMERCE* 161–89 (1993).

137. Redish & Nugent, *supra* note 120, at 617.

138. *Id.*

139. *Baker v. Carr*, 369 U.S. 186, 226 (1962).

140. *Dep't of Revenue v. Davis*, 128 S. Ct. 1801, 1818 (2008).

. . . Congress has some hope of acquiring more complete information than adversary trials may produce, and an elected legislature is the preferable institution for incurring the economic risks of any alteration in the way things have traditionally been done.¹⁴¹

Courts would be left with a similarly unmanageable set of standards for defining California's interest in reducing its contributions to climate change, and this unmanageability reveals the political, rather than judicial, nature of this task.

a. California's Interest in Reducing GHG Emissions Is Indefinable

Defining California's interest in reversing climate change would require conclusions that have eluded political scientists, climate scientists, and economists for decades. The uncertainties of climate change provide thousands of ways for economists to run the numbers to declare a "cost" of climate change and a "value" of the state's interest in reducing it.¹⁴²

California Senate Bill 1368 is similar to *Luther v. Bordon*, in which the Court applied the political-question doctrine to refuse to decide if Rhode Island's electoral process violated the Constitution's guarantee of a "republican form of government."¹⁴³ Just as there is not one way to define what "Republican" meant for the people of Rhode Island, there is not one way to define what California Senate Bill 1368's GHG reductions are worth to the State of California.¹⁴⁴

There is no consensus among economists about what benefit climate-change mitigation will have for the State of California. For example, the California legislature declared that climate change "poses a serious threat to the economic well-being, public health, natural resources, and the environment of California,"¹⁴⁵ and its economists estimated the damages in the billions of dollars.¹⁴⁶ In contrast, other cost-benefit analyses have concluded that climate change would not cause harm to the country, or that the losses would be very minor.¹⁴⁷ These analyses vary in their estimates of

141. *Id.* at 1818–19 (citations omitted).

142. "[T]he economics of the subject are too uncertain for policymakers to lean heavily on them, so in the end it will be the politicians who decide." *A Survey of Climate Change: Dismal Calculations*, *ECONOMIST*, Sept. 9, 2006 [hereinafter *Dismal Calculations*].

143. *Luther v. Bordon*, 48 U.S. (7 How.) 1, 22 (1848).

144. See *Dismal Calculations*, *supra* note 142 ("The range of estimates of the cost of mitigating climate change is not quite as large as that of estimates of the damage caused by climate change, but big enough to make it hard to decide between action and inaction.").

145. CAL. HEALTH & SAFETY CODE § 38501 (West 2006 & Supp. 2008).

146. OUR CHANGING CLIMATE, *supra* note 63, at 5 (valuing the industries that would be harmed by climate change).

147. See VAN KOOTEN, *supra* note 48, at 47 (describing a cost-benefit analysis using crop simulation and economic models to conclude that climate change in the United States "could

the cost of changes and in their assessment of the risk that those changes will occur.¹⁴⁸

Nobel laureate Robert Solow has explained that “[t]he underlying rationale of cost-benefit analysis is that the cost of the good thing to be obtained is precisely the good thing that must or will be given up to attain it.”¹⁴⁹ Critics note, however, that cost-benefit analysis “presumes by its very nature the availability of good data and understanding regarding the magnitude of physical and economic effects of various climate change scenarios, as well as the probability that those scenarios will occur.”¹⁵⁰ However, “uncertainty pervades, we may even say defines, the climate change problem.”¹⁵¹

Three key uncertainties¹⁵²—future temperature increases, the climate response to temperature increases, and the costs of climate changes—reveal the depth of the unpredictability that plagues any probable valuation of local benefits from California Senate Bill 1368.¹⁵³

lead to an overall increase or decrease in well being, but that such changes were generally small”).

148. See Joni Hersch & W. Kip Viscusi, *Allocating Responsibility for the Failure of Global Warming Policies*, 155 U. PA. L. REV. 1657, 1685 (2007) (arguing that some risks have enough data to estimate losses, but climate change is not one of those risks).

149. Steven Kelman, *Cost Benefit Analysis: An Ethical Critique*, in *ECONOMICS OF THE ENVIRONMENT: SELECTED READINGS* 355, 368 (Robert Stavins ed., 5th ed. 2005) (quoting economist Robert Solow), *quoted in* KEOHANE & OLMSTEAD, *supra* note 50, at 47.

150. Douglas A. Kysar, *Climate Change, Cultural Transformation, and Comprehensive Rationality*, 31 B.C. ENVTL. AFF. L. REV. 555, 563 (2004). Kysar argues:

Under such conditions, scientists cannot and should not rule out the possibility that the uncertain system will behave according to what are known as power law distributions, in which “there is no [meaningful] ‘average’ event,” but rather “simply many small ones, a few larger ones, and occasionally extremely large ones.” Significantly, our current understanding suggests that climate change may represent just such a chaotic system. Statistical uncertainty procedures, in contrast, typically presume a world that is incapable of the “nasty surprises” entailed by power law distributions. Thus, rather than adopting the type of precautionary approach that is counseled by the implications of complexity theory, [cost-benefit analysis] instead seems to adopt a process of highly sophisticated, but potentially groundless, statistical roulette.

Id. at 568 (citations omitted); see also Hersch & Viscusi, *supra* note 148, at 1685 (arguing that scientists are not able to estimate the risk of climate-change losses).

