Full-Impact Regulations and the Dormant Commerce Clause

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INTRODUCTION

Effective environmental regulation of products requires knowledge of their entire lifespan.[1] For example, a gallon of corn ethanol produces greenhouse gas emissions when burned, but this does not reflect its full environmental impact. The energy and water used to produce the fuel, side effects of production such as land use changes, and emissions associated with its transportation from producers to distributors all add to the environmental impact of the fuel.[2] This holistic method of assessing environmental impacts is known as "lifecycle analysis" or "lifecycle assessment."[3] The scientific community recognizes lifecycle analysis as providing the touchstone for effective environmental regulations.[4] Congress has endorsed this methodology, for example, requiring that federal agencies incorporate lifecycle analysis into contracts to purchase alternative or synthetic fuels.[5] Businesses often employ lifecycle analysis when comparing the environmental impacts of different potential production processes.[6]

An open question exists regarding the constitutionality of state-level full-impact regulations. Specifically, state regulations that account for activities occurring beyond the state's borders, such as transportation from an out-of-state producer, may run afoul of the

1. *See* Brief of Michael Wang, Ph.D., et al. as Amici Curiae Supporting Defendants-Appellants at 8, Rocky Mountain Farmers Union v. Corey, 730 F.3d 1070 (9th Cir. 2013) (Nos. 12–15131, 12–15135) ("Assessing a product's impacts at only one part of its lifecycle, such as the moment that fuel is combusted in a car's engine, paints an incomplete picture. This incomplete picture can lead to the exact opposite conclusion of what a more comprehensive and accurate analysis would reveal.")

2. A lifecycle analysis of ethanol is also crucial to revealing its positive effects, such as absorption of CO2 by crops. *See Corn-For-Ethanol's Carbon Footprint Critiqued*, SCIENCE DAILY (Mar. 11, 2009), http://www.sciencedaily.com/releases/2009/03/090302183321.htm.

3. Brief of Michael Wang, *supra* note 1, at 5.

4. *See id.* at 8 ("LCA is an established and accepted scientific practice for making comparisons between the emissions and environmental impacts associated with different products or process choices.").

5. 42 U.S.C. § 17142 (2012).

6. *See infra* Part II.A.

dormant Commerce Clause, which prohibits states from regulating interstate commerce.[7] Scholars have previously recognized the threat that the dormant Commerce Clause poses to state environmental regulations.[8] Current litigation also demonstrates the uncertainties surrounding the dormant Commerce Clause and lifecycle analysis. The Ninth Circuit recently reversed a district court decision invalidating the most prominent state-level full-impact regulation to date on dormant Commerce Clause grounds.[9] Given the lack of decisive Supreme Court precedent on the issue and the differences in approaches by the federal courts of appeals, the limits the dormant Commerce Clause places on state authority to pass full-impact regulations remain unclear.[10]

Dormant Commerce Clause analysis distinguishes between "tier-one" laws, which reflect a protectionist purpose or regulate extraterritorially, and "tier-two" laws, which indirectly burden interstate commerce.[11] Tier-one laws receive strict scrutiny and generally do not survive judicial review; tier-two laws benefit from a less rigorous balancing test that affords some deference to state legislatures.[12] Accordingly, the standard of review that a court applies to a given state law often proves outcome-determinative.[13] However, no consensus exists among either courts or commentators as to where the threshold separating permissible indirect burdens and impermissible extraterritorial regulations lies.[14]

7. *See, e.g.*, Rocky Mountain Farmers Union v. Corey, 730 F.3d 1070 (9th Cir. 2013) *rev'g* Rocky Mountain Farmers Union v. Goldstene, 843 F. Supp. 2d 1071 (E.D. Cal. 2011) (holding that California's lifecycle-based Low Carbon Fuel Standard (LCFS) violates the dormant Commerce Clause).

8. *See, e.g.*, Christine A. Klein, *The Environmental Commerce Clause*, 27 HARV. ENVTL. L. REV. 1, 2 (2003) (noting "the particular vulnerability of state laws impacting natural resources" to dormant Commerce Clause challenges).

9. *See Goldstene*, 843 F. Supp. 2d at 1087 (finding that California's LCFS "explicitly differentiate[s] among ethanol pathways based on origin.").

10. *See infra* Part I.

11. *See* Brown-Forman Distillers Corp. v. N.Y. State Liquor Auth., 476 U.S. 573, 578–89 (1986) (summarizing dormant Commerce Clause framework).

12. *See id.* (describing the difference between tier-one and tier-two analysis).

13. See LAURENCE H. TRIBE, AMERICAN CONSTITUTIONAL LAW 1148–49 (3d ed. 2000) ("In light of the virtually *per se* invalidity of taxes and regulations that are found to discriminate against interstate commerce . . . the scope of the actions subject to such rigorous scrutiny takes on great significance.").

14. *See* Peter Felmly, Comment, *Beyond the Reach of the States: The Dormant Commerce Clause, Extraterritorial State Legislation, and the Concerns of Federalism*, 55 ME. L. REV. 467, 503–04 (2003) (noting confusion over application of the dormant Commerce Clause doctrine).

It is important to clarify the application of the dormant Commerce Clause to full-impact regulations that explicitly account for out-of-state production processes.[15] The current judicial confusion over when to apply heightened scrutiny to state regulations presents a risk that district courts in certain jurisdictions may invalidate full-impact regulations that would survive judicial review in other circuits.[16] Because states play a critical role in combating threats such as climate change, their inability to implement effective full-impact regulations risks worsening a multitude of environmental problems.[17]

This Note argues that courts should evaluate full-impact regulations under tier-two of the dormant Commerce Clause framework. State-level full-impact regulations do not implicate the concerns that have traditionally motivated courts to invalidate laws under the dormant Commerce Clause. Properly designed full-impact regulations need not evince a protectionist purpose nor discriminate against out-of-state entities within the meaning of the dormant Commerce Clause.[18] They also need not regulate extraterritorially in the way that the Supreme Court has prohibited. Accordingly, state full-impact regulations challenged on the grounds that they burden interstate commerce should be evaluated under the more deferential balancing test that tier-two regulations receive. This proposed framework preserves the role of district courts in policing the murky boundaries of federal and state authority, while affording states the flexibility they require to design effective environmental regulations.

Part I lays out the basic dormant Commerce Clause doctrine and the Supreme Court's current two-tiered approach to evaluating dormant Commerce Clause challenges. Part II explains the historical development and significance of full-impact regulations, particularly in the context of environmental law. Part III argues

15. *See* Mark Tushnet, *Rethinking the Dormant Commerce Clause*, 1979 WIS. L. REV. 125, 150 (1979) ("[C]larity is a virtue that cannot be valued too much in constitutional law.").

16. *See infra* Part III.A.2.a-b (discussing extraterritoriality challenges to full-impact regulations).

17. *See generally* Alice Kaswan, *A Cooperative Federalism Proposal for Climate Change Legislation: The Value of State Autonomy in a Federal System*, 85 DENV. U. L. REV. 791, 798–801 (2008) (listing arguments in favor of a strong state role in regulating environmental problems, specifically climate change).

18. This Note does not defend the legality of full-impact regulations clearly motivated by a protectionist purpose, such as the preservation of a local industry at the expense of out-of-state competitors.

that full-impact regulations can and should be designed to withstand the more threatening tier-one constitutional challenges they may face. In doing so, this Note constructs and discusses a hypothetical full-impact regulation governing water conservation to demonstrate the ways states may insulate themselves from tier-one dormant Commerce Clause challenges. Part IV concludes that full-impact regulations should be evaluated under the more deferential second tier of dormant Commerce Clause jurisprudence and that district courts may do so without significantly altering the current contours of the doctrine.

I. THE DORMANT COMMERCE CLAUSE DOCTRINE: THE SUPREME COURT'S TWO-TIERED APPROACH AND THE EXTRATERRITORIALITY PRINCIPLE

The Commerce Clause grants Congress the power "[t]o regulate Commerce . . . among the several States."[19] Courts have long interpreted the Constitution's silence regarding state regulation of interstate commerce as an implicit limit on state interference with such commerce.[20] This doctrine, known as the dormant Commerce Clause,[21] exists principally to guard against economic protectionism by the states.[22] As a general rule, states may not adopt legislation that burdens foreign business simply to favor local business or to eliminate the competitive advantages of a foreign business.[23] This principle reflects the Framers' conviction that the success of the Union depended upon avoiding the tendencies

19. U.S. CONST. art. I, § 8, cl. 3.

20. *See* Dep't of Revenue of Ky. v. Davis, 553 U.S. 328, 337–340 (2008) (discussing the history of the dormant Commerce Clause); CTS Corp. v. Dynamics Corp. of Am., 481 U.S. 69, 87 (1987) ("[I]t has been settled for more than a century that the Clause prohibits States from taking certain actions respecting interstate commerce even absent congressional action."); TRIBE, *supra* note 13, at 1030 (footnote omitted) ("For at least 140 years, the Supreme Court has construed the Commerce Clause as incorporating an implicit restraint on state power even in the absence of Congressional action . . . ."). Note that because the ultimate authority to regulate interstate commerce rests with Congress, it may expressly authorize the states to take actions that would otherwise violate the dormant Commerce Clause. *See* W. & S. Life Ins. Co. v. State Bd. of Equalization, 451 U.S. 648, 652–53 (1981) .

21. "Dormant" because Congress has not acted. *See, e.g.*, Julian N. Eule, *Laying the Dormant Commerce Clause to Rest*, 91 YALE L.J. 425, 425 n.1 (1982).

22. *See Davis*, 553 U.S. at 337 ("The modern law of what has come to be called the dormant Commerce Clause is driven by concern about 'economic protectionism . . . .'").

23. Granholm v. Heald, 544 U.S. 460, 472 (2005) ("States may not enact laws that burden out-of-state producers or shippers simply to give a competitive advantage to in-state businesses.").

toward Balkanization and state protectionism that they felt had undermined the Articles of Confederation.[24] Some courts have justified their role in enforcing the dormant Commerce Clause on the grounds that Congress lacks the means to effectively police state protectionism.[25]

The Supreme Court has established a two-tiered approach for evaluating dormant Commerce Clause challenges to state regulations.[26] Courts employ this approach to distinguish between regulations that directly or purposefully discriminate against interstate commerce and facially neutral regulations that indirectly burden interstate commerce.[27] The former fall under the first-tier and generally do not survive the strict scrutiny test they receive.[28] Laws with the practical effect of directly regulating commerce occurring wholly beyond a state's borders are deemed "extraterritorial" and also receive a form of heightened scrutiny under the first-tier of the dormant Commerce Clause framework.[29] The precise standard of review that courts apply to extraterritorial laws lacks clarity and differs among jurisdictions.[30] Alternatively, facially neutral laws that indirectly burden interstate commerce fall under tier-two and face a less demanding balancing test.[31] Part I.A will discuss these two tiers and their development, as well as the ambiguities surrounding the extraterritoriality doctrine, in greater detail.

24. *Id.* (noting concern over "the tendencies toward economic Balkanization that had plagued relations among the Colonies and later among the States under the Articles of Confederation." (quoting Hughes v. Oklahoma, 441 U.S. 322, 325–26 (1979))).

25. *See, e.g.*, Midwest Title Loans, Inc. v. Mills, 593 F.3d 660, 665 (7th Cir. 2010) ("Because of the politics and workload of Congress, unless the courts recognized and enforced the exclusive federal power to regulate commerce the nation would be riddled with state tariffs; and a nation with internal tariff barriers is hardly a nation at all.").

26. Brown-Forman Distillers Corp. v. N.Y. State Liquor Auth., 476 U.S. 573, 578–89 (1986) (describing two-tiered approach).

27. *See* Erwin Chemerinsky et al., *California, Climate Change, and the Constitution*, 25 ENVTL. F. July/Aug. 2008, at 50, 54, *available at* http://law.duke.edu/news/pdf/forum.pdf (only one law has survived strict scrutiny analysis).

28. *Id.*

29. *See id.* (noting that extraterritorial regulations receive strict scrutiny)

30. *See infra* Part I.A.3 (describing the current circuit split on standard of review for extraterritorial relations).

31. *See* Pike v. Bruce Church, Inc., 397 U.S. 137 (1970) (establishing balancing test).

A. Contemporary Dormant Commerce Clause Doctrine

This section discusses the different tiers of dormant Commerce Clause jurisprudence. Part I.A.1 deals with the first tier, reserved for laws that directly discriminate against interstate commerce in purpose or effect. Part I.A.2 discusses the second tier, which is reserved for state regulations that affect, but do not directly discriminate against or control, interstate commerce. Part I.A.3 outlines the extraterritoriality doctrine. Although courts often consider this doctrine as part of the first tier of dormant Commerce Clause analysis,[32] this Note treats it separately to emphasize its unusual place in Commerce Clause jurisprudence.

1. Discriminatory Laws

Laws that directly discriminate against interstate commerce facially, purposefully, or in practical effect fall within tier-one and receive strict scrutiny.[33] For the purposes of dormant Commerce Clause analysis, discrimination "means differential treatment of in-state and out-of-state economic interests that benefits the former and burdens the latter."[34] For example, in *Philadelphia v. New Jersey*, the Court invalidated a New Jersey law banning the importation of waste into the state as facially discriminatory notwithstanding the state's legitimate local interest in protecting its environment.[35] Similarly, in *Oregon Waste Systems, Inc. v. Department of Environmental Quality of Oregon*, the Court struck down as facially discriminatory an Oregon statute that applied a higher surcharge to disposal of waste generated out-of-state than waste created within the state.[36]

Courts may also apply strict scrutiny to legislation that does not directly discriminate against or regulate out-of-state commerce if "its effect is to favor in-state economic interests over out-of-state interests."[37] The legislation at issue in *Hunt v. Washington State*

32. *See, e.g.*, Brown-Forman Distillers Corp. v. N.Y. State Liquor Auth., 476 U.S. 573, 581 (1986) (placing extraterritoriality within the first tier).

33. *See* Am. Beverage Ass'n v. Snyder, 735 F.3d 362, 369–70 (6th Cir. 2013) (quoting Int'l Dairy Food Ass'n v. Boggs, 622 F.3d 628, 648 (6th Cir. 2010)).

34. Or. Waste Sys. v. Dep't of Envtl. Quality of Or., 511 U.S. 93, 99 (1994).

35. 437 U.S. 617, 626–27 (1979) ("[W]hatever New Jersey's ultimate purpose, it may not be accomplished by discriminating against articles of commerce coming from outside the State unless there is some reason, apart from their origin, to treat them differently.").

36. *See Or. Waste Sys.*, 511 U.S. at 98.

37. *Brown-Forman*, 476 U.S. at 579.

