The Flawed Economics of the Dormant Commerce Clause

Paul E. McGreal
THE FLAWED ECONOMICS OF THE DORMANT COMMERCE CLAUSE

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Shhh! If you keep very, very quiet, and listen really, really carefully, you just might hear it rustling around underneath the Constitution. Like the sound of a tree falling in a deserted forest, constitutional law commentators are never sure if it truly exists. And, like people who claim to have seen UFOs, state governments swear that it exists and is here to conquer them. What is this lurking presence that so perplexes the mind? It is the doctrine of the dormant Commerce Clause, perhaps the Supreme Court's best known invocation of constitutional silence. And, to continue mixing metaphors, that unseen constitutional doctrine acts like a colorless, odorless toxic gas: a silent killer of state laws affecting interstate commerce.

Exactly what is this hideous thing? In short, the dormant Commerce Clause is a constitutional law doctrine that says Congress's power to "regulate Commerce among the several States" implicitly restricts state power over the same area. In

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1. See H.P. Hood & Sons, Inc. v. Du Mond, 336 U.S. 525, 535 (1949) (stating that the dormant Commerce Clause derives from the "great silences of the Constitution").

2. U.S. CONST. art. I, § 8, cl. 3.

general, the Commerce Clause places two main restrictions on state power. First, Congress can preempt state law merely by exercising its Commerce Clause power.\(^4\) Second, the Commerce Clause itself—absent action by Congress—restricts state power; the grant of federal power implies a corresponding restriction of state power.\(^5\) This second limitation has come to be known as the "dormant" Commerce Clause because it restricts state power even though Congress's commerce power lies dormant.\(^6\)

Generally, the dormant Commerce Clause doctrine prohibits states from unduly interfering with interstate commerce.\(^7\) The Court has developed two tests to determine when state regulation has gone too far. Under one test, the Court balances the burden on interstate commerce against the state's interest in its regula-

\(^4\) See TRIBE, supra note 3, § 6-2, at 403 ("All of the doctrine in this area is . . . traceable to the Constitution's negative implications . . . .")

\(^5\) See CHEMERINSKY, supra note 3, § 5.3.1, at 306 ("The dormant commerce clause is the principle that the state and local laws are unconstitutional if they place an undue burden on interstate commerce."); TRIBE, supra note 3, § 6-2, at 403; Eule, supra note 6, at 426.
tion. Under the second test, states are prohibited generally from enacting laws that discriminate against interstate commerce.

Over the last two decades, the dormant Commerce Clause has received much scholarly attention, with commentators either proposing refinements to the balancing test or challenging the constitutional basis for the doctrine as a whole. The commentators, however, generally have been kind to the antidiscrimination test of the dormant Commerce Clause. Indeed, even Justice


9. See infra Part I.B.1; see also City of Philadelphia v. New Jersey, 437 U.S. 617 (1978) (deciding that New Jersey's law "block[ing] the importation of waste" from outside the state was impermissible under the Commerce Clause).


12. See, e.g., Collins, supra note 10, at 73-85; Donald H. Regan, The Supreme
Antonin Scalia, who has argued vigorously (in dissent) that the Court should abandon the dormant Commerce Clause, applies the antidiscrimination principle.\textsuperscript{13}

Swimming against this tide, this Article argues that the Court's application of the antidiscrimination test is, in some cases, in conflict with the underlying purpose of the Commerce Clause: to protect the national economic market from opportunistic behavior by the states.\textsuperscript{15} The Court has never held that discrimination between in-state and out-of-state commerce, without more, violates the dormant Commerce Clause. Rather, the Court has explained that the dormant Commerce Clause is concerned with state laws that both: (1) discriminate between in-state and out-of-state actors that compete with one another, and (2) harm the welfare of the national economy.\textsuperscript{16} Thus, a discriminatory state law that harms the national economy is per-
missible if in-state and out-of-state commerce do not compete.\footnote{17} Conversely, a state law that discriminates between in-state and out-of-state competitors is permissible if it does not harm the national economy.\footnote{18}

The Court has been careless in applying the antidiscrimination test; in many cases, neither of the two requirements—interstate competition or harm to the national economy—is ever mentioned.\footnote{8} As the Court stated just last term, these requirements have "more often than not . . . remained dormant in this Court's opinions on state discrimination subject to review under the dormant Commerce Clause."\footnote{9} The reason the first requirement, competition between in-state and out-of-state actors, goes unstated is fairly obvious—in most cases (all except two before the Supreme Court), it is clear that in-state and out-of-state actors compete in the same market.\footnote{2} The Court's silence merely reflects the (in)frequency with which the issue arises.

The reason the second requirement, harm to the national economy, goes unstated is more complex. The main task of this Article is to show that the Court has neglected this requirement \textit{not} because it is rarely an issue, but rather because the Court has incorrectly assumed the issue away. Specifically, the Court assumes that discrimination between in-state and out-of-state competitors \textit{necessarily} harms the welfare of the national econo-

\footnote{17. See General Motors Corp. v. Tracy, 117 S. Ct. 811, 824-26 (1997) (finding that because in-state and out-of-state natural gas suppliers did not compete, a discriminatory state tax did not violate the dormant Commerce Clause); Alaska v. Arctic Maid, 366 U.S. 199, 204-05 (1961) (finding that in-state and out-of-state salmon processors did not compete and thus discriminatory state tax did not violate the dormant Commerce Clause). These cases are discussed \textit{infra} Part I.B.2.}

\footnote{18. See \textit{infra} note 159 and accompanying text.}

\footnote{19. See \textit{generally}, Hughes v. Oklahoma, 441 U.S. 322 (1979) (explaining that an Oklahoma statute prohibiting the transportation of Oklahoma minnows outside of Oklahoma blocks interstate commerce).}

\footnote{20. \textit{Tracy}, 117 S. Ct. at 824.}

my, making the second requirement superfluous. 22 In making this assumption, the Court implicitly has adopted a neoclassical view of economics—that free competition among rational economic actors will necessarily improve the national economy. 23 Thus, the Court's dormant Commerce Clause analysis assumes that neoclassical economics best describes the position of states regulating interstate commerce.