151. Kysar, *supra* note 150, at 563.

152. See VAN KOOTEN, *supra* note 48, at 46 (describing the difficulty of predicting future climate events and estimating related expected damages); Kysar, *supra* note 150, at 562–89 (defining four limitations on the use of cost-benefit analysis in the context of climate change: uncertainty, valuation, discounting, and vision). See generally Myles Allen et al., *Scientific Challenges in the Attribution of Harm to Human Influence on Climate*, 155 U. PA. L. REV. 1353 (2007) (discussing the difficulty of establishing a direct causal link between specific climatic events and GHG emissions for the purposes of causal-attribution claims).

153. Commentators disagree in their predictions of how the courts will value climate-change mitigation. For example, Yvonne Gross concluded:

i. How Much Will Temperatures Rise?

To value climate-change mitigation, it would first be necessary to determine how much global temperatures will rise. To do so, scientists must estimate at what level GHG will be emitted into the atmosphere.¹⁵⁴

The question of future emissions involves predictions about future international political consensus, technological innovations, and economic development.¹⁵⁵ These three variables are all related to one another. For example, the “path of technological progress in the future” depends upon “the future course of public policies in all nations around the globe” because parties will invest in research only when policies provide the “incentive to demand these technologies.”¹⁵⁶

The future level of GHG emissions may also depend on factors unrelated to future human activity. Even if humans ceased emitting GHG tomorrow, there would still be an increase in GHG emissions over pre-industrial levels because the warming that has occurred and will occur as a result of past emissions causes feedback loops that cause greater warming.¹⁵⁷ For example, as the temperatures near the poles increase, the permafrost

[T]he burden on interstate commerce of a state-imposed CO₂ cap-and-trade program targeting the electric sector is clearly excessive to any putative value that may be obtained. Therefore, under analysis of both the discriminatory and non-discriminatory burdens on interstate commerce, such programs are unconstitutional as violative of the Commerce Clause.

Gross, *supra* note 3, at 229. However, others assume that the Court will acknowledge GHG reductions and the creation of this public good as a legitimate local interest. Weissberg, *supra* note 1, at 216 (“Given the serious threat that climate change poses to California’s environment and its citizens, and the significant amount of GHGs that California emits, . . . regulations that reduce California’s emissions, especially when combined with other states’ and countries’ efforts, will effectuate a legitimate local environmental interest.”); Peter Carl Nordberg, 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, 2090 (2007) (“[T]here are several reasons to believe that the local benefit created by the law is sufficient to prevent it from being found unconstitutional under the dormant Commerce Clause.”).

154. Howard F. Chang, *Reasonable Emissions of Greenhouse Gases: Efficient Abatement for a Stock Pollutant*, 155 U. PA. L. REV. 1869, 1873 (2007) (“We need to determine not only the path of technological progress in the future but also the future course of public policies in all nations around the globe.”). Chang suggests that in the context of public nuisance litigation over GHG emissions and environmental damages, the task of predicting future emissions would be a political question because a “court would have to evaluate the prospects for effective regulation in the future, which would in turn depend on an evaluation of the political power of opposing interest groups.” *Id.*

155. *Id.*

156. *Id.*

157. SYNTHESIS REPORT, *supra* note 33, at 4; *A Survey of Climate Change: In the Loop*, ECONOMIST, Sept. 7, 2006 [hereinafter *In the Loop*] (describing scientific conclusions that “a bit of warming may set off mechanisms that lead to much more warming” and that once that starts happening, “mankind will lose the opportunity to control the pace of change”).

that has covered its surface for thousands of years melts.¹⁵⁸ This melting process exposes ancient frozen plant material to the surface, which begins to decompose, releasing into the atmosphere GHG that had been trapped in permafrost.¹⁵⁹ Scientists disagree about the effect these feedback loops will have on future GHG levels in the atmosphere.¹⁶⁰

Even if political analysts and scientists could agree on how much carbon will be in the atmosphere, there is a great deal of uncertainty about what effects those gases will have on the average global surface temperature. Scientists predicted in the 1970s that the change could range between 1.5 to 4.5 degrees Celsius.¹⁶¹ Current predictions closely resemble those numbers as well, but this range is far from precise.¹⁶²

ii. How Will California's Climate Respond to Warming?

The next necessary step of valuation would be to determine how temperature changes will change the world's climate. Climate is not a linear system, so "[p]redicting how much hotter a particular level of carbon dioxide will make the world is impossible. It's not just that the precise effect of greenhouse gases on temperature is unclear. It's also that warming has countless indirect effects."¹⁶³ Extra heat in the atmosphere may not lead to warming; "[i]t may set off mechanisms that tend to cool things down (clouds which block out sunlight, for instance) or ones that heat the world further The system could right itself or spin out of human control."¹⁶⁴

The problem with these predictions and the reason for their variety is their relationship to climate modeling.¹⁶⁵ Although climate models are necessary to make any judgments about future effects, the only thing scientists can agree on with regard to creating models is that they are inherently flawed. For example, as one climate scientist explained, climate models are necessary, but "[a]ny climate person who believes in a model should have their head examined."¹⁶⁶

California anticipates a variety of consequences from climate change within the state. Official state estimates say that California can expect to lose

158. *In the Loop*, *supra* note 157.

159. *Id.*

160. *Id.*

161. Schelling, *supra* note 44, at 9. This number is based on the assumption that GHG emissions would double before that time. *Id.*

162. *See id.* (describing the sources of uncertainty in these predictions).

163. *A Survey of Climate Change: The Heat Is On*, *ECONOMIST*, Sept. 7, 2006.

164. *Id.*

165. Hersch & Viscusi, *supra* note 148, at 1685 ("Scientists estimate various models regarding temperature shifts, and based on these models there are scientific predictions as to the consequences. However, there are broad bands of error associated with these estimates, as we are dealing with a situation of uncertainty rather than simply one of risk.")