Apple Advertising Commission provides an example of such a statute.[38] In *Hunt*, the Court invalidated a North Carolina law that prohibited containers of apples from displaying any grade other than "the applicable U.S. grade or standard."[39] Although facially neutral, the act had the practical effect of discriminating against interstate commerce because it deprived Washington of the economic benefits of the state's stringent inspection and labeling program for apples.[40] At the same time, the law benefitted North Carolina apple farmers whose produce bore only the applicable U.S. grade.[41]

Laws falling under tier-one must pass a searching strict scrutiny inquiry. Such laws must demonstrate both the existence of a legitimate, non-protectionist local purpose and the absence of nondiscriminatory alternatives.[42] Due to the difficulty of surviving a strict scrutiny challenge, courts often refer to tier-one laws as per se invalid.[43] In fact, the Supreme Court has upheld only one law after applying strict scrutiny.[44] In *Maine v. Taylor*, the Court upheld a Maine statute banning the importation of live baitfish despite the fact that it restricted "interstate trade in the most direct manner possible."[45] The Maine legislature enacted the statute because it believed that live baitfish importation posed "significant threats to Maine's unique and fragile fisheries" by risking the introduction of

38. Hunt v. Wash. State Apple Adver. Comm'n, 432 U.S. 333 (1979).

39. *Id.* at 335.

40. *Id.* at 336.

41. *Id.* at 337.

42. *See* Hughes v. Oklahoma, 441 U.S. 322, 337 (1979) (invalidating an Oklahoma law banning the export of minnows).

43. *See* Chemerinsky et al., *supra* note 27, at 54 (noting that only one law has survived strict scrutiny analysis).

44. Maine v. Taylor, 477 U.S. 131 (1986). The Court had previously upheld a similar quarantine statute in Mintz v. Baldwin, 289 U.S. 346 (1933), in which it rejected a dormant Commerce Clause challenge to a New York statute prohibiting the importation of live cattle unless an official from the state of origin certified that the cattle were free of Bang's disease. *Id.* at 350. However, *Mintz* was decided before the development of the current dormant Commerce Clause framework, and the Court did not explicitly apply a balancing test to the New York statute. *See id.* Instead, the Court applied what appears to be a rule of per se validity to quarantine statutes designed to combat legitimate public health threats, writing that "[t]he purpose of Congress to supersede or exclude state action against the ravages of the disease is not lightly to be inferred. The intention so to do must definitely and clearly appear." *Id.* Today, a reviewing court would likely apply strict scrutiny to the New York statute. *See* Michael A. Lawrence, *Toward a More Coherent Dormant Commerce Clause: A Proposed Unitary Framework*, 21 HARV. J.L. & PUB. POL'Y 395, 449–50 (1998) (arguing that the New York quarantine statute would likely survive strict scrutiny due to the lack of viable alternative health measures).

45. *Taylor*, 477 U.S. at 137.

parasites and other disruptions to Maine's aquatic ecosystems.[46] The Court found that due to the infeasibility of alternative safety measures, such as inspections, Maine had met its burden of showing a lack of nondiscriminatory alternatives.[47] The Court also noted in dicta that the defendant's suggestion of the "'abstract possibility'" of potential alternatives was insufficient.[48] Justice Blackmun, writing for the majority, explained that while a "[s]tate must make reasonable efforts to avoid restraining the free flow of commerce across its borders . . . it is not required to develop new and unproven means of protection at an uncertain cost."[49]

2. *Pike* Balancing

Courts evaluate non-discriminatory laws that indirectly burden interstate commerce under a balancing test,[50] an approach formalized in *Pike v. Bruce Church, Inc.*[51] *Pike* concerned an Arizona law requiring that cantaloupes grown in Arizona be packed within the state before being offered for sale.[52] The plaintiff, Bruce Church, Inc., was a farming company that grew cantaloupes in Parker, Arizona but shipped them to Blythe, California for packaging.[53] The company challenged the law on the grounds that it constituted an unlawful burden on interstate commerce by forcing it to open a new packing facility in Arizona in order to sell their fruits in other states.[54] The Court agreed, finding that the approximately $200,000 cost to plaintiff of opening a new facility

46. *Id.* at 141.

47. *See id.* at 146 (finding that the district court correctly determined that no viable alternatives existed).

48. *Id.* at 147.

49. *Id.*

50. *See* TRIBE, *supra* note 13, at 1062 (describing *Pike* balancing).

51. Pike v. Bruce Church, Inc., 397 U.S. 137 (1970). Prior to *Pike*, the Supreme Court afforded state regulations indirectly burdening interstate commerce a presumption of validity and upheld them unless the reviewing court could conclude "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." S. Pac. Co. v. Arizona, 325 U.S. 761, 775–76 (1945) (invalidating an Arizona regulation setting a limit on the number of freight and passenger cars on trains traveling within the state); *see also* Bibb v. Navajo Freight Lines, Inc., 359 U.S. 520 (1959) (holding an Illinois law requiring the use of mud flaps on trucks and trailers unconstitutional after applying a similar balancing test).

52. *Pike*, 397 U.S. at 138.

53. *Id.*

54. *Id.* at 139.

outweighed Arizona's "tenuous" interest in identifying the cantaloupes as originating in Arizona.[55]

Pike established that the balancing test applies in situations "[w]here the statute regulates even-handedly to effectuate a legitimate local public interest, and its effects on interstate commerce are only incidental."[56] Such laws "will be upheld unless the burden imposed on such commerce is clearly excessive in relation to the putative local benefits."[57] In applying the balancing test, courts consider a number of factors such as whether a local purpose is legitimate, whether less burdensome alternatives exist, and the extent of the burden in light of its local benefits.[58] Due to the subjective nature of these factors, the *Pike* test has been criticized for its lack of predictability and uniformity.[59] Despite this uncertainty, consensus exists among courts and commentators that this test is more favorable to challenged laws than the strict scrutiny framework.[60]

3. The Extraterritoriality Doctrine

Extraterritorial laws—those with the "'practical effect' of regulating commerce occurring wholly outside" the borders of the regulating state[61]—also implicate the dormant Commerce Clause and are often considered per se invalid.[62] This extraterritoriality doctrine is motivated by two concerns: jurisdiction and economic

55. *Id.*

56. *Id.* at 142.

57. *Id.*

58. *See* Chemerinsky et al., *supra* note 27, at 54–55 (listing factors courts consider under *Pike*).

59. *See* Camps Newfound/Owatonna, Inc. v. Town of Harrison, 520 U.S. 564, 611–12 (1997) (Thomas, J., dissenting) (collecting criticism of the dormant Commerce Clause and noting the difficulties in applying *Pike* balancing); Bendix Autolite Corp. v. Midwesco Enters. Inc., 486 U.S. 888, 897 (1988) (Scalia, J., concurring) (*Pike* balancing "is more like judging whether a particular line is longer than a particular rock is heavy.").

60. *See* Waste Connections of Kan., Inc. v. City of Bel Aire, 191 F. Supp. 2d 1238, 1244 (D. Kan. 2002) ("The determination of which side of the discriminatory/non-discriminatory line a regulation falls upon is a nearly infallible indicator of whether it will be upheld under a dormant Commerce Clause challenge."); ERWIN CHEMERINSKY, CONSTITUTIONAL LAW: PRINCIPLES AND POLICIES 437 (3d ed. 2006) (noting that laws subject only to *Pike* balancing generally survive judicial review); TRIBE, *supra* note 13, at 1063 (when the Supreme Court has applied *Pike*, "it has most often upheld the statute as one whose benefits outweigh its burdens.").

61. *See* Felmly, *supra* note 14, at 483–84 (quoting Healy v. Beer Inst., 491 U.S. 324, 332 (1989)) (discussing origins and development of the doctrine).

62. *See infra* notes 99–101.

Balkanization.[63] First, states simply lack the authority to dictate policies beyond their borders that affect the rights and interests of non-citizens.[64] From this proposition, the Supreme Court reasoned that state regulations with the practical effect of directly controlling commerce beyond that state's borders were invalid as well.[65] At least one scholar has noted the apparent similarities between this restraint on state authority and the due process requirement of fundamental fairness.[66] Second, and for related reasons, the dormant Commerce Clause guards against conflicting regulatory burdens imposed by states acting outside their jurisdictional sphere.[67]

Courts determine whether a given state law regulates extraterritorially by evaluating its practical effects. State regulations that fall within this category include those which control commerce occurring wholly beyond a state's borders, create inconsistent regulatory burdens with other states, or force out-of-state merchants to seek regulatory approval in one state before acting in another.[68] Price controls provide perhaps the clearest example of such extraterritorial regulation. In *Brown-Forman Distillers Corp. v. New York State Liquor Authority*, the Supreme Court struck down a New York statute requiring liquor producers selling to wholesalers within New York to charge prices no higher than the lowest price they charged wholesalers anywhere else in the United States during

63. *See* Donald H. Regan, *Siamese Essays: (I)* CTS Corporation v. Dynamics Corporation of America *and Dormant Commerce Clause Doctrine; (II) Extraterritorial State Legislation*, 85 MICH. L. REV. 1865, 1884–85 (1987) (ultimately finding the jurisdictional justification lacking and arguing that the extraterritoriality principle cannot be confined to a single textual provision of the Constitution).

64. *Brown-Forman*, 476 U.S at 582–83 (a state may not "project its legislation into [other states]") (quoting Baldwin v. G.A.F. Seelig, Inc., 294 U.S. 511, 521 (1935)). *Baldwin* held that a New York statute setting a price floor for milk produced out-of-state violated the Commerce Clause. *Id.*

65. *See Healy*, 491 U.S at 336. ("The critical inquiry [for the extraterritoriality doctrine] is whether the practical effect of the regulation is to control conduct beyond the boundaries of the state.").

66. *See* Regan, *supra* note 63, at 1890–91 (noting that extraterritorial regulations implicate due process concerns but concluding that the extraterritoriality principle is better justified on federalism grounds). *See also Healy*, 491 U.S. at 336 n.13 (citing Edgar v. MITE Corp., 457 U.S. 624, 643 (1982) (plurality opinion)).

67. *See Healy*, 491 U.S. at 336–37 ("[T]he Commerce Clause protects against inconsistent legislation arising from the projection of one state regulatory regime into the jurisdiction of another State.").

68. *See* TRIBE, *supra* note 12, at 1074 (summarizing extraterritoriality doctrine).

a given month.[69] The Court reasoned that the practical effect of the statute was to create a price scale for liquor sales in other states because once distillers and producers had affirmed that they would charge a certain price in New York, they were unable to change prices anywhere else in the United States during that month.[70]

Three years after *Brown-Forman*, the Court invalidated a similar Connecticut price-affirmation statute in *Healy*. The statute at issue in *Healy* differed from the law in *Brown-Forman* in that the Connecticut law required only that out-of-state liquor shippers affirm that their posted prices were no higher than prices in neighboring states at the time of the transaction, rather than for the entire month.[71] The Court considered this a distinction without a difference, finding that the Connecticut statute both regulated out-of-state activity and risked "price gridlock" in the event that other states adopted similar legislation.[72]

While *Healy* and *Brown-Forman* provided relatively straightforward examples of impermissible state controls over interstate commerce, the Court recognized that no clear line distinguished between even-handed regulations receiving *Pike* balancing and extraterritorial regulations receiving heightened scrutiny.[73] *Edgar v. MITE Corp.* provides a good example of the challenge inherent in distinguishing between the two types of regulations.[74] In *Edgar*, the Court considered a dormant Commerce Clause challenge to an Illinois antitakeover law that placed restrictions on tender offers for any company that had ten percent of its shareholders in Illinois or that met two of the three following conditions: "the corporation has its principal executive office in Illinois, is organized under the laws of Illinois, or has at least 10% of its stated capital and paid-in

69. *See Brown-Forman*, 476 U.S. at 582 (finding that New York's prospective statute "regulates out-of-state transactions in violation of the Commerce Clause.").

70. *Id.*

71. *See Healy*, 491 U.S. at 328 (describing Connecticut's statute).

72. *See id.* at 339–40 ("The Commerce Clause problem with the Connecticut statute appears in even starker relief when it is recalled that if Connecticut may enact a contemporaneous affirmation statute, so may each of the border States and, indeed, so may every other State in the Nation.").

73. *See Brown-Forman*, 476 U.S. at 579 ("We have also recognized that there is no clear line separating the category of state regulation that is virtually per se invalid under the Commerce Clause, and the category subject to the *Pike v. Bruce Church* balancing approach.").

74. Edgar v. MITE Corp., 457 U.S. 624, 641 (1982) (plurality opinion).

surplus represented within the State."[75] The Court determined that the law had an unacceptable extraterritorial effect because it theoretically allowed Illinois officials to "regulate a tender offer which would not affect a single Illinois shareholder."[76] Despite recognizing the general authority of states to enact laws regulating the offering and sale of securities ("blue-sky laws"),[77] the Court found that the Illinois statute went further than was necessary to protect Illinois-based corporations in light of its "sweeping extraterritorial effect."[78] Notably, the Court also found that the law failed the *Pike* balancing test for the same reason.[79] It thus remained unclear to what extent, if any, the extraterritoriality doctrine differed from *Pike* balancing.

The extraterritoriality doctrine also applies to state laws that risk creating "inconsistent" regulatory burdens on interstate commerce.[80] The inconsistent burdens test appears designed to combat two different types of state regulatory schemes. First, state regulations that, if adopted by other states, would stymie interstate commerce have failed the inconsistent burdens test. For example, in *American Trucking Ass'ns v. Scheiner*, the Court struck down a flat tax Pennsylvania had imposed upon all trucks using its highways—regardless of whether they engaged in interstate or intrastate commerce—after finding that if each state adopted such a law it would impermissibly hinder free trade.[81] Second, the Third Circuit

75. *Id.* at 626–27.

76. *Id.* at 642.

77. *See id.* at 641 (noting that the "Court's rationale for upholding blue-sky laws [previously challenged] was that they only regulated transactions occurring within the regulating States."). For a discussion of how states responded to *Edgar* in crafting antitakeover statutes, *see* P. John Kozyris, *Some Observations on State Regulation of Multistate Takeovers—Controlling Choice of Law Through the Commerce Clause*, 14 DEL. J. CORP. L. 499, 500–01 (1989) ("Determined to circumvent *MITE* invalidations, many states moved to a second generation of statutes . . . .").

78. *Edgar*, 457 U.S. at 642.

79. *See id.* at 644 ("While protecting local investors is plainly a legitimate state objective, the State has no legitimate interest in protecting nonresident shareholders.").

80. *See* CTS Corp. v. Dynamics Corp. of Am., 481 U.S. 69, 88 (1987) (upholding an Indiana antitakeover statute that applied only to corporations chartered in Indiana, opted in to the statute's protection, and had a certain requisite number of resident stakeholders).