Game theory offers an alternate view of economics and alternate set of economic assumptions that may better model the position of states regulating interstate commerce. As a close cousin of economics, game theory assumes that individuals act rationally; to economists, this means people try to maximize their personal welfare. 24 Using this assumption, game theory models strategic behavior—situations where "two or more individuals interact and each individual's decision turns on what that individual expects the others to do." 25 Game theory tries to predict how rational people will behave in strategic behavior situations. 26 Conversely, neoclassical economics assumes that rational people decide how to act based on prevailing market condi-

22. See infra notes 231-38 and accompanying text.
23. See Kristen H. Engel, State Environmental Standard-Setting: Is There a "Race" and Is It "To the Bottom?", 48 HAST. L.J. 271, 300 (1997) ("Neoclassical economics assumed that the individual had no impact upon the results of the market and that the rational pursuit of the individual's self-interest would result in society being better off.").
25. Douglas G. Baird et al., Game Theory and the Law 1 (1994); see also Eric Rasmusen, Games and Information: An Introduction to Game Theory 9 (2d ed. 1994) ("Game theory is concerned with the actions of decision makers who are conscious that their actions affect each other."); Mark Seidenfeld, Microeconomic Predicates to Law and Economics 85 (1996) (explaining that people "act strategically" when they "act to maximize their wealth given what they expect the other party to do").
26. See Kreps, supra note 24, at 5 ("The point of game theory is to help economists understand and predict what will happen in economic contexts.").
tions such as price, supply, and demand, independent of expectations about how others will act.\textsuperscript{27}

Two examples from the commercial context illustrate the difference between neoclassical economics and game theory.\textsuperscript{28} First, consider the situation of a consumer who goes to the grocery store to buy a loaf of bread. Presumably, the consumer will evaluate the information readily available in the marketplace; she will compare the prices of the different brands along with her perception of the quality of the different brands. Based on this analysis, the consumer will decide which brand to purchase. Price and quality are impersonal forces set by the market, independent of any expectations about others’ future behavior.\textsuperscript{29} In this first example, the consumer does not act strategically—her decision is independent of any future behavior of the grocery store or the bread supplier.

Second, consider the purchasing agent for the grocery store who places orders with suppliers to stock the grocery store’s shelves. In addition to price and quality, the purchasing agent will consider the future behavior of the supplier. For example, the purchasing agent will want to know whether the supplier is likely to breach a contract to supply the grocery store; such a

\textsuperscript{27} See SEIDENFELD, supra note 25, at 85 ("Traditionally, price theory posits rational economic actors who pursue the maximization of wealth straightforwardly in situations for which the opportunities available to one individual are considered independent of the choices of other individuals."); Engel, supra note 23, at 300.

\textsuperscript{28} This example is borrowed in part from SEIDENFELD, supra note 25, at 85. Another commentator illustrates the point with the following example:

When the only two publishers in a city choose prices for their newspapers, aware that their sales are determined jointly, they are players in a game with each other. They are not in a game with the readers who buy their newspapers, because each reader ignores his effect on the publisher. Game theory is not useful when decisions are made that ignore the reactions of others or treat them as impersonal market forces.

RASMUSEN, supra note 25, at 9.

\textsuperscript{29} Under neoclassical economic theory, the price of a good is set by: (1) aggregating the individual preferences of consumers to determine how much consumers will demand at different prices and (2) aggregating individual production profiles of producers to determine how much will be supplied at different prices. Price will settle at an equilibrium where consumer demand and producer supply are equal. See POSNER, supra note 24, at 3-10; SEIDENFELD, supra note 25, at 5-48; E. THOMAS SULLIVAN & JEFFREY L. HARRISON, UNDERSTANDING ANTITRUST AND ITS ECONOMIC IMPLICATIONS 9-25 (2d ed. 1994).
breach would result in empty shelves and lost sales. If the purchasing agent expects a supplier to breach, then she may refuse to deal with the supplier regardless of price or quality.30 The purchasing agent will act strategically by considering how she expects the other party, the supplier, to act.31

Neoclassical economics has a blind spot for strategic behavior; the theory does not address cases in which people anticipate one another’s future actions.32 Game theory tries to bridge this gap by using models—known as "games"—to predict strategic behavior. These games reveal that strategic behavior may lead the rational, freely competing actors of neoclassical economics to nonetheless act inefficiently.33 Neoclassical economics assumes that free competition among rational actors will be efficient; game theory shows that the existence of strategic behavior undermines that assumption.

Game theory can be used to predict strategic behavior in response to legal rules.34 In doing so, lawmakers can assess the economic wisdom of different legal rules. To illustrate this point, consider the situation of a pedestrian and a motorist approaching an intersection that has four stop signs.35 Both the pedestrian and the motorist will act strategically: Each will want to know how the other will, or is likely to, act at the intersection before deciding how to act. If the pedestrian knows that the motorist is likely to run the stop sign, then the pedestrian will al-

30. See SEIDENFELD, supra note 25, at 85.
31. Of course, consumer transactions can have an element of strategic behavior. Consider the decision to buy a personal computer for one's home. When deciding where or from whom to make her purchase, the consumer will consider the level of technical support the vendor is likely to provide. After all, a computer is just an expensive paper weight if you cannot operate it. In addition to price and quality, the consumer may also consider the vendor's likely future behavior regarding technical support; this is strategic behavior.
32. See SEIDENFELD, supra note 25, at 85; infra notes 233-44 and accompanying text.
34. See BAIRD ET AL., supra note 25, at 1.
35. See id. at 6-31 (explaining this example further).
low the motorist to pass before crossing the street. The pedestrian's prediction about the motorist's likely behavior, in turn, will be affected by the legal rules that govern the situation. For example, if the prevailing legal rules make motorists strictly liable for all injuries to pedestrians, then the pedestrian may predict that the motorist will exercise care, by stopping at all stop signs, to avoid the cost of an accident. The pedestrian's decision therefore will depend on her prediction about the conduct of another person, the motorist, and the prediction is influenced by the prevailing legal rules. Game theory allows us to model such behavior as well as how legal rules affect that behavior.