166. *A Survey of Climate Change: Reaping the Whirlwind*, *ECONOMIST*, Sept. 7, 2006 (quoting Professor Bill Gray of the Colorado State University meteorology department).

snow pack in the Sierras, see a rise in sea levels, have more heat-wave days and ozone dangers in its cities, and suffer droughts, decreased forest yields, and wildfires.¹⁶⁷ However, the State expects that the severity of these effects will depend on the future worldwide emissions of GHG.¹⁶⁸

iii. What Will Climate Changes Cost?

The final problem in predicting the benefits of climate-change mitigation is estimating the costs of climate change itself.¹⁶⁹ While the costs of mitigation depend on a variety of factors,¹⁷⁰ the best way to calculate the benefits of mitigating climate change would be to estimate the damages of climate change.¹⁷¹ A proper estimate of damages could help California or other entities predict the value of the public good they would create by avoiding climate change. However, estimating the cost of the damages of climate change is “problematic and controversial” because costs are distant and speculative, accrue to future generations, and are nonmarket in nature.¹⁷²

California considers the effects of climate change to be a threat to every sector of its economy, including its energy sustainability.¹⁷³ These include “the temperature and precipitation effects . . . [that] could alter future hydrologic conditions, which affect hydroelectric supply”; increased energy demand due to a demand for cooling; and a reduction in the “amount of surface water available for irrigation.”¹⁷⁴ California anticipates that “[u]nder a worst case scenario (a rise in 1.9 degrees Centigrade), the State’s electricity requirements would increase by about 7,500 GWh of energy and by 2,000 MW of peak capacity in 2010.”¹⁷⁵

Even if these predictions are correct, the cost of damages is uncertain because damages are felt differently in different places, at different times,

167. Union of Concerned Scientists, *Global Warming’s Impact on California*, <http://www.solutionsforglobalwarming.org/docs/ucs-ca-impacts.pdf> (last visited Feb. 1, 2009).

168. *Id.*

169. See VAN KOOTEN, *supra* note 48, at 18–19 (explaining the costs and benefits of reducing CO₂ emissions).

170. “The costs of mitigation depend principally on three factors. . . . [H]ow far energy demand can be reduced by relatively cheap energy-efficiency measures[,] . . . how fast the price of renewable technologies will fall[, and] . . . how fast emissions are brought down.” *Dismal Calculations*, *supra* note 142.

171. See VAN KOOTEN, *supra* note 48, at 46 (explaining that economic models are in their infancy and probably overstate the costs of mitigation).

172. *Id.* at 18–19.

173. CAL. ENERGY COMM’N, 2005 INTEGRATED ENERGY POLICY REPORT 162–63 (2005), <http://www.energy.ca.gov/2005publications/CEC-100-2005-007/CEC-100-2005-007-CTF.PDF> [hereinafter INTEGRATED ENERGY]. See generally Leanne Kent, *Protecting Farmers from Global Warming: California Faces Legal Challenges Regulating Greenhouse Gases*, 17 SAN JOAQUIN AGRIC. L. REV. 135 (2007) (examining the legislature’s motives in enacting California Senate Bill 1368).

174. INTEGRATED ENERGY, *supra* note 173, at 162–63.

175. *Id.* at 163 (footnote omitted).

and in different economic circumstances.¹⁷⁶ To predict the cost of expected damages, one must predict what the world will be like years from now when the changes in climate reach their peak.¹⁷⁷ There is a basic disagreement about the ability of future generations to manage the impact of climate change between those who are optimistic about human progress and those who believe that the impact of climate change will stall that progress.¹⁷⁸

Those who argue that the costs of acting exceed the benefits of mitigation often argue that “any changes in temperature and moisture need to be superimposed on those areas as they are likely to be 50 or 75 years from now, with better sanitation, nutrition and medical and environmental technology, cleaner water, and the potential eradication of vector-borne diseases.”¹⁷⁹

In contrast, others argue that the climate’s unpredictability makes these predictions about future improvements unrealistic. Since climate change forces humanity to face “a genuinely new situation[, i]t is not an environmental crisis in the accepted sense. It is a crisis for the entire life-support system of our civilization and our species. . . . The rules of the game have changed.”¹⁸⁰

Valuation of a state’s efforts to mitigate climate change raises a familiar issue in environmental cost–benefit analysis: how to judge the value of environmental changes.¹⁸¹ Answers to this question range between one extreme of valuing environmental harms as whatever human beings are willing to pay to avoid them,¹⁸² and the other extreme of including in the value the suffering of animals harmed by environmental changes.¹⁸³

Examination of these three factors illustrates the difficulty in determining the value of climate-change mitigation to California. Political scientists cannot predict future levels of GHG emissions because they cannot

176. Schelling, *supra* note 44, at 8.

177. *Id.* at 8–9 (discussing variables in determining who will bear the cost of climate change).

178. *Id.* at 14 (“There are two issues here. One is whether, in benefits . . . the return for investing . . . is as great as that for investing in reduced climate change. . . . The second is whether the benefits accrue earlier, to people who are more desperately in need of the help.”).

179. *Id.* at 10.

180. PEARCE, *supra* note 42, at 239–40.

181. Environmentalists argue that the techniques of environmental economics “are eminently suited to assess[] the effect of specific policies, such as reducing concentrations of air pollution, or setting aside a wilderness area for habitat protection. They are simply inadequate to measure the value of global ecosystem services in their entirety.” KEOHANE & OLMSTEAD, *supra* note 50, at 43.

182. *Id.* at 38 (“[The] benefits you derive from a particular good can be measured by what you would be willing to give up for it.”).