81. Am. Trucking Ass'ns v. Scheiner, 483 U.S. 266, 284 (1987) (if [similar regulations were] applied by every jurisdiction there would be [an] impermissible interference with free trade.") (citing Armco Inc. v. Hardesty, 467 U.S. 638, 644 (1984)). Note that the *Scheiner* Court would have upheld an apportioned tax. *See Scheiner*, 483 U.S. at 283–84 (comparing the law with Pennsylvania's apportioned fuel consumption tax, which did not offend the Commerce Clause).

has held that the inconsistent burdens test prevents state law from imposing requirements that, if followed, would require affected parties to violate the law of other states.[82] The contours of the inconsistent burdens test remain unclear.[83] Concerns about economic Balkanization, which animate the dormant Commerce Clause generally, appear especially prevalent in this branch of preemption jurisprudence.[84]

The extraterritoriality principle represents an expansion of the dormant Commerce Clause because it allows courts to invalidate laws that do not discriminate against interstate commerce or fail the *Pike* balancing test.[85] In *American Beverage Ass'n v. Snyder*, the Sixth Circuit considered a Michigan law designed to enforce the state's recycling program.[86] Michigan encouraged recycling by charging consumers a ten-cent deposit on recyclable beverage containers that could be redeemed if consumers recycled the bottle at designated machines throughout the state. The program had the problematic side effect of encouraging "over-redemption"—a phenomenon whereby customers could purchase bottles in other states that did not include a deposit fee in the purchase price of the product and return them in Michigan for a profit.[87] Michigan attempted to combat this problem by requiring that recyclable bottles sold within the state feature a "unique-mark" that would render the bottle redeemable only in Michigan, or in states featuring a comparable recycling program.[88] After finding that the law did not discriminate against interstate commerce and survived

82. *See* Instructional Sys., Inc. v. Computer Curriculum Corp., 35 F.3d 813, 826 (3d Cir. 1994) ("[L]aws which merely create additional, but not irreconcilable, obligations are not considered to be 'inconsistent.'").

83. Justice Scalia, for example, has argued that *Armco* "establishes only that a facially discriminatory taxing scheme that is not internally consistent will not be saved by the claim that in fact no adverse impact on interstate commerce has occurred." Tyler Pipe Indus., Inc. v. Wash. State Dep't. of Revenue, 483 U.S. 232, 257 (1987) (Scalia, J., dissenting).

84. *See* Hughes v. Oklahoma, 441 U.S. 322, 325–26 (1979) (the Commerce Clause reflects the Framers' concern about economic Balkanization amongst the states).

85. *See* Am. Beverage Ass'n v. Snyder, 735 F.3d 362 (6th Cir. 2013) (invalidating Michigan statute requiring recyclable bottle manufacturers to place a unique mark on bottles sold in Michigan to facilitate recycling and prevent customers from redeeming bottles purchased in other states in Michigan for a profit).

86. *See id.* at 801 (describing the purpose and history of the requirement).

87. *See id.* (describing overredemption as a phenomenon occurring when "the value of the deposits collected by the distributor or manufacturer was less than the total value of refunds paid.").

88. *See id.*

the *Pike* test, the Sixth Circuit nonetheless applied the extraterritoriality doctrine and found the unique-mark requirement invalid because it risked creating inconsistent regulatory burdens.[89] This holding suggests that states may not be able to avoid dormant Commerce Clause challenges even when they legislate pursuant to a legitimate local purpose and do not discriminate against interstate commerce.[90]

Snyder demonstrates a major threat to full-impact regulations: courts may determine that such regulations survive strict scrutiny because no alternative methodologies exist and that such regulations survive *Pike* balancing due to their significant local benefit and the need to consider all stages of a product's lifecycle, only to invalidate them based on the extraterritoriality principle. Moreover, some courts even begin the dormant Commerce Clause inquiry by asking whether a statute regulates extraterritorially before considering whether or it not facially or purposefully discriminates against interstate commerce.[91] This approach turns the traditional justification for the doctrine—to protect the nation from self-interested state protectionism[92]—on its head and runs the risk of invalidating legitimate state regulations that should receive *Pike* balancing.[93]

Adding to the unpredictability surrounding the extraterritoriality doctrine, a circuit split exists regarding what standard of review courts should apply to extraterritorial regulations. The confusion stems from the Supreme Court's ambiguous language in *Edgar* and *Healy*. In *Edgar*, the plurality wrote that "[t]he Commerce Clause also precludes the application of a state statute to commerce that takes place wholly outside of the State's borders, whether or not the commerce has effects within the State."[94] In *Healy*, the Court reaffirmed this statement, broadly implying that state legislation

89. *See id.* at 810 ("Michigan is forcing states to comply with its legislation in order to conduct business within its state, which creates an impermissible extraterritorial effect.").

90. *See id.* (describing the case as an "'unusual extraterritoriality question'" and acknowledging the difficulty in applying the extraterritoriality doctrine to novel state laws).

91. *See* Int'l Dairy Foods Ass'n v. Boggs, 622 F.3d 628, 648 (6th Cir. 2010) ("*In addition* to a consideration of the Rule's alleged extraterritorial effects, we must assess *whether* it is protectionist.") (emphasis added).

92. *See, e.g.*, Baldwin v. G.A.F. Seelig, Inc., 294 U.S. 511, 521–22 (1935) (noting that the purpose of the doctrine is to guard against state protectionism).

93. *See* Eule, *supra* note 21, at 442–43 (arguing that courts should defer to state legislatures when evaluating even-handed regulations).

94. Edgar v. MITE Corp., 457 U.S. 624, 642–43 (1982) (plurality opinion).

with the "practical effect" of controlling conduct beyond the borders of the state is invalid regardless of the local purpose.[95] Regardless of what standard of review courts apply to extraterritorial regulations, such laws face a steep challenge, and the Supreme Court has yet to uphold a state law after finding that it falls within this category.[96] Because *Edgar*, *Healy*, and *Brown-Forman* all involved regulations that either evinced protectionism or failed *Pike* balancing, the circuits have had little guidance as to what standard of review to apply to regulations that may regulate extraterritorially but do not demonstrate a protectionist purpose or fail *Pike* balancing.[97] Specifically, it remains unclear whether the holding of *Maine v. Taylor*—that regulations receiving strict scrutiny may survive the challenge by showing a legitimate local interest and lack of a viable alternative—applies to extraterritorial regulations.

As a result, some circuits apply a *higher* standard of review to extraterritorial regulations than to facially or purposefully discriminatory state regulations and strike them down regardless of their legitimate local purpose.[98] Other circuits view extraterritorial regulations as part of the first-tier of dormant Commerce Clause analysis and apply the same strict scrutiny standard that facially and purposefully discriminatory laws receive.[99] The Second Circuit has

95. *See* Healy v. Beer Inst., 491 U.S. 324, 336 (1989) ("[A] statute that directly controls commerce occurring wholly outside the boundaries of a State exceeds the inherent limits of the enacting State's authority and is invalid regardless of whether the statute's extraterritorial reach was intended by the legislature.").

96. *See* Felmly, *supra* note 14, at 490–91.

97. *See infra* Part III.B.2 (discussing current state of the extraterritoriality doctrine).

98. *See* Am. Beverage Ass'n v. Snyder, 735 F.3d 362, 382 (6th Cir. 2013). (Rice, J., concurring) (rejecting the application of strict scrutiny to extraterritorial regulations and writing separately to clarify that "because we have found the statute to be extraterritorial, it must be struck down, and that is the end of the inquiry."); Alliance of Auto. Mfrs. v. Gwadosky, 430 F.3d 30, 35 (1st Cir. 2005) ("A state statute that purports to regulate commerce occurring wholly beyond the boundaries of the enacting state outstrips the limits of the enacting state's constitutional authority and, therefore, is per se invalid."); Bainbridge v. Turner, 311 F.3d 1104, 1112 (11th Cir. 2002) (holding that "laws that directly regulate commerce occurring in other states are invalid . . . ."); Cotto Waxo Co. v. Williams, 46 F.3d 790, 793 (8th Cir. 1995) (refusing to apply strict scrutiny to an allegedly extraterritorial regulation and noting that "a state regulation is per se invalid when it has an extraterritorial reach . . . .") (internal quotation marks omitted).

99. *See* Cloverland-Green Spring Dairies, Inc. v. Pa. Milk Mktg. Bd., 462 F.3d 249, 262 n.15 (3d Cir. 2006) (rejecting the argument that "two 'separate and distinct' types of heightened scrutiny analysis exist . . . ."); Alliant Energy Corp v. Bie, 336 F.3d 545, 547 (7th Cir. 2003) (rejecting the argument that extraterritorial regulations are per se invalid and applying strict scrutiny instead); Rocky Mountain Farmers Union v. Goldstene, 843 F. Supp. 2d 1071, 1093 (applying strict scrutiny to LCFS after plaintiff met its burden of proving an extraterritorial

commented on its own confusion regarding which standard to apply.[100] The result of this ambiguity is that "extraterritoriality provides a 'roving license for federal courts to determine what activities are appropriate for state and local government to undertake.'"[101]

II. LIFECYCLE ASSESSMENT AND FULL-IMPACT REGULATIONS

This section discusses the history and significance of lifecycle assessment methodology and full-impact regulations. Part II.A notes the importance of lifecycle assessments in designing effective environmental regulations. Part II.B discusses the most recent example of a full-impact regulation based on lifecycle assessment principles: California's Low Carbon Fuel Standard. Part II.C explains the vulnerability of full-impact regulations to dormant Commerce Clause challenges. Part II.D details the reasons that the ongoing litigation concerning California's low carbon fuel standard will not dispel confusion surrounding the dormant Commerce Clause and full-impact regulations. Part II.E explains why clarifying this confusion would help states design effective environmental regulations.

A. Lifecycle Assessments: History and Purpose

Lifecycle assessment is a form of environmental impact assessment that represents a cradle-to-grave approach for evaluating products and industrial systems.[102] A lifecycle assessment "begins with the gathering of raw materials from the earth to create the product and ends at the point when all materials are returned

effect). *But see* Midwest Title Loans, Inc. v. Mills, 593 F.3d 660, 665 (7th Cir. 2010) ("[A]nother class of nondiscriminatory local regulations is invalidated without a balancing of local benefit against out-of-state burden, and that is where states actually attempt to regulate activities in other states.").

100. *Compare* Nat'l Elec. Mfrs. Ass'n v. Sorrell, 272 F.3d 104, 109–10 (2d Cir. 2001) (applying *Pike* balancing to an extraterritorial regulation) *with* SPGGC v. Blumenthal, 505 F.3d 183, 193 (2d Cir. 2007) (describing extraterritoriality as a "basis for per se invalidity" after noting that "it is not entirely clear from our dormant Commerce Clause precedents which test should apply in this case . . . .").

101. *Snyder*, 735 F.3d at 380 (Sutton, J., concurring) (citing United Haulers Ass'n v. Oneida–Herkimer Solid Waste Auth., 550 U.S. 330, 343 (2007)).

102. *See* SCIENTIFIC APPLICATIONS INT'L CORP., LIFE CYCLE ASSESSMENT: PRINCIPLES AND PRACTICE 1 (2006), *available at* http://www.epa.gov/nrmrl/std/lca/pdfs/chapter1_frontmatter_lca101.pdf (describing lifecycle analysis as "a 'cradle-to-grave' approach for assessing industrial systems.").

to the earth."[103] Because this lifecycle analysis treats all stages of a product's lifecycle as though they are interdependent, it affords a more holistic view of a product's environmental impact than less comprehensive methods of impact assessment.[104] Thus, lifecycle assessments "can help decision-makers select the product or process that results in the least impact to the environment" without simply shifting environmental costs from one stage of the value chain to another.[105] Simply put, full-impact analysis represents "the best scientific method available for quantifying the environmental effects of products such as transportation fuels, employed by individual consumers, companies, and agencies to pursue environmental goals on a holistic basis."[106]

Both public and private sector actors employ lifecycle analysis in determining the environmental effects of products and policies.[107] As early as 1969, researchers for the Coca-Cola Company employed a version of lifecycle analysis to compare the environmental impacts of different beverage containers.[108] Today, companies can acquire labels for their products that certify their environmentally friendly manufacturing processes—ENERGY STAR certifications, for example[109]—by carrying out comprehensive lifecycle assessments.[110] In 2008, a coalition composed of major businesses and the Environmental Defense Fund announced their support for rigorous lifecycle analyses.[111] Businesses have been willing to embrace lifecycle analysis because it presents a cost-effective strategy for reducing their environmental footprint.[112]

103. *Id.*

104. *Id.*

105. *Id.* at 3.

106. *See* Brief of Michael Wang, *supra* note 1, at 5.

107. *See id.* at 12–14 (listing applications).

108. *See* SCIENTIFIC APPLICATIONS INT'L CORP., *supra* note 102, at 4.

109. *See* Brief of Michael Wang, *supra* note 1, at 14.

110. *Id.*

111. Envtl. Def. Fund, *Major Businesses and Environmental Defense Fund Announce Joint Principles to Inform Environmental Protection Agency Regulation of Greenhouse Gas Emissions* (Dec. 2, 2008), http://www.edf.org/news/major-businesses-and-environmental-defense-fund-announce-joint-principles-inform-epa-regulation.

112. *See* Rita Schenck, *The Business Case for Life Cycle Assessment in US Policy and Legislation* 1 (2009), http://lcacenter.org/Data/Sites/1/SharedFiles/whitepapers/thebusinesscaseforlca.pdf (noting that "LCA as a policy instrument provides many opportunities for rational and cost-effective environmental decision-making and can provide substantial economic incentives to those organizations embracing environmental sustainability as a business strategy.").

The federal government has also demonstrated support for full-impact analysis. In 2007, prompted by concerns about greenhouse gas (GHG) emissions, Congress amended the Clean Air Act to require lifecycle analysis for certain biofuels.[113] The Energy Independence and Security Act of 2007 also prohibits the federal government from procuring alternative fuels if a lifecycle assessment demonstrates that such fuels result in higher GHG emissions than conventional fuels.[114] For the purposes of this Note, I refer to environmental regulations predicated on lifecycle analysis as "full-impact" regulations.

B. A Case Study: California's Low Carbon Fuel Standard

States have only recently utilized lifecycle assessments in designing full-impact regulations.[115] California's LCFS provides a notable example. In 2006, the California legislature enacted Assembly Bill 32 ("AB 32"), the Global Warming Solutions Act.[116] The act requires the California Air Resources Board ("CARB") to reduce in-state GHG emissions to 1990 levels by 2020.[117] Pursuant to this authority, CARB promulgated California's Low Carbon Fuel Standard,[118] a tax on transportation fuels[119] sold in California. Under the LCFS, relevant tax rates are determined by the level of GHG emissions associated with the fuel as determined by full-impact analysis.[120] The stated purpose of the LCFS is to "reduce greenhouse gas emissions by reducing the full fuel-cycle, carbon intensity of the transportation fuel used in California."[121]

113. Clean Air Act § 211(o), 42 U.S.C. § 7545(o) (2012).

114. 42 U.S.C. § 17142 (2012)..