This Article uses game theory to test the neoclassical economic assumption implicit in the Court's dormant Commerce Clause antidiscrimination test—that discrimination between in-state and out-of-state competitors necessarily harms the welfare of the national market. If, in some cases, states act strategically—that is, if states act in response to the anticipated behavior of other states—then the Court is wrong to build neoclassical economic assumptions into its dormant Commerce Clause antidiscrimination test. In these cases, state discrimination between in-state and out-of-state competitors may improve national welfare. The main task of this Article is to determine whether, in some cases, states act strategically; if so, game theory better describes their behavior in those cases.

This Article uses one of the most active areas of dormant Commerce Clause litigation—state regulation of solid waste disposal—to illustrate that states do act strategically in some situations. As the Court and many commentators have repeated, the nation faces a waste disposal problem, for both hazardous and solid waste, and states are struggling to deal with the prob-

36. Carrying the strategic behavior further, if a strict liability rule makes pedestrians less careful, then motorists might respond by taking even more care to avoid careless pedestrians.

lem. Many states have tried to address the waste problem within their borders, leaving other states to deal with their own waste problem. Such states have done so by passing laws that discriminate between in-state and out-of-state solid waste—often allowing disposal of in-state waste while restricting, or even banning, disposal of out-of-state waste. In City of Philadelphia v. New Jersey, the Court applied the dormant Commerce Clause antidiscrimination test to one such law, invalidating a state ban on importation of solid waste. In City of Philadelphia, the first part of the antidiscrimination test was satisfied easily: Neither party disputed that in-state solid waste and out-of-state solid waste competed for the same landfill space. The second requirement—that the discrimination harmed the national economy—went unanalyzed. Instead, consistent with its neoclassical view of economics, the Court assumed that such discrimination necessarily harmed interstate commerce.

This Article uses a game known as the “Prisoner's Dilemma”

38. See Engel, supra note 37, at 1495-500; Weinberg, supra note 37, at 57 (“As the tide of solid waste mounts, states and localities have attempted to legislate to prevent or discourage the importation of waste . . . .”).

39. See, e.g., Oregon Waste Sys., 511 U.S. at 96 (noting the state placed an additional surcharge on out-of-state waste disposed of in-state); Chemical Waste Management, Inc. v. Hunt, 504 U.S. 334, 336 (1992) (noting that the state placed an additional fee on hazardous waste generated outside of the state); Fort Gratiot Sanitary Landfill, 504 U.S. at 355-58 (explaining how a county prohibited disposal of solid waste generated outside of the county).


41. See id. at 619-20.

42. See id. at 627-29.
to analyze state regulation of solid waste disposal. Part II explains and analyzes the Prisoner's Dilemma in detail; however, a brief description here is necessary. In the Prisoner's Dilemma, two actors face a set of incentives that lead each of them, acting rationally and in their own self-interest, to choose a course of action that leaves each worse off than if the two had been able to cooperate. Consequently, the Prisoner's Dilemma results in suboptimal behavior. Part III explains that City of Philadelphia forces states into a Prisoner's Dilemma by prohibiting discrimination between in-state and out-of-state solid waste. Because they are in a Prisoner's Dilemma, the states—acting rationally and competing freely—will act in a way that leaves all states worse off than if they were allowed to discriminate against out-of-state waste. The Prisoner's Dilemma created by the Court's dormant Commerce Clause cases leaves the national solid waste problem worse than if states were allowed to discriminate against out-of-state waste. Without the prohibition of discrimination, interstate commerce would not only be unharmed but would actually benefit.

This Article proceeds in four parts. Part I analyzes the development of the dormant Commerce Clause antidiscrimination test. History shows that an important first principle underlies the Court's case law—that states should not discriminate between in-state and out-of-state competitors to the detriment of the national economy. This first principle yields the two requirements of the antidiscrimination test. A state regulation of interstate commerce is unconstitutional if: (1) state law discriminates between in-state and out-of-state competitors, and (2) the discrimination harms the efficiency of the national economy. Part I concludes by analyzing City of Philadelphia, in which the Court conflated these two requirements by assuming that discrimination between competitors necessarily harms the national economy. In doing so, the Court embraced the neoclassical view of economics.

43. See infra notes 239-67 and accompanying text.
44. See BAIRD ET AL., supra note 25, at 34; MAXWELL L. STEARNS, PUBLIC CHOICE AND PUBLIC LAW: READINGS AND COMMENTARY 118 (1997) ("The two prisoner's . . . end up . . . in the position that, in the aggregate, is worse for both").
45. See infra Part III.E.
Part II explains the Prisoner's Dilemma situation and what that game tells us about strategic behavior. The Prisoner's Dilemma undermines neoclassical economic assumptions, illustrating that strategic behavior can lead self-interested, rational economic actors, competing freely, to less preferred outcomes. Part III then explains how the Court's decision in *City of Philadelphia*, which prohibits state discrimination between in-state and out-of-state waste, forces states into a Prisoner's Dilemma. Part IV offers a remedy to get the states out of their Prisoner's Dilemma—overrule *City of Philadelphia*. Part IV then concludes that *City of Philadelphia* is a symptom of the Court's flawed economic assumptions. Instead of adopting a blanket neoclassical view of economics, the Court should allow litigants to argue that discrimination between in-state and out-of-state competitors does not decrease the efficiency of the national market.

I. DISCRIMINATION AND THE DORMANT COMMERCE CLAUSE DOCTRINE

Congress's power to "regulate Commerce... among the several States" lies at the heart of the Constitution's federalist design, placing limits on both federal and state power. The Commerce Clause—along with the other federal legislative powers listed in Article I—simultaneously grants and limits federal power. Although the Clause grants power to Congress, the act of enumerating legislative powers implies that Congress's power is limited to those granted by the Constitution.

46. *See Tribe, supra* note 3, § 6-2, at 403.