183. See generally Wayne Hsiung & Cass R. Sunstein, *Climate Change and Animals*, 155 U. PA. L. REV. 1695, 1705 (2007) (arguing that scientists should increase the cost analysis of climate change dramatically to include the harm it will cause to animals and that “much of social policy has been unduly focused on extinction, to the neglect of the effects on individual animals”).

predict future global political and economic forces. Even if scientists could predict future GHG emissions, they could not agree on a precise estimate of how California's climate would change. And even if scientists could predict the climate outcome, economists could not come to any consensus about the costs of those changes.¹⁸⁴ Therefore, the State's interest in mitigating climate change is indefinable.

It is inappropriate for the judiciary to undertake and rely upon cost-benefit analysis in this case because its limitations prevent experts from achieving anything like consensus. This failure leaves the judiciary without a manageable standard for valuing the state's interest in California Senate Bill 1368.

b. *The Southern District Court of New York Has Held that the Damages of GHG Emissions Have No Judicially Manageable Standards of Resolution*

It is not only environmental activists who have concluded that the damages of GHG emissions are not quantifiable. Power companies who have been sued in public-nuisance claims for their contributions to climate change have prevailed by arguing that the attribution of GHG emissions to climate-change damages is a nonjusticiable political question.¹⁸⁵ In *Connecticut v. American Electric Power Co.*, a federal district court refused to resolve the issue due to the political-question doctrine, explaining that the court faced a "lack of judicially discoverable and manageable standards for resolving it."¹⁸⁶ The court explained that "a non-justiciable political question exists when a court confronts 'the impossibility of deciding without an initial policy determination of a kind clearly for nonjudicial discretion.'"¹⁸⁷

The federal district court in *American Electric Power Co.* did not face the same question that a court would face in a dormant Commerce Clause case, but there is a close relationship between the question the court refused to answer—the damages caused by climate change—and the dormant

184. *Dismal Calculations*, *supra* note 142. Daniel H. Cole critically assessed the Stern Review's economic analysis of the costs and benefits of climate change and the criticisms of the many scholars who have critiqued it. Daniel H. Cole, *The Stern Review and Its Critics: Implications for the Theory and Practice of Cost-Benefit Analysis*, 48 NAT. RESOURCES J. 53, 81–87 (2008). He concluded that "[w]hatever its analytical flaws, Stern is surely right about that most important point, . . . that such uncertainty is not an excuse for inaction, especially where the stakes are enormous, as is arguably the case with climate change." *Id.* at 89.

185. *Connecticut v. Am. Elec. Power Co.*, 406 F. Supp. 2d 265, 274 (S.D.N.Y. 2005), *discussed in* Chang, *supra* note 154, at 1873.

186. *Id.* at 272 (quoting *Baker v. Carr*, 369 U.S. 186, 217 (1962)); *see also* *Comer v. Murphy Oil USA, Inc.*, No. 1:05-CV-436-LG-RHW (S.D. Miss. Aug. 30, 2007) (granting defendant's motion to dismiss on the grounds that the claim presented a political question and therefore was nonjusticiable); *California v. Gen. Motors Corp.*, No. CO6-05755 MJJ, 2007 WL 2726871, at *5–16 (N.D. Cal. Sept. 17, 2007) (relying on factors from *Baker* in finding that the claim was nonjusticiable); Maria V. Gillen, *The Rebirth of the Political Question Doctrine*, 23 NAT. RESOURCES & ENV'T 23, 25–27 (2008) (discussing *Comer* and *General Motors*).

187. *Am. Elec.*, 406 F. Supp. 2d at 272 (quoting *Vieth v. Jubelirer*, 541 U.S. 267, 278 (2004)).

Commerce Clause question of the benefit of avoiding those damages. In that case, a group of states brought a claim against a group of power companies, seeking an order holding them liable for contributing to global warming, an “ongoing public nuisance.”¹⁸⁸ They also sought an injunction against the power companies to abate their contribution to global warming by capping their emissions and “then reducing those emissions by a specified percentage each year for at least a decade.”¹⁸⁹ The court concluded:

Because resolution of the issues presented here requires identification and balancing of economic, environmental, foreign policy, and national security interests, “an initial policy determination of a kind clearly for non-judicial discretion” is required. . . . Thus, these actions present non-justiciable political questions that are consigned to the political branches, not the Judiciary.¹⁹⁰

The court also cited the Supreme Court’s decision in *Chevron U.S.A., Inc. v. Natural Resources Defense Council, Inc.*, which held that the EPA had the discretion to define “source” in the Clean Air Act.¹⁹¹ “As the Supreme Court has recognized, to resolve typical air pollution cases, courts must strike a balance ‘between interests seeking strict schemes to reduce pollution rapidly to eliminate its social costs and interests advancing the economic concern that strict schemes [will] retard industrial development with attendant social costs.’”¹⁹² Therefore, in the case of climate change as a public nuisance, it was impossible to balance these interests “without an ‘initial policy determination’ first having been made by the elected branches to which our system commits such policy decisions.”¹⁹³

The question of the benefits of California Senate Bill 1368 under dormant Commerce Clause analysis would not require a court to police future emission reductions. It would, however, ask courts to police the environmental policy of the state legislatures by declaring the value of the state’s environmental policy. This makes it a political question that is inappropriate for judicial resolution.

188. *Id.* at 270 (quoting plaintiffs’ complaint).

189. *Id.* (quoting plaintiffs’ complaint).

190. *Id.* at 274 (citations omitted). In explaining its political-question decision, the court responded to the power company’s assertions:

[A]sking this Court to resolve an environmental policy question with sweeping implications for the nation’s economy, its foreign relations, and even potentially its national security, [is inappropriate because] the Supreme Court imposes on courts “an unflagging duty” to exercise their jurisdiction appropriately and refrain from resolving questions of high policy, which are for the political branches.