115. *See* Felicity Barringer, *Judge Blocks a California Fuel Regulation*, N.Y. TIMES, Dec. 29, 2011, at A16, *available at* http://www.nytimes.com/2011/12/30/us/judge-blocks-californias-low-carbon-fuel-standard.html?_r=0 (noting that California's LCFS "is one of the first in the country to use a 'life cycle' analysis.").

116. CAL. HEALTH & SAFETY CODE §§ 38501–38599 (West 2006). *See generally* CHEMERINSKY, *supra* note 22, at 51 (discussing history of the bill).

117. CAL. HEALTH & SAFETY CODE § 38550.

118. Low Carbon Fuel Standard, CAL. CODE REGS. tit. 17, § 95480.

119. Transportation emissions significantly contribute to overall GHG emissions. *See* Massachusetts v. EPA, 549 U.S. 497, 524 (2007) ("Considering just emissions from the transportation sector, which represent less than one-third of this country's total carbon dioxide emissions, the United States would still rank as the third-largest emitter of carbon dioxide in the world.").

120. *See* CAL. CODE REGS. tit. 17, § 95486 (requiring lifecycle assessment of transportation fuels).

121. *See id.* § 95480.

The LCFS achieves this goal by measuring the carbon intensity ("CI") value[122] of fuels against a baseline, taxing fuels proportionally to the extent that they exceed the baseline and granting credits to producers of fuels that fall below it.[123] CARB calculates baselines annually and plans to reduce them every year to achieve the end goal of a ten percent reduction in emissions.[124] Two factors determine a fuel's CI value: the direct emissions associated with the fuel and its significant indirect emissions.[125] Direct emissions include emissions associated with the production, transportation, and use of the fuel.[126] Indirect emissions include side effects of production such as indirect land use changes.[127] For example, a producer that slashes-and-burns an acre of forest in order to plant feedstock for ethanol will incur a higher CI value, all other factors being equal, than one who does not.[128] To facilitate compliance with the LCFS, CARB created a table of pre-assigned "pathways" corresponding to different transportation fuels.[129] The

122. *See id.* § 95481 ("'Carbon intensity' means the amount of lifecycle greenhouse gas emissions, per unit of energy of fuel delivered, expressed in grams of carbon dioxide equivalent per megajoule (gCO2E/MJ).").

123. *See* Rocky Mountain Farmers v. Goldstene, 843 F. Supp. 2d 1071, 1080 (E.D. Cal. 2011) (describing the operation of the LCFS), *rev'd by* Rocky Mountain Farmers Union v. Corey, 730 F.3d 1070 (9th Cir. 2013).

124. *See* tit. 17, § 95482(b)–(c).

125. *See id.* § 95481(a)(6)(E)(38)("'Lifecycle greenhouse gas emissions' means the aggregate quantity of greenhouse gas emissions (including direct emissions and significant indirect emissions such as significant emissions from land use changes), as determined by the Executive Officer, related to the full fuel lifecycle, including all stages of fuel and feedstock production and distribution, from feedstock generation or extraction through the distribution and delivery and use of the finished fuel to the ultimate consumer, where the mass values for all greenhouse gases are adjusted to account for their relative global warming potential.").

126. *Id.*

127. *Id.*; *see also* Todd J. Guerrero, *Lawsuit: LCFS Violates US Constitution*, ETHANOL PRODUCER MAG. (Jan. 4, 2010), http://www.ethanolproducer.com/article.jsp?article_id =6246 (explaining indirect emissions for the purposes of California's LCFS).

128. *See* Timothy Searchinger et al., *Use of U.S. Croplands for Biofuels Increases Greenhouse Gases Through Emissions from Land-Use Change*, 29 SCI. MAG. Vol. 319 (no. 5867) 1238 (2008), *available at* http://www.sciencemag.org/content/319/5867/1238.full. Searchinger's conclusion has been challenged by the New Fuels Alliance, an ethanol industry group. *See* New Fuels Alliance, *Statement in Response to* Science *Articles on Biofuels* (2009) http://www.ethanolrfa.org/page/-/objects/documents/1522/response_to_science_articles_ on_biofuels_-_new_fuels_alliance.pdf.

129. *See* tit. 17, § 95484(c)(2) (defining "pathway"); *see also* app. I, CAL. AIR RES. BD., TABLE 6: CARBON INTENSITY LOOKUP TABLE FOR GASOLINE AND FUELS THAT SUBSTITUTE FOR GASOLINE, *available at* http://www.arb.ca.gov/fuels/lcfs/121409lcfs_lutables.pdf.

pathways reflect the fuel's CI value based on a full-life cycle assessment.[130]

C. The LCFS Litigation Demonstrates that Full-Impact Regulations Are Vulnerable to Dormant Commerce Clause Challenges.

In 2011, the Rocky Mountain Farmers Union, a coalition of farmers, ethanol producers and refiners, and petroleum industry groups challenged the constitutionality of the LCFS on dormant Commerce Clause grounds.[131] Agreeing with the plaintiffs, Judge Lawrence O'Neill of the Eastern District of California ruled that California's LCFS violated the dormant Commerce Clause in two ways.[132] First, the Court held that the pathways[133] constituted facial discrimination because CARB had established lower CI values for California corn ethanol than its Midwest-produced counterparts.[134] The pathways, contained in Table 6 of CARB's Final Regulation Order, explicitly differentiated between fuels on the basis of origin and assigned different CI values to ethanol producers that employed the same feedstock and production processes.[135] Second, the Court held that the LCFS constituted an extraterritorial regulation because it had the practical effect of controlling conduct beyond California's borders.[136] The Court also found that the LCFS risked Balkanization of the ethanol market by creating inconsistent regulations among states.[137]

130. *Id.*

131. *See* Rocky Mountain Farmers Union v. Goldstene, 843 F. Supp. 2d 1071 (E.D. Cal. 2011), *rev'd by* Rocky Mountain Farmers Union v. Corey, 730 F.3d 1070 (9th Cir. 2013).

132. *Id.* at 1088, 1093.

133. Under California's LCFS, a producer may opt not to use the pathway created by CARB and develop its own CI value based on full-impact analysis. *Id.* at 1089. The District Court found that the availability of this procedure did not alter the dormant Commerce Clause analysis because CARB had discretion to deny alternative pathways, and the party proposing the alternative pathway could only do so if the proposed pathway represented at least a 5.00 grams CO2eq/MJ reduction in carbon intensity from CARB's pre-assigned pathway. *Id.* at 1090. Thus, Judge O'Neill concluded that "even these methods treat California ethanol plants more favorably than Midwest plants." *Id.*

134. *See id.* at 1086 (finding that "California corn-derived ethanol pathways are assigned 10% lower carbon intensity score as compared to the Midwest counterpart pathways.").

135. *See Goldstene*, 843 F. Supp. 2d at 1087 ("When comparing plants with the same feedstock and production process, the LCFS assigns a higher CI on the basis of origin alone.").

136. *See id.* at 1091–93.

137. *See id.* at 1092 (finding that if each state adopted a similar LCFS, producers might relocate their operations to the state of largest use, or sell only to nearby markets rather than face a transportation penalty).

Because the District Court found that the regulation facially discriminated and regulated extraterritorial activity, it proceeded to apply strict scrutiny to the LCFS.[138] Interestingly, the District Court agreed with the defendants that reducing GHG emissions—and combating climate change generally—served a legitimate local purpose.[139] However, the District Court then found that other, non-discriminatory means could effectuate that purpose.[140]

In one regard, the fact that the federal government had explicitly mandated the use of full-impact analysis for certain EPA regulations hurt, rather than helped, the defendants' case. The District Court found that the similarity between federal and state regulations of GHGs demonstrated that the state had "impermissibly tread[] into the province and powers of our federal government, reache[d] beyond its boundaries to regulate activity wholly outside of its borders, and offend[ed] the dormant Commerce Clause."[141]

D. The Ninth Circuit's Ruling in *Corey* Is a Step in the Right Direction, but Leaves Important Issues Unresolved.

In September 2013, the Ninth Circuit reversed Judge O'Neill's ruling in *Goldstene*, holding that California's LCFS did not facially discriminate against interstate commerce or constitute an impermissible extraterritorial regulation.[142] The Ninth Circuit began its analysis by identifying the relevant market for comparison.[143] Unlike the district court, which had excluded Brazilian ethanol and CI factors predicated on origin from the

138. *See id.* at 1093 ("Once a state law is shown to discriminate against interstate commerce . . . or to exercise extraterritorial control, the burden falls on the State to demonstrate both that the statute 'serves a legitimate local purpose,' and that this purpose could not be served as well by available nondiscriminatory means." (quoting Hughes v. Oklahoma, 441 U.S. 322, 336 (1979)).

139. *See id.* (citing Massachusetts v. EPA, 549 U.S. 497, 519, 522 (2007)).

140. *See id.* at 1093–94. The District Court seemed to agree with defendants that these alternative measures were suboptimal, but found that their existence nonetheless proved fatal to the LCFS: "[a]lthough these approaches may be less desirable, for a number of reasons, Defendants have failed to establish there are no nondiscriminatory means by which California could serve its purpose of combating global warming through the reduction of GHG emissions." *Id.* at 1094 (citing Dean Milk Co. v. City of Madison, 340 U.S. 349 (1951)).

141. *Goldstene*, 843 F. Supp. 2d at 1094.

142. *See* Rocky Mountain Farmers Union v. Corey, 730 F.3d 1070 (9th Cir. 2013).

143. *See id.* at 1088 ("Before we consider whether the Fuel Standard discriminates against out-of-state ethanol, we must determine which ethanol pathways are suitable for comparison.").

relevant market, the Ninth Circuit found that "all sources of ethanol in the California market should be compared."[144] This distinction was material because the District Court had omitted from its analysis critical lifecycle factors such as ethanol plant efficiency, the electricity used to power the conversion process, and emissions from transportation.[145] These omissions led to the district court's conclusion that the LCFS facially discriminated against interstate commerce because "the carbon intensities of these two otherwise-identical products are different according to lifecycle analysis."[146] In contrast, the Ninth Circuit's broader market definition led to the conclusion that these variances in production processes and transportation were "real differences" constituting a permissible basis for state regulation rather than an impermissible proxy for location.[147]

After defining the relevant market, the Ninth Circuit proceeded to hold that the LCFS did not facially discriminate against interstate commerce.[148] Judge Gould, writing for the majority, found that:

> Unlike [statutes found to discriminate against interstate commerce], the Fuel Standard does not base its treatment on a fuel's origin but on its carbon intensity. The Fuel Standard performs lifecycle analysis to measure the carbon intensity ofall fuel pathways. When it is relevant to that measurement, the Fuel Standard considers location, but only to the extent that location affects the actual GHG emissions attributable to a default pathway. Under dormant Commerce Clause precedent, if an out-of-state ethanol pathway does impose higher costs on California by virtue of its greater GHG emissions, there is a nondiscriminatory reason for its higher carbon intensity value.[149]

The Ninth Circuit next rejected the district court's finding that the LCFS violated the extraterritoriality doctrine.[150] The Ninth

144. *Id.*
145. *Id.*
146. *See Goldstene*, 843 F. Supp. 2d at 1088.
147. *Corey*, 730 F.3d at 1089.
148. *Id.* at 1089–90.
149. *Id.* at 1089. *See also infra* Part III.B.1 (arguing that under controlling Supreme Court precedent a state may enact regulations that facially distinguish products on the basis of origin so long as there is some reason, apart from their origin, to treat them differently).
150. *Corey*, 730 F.3d at 1101.

Circuit began its analysis by adopting a narrow view of the extraterritoriality doctrine, noting both the infrequency of the Supreme Court's application of the doctrine as well as the doctrine's origin in cases involving price affirmation statutes.[151] The Ninth Circuit then explicitly linked the extraterritoriality doctrine to concerns about the scope of state police power, suggesting a jurisdictional basis for the doctrine.[152] Under this quasi-jurisdictional understanding of the extraterritoriality doctrine, the LCFS was a permissible local regulation: "California does not control these factors—directly or in practical effect—simply because it factors them into the lifecycle analysis."[153] Instead, the majority viewed the LCFS as simply creating a series of incentives, which was permissible because "California may regulate with reference to local harms, structuring its internal markets to set incentives for firms to produce less harmful products for sale in California."[154]

Although the *Corey* decision suggests that federal courts may begin to provide more sympathetic forums for defendant states in future dormant Commerce Clause litigation, it remains to be seen whether other circuits will uphold similar regulations. This section concludes with a few brief thoughts on questions raised by the *Corey* decision that may impact future dormant Commerce Clause disputes.

First, one should not forget California's historic role in the regulation of motor vehicle emissions, as it played a key role in the Ninth Circuit's analysis.[155] Although the Ninth Circuit found that Congress had not authorized California to regulate interstate commerce,[156] its language suggested that California faces unique

151. *Id.* ("In the modern era, the Supreme Court has rarely held that statutes violate the extraterritoriality doctrine. The two most prominent cases where a violation did occur both involved similar price-affirmation statutes.").

152. *See id.* at 1102 (imposing state police power on another jurisdiction "was the kind of regulatory control forbidden by [Supreme Court precedent]." (citing C & A Carbone, Inc. v. Town of Clarksville, N.Y., 511 U.S. 383, 393 (1994)).

153. *Corey*, 730 F.3d at 1103.

154. *Id.* at 1104.

155. *Id.* at 1097 ("Congress has expressly empowered California to take a leadership role as to air quality.").

156. *Id.* at 1106 (finding that Section 211(c)(4)(b) of the Clean Air Act did not provide express authorization to California to act in contravention of the dormant commerce clause).

concerns warranting less scrutiny for state regulations designed to combat climate change and air pollution.[157]

Second, as Judge Murguia noted in partial dissent, the majority's analysis of the plaintiff's facial discrimination challenge was not entirely consistent with Supreme Court precedent.[158] Judge Murguia argued that established dormant Commerce Clause jurisprudence requires courts to examine the text of the LCFS to determine if it facially discriminates, and only then to consider whether the lack of non-discriminatory alternatives justified the state's interference with interstate commerce.[159] Judge Murguia's point is well taken. The majority implicitly rejected a "text first" approach to dormant Commerce Clause analysis when it wrote: "[n]or is the dormant Commerce Clause a blindfold. It does not invalidate by strict scrutiny state laws or regulations that incorporate state boundaries for good and non-discriminatory reason. It does not require that reality be ignored in lawmaking.[160]

Third, although the Ninth Circuit's understanding of the extraterritoriality doctrine appears largely consistent with the theory espoused in this Note,[161] it is worth considering that the Ninth Circuit upheld the LCFS against plaintiffs' extraterritoriality challenge largely because of what the LCFS did *not* do:

> The Fuel Standard imposes no analogous conditions on the importation of ethanol. It says nothing at all about ethanol produced, sold, and used outside California, it does not require other jurisdictions to adopt reciprocal standards before their ethanol can be sold in California, it makes no effort to ensure the price of ethanol is lower in California than in other states, and it

157. *Id.* at 1097 ("If GHG emissions continue to increase, California may see its coastline crumble under rising seas, its labor force imperiled by rising temperatures, and its farms devastated by severe droughts.").