47. The opening phrase of Article I suggests that Congress's power is not plenary: "All legislative Powers herein granted shall be vested in a Congress of the United States, which shall consist of a Senate and House of Representatives." U.S. CONST. art. I, § 1 (emphasis added). The Tenth Amendment succinctly restates the point: "The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people." Id. amend. X. In addition to the enumerated powers, Congress has the authority to exercise any implied powers necessary to fully implement the enumerated powers. *See McCulloch v. Maryland*, 17 U.S. (4 Wheat.) 316, 409-10 (1819). Of course, the notion of enumerated and limited federal power has become obscured by the great expansion of Congress's Commerce Clause power during this century. *See Chemerinsky, supra* note 3, § 3.1, at 166; *The Federalist No. 45*, at 237 (James Madison) (Max Beloff ed., 1987) ("The powers delegated by the proposed constitution
The Commerce Clause restricts state power in two main ways. First, Congress can preempt state law by enacting a statute under its Commerce Clause power.\(^4\) Second, the Commerce Clause implicitly restricts states from regulating interstate commerce.\(^4\)

Preemption derives directly from the Constitution's text, the Supremacy Clause of Article VI,\(^5\) but the basis for the dormant Commerce Clause doctrine is less apparent. There is no textual basis for the doctrine,\(^5\) and the historical evidence is at best inconclusive.\(^5\)

Indeed, for much of its first century, the Su-
preme Court wrestled with whether it should recognize such a doctrine. Even after the Court adopted a dormant Commerce Clause doctrine, many questions remained. Are states allowed to regulate any portion of interstate commerce? If so, what is the scope of the limitation on state action? Which portions of interstate commerce can states regulate and how may they do so? The remainder of Part I discusses these questions by examining the evolution of the dormant Commerce Clause antidiscrimination test.

Essentially, the Court's dormant Commerce Clause antidiscrimination cases divide into three chronological groupings. The first group begins with the Court's disagreement over whether the Commerce Clause implicitly limits state power to regulate interstate commerce. The first group ends with the Court's recognition of such a limit on state power. This group of cases provides background, orienting the reader within the constitutional terrain discussed in the following two groups of cases.

In the second group of cases, the Court announced that the dormant Commerce Clause prohibits some state discrimination against interstate commerce. These cases establish the first principle of the Court's dormant Commerce Clause.

53. See Tribe, supra note 3, § 6-5, at 408 ("Since the mid-1930s, the Supreme Court has sought to clarify the process by which it determines whether state regulation is prohibited by the commerce clause.").


56. See infra Part I.B.1.
antidiscrimination test: States may not discriminate between in-state and out-of-state competitors in a way that harms the welfare of the national economy. This first principle, in turn, yields the two requirements of the antidiscrimination test: (1) a state must not discriminate between in-state and out-of-state competitors, and (2) the discrimination must not harm the welfare of the national economy. Under this test, state law can discriminate between in-state and out-of-state competitors if the discrimination does not harm the welfare of the national market.57

The third group of cases shows the Court adopting a virtual per se rule against discrimination between in-state and out-of-state competitors.58 Under this rule, a state may discriminate against out-of-state competitors only if the in-state items of commerce are different from the out-of-state items of commerce in a way relevant to the government’s regulatory purpose.59 These cases still require that in-state and out-of-state actors compete with one another. The second requirement—that the discrimination harm the welfare of the national economy—is not mentioned. Instead, the Court merges the two requirements, assuming that discrimination between in-state and out-of-state competitors necessarily harms the national economy. In Part III, we see how the neoclassical economic assumptions of this last group of cases forces the states into a Prisoner’s Dilemma.

A. Group One—Early Disagreement and Adoption

For most of its first century, the Supreme Court interpreted and applied the Commerce Clause solely as a grant of power to Congress.60 Throughout this period, parties argued, without

58. See infra Part I.C.1.
success, that the Commerce Clause also should be read as an implied restriction on state power. This dormant Commerce Clause argument was made in both a weak and a strong form. The strong version held that states could not enact any regulation of interstate commerce; Congress had exclusive power over the subject. The weak version held that the states were restrained only partly from regulating interstate commerce. Under the weak version, the main issue was—and to this day is—deciding precisely what implicit limits the Commerce Clause placed on state regulation of interstate commerce.

The first mention of a dormant aspect of the Commerce Clause came in *Gibbons v. Ogden*. In *Gibbons*, New York had granted a monopoly for operation of ferries in New York waters. The holder of the monopoly subsequently licensed Ogden to run a ferry between New York Harbor and New Jersey. Without approval from New York, Gibbons opened a competing ferry line, and Ogden immediately sought an injunction to stop Gibbons's unauthorized ferry. In opposing the injunction, Gibbons argued, among other things, that the New York monopoly was an unconstitutional regulation of interstate commerce because Congress had the exclusive power over that subject.

Although Chief Justice John Marshall ultimately disposed of *Gibbons* on other grounds, he did remark on Gibbons's dor-

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61. See *The Passenger Cases*, 48 U.S. at 304-08; *The License Cases*, 46 U.S. at 525.
62. See *The Passenger Cases*, 48 U.S. at 288 (recounting that the plaintiff argued that the state law regulated interstate commerce and "that Congress possesses the exclusive power of making such a regulation"); *The License Cases*, 46 U.S. at 543 (recounting that the plaintiff argued "the exclusive power of Congress, under the constitution, to regulate commerce . . . among the States"); *Gibbons*, 22 U.S. at 13-14; TRIBE, *supra* note 3, § 6-2, at 403 ("The controversy has ultimately been framed by asking whether, as a general rule or in selected instances, the nature of the power vested in Congress requires its exclusive exercise by that body."); Maltz, *supra* note 60, at 123 (stating that some justices were "committed to the concept of exclusive federal authority").
63. See Maltz, *supra* note 60, at 124.
66. See *id.* at 2-3.
67. See *id.* at 2.
68. See *id.*
69. See *id.* at 13-14.
70. Chief Justice Marshall held that a federal statute regulating the navigation
ment Commerce Clause argument. After summarizing the argument, Marshall stated: "There is great force in this argument, and the Court is not satisfied that it has been refuted." Though dicta, this observation by the esteemed Chief Justice fueled the coming debate over the dormant Commerce Clause and, at least initially, framed the issue as whether Congress had exclusive power over interstate commerce.