Id. at 271 (quotations and footnote omitted).

191. *Chevron U.S.A., Inc. v. Natural Res. Def. Council, Inc.*, 467 U.S. 837, 847 (1984).

192. *Am. Elec.*, 406 F. Supp. 2d at 272 (quoting *Chevron*, 467 U.S. at 847).

193. *Id.*

IV. A PROPOSAL FOR A PUBLIC-GOODS THRESHOLD TEST UNDER DORMANT COMMERCE CLAUSE ANALYSIS

The political nature of the value of California's interest in California Senate Bill 1368 illuminates the inappropriateness of addressing state-created public goods under traditional dormant Commerce Clause analysis. Instead, this Note proposes that courts apply a threshold test by asking: Is the statute's burden on interstate commerce necessary to create a public good that is most appropriately valued by the political process? If so, courts would presume the statute's validity under dormant Commerce Clause analysis and leave to the legislative branch the responsibility of determining its value.

This threshold test would address the unique nature of public goods that makes traditional dormant Commerce Clause analysis inappropriate. The impact of this test could be to reduce the class of statutes subject to invalidation under traditional dormant Commerce Clause analysis. This Note addresses the impact in two ways. First, it argues that the threshold test is necessary to depart from past dormant Commerce Clause jurisprudence to avoid judicial valuation of public goods that are political questions. Second, it argues in the alternative that the threshold test can be seen as a logical extension of Supreme Court precedents on public goods, rather than a departure from those precedents.

A. *THE THRESHOLD TEST ADDRESSES TWO ASPECTS OF PUBLIC GOODS THAT CALL FOR SPECIAL TREATMENT UNDER DORMANT COMMERCE CLAUSE ANALYSIS*

Public goods like GHG reductions have two characteristics that call for special treatment under dormant Commerce Clause analysis. First, they are difficult for both economists and policy makers to value because they are nonmarket amenities.¹⁹⁴ Second, as Kirsten Engel explains, it is necessary to isolate a market in order to create them; this market isolation necessarily burdens interstate commerce.¹⁹⁵ Therefore, public goods necessarily implicate dormant Commerce Clause analysis and call for judicial resolution

194. See *supra* Part II.D (describing public goods and the free-rider problem); VAN KOOTEN, *supra* note 48, at 18 (explaining that environmental goods do not have a demand function and describing them as a "non-market amenity").

195. Engel, *supra* note 4, at 327–28. Engel proposes that the courts apply the economic theory of the second best, which explains that when market failures "prevent efficiency conditions from prevailing," it is not proper to eliminate all other market failures from the system. *Id.* Instead, perceived new inefficiencies of the closed market may make the market more efficient because they may "cancel out the effects of the first inefficiency." *Id.* at 328.

Engel uses this theory to explain why the Court should uphold market-based environmental regulations of interstate commerce. *Id.* She argues that state regulations, even those that discriminate against out-of-state industries, enhance economic efficiency unless "the market for the good regulated already fully internalizes all costs and benefits of the good. Mechanically striking down state market barriers may detract from efficiency precisely because the costs and benefits of environmental goods and bads are not fully internalized." *Id.* at 328.

of their value. The threshold test addresses these two unique characteristics of public goods to prevent the judiciary from answering the political questions nestled within dormant Commerce Clause analysis.

1. The Difficulty of Valuing Public Goods with Judicially Manageable Standards

As discussed above, courts must value public goods to determine the validity of state laws under dormant Commerce Clause analysis.¹⁹⁶ This process is impossible because of the nature of public goods. They do not have an objective “value” because:

[P]ublic goods will not be provided at all in a purely competitive market because no one will agree to pay taxes to finance them: since everyone enjoys the indivisible benefits of such things as national defense, noise and smoke abatement, clearance of areas that produce infectious diseases and the like, no matter who pays for it, everyone is motivated to evade payment.¹⁹⁷

Reductions in GHG emissions, like all public goods, “will not be supplied privately because the provider cannot capture the benefits of so doing,” despite the costs that the community bears if it fails to create them.¹⁹⁸ Since markets set prices, and these goods are not priced properly on the market, they do not have a clear value. The global nature of the public good of climate-change mitigation is an extreme example of this problem.

There are different classes of public goods, some of which are easier to quantify than others.¹⁹⁹ The Court has addressed the value of public goods in past dormant Commerce Clause cases. For example, the Court upheld a Minnesota law prohibiting the sale of milk in “nonreturnable, nonrefillable containers”; these containers created a “solid waste management problem for the state, promote[d] energy waste, and deplete[d] natural resources.”²⁰⁰ There, the Court found that the state interest in environmental protection, achieved through avoiding state disposal of plastic milk containers, justified its burden on interstate commerce.

While there can be some disagreement about, for example, the value of preserving Minnesota’s environment by reducing landfill waste, its valuation is far less speculative than the international issue of climate-change mitigation. But both examples highlight the need for judicial restraint

196. *Id.*

197. BLAUG, *supra* note 51, at 596.

198. VAN KOOTEN, *supra* note 48, at 17; *see* Part II.D (discussing the problem of valuing climate-change mitigation).

199. KEOHANE & OLMSTEAD, *supra* note 50, at 70.

200. *See* *Minnesota v. Clover Leaf Creamery Co.*, 449 U.S. 456, 458 (quoting 1977 Minn. Laws, ch. 268, § 1 (codified as amended at MINN. STAT. § 116F.21 (1978) (repealed 1981))).