158. *Id.* at 1108 (Murguia, J., dissenting) ("[The majority's] approach is inconsistent with Supreme Court precedent, which instructs that we must determine whether the regulation is discriminatory before we address the purported reasons for the discrimination." (citing Or. Waste Sys. v. Dep't of Envtl. Quality of Or., 511 U.S. 93, 99 (1994)).

159. *Corey*, 730 F.3d at 1108 (Murguia, J., dissenting) ("The majority puts the cart before the horse and considers California's reasons for distinguishing between in-state and out-of-state ethanol before examining the text of the statute to determine if it facially discriminates.").

160. *Id.* at 1107.

161. *See* infra Part III.C.1.

> imposes no civil or criminal penalties on non-compliant transactions completed wholly out of state.[162]

This laundry list of impermissible state actions may well prove helpful for future state officials seeking to immunize state regulations from dormant Commerce Clause challenges. At the same time, it confirms that the extraterritoriality doctrine remains difficult to pin down and accordingly provides federal courts with a great deal of discretion in policing state activities.[163] This Note aims to help reduce the uncertainties associated with a doctrine that is currently defined largely by the activities it forbids, rather than by the activities that it permits.

E. Beyond *Corey*: Why Clarifying the Standard of Review for Full-Impact Regulations Matters

The LCFS supplies an example of full-impact analysis utilized for GHG emission reductions efforts, and of two courts reaching opposite conclusions regarding the validity of a full-impact regulation under current dormant Commerce Clause doctrine. But the benefits of lifecycle analysis extend beyond climate change regulations. Minimum recycled content laws,[164] product stewardship laws,[165] smokestack emission regulations,[166] government

162. *Corey*, 730 F.3d. at 1102–03.

163. *Cf.* Henry P. Monaghan, *Foreword: Constitutional Common Law*, 89 HARV. L. REV. 1, 17 (1975) (describing the dormant commerce clause as an example of federal common law and noting that "[t]he Court, undoubtedly constrained by traditional limitations on the remedial powers of courts, has simply assumed that freeing the particular business from the challenged state regulation adequately advances the dominant federal free-trade policy.").

164. *See, e.g.*, Oregon Recycling Act, OR. REV. STAT. § 459A.550 (2003) (requiring a minimum of fifty percent recycled glass in glass containers sold in Oregon); *see also* Brief of Michael Wang, *supra* note 1, at 18 (listing applications of full-impact analysis).

165. *See, e.g.*, FLA. STAT. § 403.7192 (2004) (requiring manufacturers to design and carry out a plan for the collection, transportation, and disposal or recycling of rechargeable batteries); N.J. STAT. ANN. § 13:1E-99.85 (West 2005) (requiring automakers to develop a mercury minimization plan and bear the cost of that plan, paying $2.25 for each mercury switch removed from junked cars); VT. STAT. ANN. TIT. 10 § 7116 (2012) (requiring manufacturers of mercury-added thermostats to provide a collection program to wholesalers, retailers, and municipalities, and to offer a $5 cash incentive for each mercury thermostat turned in).

166. *See, e.g.*, Colin R. Hagan, Comment, *Closing the Gap: Using the Clean Air Act to Control Lifecycle Greenhouse Gas Emissions from Energy Facilities*, 30 UCLA J. ENVTL. L. & POL'Y 247 (2012) (arguing that full-impact analysis avoids problems of focusing exclusively on smokestack emissions in fashioning emissions reductions measures).

procurement guidelines stressing sustainability,[167] energy performance directives for buildings,[168] and tax credits for ENERGY STAR products all benefit from lifecycle analysis.[169] As states seek to remedy environmental problems through full-impact regulations, they will seek guidance regarding what measures they may constitutionally undertake when designing their policies.[170]

A dormant Commerce Clause framework that leaves significant discretion in the hands of district court judges[171] to invalidate some full-impact regulations as "extraterritorial" while leaving others standing because they "regulate even-handedly," proves unsatisfying for at least two reasons.[172] First, it risks arbitrary and inconsistent outcomes among the Circuits.[173] Second, ambiguity regarding what actions states may take might discourage states from attempting to implement novel solutions to environmental problems.[174] As a result, the current legal uncertainty risks deterring states from using a particularly effective methodology for measuring environmental damage. Clarification regarding the contours of the dormant Commerce Clause doctrine and its applicability to full-impact regulations is thus necessary.

167. *See, e.g.*, U.S. ENVTL. PROT. AGENCY, *Comprehensive Procurement Guidelines*, http://www.epa.gov/epawaste/conserve/tools/cpg/index.htm#paper (last updated Jan. 17, 2014).

168. Mohamad Monkiz Khasreen, Phillip F.G. Banfill & Gillian F. Menzies, *Life-Cycle Assessment and the Environmental Impact of Buildings*, 1 SUSTAINABILITY 674 (2009), *available at* http://www.rpd-mohesr.com/uploads/custompages/sust..pdf.

169. *See, e.g.*, U.S. ENVTL PROT. AGENCY, *Federal Tax Credits for Consumer Energy Efficiency, Energy Star*, http://www.energystar.gov/index.cfm? c=tax_credits.tx_index (last visited Jan. 19, 2014).

170. *See* Felmly, *supra* note 14, at 512 ("State legislators need predictable legal principles in order to respond appropriately to the needs of their constituents.").

171. *See* Maine v. Taylor, 477 U.S. 131, 145 (1986), (noting the clearly erroneous standard of review for findings of fact in dormant Commerce Clause cases); *see also* Chemerinsky et al., *supra* note 27, at 437 (judges possess a great deal of discretion under *Pike*).

172. *See* Am. Beverage Ass'n v. Snyder, 735 F.3d 362, 377 (6th Cir. 2013) (Sutton, J., concurring) (noting problems with the current state of the extraterritoriality doctrine).

173. *See* Felmly, *supra* note 14, at 510 (noting risk of arbitrary decisions under the extraterritoriality doctrine).

174. *See id.* (noting that the formal distinction between direct extraterritorial regulation and indirect effects "lacks the degree of clarity necessary in order to provide state legislatures guidance and incentive to experiment.").

III. WHY FULL-IMPACT REGULATIONS SHOULD NOT RECEIVE HEIGHTENED SCRUTINY

This section analyzes the dormant Commerce Clause challenges that full-impact regulations will likely face. For the purposes of this Note, I construct a hypothetical full-impact regulation that raises both facial discrimination and extraterritoriality concerns. The hypothetical assumes state action unmotivated by protectionism.[175] Instead, this section focuses on two questions. First, whether a full-impact regulation that explicitly includes interstate elements, such as transportation emissions, in calibrating its penalties or subsidies constitutes a facially discriminatory regulation. Second, whether full-impact regulations amount to extraterritorial regulations due to the reliance on lifecycle assessment. This section concludes that properly designed full-impact regulations should receive *Pike* balancing, rather than the heightened scrutiny applied to discriminatory laws or those that regulate extraterritorially.

A. A Hypothetical—Full-Impact Water Use Regulations

Bottled water represents the fastest growing sector of the beverage industry.[176] However, increased production and consumption of bottled water raises environmental concerns, including energy use,[177] waste creation,[178] and aquifer depletion.[179] Although federal regulations govern the health and safety aspects of bottled water,[180] state regulation of bottled water ranges from

175. *See, e.g.*, *Snyder*, 735 F.3d at 371 (dormant Commerce Clause "review not only includes the statute itself, but also the legislative history and legislative intent to determine whether the statute achieved its legislative purpose.").

176. Joyce S. Ahn, *Uncapping the Bottle: A Look Inside the History, Industry, and Regulation of Bottled Water in the United States*, 3 J. FOOD L. & POL'Y 173, 175 (2009).

177. *See, e.g.*, Andrea Thompson, *The Energy Footprint of Bottled Water*, Live Science (Mar. 18, 2009), http://www.livescience.com/3406-energy-footprint-bottled-water.html.

178. *See* Alexia Elejalde-Ruiz, *Paying with Plastic: Politicians, Environmentalists Say Bottled Water Waste Is Unnecessary*, CHI. TRIB., Aug. 10, 2007, at 8, *available at* http://articles.chicagotribune.com/2007-08-10/news/0708100305_1_bottled-water-container-recycling-institute-plastic.

179. *See* Itzchak E. Kornfeld, *Groundwater Conservation: Conundrums and Solutions for the New Millennium*, 15 TUL. ENVTL. L.J. 365, 376 (2002); *see also* PAC. INST., *Bottled Water and Energy: A Fact Sheet* (2007), http://www.pacinst.org/topics/water_and_sustainability/bottled_water/bottled_water_and_energy.html (finding that production of one liter of bottled water requires three liters of bottled water).

180. *See* NATURAL RES. DEF. COUNCIL, *Bottled Water: Pure Drink or Pure Hype?*, http://www.nrdc.org/water/drinking/bw/chap4.asp (last updated July 15, 2013).

developed to non-existent and generally follows the federal focus on health and safety where it exists.[181] Assume, then, that a state such as Kansas—which currently does not regulate bottled water sales at all[182]—becomes concerned by these developments and decides that it needs to take steps to ensure that increased bottled water consumption within state borders occurs in an environmentally-sound manner. Further, assume that, of all the potential impacts of bottled water production, Kansas considers water depletion the most significant. In fact, Kansas draws much of its water from the Ogallala Aquifer, a shallow water table aquifer underlying eight states in the High Plains region.[183] Accordingly, water use in Kansas implicates seven other states,[184] and vice versa.[185] More specifically, overuse of the Ogallala Aquifer threatens the livelihood of communities that depend on it for drinking water and irrigation.[186]

Assume, then, that Kansas wishes to minimize the environmental impact of bottled water use on the Ogallala Aquifer's reserves. Kansas could pass a flat tax on bottled water and use the proceeds to promote water conservation, but this approach raises questions of its own. Should an out-of-state producer that has already adopted water conservation measures and uses environmentally sound production techniques face the same tax as a producer that generates twice as much wastewater? Or, differently, what if the tax distorts consumer purchasing decisions, driving them to buy refillable stainless steel water bottles instead?[187] In that case, Kansas

181. *See id.* (discussing state regulations).

182. *See id.* (noting that Kansas "has no separate state regulations and no permit program.").

183. *See generally* K.F. DENNEHY, HIGH PLAINS REGIONAL GROUND-WATER STUDY: U.S. GEOLOGICAL SURVEY FACT SHEET FS-091-00 (2000), *available at* http://pubs.usgs.gov/fs/2000/0091/report.pdf.

184. *See id.* (Colorado, Nebraska, New Mexico, Oklahoma, South Dakota, Texas, and Wyoming).

185. *See generally* Barton H. Thompson Jr., *Tragically Difficult: The Obstacles to Governing the Commons*, 30 ENVTL. L. 241, 250–51 (2000) (discussing water depletion issues related to the Ogallala Aquifer).

186. *See* Katharine Q. Seelye, *Aquifer's Depletion Poses Sweeping Threat*, N.Y. TIMES (May 4, 2011), http://green.blogs.nytimes.com/2011/05/04/aquifers-depletion-poses-sweeping-threat/ (noting threat of groundwater depletion to communities dependent on the Ogallala Aquifer).

187. *See* Daniel Goleman and Gregory Norris, *How Green is My Bottle?*, N.Y. TIMES (Apr. 19, 2009), http://www.nytimes.com/interactive/2009/04/19/opinion/20090419bottle.html (comparing lifecycle impacts of stainless steel and bottled water).

might want to know whether the production and use of a stainless steel water bottle *actually* reduces water use rather than simply shifting water use to another stage of production.[188] For example, if the water used by consumers in washing their stainless steel bottles is greater than the amount used by plastic water bottle producers, a flat tax on plastic water bottles might actually *exacerbate* water depletion.[189] Only full-impact analysis provides the answers to these questions, and only a full-impact regulation will effectuate the will of the legislature without simply recreating the problems it sought to redress in another form.[190]

A full-impact approach might draw on California's LCFS and tax refillable water containers sold within Kansas to the extent that each bottle of water exceeds a "baseline" water intensity (WI) value. Similar to the LCFS, a target production year could provide the baseline, with the baseline receding every year so as to increase the tax on manufacturers who do not alter their production processes to reduce water use. The tax might apply to stainless steel water bottles and other reusable containers sold without water. Ideally, over time the market would favor less water-intensive, less expensive containers. Producers selling their products in Kansas would face a strong incentive to alter their production processes, and Kansas would enjoy the increased revenue collected from the tax.

In contrast with the LCFS, which provided preset CI values for certain fuel producers, assume that Kansas does not provide preset "pathways" listing WI values for various producers.[191] Instead, assume Kansas supplies the methodology that producers must use in calculating the WI value of their products and allows producers a reasonable period of time to submit their own WI values based on full-impact analysis. This way, all producers—whether in-state or out-of-state—face the same regulatory burden. To minimize extraterritoriality concerns, Kansas offers to perform the WI study itself for any producer who does not have the resources to do so, or

188. *See id.* (noting that "[o]ne stainless steel bottle is obviously much worse than one plastic bottle.").

189. *See id.* (noting the water use required for production and use of stainless steel water bottles).

190. *See* Brief of Michael Wang, *supra* note 1, at 5.

191. *See* Rocky Mountain Farmers Union v. Goldstene, 843 F. Supp. 2d 1071, 1090 (E.D. Cal. 2011).

to refund the cost of any study through tax credits to the producer.[192]

B. Dormant Commerce Clause Challenges to Hypothetical Legislation

1. Facial Discrimination

The hypothetical water-use statute avoids the facial discrimination problem that California faced by allowing producers to calculate their own WI values and offering to refund the cost of such efforts.[193] Because the water-use statute does not prospectively assign higher WI values to out-of-state producers than to in-state producers, it does not facially discriminate against interstate commerce in the same way that California's LCFS does.[194]

But another potential tier-one challenge lurks. In *Goldstene*, the District Court noted in dicta that "tying carbon intensity scores to the distance a good travels in interstate commerce discriminates against interstate commerce."[195] Although couched in its discussion of CARB's pathways, the District Court implied that *no tax* that accounted for the distance a good traveled could survive constitutional scrutiny.[196]

Distance traveled—a proxy for GHG emissions en route to a fuel's destination in the LCFS—serves as a similarly useful proxy in the hypothetical water statute because production of transportation fuels uses water.[197] Indeed, ignoring water use in transportation fuels could nullify the beneficial effects of the water statute. Consider the following: a Wyoming-based bottled water producer ships its products to Kansas via truck, purchasing some of the fuel

192. *See* Brief of William Buzbee et al. as Amici Curiae Professors of Environmental Law Supporting Defendants-Appellants at 22–23, Rocky Mountain Farmers Union v. Corey, 730 F.3d 1070 (9th Cir. 2013) (Nos. 12–15131, 12–15135), (noting that requiring out-of-state producers to perform their own studies might prove unduly burdensome).