For about three decades after Gibbons, several Justices urged recognition of a dormant Commerce Clause doctrine, but a majority never formed around such a doctrine. Nevertheless, sev-
eral Justices, in separate opinions, began articulating a basis for such a doctrine. At this stage, it was argued that certain matters were inherently national and thus required national legislation; the states were to regulate inherently local matters. The initial focus of dormant Commerce Clause arguments was the object of the state's regulation—that is, whether it was national or local.

In Cooley v. Board of Wardens, a majority of the Court finally joined in an opinion recognizing a dormant Commerce Clause doctrine. The Court adopted a weak version of the doctrine, allowing some state regulation of interstate commerce. Following the logic of their predecessors, the majority distinguished between aspects of commerce that required a "national solution"—and thus could only be regulated by Congress—and aspects of commerce that permitted a diversity of approaches—and thus could be regulated by the states.

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75. For example, Justice John McLean wrote several separate opinions expressing his belief that Congress's Commerce Clause power was exclusive. See The Passenger Cases, 48 U.S. at 393-400; The License Cases, 46 U.S. at 587-95; Groves v. Slaughter, 40 U.S. (15 Pet.) 449, 504, 506-08 (1841).

76. See Maltz, supra note 60, at 124-27; see also Baltimore & Ohio R.R. v. Maryland, 88 U.S. (21 Wall.) 456, 471-73 (1875) (claiming that the railroad was inherently a local matter); Cooley v. Board of Wardens, 53 U.S. (12 How.) 299, 319-20 (1851) (explaining that a law governing ship pilots in the Port of Philadelphia did not require national regulation).

77. 53 U.S. (12 How.) 299 (1851). It is this author's view that Cooley actually rested on a preemption rationale and that the dormant Commerce Clause was first recognized later in Reading Railroad v. Pennsylvania, 82 U.S. (15 Wall.) 232 (1872). The best reading of Cooley, however, is the subject of another piece. For present purposes, it is sufficient that the Supreme Court and most commentators have treated Cooley as the original adoption of the doctrine. See CURRIE, supra note 11, at 232 (calling the Court's recognition of a dormant aspect of the Commerce Clause "a revolution"); NEWMYER, supra note 74, at 105 (stating that Cooley brought "some constitutional order into [the Court's] interpretation of the commerce power"); TRIBE, supra note 3, § 6-4, at 406-07; Collins, supra note 10, at 49 (citing Cooley as "a basic precedent for the dormant commerce clause"); Maltz, supra note 60, at 124; Redish & Nugent, supra note 11, at 577 ("[I]t was not until Cooley v. Board of Wardens that the [dormant Commerce Clause] doctrine became firmly established in Supreme Court jurisprudence.").

78. See Cooley, 53 U.S. at 319.

79. See id. ("Whatever subjects of [Congress's Commerce Clause] power are in their nature national, or admit only of one uniform system, or plan of regulation, may justly be said to be of such a nature as to require exclusive legislation by Congress.").
The Court's division between local and national commerce persisted as the basis for dormant Commerce Clause doctrine through much of the nineteenth century. During that period, though, the Court began to discuss an alternate basis for the doctrine. In one case, the Court invalidated a state law that imposed a tax on railway freight carried anywhere through the state. In its holding, the Court wrote:

It is of national importance that ... there should be but one regulating power, for if one State can ... tax persons or property passing through it, ... every other may, and thus commercial intercourse between States remote from each other may be destroyed. ... [F]or though it might bear the imposition of a single tax, it would be crushed under the load of many.

In this passage, the Court shifted the focus of the dormant Commerce Clause from the nature of the commerce at issue, local versus national, to the effect of state law on interstate commerce. The Court was concerned that certain state regulations of interstate commerce—such as a tax on the movement of goods—could harm ("crush") the flow of interstate commerce, in doing so, states would harm the nation. As the next section discusses, the focus on the effect upon interstate commerce is now a mainstay of the Court's dormant Commerce Clause jurisprudence.

80. See Tribe, supra note 3, § 6-4, at 407; Maltz, supra note 60, at 124-27; McGinley, supra note 37, at 414-15.
81. See Reading R.R., 82 U.S. at 281-82.
82. Id. at 280 (emphasis added).
83. At first glance, the Import-Export Clause, which prohibits any state from imposing any "Imposts or Duties on Imports or Exports, except what may be absolutely necessary for executing its inspection Laws," U.S. CONST. art. I, § 10, cl. 2, seems to prohibit such a state tax. The Supreme Court, however, has held that the Import-Export Clause applies only to foreign commerce, not interstate commerce. See Woodruff v. Parham, 75 U.S. (8 Wall.) 123, 131-37 (1868). But see Camps Newfound/Owatonna, Inc. v. Town of Harrison, 117 S. Ct. 1590, 1620-28 (1997) (Thomas, J., dissenting) (arguing that Woodruff was decided incorrectly and that the Import-Export Clause should apply to interstate commerce).
B. Group Two—Antidiscrimination First Principles

During its second century, the Court developed its modern dormant Commerce Clause antidiscrimination test. This section traces the test from its birth and infancy in the 1930s and 1940s and identifies the first principles that underlie the dormant Commerce Clause doctrine. The next section explains how the third group of cases have betrayed first principles.

1. The Development of the Antidiscrimination Test

The Court's antidiscrimination test grew out of two cases challenging New York milk regulations. The first case, Baldwin v. G.A.F. Seelig, Inc., involved the New York Milk Control Act, which set minimum prices that all milk dealers were to pay to New York milk producers. The law was enacted to protect New York milk producers from competition with out-of-state producers who charged lower prices. To prevent competition, the Act prohibited retail sale of any milk purchased for less than the price set by the Act. New York milk dealers challenged the law under the dormant Commerce Clause.