under the threshold test for public goods, for “only a political decision through the ballot box can determine the quantity of public goods that ought to be provided[;] . . . as long as some activities have a high degree of ‘publicness’, price calculations will fail to drive the economic system to the social optimum.”²⁰¹

2. The Necessity of Burdening Interstate Commerce to Create Public Goods

Kirsten Engel has proposed that the judiciary address the problem of public goods under dormant Commerce Clause analysis by accepting that economic efficiency is achieved by creating GHG reductions and other public goods through market mechanisms.²⁰² Although the historical ideal under dormant Commerce Clause jurisprudence is an uninhibited national market,²⁰³ Engel argues that courts should uphold efficient state laws that isolate the state’s market to create a public good to prevent market interaction with neighboring states in which the public good is not properly valued.²⁰⁴

All public goods suffer this problem because, by definition, their market costs do not reflect their social costs without market intervention.²⁰⁵ As Engel explained:

Adjusting the price of goods so that it reflects the costs that its production or disposal imposes upon the environment corrects the market failure that permits many goods to be sold at artificially low prices. Once corrected, the price mechanism can be used to produce efficient quantities of the good in question.²⁰⁶

201. BLAUG, *supra* note 51, at 581.

202. *See supra* note 195 (discussing Engel’s argument for the theory of the second best under dormant Commerce Clause analysis).

203. *See supra* note 80 and accompanying text (discussing the goal of the dormant Commerce Clause); *see also* H.P. Hood & Sons, Inc. v. Du Mond, 336 U.S. 525, 538 (1948). The Court declared:

The material success that has come to inhabitants of the states which make up this federal free trade unit has been the most impressive in the history of commerce, but the established interdependence of the states only emphasizes the necessity of protecting interstate movement of goods against local burdens and repressions.

Id.

204. *See supra* Part II.D (discussing climate change as a market failure); Gross, *supra* note 3, at 222 (“State-level approaches to regulating GHGs, while laudable, will inevitably impact interstate markets, thereby implicating the constitutional limits on state action imposed by the Commerce Clause.”).

205. KEOHANE & OLMSTEAD, *supra* note 50, at 75 (comparing efficiency in private markets to efficiency in public markets).

206. Engel, *supra* note 4, at 282 (emphasis added).

This requires legislation that burdens interstate commerce and brings these statutes under dormant Commerce Clause scrutiny.

B. CONSEQUENCES OF THE PUBLIC-GOODS TEST

The public-good threshold test could reduce the number of statutes subject to challenge under dormant Commerce Clause analysis by removing from traditional analysis those state statutes that create public goods. However, set against existing dormant Commerce Clause jurisprudence, the threshold test may not reduce the class of statutes actually invalidated under dormant Commerce Clause analysis. Rather, it may be consistent with results in past cases and would provide a framework for explaining those past decisions.

1. The Threshold Test as a Necessary Departure from Precedent

The Court has occasionally invalidated state laws that the threshold test would have upheld. For example, in *Raymond Motor Transportation, Inc. v. Rice*, the Court invalidated a Wisconsin state law limiting the length of trucks on its highways to fifty-five feet.²⁰⁷ The state legislature designed the law to promote the public good of highway safety. The Court reviewed the record and found that the law “cannot be said to make more than the most speculative contribution to highway safety.”²⁰⁸ In other words, the Court valued the good the statute created to be less than its burden on interstate commerce.

The Court made a similar valuation in *Bibb v. Navajo Freight Lines, Inc.* when it addressed the validity of an Illinois law requiring trucks to use mud flaps on the highways.²⁰⁹ The Court first explained that “safety measures carry a strong presumption of validity,” and that if “there are alternative ways of solving a problem, we do not sit to determine which of them is best suited to achieve a valid state objective [because] [p]olicy decisions are for the state legislature.”²¹⁰ It invalidated the law, however, after concluding “on the whole record that ‘the total effect of the law as a safety measure in reducing accidents and casualties is so slight or problematical as not to outweigh the national interest in keeping interstate commerce free from interferences which seriously impede it.’”²¹¹

Under the threshold test for public goods, these valuations would be unnecessary in the context of road-safety measures. If the states found that these particular measures would prevent the highway dangers they addressed and legislated to create the public good of increased safety, the

207. *Raymond Motor Transp., Inc. v. Rice*, 434 U.S. 429, 447 (1978).

208. *Id.*

209. *Bibb v. Navajo Freight Lines, Inc.*, 359 U.S. 520, 529 (1959).

210. *Id.* at 524.

211. *Id.* (quoting *S. Pac. Co. v. Arizona*, 325 U.S. 761, 775–76 (1945)).

state legislatures would have properly exercised their power to value their citizens' lives.

The case of GHG-emission reductions justifies a similar conclusion. The effect of California Senate Bill 1368 on the worldwide problem of climate change could certainly be described as "speculative," "slight," or "problematical" and thus invalid under dormant Commerce Clause analysis.²¹² However, under the public-goods test, so long as the statute's burdens were necessary to create a public good whose value is a political question, the traditional dormant Commerce Clause tests requiring this valuation are unnecessary.

The desirability of this departure from precedent is certainly an open question. Under traditional dormant Commerce Clause analysis, if the statute creates a benefit of questionable value by burdening interstate commerce, it would not meet the *Pike* balancing test and should be invalidated as inefficient.²¹³ The threshold test, however, would change the judiciary's role and require it to uphold state laws that create public goods of questionable value.