193. *See Goldstene*, 843 F. Supp. 2d at 1086–87.

194. *See id.* at 1087 (finding that LCFS assigns higher values to certain ethanol pathways based on origin).

195. *Id.* at 1088.

196. *See id.* ("While [transportation and energy use factors] may not overtly discriminate based on location, they do assign favorable assumptions to California while penalizing out-of-state competitors . . . this discriminates against interstate commerce.").

197. *See* CHRISTOPHER G. DETTORE, CTR. FOR SUSTAINABLE SYS., COMPARATIVE LIFE-CYCLE ASSESSMENT OF BOTTLED VS. TAP WATER SYSTEMS 10 (2009), *available at* http://css.snre.umich.edu/css_doc/CSS09-11.pdf (unpublished M.S. thesis, University of Michigan).

for its fleet in bulk at the Torrington, Wyoming corn ethanol plant.[198] Ethanol production requires water, and the Torrington plant sits atop the Ogallala aquifer.[199] The location and transportation of Wyoming bottled water materially affects its water intensity.[200] Yet, under the logic of *Goldstene*, considering such factors subjects an otherwise facially neutral law to strict scrutiny.[201]

A defendant state has at least two strong defenses of such a full-impact regulation. First, no alternatives to full-impact regulations exist because less rigorous methodologies shift the problem the state seeks to address to another point on the value chain.[202] Following *Maine v. Taylor*, a district court should not force states to try out "new and unproven means of protection at an uncertain cost."[203] While courts have consistently celebrated the states as laboratories of democracy,[204] *Taylor* establishes that courts may not force states to continue to innovate once they have arrived at a workable solution to a legitimate local concern unless alternatives readily present themselves.[205] Because no other methodology suitably addresses the scope of modern, cross-border environmental problems, the lack of viable alternatives should neutralize facial discrimination challenges to full-impact regulations.

198. *See* Trevor Brown, *Ethanol plant to stay open after subsidy ends*, WYO. TRIB.-EAGLE (Apr. 6, 2012), http://www.wyomingnews.com/articles/2012/04/06/news/19local_04-06-12.txt) (noting existence of such a plant).

199. *See* Jeffrey A. Edwards et al., *Attitudes Towards Municipal Water Conservation Policy*, http://www.gis.ttu.edu/center/NSFOgallala/images/PDFs/USDAWaterConferencePoster.1.29.11.pdf (last visited Jan. 20, 2014).

200. *See* DETTORE, *supra* note 197, at 10.

201. *See* Rocky Mountain Farmers Union v. Goldstene, 843 F. Supp. 2d 1071, 1089 (E.D. Cal. 2011) (suggesting states may not account for location and transportation in designing full-impact regulations).

202. *See* Brief of Michael Wang, *supra* note 1, at 5.

203. Maine v. Taylor, 477 U.S. 131, 147. (1986).

204. *See, e.g.*, New State Ice Co. v. Liebmann, 285 U.S. 262, 311 (1932) (Brandeis, J., dissenting) ("It is one of the happy incidents of the federal system that a single courageous State may, if its citizens choose, serve as a laboratory; and try novel social and economic experiments without risk to the rest of the country."); *see also* Rocky Mountain Farmers Union v. Corey, 730 F.3d 1070, 1105 (9th Cir. 2013) ("If we were to invalidate regulation every time another state considered a complementary statute, we would destroy the states' ability to experiment with regulation.").

205. *See Taylor*, 477 U.S. at 147; *see also* Am. Trucking Ass'ns v. Scheiner, 483 U.S. 266, 283 (1987) ("[T]he Commerce Clause may be satisfied if the revenue measures maintain state boundaries as a neutral factor in economic decisionmaking.").

Second, the Supreme Court has expressly sanctioned state laws treating products from different regions dissimilarly when "there is some reason, apart from their origin, to treat them differently."[206] Because full-impact environmental regulations are designed to correctly calibrate the penalty or subsidy a given product should receive based on whatever factor a state becomes concerned with—whether water-use, carbon intensity, or quantity of recycled content—they thus express a preference based on production process, not geography.[207] To see why, consider that the distance between Topeka, Kansas, and St. Francis, Kansas, is greater than the distance between Topeka and Springfield, Missouri.[208] Well-situated Missouri producers therefore suffer a less severe transportation penalty than poorly positioned in-state producers. Because the hypothetical water regulation expresses no prospective preference for geography and only considers distance travelled as a means of gauging water intensity, it is difficult to characterize it as discriminating against interstate commerce at all.[209]

2. Extraterritoriality

a. Justification, Criticism, and Proposed Solutions

Evaluating extraterritoriality challenges to full-impact regulations requires a coherent understanding of the doctrine, its justifications, and its limits. As discussed in Part I.A.3, however, the doctrine defies easy synthesis. Accordingly, courts encounter difficulty when forced to apply the extraterritoriality principle to regulations that

206. City of Philadelphia v. New Jersey, 437 U.S. 617, 627 (1977) (New Jersey ban on imported waste was unconstitutional); *see also* Or. Waste Sys. v. Dep't of Envtl. Quality of Or., 511 U.S. 93, 101 n.5 (1994) (finding that, if Oregon had showed that out-of-state waste generated higher costs than in-state waste, Oregon could permissibly tax out-of-state waste at higher rates).

207. *See Corey* 730 F.3d at 1089 ("Unlike [previous] discriminatory statutes, the Fuel Standard does not base its treatment on a fuel's origin but on its carbon intensity.").

208. *Compare* Distance Between Topeka, Kansas and St. Francis, Kansas, GOOGLE MAPS, http://maps.google.com (follow "Get Directions" hyperlink; then search "A" for "Topeka, Kansas" and search "B" for "St. Francis, Kansas"; then follow "Get Directions" hyperlink) (indicating a distance of 379 miles) *with* Distance Between Topeka, Kansas, and Springfield, Missouri GOOGLE MAPS, http://maps.google.com (follow "Get Directions" hyperlink; then search "A" for "Topeka, Kansas" and search "B" for "Springfield, Missouri"; then follow "Get Directions" hyperlink) (indicating a distance of 228 miles).

209. *See City of Philadelphia*, 437 U.S. at 627 (discrimination based on actual differences in products, rather than out-of-state origin alone, does not raise first-tier dormant Commerce Clause concerns).

clearly impact, but do not directly control, interstate commerce.[210] Even the decision *whether* to apply the doctrine becomes difficult when dealing with facially neutral regulations because, under the two-tiered framework, such regulations generally receive *Pike* balancing.[211] As discussed, the decision to treat a law as an "extraterritorial regulation" rather than to evaluate it under the *Pike* test will often prove outcome-determinative: because extraterritorial regulations are generally impermissible, *Pike* regulations have a greater chance of surviving judicial review.[212] But thus far, no consistent principle appears to guide the decision of district courts in determining whether to apply the extraterritoriality test instead of *Pike*, or even how to apply the extraterritoriality test when a regulation exerts too strong a force on interstate commerce for *Pike* to come into play.[213]

Courts and commentators have proposed various solutions to the problem of synthesizing the extraterritoriality case law, and this section briefly considers their contributions to the literature. Professor Regan provides the earliest attempt to distill clear legal principles from the Supreme Court's extraterritoriality cases.[214] He argues that the extraterritoriality doctrine stems from the structural principle that "[n]o state can legislate except with reference to its own jurisdiction" rather than from the text of the Commerce Clause, and notes similarities between extraterritoriality cases and those involving the Due Process and Full Faith and Credit clauses.[215] This approach proves helpful in understanding the doctrine but, as Professor Regan acknowledges, provides no clear

210. *See, e.g.*, IMS Health Inc. v. Mills, 616 F.3d 7, 29–30, n.27–28 (1st Cir. 2010) (referring to extraterritoriality as the "dormant" branch of the dormant Commerce Clause and acknowledging uncertainty regarding its application), *abrogated on other grounds by* Sorrell v. IMS Health Inc., 131 S. Ct. 2653 (2011).

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

212. *See* Chemerinsky et al., *supra* note 27, at 54 (noting that laws receiving strict scrutiny generally do not pass the test and that laws facing a *Pike* challenge have a greater chance of success).

213. *See* Am. Beverage Ass'n v. Snyder, 735 F.3d 362, 378–79 (6th Cir. 2013) (Sutton, J., concurring) ("The original function of the doctrine no longer exists, and it is exceedingly difficult to understand which extraterritorial effects exceed its bounds and which do not—except through a 'practical effect' inquiry that shares many of the same traits and pitfalls as *Pike* balancing.").

214. *See* Regan, *supra* note 63, at 1895 (analyzing the Supreme Court's extraterritoriality cases to date and concluding that they reflect a structural principle regarding state jurisdiction rather than a particular concern for interstate commerce).

215. *See id.* at 1887 (quoting Bonaparte v. Tax Court, 104 U.S. 592, 594 (1881)).

limiting principle or means of predicting when courts will invalidate state legislation.[216] Professor Regan focuses on the extent to which states may regulate the out-of-state activities of their own citizens; he does not provide an answer to the question posed by full-impact regulations: to what extent may states account for out-of-state activities in designing regulations that apply only to transactions within the state?[217]

Professors Goldsmith and Sykes, in a more recent attempt to bring coherence to the doctrine, argue that courts ought to apply a balancing test when faced with extraterritoriality questions.[218] The primary benefits of this approach are that it appears consistent with Supreme Court case outcomes and provides a simple but flexible standard for judges to employ.[219] However, this approach does not provide a helpful framework for evaluating full-impact regulations for two reasons. First, because some jurisdictions consider extraterritorial regulations per se invalid *regardless* of local purpose, a balancing test may prove irreconcilable with case law in certain circuits.[220] Second, treating extraterritoriality simply as a balancing test fails to distinguish it from either strict scrutiny or *Pike* balancing, both of which require some weighing of means and ends.[221] Indeed, given confusion over how to apply *Pike* itself, viewing extraterritoriality's "practical effects" test simply as a balancing test threatens to create another "ineffable test," and, as Judge Sutton of the Sixth Circuit recently asked, "[w]hy have *two tests* that suffer from these problems rather than just one?"[222]

216. *See id.* at 1896 ("For the most part, states may not legislate extraterritorially, whatever exactly that means.")

217. *See id.* at 1912 (concluding that "the tendency of my remarks is that a state may regulate the extraterritorial behavior of its citizens.").

218. *See* Jack L. Goldsmith & Alan O. Sykes, *The Internet and the Dormant Commerce Clause*, 110 YALE L.J. 785, 804 (2001) ("[T]he appropriate statement of the extraterritoriality concern is that states may not impose burdens on out-of-state actors that outweigh the in-state benefits . . . .").

219. *See id.* at 804–05 ("This understanding of the extraterritoriality concern fits with the Court's modern extraterritoriality decisions.").

220. *See, e.g.*, Am. Beverage Ass'n v. Snyder, 735 F.3d 362, 382 (Rice, J., concurring) (noting extraterritorial laws struck down without a balancing of interests).

221. *See* Goldsmith & Sykes, *supra* note 218,at 814 (criticizing proposed solutions to the extraterritoriality conundrum).

222. *Snyder*, 735 F.3d, at 379 (Sutton, J., concurring) (emphasis in original).

Another commentator, Peter Felmly, takes the opposite route and suggests abandoning a balancing approach entirely.[223] He proposes that courts should defer to state legislatures and apply the extraterritoriality principle only when state laws clearly evinced a protectionist purpose or lacked a significant connection to the regulating state.[224] But this approach threatens to weaken the role of courts in curtailing burdensome state regulations. For example, under this framework, Kansas could plausibly claim that it could regulate the amount of water that Wyoming draws annually from the Ogallala Aquifer. Kansas could argue that such a regulation was motivated solely by the desire for water conservation, rather than by protectionism, and has a substantial connection to Kansas given its need to maintain a source of fresh water. Moreover, granting significant deference to states regarding their connection to the regulated activity increases the risk that protectionist legislation will survive judicial review and raises the possibility that even *Healy*-type price scales could survive constitutional scrutiny so long as the regulating state could develop a compelling reason for adopting them. Of course, both types of laws still arguably exceed the jurisdiction of the enacting state, but this demonstrates the need to place the jurisdictional principle at the forefront of extraterritoriality analysis.[225]

Judge Sutton of the Sixth Circuit, reluctantly concurring in *Snyder*, recently proposed a simpler solution: eliminate the extraterritoriality doctrine altogether.[226] As Judge Sutton notes, the

223. *See* Felmly, *supra* note 14, at 513 (proposing an approach limiting the judicial inquiry to whether a given state law is protectionist and whether a sufficient connection exists between the state and out-of-state parties, which "does not involve the judiciary with intractable inquiries concerning direct and indirect effects or require that it perform difficult balancing acts.").

224. *Id.*

225. Felmly concludes that Congress is better suited to enforce limits on state regulatory authority than the courts and thus sees no need for a broader extraterritoriality principle. *See id.* at 513 ("the onus of supervising the states to ensure that they do not adversely affect the national commercial interest should be on Congress, not the courts."). This ignores the traditional justification for judicial preemption: that Congress lacks the resources and the collective will to effectively police state protectionism. *See* Midwest Title Loans, Inc. v. Mills, 593 F.3d 660, 665 (7th Cir. 2010) ("Because of the politics and workload of Congress, unless the courts recognized and enforced the exclusive federal power to regulate commerce the nation would be riddled with state tariffs; and a nation with internal tariff barriers is hardly a nation at all.").

226. *See Snyder*, 735 F.3d at 378 (Sutton, J., concurring) (advocating abandonment of the extraterritoriality doctrine).

Supreme Court has never invalidated a statute solely on the basis of extraterritoriality.[227] The price-affirmation statute in *Healy* facially discriminated against interstate brewers and shippers of beer;[228] the price-affirmation statute in *Brown-Forman* disadvantaged consumers in other states by directly regulating prices, amounting to "simple economic protectionism;"[229] and in *Edgar*, extraterritoriality was an alternate holding, with the plurality finding that the hostile takeover statute failed *Pike* balancing as well.[230]

Although *Snyder* nominally applied the extraterritoriality doctrine in striking down the Michigan "unique-mark" requirement, it also demonstrates that a broad extraterritoriality doctrine is not necessary to restrain state behavior.[231] The Sixth Circuit could have employed at least two different rationales to invalidate the Michigan law. First, it could have followed the Supreme Court, which has already rejected state laws, like Michigan's unique-mark requirement, that employ reciprocal measures to encourage other states to adopt similar laws.[232] Second, the Sixth Circuit could have found simply that the unique-mark requirement failed *Pike* balancing because Michigan "failed to consider reasonable alternatives"—nine other states had adopted effective bottle return laws that had *no* effect on interstate commerce.[233] In this case, the burden on interstate commerce was clearly excessive because Michigan offered no justification for it at all, whereas the plaintiffs presented evidence that less burdensome regulations could accomplish the stated legislative purpose.[234]

227. *See id.* at 380–81 (Sutton, J., concurring) (abandoning the extraterritoriality doctrine would not alter case outcomes).