In a much cited opinion by Justice Benjamin Cardozo, the Court struck down New York's minimum price law. According to Justice Cardozo, the Commerce Clause prohibits a state law that burdens interstate commerce "when the avowed purpose of the [law], as well as its necessary tendency, is to suppress or mitigate the consequences of competition between the states." Under Baldwin, a state law unconstitutionally burdens interstate commerce when it protects in-state actors from competition

84. See Jim Chen, Get Green or Get Out: Decoupling Economic Objectives in Agricultural Regulation, 48 OKLA. L. REV. 333, 346 (1995) ("Much of the Supreme Court's dormant commerce clause jurisprudence can be written in milk.").
85. 294 U.S. 511 (1935).
86. See id. at 519.
87. See id. at 527.
88. See id. at 519.
89. See id. at 520-21.
90. See id. at 527-28.
91. Id. at 522 (emphasis added).
with out-of-state firms. The Court's concern was, therefore, not with the effect of state law on interstate commerce generally—virtually all state laws have some impact, direct or indirect, on the national economy. Rather, the focus was on disparate treatment of in-state and out-of-state firms that competed with one another.

Next, Baldwin focused the dormant Commerce Clause analysis on the negative consequences that might follow state protectionism. As the Court explained, these consequences played a major role in the history and purpose of the Commerce Clause. The Commerce Clause—and the Philadelphia Convention generally—was in part a response to the Articles of Confederation, which did not grant the Continental Congress power to regulate interstate commerce. Without any central regulation of interstate commerce, states waged economic warfare.

The Founders particularly focused on conflicts between states that produced and exported goods and some coastal states whose main commerce was the trade that flowed through their ports.

92. See id. at 527.
93. See id. at 521-23.
95. See Articles of Confederation art. IX (setting forth the powers of "[t]he United States in Congress assembled").
96. See Collins, supra note 10, at 53.
97. See Max Farrand, The Fathers of the Constitution 29-30 (1921); Abel, supra note 52, at 448-49; Collins, supra note 10, at 53; Letter from James Madison to Prof. Davis (1832), in 3 Records, supra note 52, at 519, 542.

[The states were using their tariffs as weapons against each other, either offensively, as where the importing states imposed tariffs the ulti-
A state with little resources other than its location as a trade center could exact a great toll to allow the passage of goods to other states or foreign markets. Many states did so by either closing their ports to or imposing prohibitive taxes on goods from other states. In doing so, the taxing states pursued their own economic advantage at the expense of their neighbors.

mate incidence of which was calculated to fall on others not blessed by geography with as good and accessible harbors, or defensively, as by strengthening their tariff walls against each other to compensate for revenue deficiencies resulting from diversion of foreign shipments to the states with the least onerous imposts.

Collins, supra note 10, at 53.

98. See THE FEDERALIST NO. 7, at 28 (Alexander Hamilton) (Max Beloff ed., 1987) ("The state less favourably circumstanced, would be desirous of escaping from the disadvantages of local situation, and of sharing in the advantages of their more fortunate neighbours."); see also THE FEDERALIST NO. 42, at 215 (James Madison) (Max Beloff ed., 1987) (discussing the need for a “superintending authority” over the trade between states).

99. See DEBATES IN THE CONVENTION OF THE COMMONWEALTH OF MASSACHUSETTS ON THE ADOPTION OF THE FEDERAL CONSTITUTION (1788), reprinted in 2 THE DEBATES IN THE SEVERAL STATE CONVENTIONS ON THE ADOPTION OF THE FEDERAL CONSTITUTION 59 (Jonathan Elliott ed., J.B. Lippincott Co. 1941) (1836) [hereinafter DEBATES]; DEBATES IN THE CONVENTION OF THE STATE OF NORTH CAROLINA 4, reprinted in DEBATES, supra, at 20, 254; DEBATES IN THE CONGRESS OF THE CONFEDERATION 5, reprinted in DEBATES, supra, at 19; DEBATES IN THE FEDERAL CONVENTION 5, reprinted in, DEBATES, supra, at 119; DAVID HUTCHISON, THE FOUNDATIONS OF THE CONSTITUTION 102-04 (1975). Lack of a central commerce power also hampered the nation’s ability to conduct foreign trade. See RAKOVE, supra note 94, at 26-27. Shortly after the Revolutionary War, Britain closed its ports to American ships. See id. To regain access, the United States wanted to implement a national response, closing its ports to British ships until such time as Britain reopened its ports. See id. Because the federal government did not have power over the subject, the coastal states acted in their best interests by keeping their ports open, and the United States could not coordinate a successful response.

100. DEBATES IN THE CONVENTION OF THE COMMONWEALTH OF VIRGINIA 3, reprinted in DEBATES, supra note 99, at 483 (arguing that “if the states had the exclusive imposition of duties on exports, they might raise a heavy contribution from other states, for their own exclusive emolument”). Cardozo described how laws like the New York Milk Act could lead to such consequences:

If New York, in order to promote the economic welfare of her farmers, may guard them against competition with the cheaper prices of Vermont, the door has been opened to rivalries and reprisals that were meant to be averted by subjecting commerce between the states to the power of the nation.