However, the inefficiencies that state laws may produce for the national market are properly addressed by Congress, rather than the judiciary,²¹⁴ and do not justify judicial resolution of political questions. It is not the role of the judiciary to value the state's interest in creating a public good, however small, because there are no judicially manageable standards for deciding this question of public policy.²¹⁵ If Congress decides either that state laws do not create the benefits they purport to create or that the benefits are not sufficient to justify their burdens on interstate commerce, then Congress can preempt the state laws.²¹⁶ Therefore, the threshold test is necessary to avoid judicial resolution of these political questions within the dormant Commerce Clause analysis.²¹⁷

2. The Threshold Test as a Framework for Explaining Past and Predicting Future Precedent

The public-goods threshold test under dormant Commerce Clause analysis could also be described as a reformulation or refactoring of, rather

212. See *Pike v. Bruce Church, Inc.*, 397 U.S. 137, 142 (1970) (articulating and applying a balancing test for nondiscriminatory state laws that burden interstate commerce).

213. *Id.*

214. See *supra* Part III.B (arguing that the value of climate-change mitigation is a political question that the legislative branch should resolve).

215. See *supra* Part III.B.1 (discussing Congress's power to preempt state legislation).

216. *Id.*; see also Farber, *supra* note 130, at 923 ("[Courts] are poorly situated to deal with the . . . state regulation . . . and should leave it to Congress to balance the virtues of state regulation against any indirect interference with national interests.").

217. See *supra* Part III.B (discussing the value of treating climate-change mitigation as a political question because it is textually committed to Congress and cannot be evaluated by judicially manageable standards).

than a departure from, past precedent. Its criteria articulate three themes from Supreme Court decisions: a preference for state laws creating, rather than capturing, a benefit;²¹⁸ a history of deferring to local valuations of public goods;²¹⁹ and an understanding that incremental steps to reduce GHG emissions are the proper solution for the larger global problem of climate change.²²⁰

a. The Supreme Court's Dormant Commerce Clause Analysis Prohibits the Capture of, Rather Than the Creation of, Benefits

Dormant Commerce Clause analysis is based on preserving the efficiency of the national market.²²¹ It achieves this by preventing states from capturing economic benefits that, if left to the forces of the market, would flow outside the state. For example, the Court invalidated an Oklahoma statute that prohibited out-of-state businesses from shipping minnows out-of-state.²²² The Court explained that it might have upheld the law if the law was designed to preserve the state resource rather than to capture the resource for its citizens.²²³ There was no evidence that preservation of the state's minnows was the desired benefit, however, because the law did not place similar restrictions on in-state businesses.²²⁴ The Court invalidated Oklahoma's statute because the statute captured, rather than created, a benefit.²²⁵

In contrast, the Court upheld a Maine statute that prohibited importation of baitfish from outside the state.²²⁶ Rather than capturing the benefit of baitfish sales for in-state residents, the statute was designed to create a public good: protection of the state's "unique and fragile fisheries"

218. Compare *Maine v. Taylor*, 477 U.S. 131, 151 (1986) (upholding a Maine statute that prohibited the importation of baitfish to create the public good of local ecosystem preservation), with *Hughes v. Oklahoma*, 441 U.S. 322, 337–38 (1979) (invalidating an Oklahoma statute that restricted out-of-state businesses' trade in the state's minnows to capture the benefit of the resource for in-state businesses).

219. See *United Haulers Ass'n v. Oneida-Herkimer Solid Waste Mgmt. Auth.*, 127 S. Ct. 1786, 1798 (2007) (upholding a local ordinance that created the public benefit of increased recycling).

220. *Massachusetts v. EPA*, 549 U.S. 497, 534–35 (2007) (holding that plaintiffs had standing to challenge the EPA's refusal to regulate carbon dioxide from automobiles despite the negligible effect on climate of any individual reduction in GHG emissions).

221. See *supra* note 80 and accompanying text (discussing efficiency under dormant Commerce Clause analysis).

222. *Hughes v. Oklahoma*, 441 U.S. 322, 337–38 (1979).

223. *Id.*

224. *Id.*

225. See *id.* ("Oklahoma has chosen to 'conserve' its minnows in the way that most overtly discriminates against interstate commerce.")

226. *Maine v. Taylor*, 477 U.S. 131, 151–52 (1986).

from parasites and other species that might cause harm by “preying on native species, or by disrupting the environment in more subtle ways.”²²⁷

State laws that capture benefits rather than create public goods do not fit within the threshold test for public goods: the threshold test’s scope is limited to state laws whose burdens are necessary to *create* a public good. This is the same distinction that courts apply under traditional dormant Commerce Clause analysis, and it preserves the dormant Commerce Clause analysis’s emphasis on efficiency. While it is inefficient to maintain a market border to capture a benefit, it is efficient to maintain a market border to internalize costs that unregulated market prices do not reflect.²²⁸ Therefore, upholding laws that create—rather than capture—public goods fits within established Supreme Court precedent.

b. The Supreme Court Defers to Legislative Valuations of Environmental Benefits

Although traditional dormant Commerce Clause analysis includes the critical step of valuing a state’s interest in creating a public good, the Supreme Court has often chosen to defer to legislative valuation of environmental benefits. In this way, the threshold test applies this precedent. For example, in *Rapanos v. United States*, both the plurality and the dissent asserted that “[w]hether the benefits of particular conservation measures outweigh their costs is a classic question of public policy that should not be answered by appointed judges.”²²⁹ The plurality clarified that “[n]either, however, should it be answered by appointed officers of the Corps of Engineers in contradiction of congressional direction.”²³⁰ It is a legislative function to weigh the costs of environmental public goods with the value of creating them.

The Court has also deferred to local valuations of public goods in its dormant Commerce Clause decisions. For example, in *United Haulers Ass’n v. Oneida-Herkimer Solid Waste Management Authority*, the Court upheld a waste-flow ordinance that required waste disposal at publicly controlled sites.²³¹ The Court explained that “the flow control ordinances enable the Counties to pursue particular policies with respect to the handling and treatment of waste generated in the Counties, while allocating the costs of those policies

227. *Id.* at 141.