228. *See* Healy v. Beer Inst., 491 U.S. 324, 340 (1989); *see also id.* at 345 (Scalia, J., concurring) (arguing that extraterritoriality was unnecessary to the Court's decision and criticizing the doctrine).

229. *See* Brown-Forman Distillers Corp. v. N.Y. State Liquor Auth., 476 U.S. 573, 580 (1986).

230. *See* Edgar v. MITE Corp., 457 U.S. 624, 643 (1982) (plurality opinion).

231. *Snyder*, 735 F.3d 362, 375 (6th Cir. 2013).

232. *See* New Energy Co. of In. v. Limbach, 486 U.S. 269 (rejecting Ohio statute conditioning ethanol tax subsidy for out-of-state producers upon adoption of similar program by other states); *see also* Hardage v. Atkins, 619 F.2d 871, 873 (10th Cir. 1980) (states cannot "use the threat of economic isolation as a weapon to force" other states to adopt reciprocal laws) (quoting Great Atl. & Pac. Tea Co. v. Cottrell, 424 U.S. 366, 379 (1967)).

233. *Snyder*, 735 F.3d at 375.

234. *See id.* (listing alternative measures Michigan could have pursued including: limiting the number of containers redeemable by an individual or company, requiring consumers to

All four of these approaches prove helpful in clarifying the purpose and application of the extraterritoriality doctrine. But because they all require courts to re-evaluate the way they approach the extraterritoriality doctrine, they do not provide sufficient guidance for states seeking to insulate full-impact regulations from such challenges. Moreover, the only one of these approaches that clearly eliminates the threat to full-impact regulations requires scrapping the doctrine entirely, which *Snyder* suggests courts will not endorse.[235] Fortunately, drawing on Professor Regan's analysis, a methodology for evaluating extraterritoriality cases exists that is consistent with prior case outcomes, preserves the role of the judiciary in curbing state regulatory excesses, and does not implicate properly designed full-impact regulations. The next section will discuss this approach.

b. Full-Impact Regulations Need Not Implicate the Concerns Behind the Extraterritoriality Doctrine.

i. Jurisdictional Concerns

A simpler approach than eliminating the extraterritoriality doctrine entirely would begin by reading the Supreme Court's extraterritoriality cases as simply expressing the axiom that states may not legislate "except with reference" to their own borders.[236] Stripped of their "practical effects" and "directly controls" language, *Healy* and *Brown-Forman* stand simply for the proposition that one state may not set prices in another.[237] Indeed, the *Healy* Court suggested this view when it stated: "a statute that directly controls commerce occurring wholly outside the boundaries of a State *exceeds the inherent limits of the enacting State's authority*."[238]

provide a proof of purchase receipt indicating the container was purchased in the state, and simply enforcing the state's recently enacted law against retailer fraud).

235. *See id.* at 377 (Sutton, J., concurring) (applying extraterritoriality doctrine despite reluctance to do so).

236. Bonaparte v. Tax Court, 104 U.S. 592, 594 (1881); *see also* TRIBE, *supra* note 13 at 1080 (extraterritorial laws "are properly dealt with by reference to the time-honored principle that one state cannot legislate for another." (citing JOSEPH STORY, COMMENTARIES ON THE CONFLICT OF LAWS 24–25 (1834))).

237. *See* Brown-Forman Distillers Corp. v. N.Y. State Liquor Auth., 476 U.S. 573, 582 (1986) ("Forcing a merchant to seek regulatory approval in one State before undertaking a transaction in another directly regulates interstate commerce.").

238. Healy v. Beer Inst., 491 U.S. 324, 336 (1989) (emphasis added).

Leading circuit cases have applied *Healy's* logic outside of price-control schemes, but their rulings generally adhere to the above-stated principle.[239] Flagrant price-scales,[240] express conditions on out-of-state producers,[241] and facially-neutral regulations subjecting out-of-state entities to a state's regulatory powers all violate the extraterritoriality principle because they exceed the scope of the state's authority.[242] The justification for invalidating such laws has less to do with interstate commerce than with structural limits upon state regulatory authority.[243] Indeed, this approach was suggested in the Ninth Circuit's recent *Corey* decision, which upheld California's LCFS against an extraterritoriality challenge on the grounds that the regulation did not impose the state's police power on actors beyond California's borders.[244]

239. *Compare* Midwest Title Loans, Inc. v. Mills, 593 F.3d 660 (7th Cir. 2010) (Indiana law subjecting out-of-state lenders who contracted with Indiana residents to licensing requirements and regulations regulated extraterritorially), *and* NCAA v. Miller, 10 F.3d 633 (9th Cir. 1993) (Nevada statute forcing the NCAA to adopt Nevada's procedural rules for schools in other states constituted an impermissible extraterritorial regulation), *with* Int'l Dairy Food Ass'n v. Boggs, 622 F.3d 628, 648 (6th Cir. 2010)., 622 F.3d 628 (Ohio statute regulating the labeling of dairy products did not regulate extraterritorially), Nat'l Elec. Mfrs. Ass'n v. Sorrell, 272 F.3d 104 (2d Cir. 2001) (Vermont labeling requirement for lamps containing mercury was constitutional), *and* Hampton Feedlot, Inc. v. Nixon, 249 F.3d 814 (8th Cir. 2001) (Missouri statute regulating in-state slaughterhouse price disclosures did not violate the dormant Commerce Clause even though all slaughterhouses were located out-of-state).

240. *See Healy*, 491 U.S. 324. *See also* Baldwin v. G.A.F. Seelig, Inc., 294 U.S. 511 (1935) (New York statute creating price floor for milk was unconstitutional as applied to out-of-state producer).

241. *See* Nat'l Solid Wastes Mgmt. Ass'n v. Meyer, 63 F.3d 652 (7th Cir. 1995) (Wisconsin statute prohibiting dumping of out-of-state waste in Wisconsin landfills unless the waste came from a community with a recycling program similar to Wisconsin's violates the Commerce Clause); *see also* Hardage v. Atkins, 619 F.2d 871 (10th Cir. 1980) (explicit conditions on out-of-state producers are per se unconstitutional).

242. *See Miller*, 10 F.3d at 633 (Nevada statute that forced the NCAA to apply Nevada's procedural rules to schools in other states violated the dormant Commerce Clause).

243. *See Healy*, 491 U.S. at 336. Notably, the *Healy* Court did not explicitly refer to the Commerce Clause when it laid down the principle against statutes directly controlling interstate commerce. *Id.* at 336–37. Of the three guiding principles mentioned in *Healy*, only the rule against "direct controls" is described with reference to the clause itself. *Id.* This arguably reflects a realization that this branch of the doctrine is divorced from the traditional concern over state protectionism. *See also* C & A Carbone, Inc. v. Town of Clarksville, 511 U.S. 383, 393 (1994) (flow control ordinance designed to steer waste away from out-of-town disposal sites was invalid because it "would extend the town's police power beyond its jurisdictional bounds.").

244. *See* Rocky Mountain Farmers Union v. Corey, 730 F.3d 1070, 1102 (9th Cir. 2013) (LCFS does not directly control extraterritorial commerce but merely creates incentives for out of state producers and sellers).

Once the extraterritoriality principle is understood as reflecting different concerns than traditional dormant Commerce Clause jurisprudence, it becomes easier to reconcile the doctrine with "[t]he modern reality . . . that the States frequently regulate activities that occur entirely within one State but that have effects in many."[245] It also helps explain why many state laws with demonstrably strong extraterritorial repercussions are not challenged on dormant Commerce Clause grounds.[246] Laws regulating only in-state transactions simply do not raise the jurisdictional problem that the statutes at issue in *Brown-Forman, Edgar,* and *Healy* did.

Because "it is axiomatic that the increased cost of complying with a regulation may drive up the sales price of the product and thus erode demand for the product such that production becomes unprofitable," regulations that create incentives that affect prices or production methods, but which leave the ultimate decision of how and what to sell up to the out-of-state manufacturer, do not impermissibly regulate beyond state borders.[247] Indeed, the Supreme Court suggested such a view of the extraterritoriality principle in its most recent case addressing the doctrine.[248] In *Walsh*, the Court strongly implied that the extraterritoriality doctrine remained confined to laws that "regulate the price of any

245. *See* Am. Beverage Ass'n v. Snyder, 735 F.3d 362, 379 (6th Cir. 2013) (Sutton, J., concurring).

246. *See* Valley Bank of Nev. v. Plus Sys., Inc., 914 F.2d 1186 (9th Cir. 1990) (Nevada statute allowing Nevada banks to charge a transaction fee on withdrawals from ATMs located within the state by cardholders whose accounts were with out-of-state banks was not an unconstitutional extraterritorial regulation); *see also* Healy, 491 U.S. at 345 (Scalia, J., concurring in part and dissenting in part) ("[I]nnumerable valid state laws affect pricing decisions in other States"); Goldsmith & Sykes, *supra* note 218, at 794 (noting that nuisance laws, obscenity laws, products liability regulations, and blue-sky registration requirements all affect interstate commerce and arguably regulate extraterritorially); Regan, *supra* note 63, at 1878 ("[Prohibition of] all state laws that have substantial extraterritorial effects . . . would invalidate much too much legislation.").

247. *See* Nat'l Elec. Mfrs. Ass'n v. Sorrell, 272 F.3d 104, 110–11 (2d Cir. 2001) (noting that the fact that Vermont's statute allows manufacturers to determine their own production and marketing methods and to pass the costs of regulation on to consumers "distinguishes the present case from the Supreme Court's price regulation cases."); Nat'l Fed'n of the Blind v. Target Corp., 452 F. Supp. 2d 946, 961 (N.D. Cal. 2006) ("Courts have held that when a defendant chooses to manufacture one product for a nationwide market, rather than target its products to comply with state laws, defendant's choice does not implicate the Commerce Clause.").

248. *See* Pharm. Research & Mfrs. of Am. v. Walsh, 538 U.S. 644 (2003) (plurality opinion) (upholding Maine rebate program against extraterritoriality challenge).

out of state transaction."[249] Therefore, the hypothetical bottled water regulation should not raise extraterritoriality concerns because "a manufacturer could not avoid its . . . obligation by opening production facilities in [Kansas]."[250]

This view does not comport entirely with some of the Supreme Court's broad dicta.[251] Moreover, as Judge Posner has noted, it suggests a view of the extraterritoriality doctrine that approaches the role normally played by the Due Process Clause of the Fourteenth Amendment.[252] But a cabined reading of the extraterritoriality doctrine—itself a fairly recent judicial construct as applied to dormant Commerce Clause analysis, and one which has drawn continued ire from courts and commentators—may not be such a bad result. As demonstrated, the truly egregious laws—those which dictate, by their express terms, prices and legal obligations in other states—generally evince a discriminatory purpose,[253] facially burden interstate commerce,[254] or simply lack a compelling justification.[255]

The work being performed by "extraterritoriality" in these cases may simply be that it obviates the need for a separate and time-consuming jurisdictional inquiry.[256] The extraterritoriality doctrine provides district court judges with an efficient means of invalidating laws that do not reveal a protectionist purpose or facially discriminate against interstate commerce but so clearly exceed a

249. *Id.* at 669.

250. *See id.* at 670.

251. *See* Goldsmith & Sykes, *supra* note 218, at 806 (noting that broad dicta in *Edgar* and *Healy* make it difficult to clearly define the limits of the extraterritoriality doctrine).

252. *See* Midwest Title Loans, Inc. v. Mills, 593 F.3d 660, 669 (7th Cir. 2010) ("[I]f the presence of an interest that might support state jurisdiction without violating the due process clause of the Fourteenth Amendment dissolved the constitutional objection to extraterritorial regulation, there wouldn't be much left of *Healy* and its cognates."). *But see* Felmly, *supra* note 14, at 508 ("[S]uch an argument appears to miss the mark. The Due Process Clause serves as a limitation on state action vis-à-vis individuals and says nothing concerning any limitation on the actions of a state vis-à-vis other states.").

253. *See* Healy v. Beer Inst., 491 U.S. 324 (1989) (Connecticut price affirmation statute evinced protectionist purpose).

254. *See* Brown-Forman Distillers Corp. v. N.Y. State Liquor Auth, 476 U.S. 573 (1986) (New York price affirmation statute facially discriminated against interstate commerce).

255. *See* Edgar v. MITE Corp., 457 U.S. 624, 643 (1982) (plurality opinion) (Illinois anti-takeover statute could not be justified on the basis of *Pike* balancing); *see also supra* Part I.A.3 (discussing extraterritoriality cases).

256. *See* Quill Corp. v. North Dakota, 504 U.S. 298, 305 (1992) (discussing differences between the limits placed on state taxing authority by the Commerce and Due Process Clauses).

state's jurisdiction that a *Pike* inquiry would prove pointless.[257] Moreover, as Professor Tribe has noted, the statutes in *Healy* and *Brown-Forman* arguably satisfied due process concerns because they purportedly applied only to transactions within the state.[258] The extraterritoriality doctrine thus provides a bulwark against state regulations that do not clearly violate any textual provision of the Constitution but threaten to subvert both its delicate balance of state and federal powers, and the balance of powers between the states as independent sovereigns.[259]

This quasi-jurisdictional approach to the extraterritoriality doctrine helps explain why the Supreme Court has not applied the doctrine outside of price-control laws, which clearly exceed state jurisdiction, in the aftermath of *Healy*. It also explains why the circuits have been unable to confine the doctrine to such cases. States will inevitably face incentives to construct ingenious new methods of furthering their interests. Given this, the Supreme Court, out of recognition that the judiciary must "recognize[] and enforce[] the exclusive federal power to regulate interstate commerce,"[260] couched its holdings in broad language to allow the courts to perform their policing function effectively.[261]

Thus, while this discussion does not put an end to all hypothetical extraterritoriality questions, it should serve to demonstrate that full-impact regulations need not be susceptible to them. Unlike price-controls, full-impact regulations leave ultimate decisions to the out-of-state manufacturer. Unlike *Edgar*, *Healy*, *Mills*, *NCAA*, or *Snyder*, full-impact regulations need not create obligations that individuals or corporations in other states must follow. Manufacturers of water bottles, when faced with the hypothetical Kansas statute described above, may choose to raise

257. Indeed, this is essentially what occurred in *Edgar*, but the Court in that case still proceeded to engage in a *Pike* inquiry *after* determining the statute regulated extraterritorial activity. *See Edgar*, 457 U.S. at 643 (applying *Pike* balancing).