Baldwin v. G.A.F. Seelig, 294 U.S. 511, 522 (1934). Imposing such “customs duties” at state borders would “neutralize advantages belonging to the place of origin.” Id. at 527.
The exploitive state taxes were of concern because they posed several negative consequences for the new nation. First, if goods could be taxed as they passed through each state border, trade would effectively cease; each tax would increase the price of the good to the point that it would no longer be purchased.\textsuperscript{101} Second, the border taxes might cause producing states to choose alternate, less efficient trade routes to avoid exploitation.\textsuperscript{102} Third, trade wars could escalate into violence.\textsuperscript{103} In each case, opposition to exploitive state action focused on the consequences for national trade—economic or other factors would harm the welfare of the national economy.\textsuperscript{104}

The Court in \textit{Baldwin} echoed the Framers's concern with the consequences of state exploitation of interstate commerce. According to the Court, to allow such exploitation would be

to invite a speedy end of our national solidarity. The Constitution was framed under the dominion of a political philosophy less parochial in range. It was framed upon the theory that the peoples of the several states must sink or swim together, and that in the long run \textit{prosperity} and salvation are in union and not division.\textsuperscript{105}

State protectionism was feared because of its threat to national "prosperity."\textsuperscript{106} Protectionism threatened prosperity because it would "suppress or mitigate the consequences of competition between the states"\textsuperscript{107} and "neutralize the economic conse-

\begin{footnotes}
\item[102] \textit{See} \textit{The Federalist No. 42, supra} note 98, at 215 (claiming that state taxes could cause exporting states "to resort to less convenient channels for their foreign trade").
\item[103] \textit{See id.} (claiming that retaliatory trade measures "would nourish unceasing animosities, and not improbably terminate in serious interruptions of the public tranquility"); \textit{The Federalist No. 7, supra} note 98, at 28.
\item[104] \textit{See Coenen, supra} note 16, at 398-99.
\item[105] \textit{Baldwin}, 294 U.S. at 523 (emphasis added); \textit{see id.} at 522 (stating that the Commerce Clause addresses "the mutual jealousies and aggressions of the States, taking form in customs barriers and other economic retaliation.") (citations omitted); \textit{The Federalist No. 42, supra} note 98; Coenen, \textit{supra} note 16, at 398-99; Jonathan D. Varat, \textit{State "Citizenship" and Interstate Equality}, 48 U. CHI. L. REV. 487, 518 (1981).
\item[106] \textit{Baldwin}, 294 U.S. at 523.
\item[107] \textit{Id.} at 522.
\end{footnotes}
quences of free trade among the states." Conversely, free trade among the states would promote the economic welfare of the nation.

Baldwin makes clear that interstate competition was not valued as an end in itself, but rather as a means to other benefits, such as greater "prosperity." Underlying this view is the neoclassical economic assumption that free competition necessarily leads to the efficiency that brings prosperity. If that assumption does not hold, however, then disruption of interstate competition might not threaten national prosperity.

In the next milk case, *H.P. Hood & Sons, Inc. v. Du Mond*, the Court reviewed a New York law that required a license to operate a milk processing plant within the state. Most of the licensing criteria related to the quality of the processing operations or the financial responsibility of the operator; Hood satisfied all of these criteria. New York, however, denied Hood a license based on another criterion: issuance of a license must "not tend to a destructive competition" in the local milk market. The New York licensing authority believed that Hood's new facility would purchase New York milk for sale outside of New York, mostly in Boston. Because Hood also supplied an out-of-state market, granting it a license would increase competition for New York milk and consequently raise in-state milk prices. New York had denied Hood a license solely to hold down New York milk prices.

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108. *Id.* at 526.
109. *See* THE FEDERALIST NO. 11, at 52 (Alexander Hamilton) (Max Beloff ed., 1987) ("An unrestrained intercourse between states themselves, will advance the trade of each. . . . The veins of commerce in every part will be replenished, and will acquire additional motion and vigor from a free circulation of the commodities of every part.").
110. This point is explored further infra Part I.C.2.-3.
111. 336 U.S. 525 (1949).
112. *See id.* at 527.
113. For example, one provision of the law required "that the applicant [be] qualified by character, experience, financial responsibility and equipment to properly conduct the proposed business." *Id.*
114. *See id.*
115. *Id.* at 528.
116. *See id.* at 528-29.
117. *See id.*
Once again, the Court was unsympathetic to New York's differential treatment of in-state and out-of-state competitors. According to the Court, the New York licensing provision was enacted “solely [for] protection of local economic interests, such as supply for local consumption and limitation of competition.”

Such state exploitation of interstate commerce is prohibited by the Commerce Clause: “the State may not promote its own economic advantages by curtailment or burdening of interstate commerce.”

As in Baldwin, the Court first focused on the state's discrimination between in-state and out-of-state competitors. Next, as in Baldwin, the Court focused on the consequences for the national economy of the state's discriminatory law:

The material success that has come to inhabitants of the states which make up this federal free trade unit has been the most impressive in the history of commerce, but the established interdependence of the states only emphasizes the necessity of protecting interstate movement of goods against local burdens and repressions. We need only consider the consequences if each of the few states that produce copper, lead, high-grade iron ore, timber, cotton, oil or gas should decree that industries located in that state shall have priority. What fantastic rivalries and dislocations and reprisals would ensue if such practices were begun!

118. Id. at 531 (emphasis added).
119. Id. at 532.
120. Also, as in Baldwin, the Court attributed this principle to the founding era and the underlying impetus for the Commerce Clause. As noted in H.P. Hood & Sons, the economic opportunism practiced by the states after the revolution threatened the continuing survival of the nascent nation. See id. at 533 (“When victory relieved the Colonies from the pressure for solidarity that war had exerted, a drift toward anarchy and commercial warfare between states began.”). A federal power over interstate commerce was thought necessary to keep the peace:

The sole purpose for which Virginia initiated the movement which ultimately produced the Constitution was “to take into consideration the trade of the United States; to examine the relative situations and trade of the said States; to consider how far a uniform system in their commercial regulations may be necessary to their common interest and their permanent harmony” and for that purpose the General Assembly of Virginia in January of 1786 named commissioners and proposed their meeting with those from other states.

Id.
121. Id. at 538-39 (emphasis added).
State interference with interstate competition is not inherently problematic; it is of concern only when its "consequence" is diminishment of the nation's "material success." The free flow of interstate commerce is not an end in itself; it is an instrumental good, valued for its contribution to the efficient operation of the national economy.

In sum, Baldwin and Hood demonstrate that two connected principles underlie the dormant Commerce Clause doctrine. First, states should not be allowed to interfere with interstate competition for the benefit of local economic interests. Second, the Commerce Clause was intended to address the negative consequences of such state action for the national economy.