228. Engel, *supra* note 4, at 327–28 (arguing that market mechanisms that burden interstate commerce to create public goods may be more efficient than unregulated markets).

229. *Rapanos v. United States*, 547 U.S. 715, 752–53 (2006) (quoting *Rapanos*, 547 U.S. at 799 (Stevens, J., dissenting)).

230. *Id.* at 753.

231. *United Haulers Ass’n v. Oneida-Herkimer Solid Waste Mgmt. Auth.*, 127 S. Ct. 1786, 1798 (2007). The Court explained that “[t]here was a time when this Court presumed to make such binding judgments for society, under the guise of interpreting the Due Process Clause. We should not seek to reclaim that ground for judicial supremacy under the banner of the dormant Commerce Clause.” *Id.* (citing *Lochner v. New York*, 198 U.S. 45 (1905)).

on citizens and businesses according to the volume of waste they generate.”²³² This created the public good of conservation by promoting recycling at the expense of those who used waste-disposal sites; this is an example of a market mechanism that internalizes an externality to create a public good. The Court explained that it was up to the citizens to ignore the market failure and leave “the entire matter for the private sector[;] . . . [b]ut 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.”²³³ The Court upheld the law, deferring to the local valuation of its public good rather than imposing its judgment of the value of conservation.

The Court also noted that it was relevant that the citizens chose to create the public good at their own expense through more expensive trash removal.²³⁴ The Court concluded that “[t]here is no reason to step in and hand local businesses a victory they could not obtain through the political process.”²³⁵ Although the Court did not use the language of “public goods” and “political-question doctrine,” it applied a similar test by justifying its deferral to the local valuation on the fact that the valuation’s challengers could address their concerns through the political process. This indicates that the threshold test departs from past precedent only by expanding this deference to the political process to *all* cases where a statute’s burden is necessary to create a public good that is most appropriately valued by the political process.

c. The Supreme Court Has Held that a Government Effort to Create a Public Good Is a Necessary Remedy for Damages Even as an Incomplete Solution

The Supreme Court has acknowledged that a government effort to create a public good may be a necessary remedy to a defendant’s harm, even if it is not a comprehensive solution to that harm.²³⁶ Under the standing doctrine, a plaintiff must show that a favorable decision will relieve a discrete injury, but “[h]e need not show that a favorable decision will relieve his every injury.”²³⁷

In the context of climate change and the standing doctrine, one could rely on the free-rider problem to conclude that a government effort to regulate GHG emissions would not relieve the “injury” of climate change. However, the Court rejected this argument in *Massachusetts v. EPA*.²³⁸ The

232. *Id.* at 1796.

233. *Id.*

234. *Id.* at 1797.

235. *Id.*

236. *Massachusetts v. EPA*, 549 U.S. 497, 499 (2007).

237. *Larson v. Valente*, 456 U.S. 228, 244 n.15 (1982).

238. *EPA*, 549 U.S. at 523–24.

EPA argued that Massachusetts lacked standing to request EPA regulation of carbon dioxide emissions under the Clean Air Act because:

[I]ts decision not to regulate greenhouse gas emissions from new motor vehicles contributes so insignificantly to petitioners' injuries that the agency cannot be haled into federal court to answer for them. For the same reason, EPA does not believe that any realistic possibility exists that the relief petitioners seek would mitigate global climate change and remedy their injuries. That is especially so because predicted increases in greenhouse gas emissions from developing nations, particularly China and India, are likely to offset any marginal domestic decrease.²³⁹

The Court acknowledged that "regulating motor-vehicle emissions will not by itself *reverse* global warming" but concluded that "it by no means follows that we lack jurisdiction to decide whether EPA has a duty to take steps to *slow* or *reduce* it. . . . A reduction in domestic emissions would slow the pace of global emissions increases" ²⁴⁰

The Court decided that the free-rider argument within the problem of climate change was not sufficient to make individual GHG-reduction efforts valueless. The Court did not require Massachusetts to show that the desired remedy would *reverse* climate change because that is not an appropriate expectation in the context of a global public good with endless variables. Rather, the appropriate remedy for climate change is small, manageable efforts to reduce GHG emissions. It follows that California's efforts to reduce its GHG emissions is the appropriate remedy for the economic harm that it anticipates from climate change. Therefore, the judiciary should follow the precedent of *Massachusetts v. EPA* and defer to the legislative choice to create this public good rather than to require California to *reverse* climate change to justify its burdens on interstate commerce.

V. CONCLUSION

The threshold test for public goods is necessary to avoid judicial resolution of the political question of the value of public goods within dormant Commerce Clause analysis. In the context of California Senate Bill 1368, the test would leave to Congress the question of the proper balance between state climate-change legislation and federal action. In the context of other public goods, it would prevent the judiciary from invalidating state statutes that burden interstate commerce to create public goods. These public goods are best valued by the political process because, as Justice Scalia recently explained in his criticism of dormant Commerce Clause balancing:

239. *Id.*

240. *Id.* at 525–26 (citations omitted).

WHAT'S IT TO YOU?

773

[Benefits cannot be weighed] without assigning a policy-based weight to each of them. It is a matter not of weighing apples against apples, but of deciding whether three apples are better than six tangerines. . . . Of course you cannot decide which interest “outweighs” the other without deciding which interest is more important to you. And that will always be the case.²⁴¹

241. Dep’t of Revenue v. Davis, 128 S. Ct. 1801, 1821 (2008) (Scalia, J., concurring in part) (criticizing the *Pike* balancing test).