258. *See* TRIBE, *supra* note 13, at 1078 ("Extraterritorial state regulation cannot be justified [solely because] a state has legal jurisdiction, strictly as a matter of due process, to regulate a transaction. The statutes in *Healy* and *Brown-Forman*, for example, purported to apply only to transactions that occurred within the state and that involved state residents.").

259. *See* Regan, *supra* note 63, at 1891 ("[states are] constrained by an extraterritoriality principle which is a principle, not of fundamental fairness, but of our federalism.").

260. Midwest Title Loans, Inc. v. Mills, 593 F.3d 660, 665 (7th Cir. 2010).

261. *See, e.g.*, Nat'l Solid Wastes Mgmt. Ass'n v. Meyer, 63 F.3d 652, 659 (7th Cir. 1995) (*Healy* line of extraterritoriality cases not limited to price control statutes, as some have suggested).

prices only on Kansas consumers when faced with the tax, stop selling in Kansas entirely, retrofit their facilities to conserve water, or do nothing at all. As this example shows, full-impact regulations provide a poorer vehicle for protectionist sentiments than the price-control measure in *Healy* because full-impact regulations allow the market to dictate outcomes. This last point bears particular significance because "the [Commerce] Clause protects the interstate market, not particular interstate firms."[262] Thus, the disadvantage a particular producer bears does not implicate dormant Commerce Clause concerns so long as the interstate market as a whole remains viable. Accordingly, facially neutral, even-handed regulations in pursuit of a legitimate local purpose that create incentives or disincentives for particular products or production methods should not violate the dormant Commerce Clause so long as producers retain the ability to adapt to them.

ii. Inconsistent Regulations

As noted previously, the extraterritoriality principle guards against inconsistent regulations as well as statutes clearly exceeding the authority of the regulating state.[263] Even assuming that full-impact regulations do not raise jurisdictional concerns because they apply only to in-state transactions, they may still face challenges on the ground that they create inconsistent regulatory burdens.[264] Ambiguity surrounding the determination of when regulations are "inconsistent" heightens the risk to full-impact regulations.[265]

However, regardless of doctrinal confusion, full-impact regulations do not appear to create inconsistencies of the sort prohibited by the Supreme Court. Courts generally do not strike down state laws simply because they create different regulatory

262. Exxon Corp. v. Governor of Md., 437 U.S. 117, 127 (1978).

263. *See* Healy v. Beer Inst., 491 U.S. 324, 337 (1989). *See also supra* Part I.A.3 (discussing extraterritoriality doctrine).

264. *See* Rocky Mountain Farmers Union v. Goldstene, 843 F. Supp. 2d 1071 1092 (E.D. Cal. 2011) (finding that fuel regulations based on lifecycle analysis risk Balkanization of interstate commerce).

265. *See* Felmly, *supra* note 14, at 501 ("Although the federal courts agree for the most part that regulations must be in direct conflict in order to render them 'inconsistent,' they nevertheless have difficulty employing the Healy framework with any consistency in cases involving avant-garde state legislation.").

burdens than other state laws.[266] *Healy*, the Supreme Court's most illuminating extraterritoriality case, recognizes this, and accordingly limits its protection to "inconsistent legislation *arising from* the projection of one state's regulatory regime into the jurisdiction of another State."[267] *Healy* and its cognates do not provide a broad license for courts to police inconsistency; they double-down on the proposition that states may not project their regulatory preferences on out-of-state actors. Indeed, the *Healy* Court qualified its "inconsistency" statement by clarifying that "specifically, the Commerce Clause dictates that no State may force an out-of-state merchant to seek regulatory approval in one State before undertaking a transaction in another."[268]

This principle does not conflict with properly designed full-impact regulations, which simply apply a specially calibrated penalty or subsidy to in-state transactions based on a lifecycle assessment methodology. Additionally, it appears consistent with the way the circuits have treated the "inconsistent regulations" inquiry. As noted, courts generally require a showing of actual conflict rather than the mere potential for inconsistency.[269] The adoption of similar full-impact regulations by different states does not raise this concern. A bottled water manufacturer in Wyoming facing water intensity taxes in Kansas, California, and New York may receive slightly different WI values from each state due to their varying distances, but complying with all three regulations is not impossible, or even particularly difficult. Rather, adjustments that the Wyoming manufacturer makes to its production process to reduce its water use will result in favorable treatment in all three regulating jurisdictions. Indeed, the more states adopt full-impact

266. *See* Goldsmith & Sykes, *supra* note 218, at 807 ("The mere fact that states may promulgate different substantive regulations of the same activity cannot possibly be the touchstone for illegality under the dormant Commerce Clause.").

267. *Healy*, 491 U.S. at 336.

268. *Id.*

269. See Pharm. Research & Mfrs. of Am. v. Concannon, 249 F.3d 66, 83 (1st Cir. 2001) (requiring a showing of "price gridlock"); Nat'l Elec. Mfrs. Ass'n v. Sorrell, 272 F.3d 104, 112 (2d Cir. 2001) (requiring "substantial" or "actual" conflict); S.D. Meyers, Inc. v. City & County of San Francisco, 253 F.3d 461, 470–71 (9th Cir. 2001) ("[M]ere speculation about the possibility of conflicting legislation" does not render legislation unconstitutional); Ferguson v. Friendfinders, Inc., 115 Cal. Rptr. 2d 258, 266 (Cal. Ct. App. 2002) (rejecting an extraterritoriality challenge to a California law governing spam email despite the existence of an actual conflict between the California law and a similar Pennsylvania law because the regulated entity could not demonstrate that it would be forced to comply with both laws simultaneously).

regulations, the greater the benefit to manufacturers that adjust their operations accordingly.

One could argue that, given the effect of transportation fuels on a product's water intensity value, such regulations would Balkanize national markets by confining water bottle sales to the region in which the bottles are produced.[270] For example, because Wyoming bottled water uses Torrington ethanol, it can avoid the associated tax-hike by selling only within the state, reducing the need for transportation fuel. This argument reflects a misunderstanding of both full-impact regulations and the Supreme Court's approach to extraterritoriality.

First, isolating individual variables as creating risks of economic Balkanization distorts the purpose of full-impact regulations by impermissibly divorcing individual components of the regulation from its broader purpose.[271] In *West Lynn Creamery*, Justice Stevens instructed courts to consider "the entire program," in assessing a law's constitutionality and cautioned that "[t]he choice of constitutional means"[272] are "subordinate to [the] overmastering requirement" that a law not enact protectionist sentiment.[273] Thus, full-impact regulations that are prospectively neutral regarding a product's origin should not be invalidated on the grounds that individual variables within the lifecycle assessment take into account out-of-state activities. Second, because full-impact regulations are adaptive and holistic, individual variables will rarely prove economically-determinative. For example, Wyoming may face a transportation "penalty" because it ships its bottled water to Kansas via truck, but it gains an advantage because of its proximity to an ethanol plant, eliminating the need to transport fuel from out-of-state to fuel its fleet.[274] Finally, and perhaps most

270. *See* Rocky Mountain Farmers Union v. Goldstene, 843 F. Supp. 2d 1071, 1092 (E.D. Cal. 2011) (finding that producers might "sell only locally to avoid transportation and other penalties.").

271. *See* West Lynn Creamery, Inc. v. Healy, 512 U.S. 186, 201 (1994) (all parts of a regulation must be considered in assessing its constitutionality). In *West Lynn Creamery*, the Supreme Court invalidated a Massachusetts Department of Agriculture Order requiring all dairy producers selling within the state to pay into a fund the proceeds of which were distributed only to Massachusetts producers. *Id.* at 190–91.

272. *Id.* at 201.

273. *Id.* at 202 (quoting *Dean Milk Co. v. Madison*, 340 U.S. 349, 354 (1951)).

274. *Cf.* Rocky Mountain Farmers Union v. Corey, 730 F.3d 1070, 1091–92 (9th Cir. 2013) (noting that Midwest plants may generate their own electricity and use waste heat as a source

fundamentally, full-impact regulations will distort markets by creating price disparities among states only to the extent that these distortions track the real environmental impact of a product's lifecycle. That price differentials reflect accepted scientific principles, rather than the protectionist whims of state legislators, strongly suggests that judicial intervention is not required to "promote national uniformity and thereby prevent discrimination."[275] Accordingly, courts should default to the more deferential *Pike* balancing approach when evaluating full-impact regulations similar to the one described.

C. *Pike* Balancing

This section concludes with a few brief thoughts on the *Pike* test.[276] It is impossible to lay down clear guidelines for courts reviewing full-impact regulations under *Pike* because of the discretion that district court judges possess and the importance of the factual record in demonstrating a legitimate local purpose.[277] But the Supreme Court has recognized that state laws concerning the protection of natural resources stem from a legitimate local purpose so long as they do not facially discriminate against interstate commerce.[278] Moreover, because the lack of a viable policy alternative was sufficient under strict scrutiny to sustain

of thermal energy, obtaining carbon intensity value reductions that that may not be available to differently located producers).

275. Ill. Rest. Ass'n v. City of Chicago, 492 F. Supp. 2d 891, 904 (N.D. Ill. 2007) (upholding Chicago ordinance banning foie gras), *vacated as moot*, No. 06C7014, 2008 WL 8915042 (N.D. Ill. Aug. 7, 2008).

276. This Note does not address criticism of the *Pike* test as inconsistent or arbitrary, as Justices Scalia and Thomas have argued. *See, e.g.*, Camps Newfound/Owatonna, Inc. v. Town of Harrison, 520 U.S. 564, 611–12 (1997) (Thomas, J., dissenting) (expressing skepticism of and dissatisfaction with the *Pike* doctrine); Bendix Autolite Corp. v. Midwesco Enters. Inc., 486 U.S. 888, 897 (1988) (Scalia, J., concurring) (same). While these contentions may have merit, the purpose of this Note is not to defend the *Pike* approach as an ideal framework for dormant Commerce Clause analysis, but only to suggest that of the various dormant Commerce Clause tests the Court has employed, *Pike* provides the best fit for full-impact regulations.

277. *Cf.* Chemerinsky et al., *supra* note 27, at 55 ("[I]t is critical that a state build a robust record justifying its purposes for action.").

278. *See* Hughes v. Oklahoma, 441 U.S. 322, 336 (1979) ("[T]he general rule we adopt in this case makes ample allowance for preserving, in ways not inconsistent with the Commerce Clause, the legitimate state concerns for conservation and protection of wild animals underlying the 19th-century legal fiction of state ownership."); TRIBE, *supra* note 13, at 1086 (protection of natural resources is "still among the factors that can be weighed in the balance.").

Maine's quarantine statute in *Maine v. Taylor*, the lack of a viable alternative methodology for designing effective lifecycle regulations should generally sustain such laws challenged under the more deferential *Pike* approach.[279] Together, these cases suggest that states that effectively document the significance of their local purpose and demonstrate the unique advantages of lifecycle assessment methodology will have a strong chance of surviving a *Pike* challenge.

IV. CONCLUSION

This Note locates a home for full-impact regulations amidst the murky contours of dormant Commerce Clause jurisprudence. Defining the proper tier within which to situate full-impact regulations will prove especially important given the similarity of lifecycle assessment methodologies underlying even seemingly disparate regulations. For example, a definitive ruling that the hypothetical water statute constitutes extraterritorial regulation could imperil greenhouse gas emissions reductions efforts in other states. Defining the level of scrutiny such regulations will receive is therefore critical to providing guidance to states regarding what actions they may take in seeking to address pressing environmental problems.

Fortunately, the *Pike* balancing test provides a ready-made and familiar approach to evaluating full-impact regulations. Under *Pike*, full-impact regulations will only be invalidated when their costs clearly exceed their benefits or where a state has failed to consider a better alternative. Situating full-impact regulations within this tier of dormant Commerce Clause analysis thus allows courts to continue performing their role in policing the boundaries of state authority. At the same time, its deferential approach does not risk substituting the role of district court judges for legislators, and painstakingly designed environmental regulations will not be struck down based on intractable distinctions between "direct" and "indirect" effects on interstate commerce. Despite its tensions and ambiguities, dormant Commerce Clause doctrine already provides a workable solution to the novel legal problem posed by lifecycle assessments. All that remains is for district courts to recognize this.

279. *See supra* Part III.B.1 (arguing that the uniqueness of lifecycle analysis generally insulates full-impact regulations from facial discrimination challenges).

Appendix I[280]

Table 6. Carbon Intensity Lookup Table for Gasoline and Fuels that Substitute for Gasoline.

Fuel	Pathway Description	Carbon Intensity Values (gCO_2e/MJ)		
		Direct Emissions	Land Use or Other Indirect Effect	Total
Gasoline	CARBOB – based on the average crude oil delivered to California refineries and average California refinery efficiencies	95.86	0	95.86
Ethanol from Corn	Midwest average; 80% Dry Mill; 20% Wet Mill; Dry DGS	69.40	30	99.40
	California average; 80% Midwest Average; 20% California; Dry Mill; Wet DGS; NG	65.66	30	95.66
	California; Dry Mill; Wet DGS; NG	50.70	30	80.70
	Midwest; Dry Mill; Dry DGS, NG	68.40	30	98.40
	Midwest; Wet Mill, 60% NG, 40% coal	75.10	30	105.10
	Midwest; Wet Mill, 100% NG	64.52	30	94.52
	Midwest; Wet Mill, 100% coal	90.99	30	120.99
	Midwest; Dry Mill; Wet_T DGS	60.10	30	90.10
	California; Dry Mill; Dry DGS, NG	58.90	30	88.90
	Midwest; Dry Mill; Dry DGS; 80% NG; 20% Biomass	63.60	30	93.60
	Midwest; Dry Mill; Wet DGS; 80% NG; 20% Biomass	56.80	30	86.80
	California; Dry Mill; Dry DGS; 80% NG; 20% Biomass	54.20	30	84.20
	California; Dry Mill; Wet DGS; 80% NG; 20% Biomass	47.44	30	77.44
Ethanol from Sugarcane	Brazilian sugarcane using average production processes	27.40	46	73.40
	Brazilian sugarcane with average production process, mechanized harvesting and electricity co-product credit	12.40	46	58.40
	Brazilian sugarcane with average production process and electricity co-product credit	20.40	46	66.40
Compressed Natural Gas	California NG via pipeline; compressed in CA	67.70	0	67.70
	North American NG delivered via pipeline; compressed in CA	68.00	0	68.00
	Landfill gas (bio-methane) cleaned up to pipeline quality NG; compressed in CA	11.26	0	11.26
	Dairy Digester Biogas to CNG	13.45	0	13.45

280. CAL. AIR RES. BD., TABLE 6: CARBON INTENSITY LOOKUP TABLE FOR GASOLINE AND FUELS THAT SUBSTITUTE FOR GASOLINE, *available at* http://www.arb.ca.gov/fuels/lcfs/121409lcfs_lutables.pdf.