2. The Competition Principle

Two contemporary dormant Commerce Clause cases emphasize that discrimination between in-state and out-of-state commerce, without more, is not unconstitutional; the in-state and out-of-state commerce must at least be in competition. In the first case, Alaska v. Arctic Maid, Alaska had imposed a higher tax on salmon transported out-of-state than salmon transported in-state for processing. Salmon destined for interstate commerce was caught by special ships equipped with on-board facilities for freezing salmon for shipment to processing facilities outside Alaska. The other salmon was transported back to Alaska for processing and sale in-state. The out-of-state salmon producers challenged Alaska's differential tax under the dormant Commerce Clause.

The Supreme Court upheld Alaska's differential tax because it did not advantage in-state business over out-of-state busi-

122. Id. at 535 ("[T]his Court has advanced the solidarity and prosperity of this Nation" by applying the dormant Commerce Clause doctrine).
124. See id. at 203.
125. See id. at 201.
126. See id. at 204.
127. See id.
ness. The Court noted specifically that the in-state salmon processors did "not compete" with the out-of-state processors; each supplied a different market. Because in-state and out-of-state commerce were not in competition, the Court held that "cases... which hold invalid state laws that prefer local sales over interstate sales, are inapposite." This makes much sense given the Court's reasoning in Baldwin and Hood. In those two cases, the Court focused not on mere discrimination against interstate commerce, but on exploitation of interstate commerce for the benefit of in-state commerce. When in-state and out-of-state actors do not compete, a burden on out-of-state actors does not advantage in-state actors. Arctic Maid was thus a logical elaboration of the Court's dormant Commerce Clause doctrine.

The Supreme Court applied Arctic Maid last term in General Motors Corp. v. Tracy. In Tracy, Ohio had levied a five percent tax on all natural gas transactions, except those involving local distribution companies (LDC). LDCs serve as an intermediary between natural gas suppliers and end-users and generally serve customers with small gas needs, such as residential consumers. Natural gas suppliers, however, generally sell gas directly to large volume end-users, such as corporations and municipalities. Under the Ohio natural gas tax, only in-state utilities qualified as tax-exempt LDCs. Ohio effectively imposed different tax burdens on in-state and out-of-state natural gas suppliers.

General Motors, a customer of an out-of-state utility subject to the Ohio tax, challenged the discriminatory tax scheme as a vio-
loration of the dormant Commerce Clause.\(^{137}\) General Motors argued that the tax differential gave LDCs a relatively lower tax burden that, in turn, gave the LDCs a competitive advantage.\(^{138}\) The Ohio tax presumably increased the price of natural gas sold by out-of-state suppliers, making the LDCs' product relatively more attractive. Under this argument, the Ohio tax exploited interstate commerce through taxation of out-of-state suppliers for the competitive advantage of in-state economic interests. General Motors, then, invoked the antidiscrimination principle established by the Court's prior cases.

The Court focused on the key assumption of General Motors's antidiscrimination argument: that LDCs and out-of-state natural gas suppliers actually compete with one another.\(^{139}\) If LDCs and out-of-state suppliers appealed to different markets, LDCs would not derive a competitive advantage from the increased prices of out-of-state suppliers. The Court explained this point in the following passage:

> Conceptually, of course, any notion of discrimination assumes a comparison of substantially similar entities. Although this central assumption has more often than not itself remained dormant in this Court's opinions on state discrimination subject to review under the dormant Commerce Clause, when the allegedly competing entities provide different products, as here, there is a threshold question whether the companies are indeed similarly situated for constitutional purposes. This is so for the simple reason that the difference in products may mean that the different entities serve different markets, and would continue to do so even if the supposedly discriminatory burden were removed. If in fact that should be the case, eliminating the tax or other regulatory differential would not serve the dormant Commerce Clause's fundamental objective of preserving a national market for competition undisturbed by preferential advantages conferred

\(^{137}\) See id. at 817.

\(^{138}\) Brief for Petitioner at 12, Tracy (No. 95-1232) ("This system of taxation creates a preference for gas sold by an Ohio public utility—and, correspondingly, it creates a disincentive to purchase gas from any other source, including all out-of-state sources.").

\(^{139}\) See Tracy, 117 S. Ct. at 824.
This much was familiar from *Arctic Maid*.  
Next, the Court had to determine whether LDCs and out-of-state suppliers served the same market. To answer this question, the Court had to explain the main business of LDCs and out-of-state suppliers. LDCs are heavily regulated entities that serve as intermediaries between suppliers and end-users, offering natural gas bundled with other services, such as a guarantee of continuous, uninterrupted service. LDCs largely serve individual consumers, who do not have the flexibility or volume of demand to purchase natural gas on the open market. Out-of-state suppliers, however, generally supply large end-users—such as General Motors—who do not require bundled natural gas service. The core customers of the LDC and out-of-state supplier, then, appear to come from different markets—residential versus large-demand customers. Yet, as the Court recognized, these two core customer groups do not exhaust the universe of possible customers; rather, they lie at opposite ends of a spectrum. Somewhere in the middle of the spectrum lie customers large enough to purchase on the open market, but

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140. *Id.*
141. *See id.* at 825-26.
143. For example, consumers who rely on open market purchases risk supply shortages and even stoppage in service. Individual consumers cannot easily endure or plan for such service interruptions. *See id.* at 825 (noting that LDC customers "are buyers who live on sufficiently tight budgets to make the stability of rate important, and who cannot readily bear the risk of losing a fuel supply in harsh natural or economic weather."); Adam D. Samuels, *Reliability of Natural Gas Service for Captive End-Users Under the Federal Energy Regulatory Commission's Order No. 636*, 62 GEO. WASH. L. REV. 718, 749 (1994) ("Gas service disruption lasting just a few days can cause severe health risks to captive end-users.").
144. *See Tracy*, 117 S. Ct. at 825 (stating that LDC customers are "buyers without the high volume requirements needed to make investment in the transaction costs of individual purchases on the open market economically feasible"); Richard Pierce, *Intrastate Natural Gas Regulation: An Alternative Perspective*, 9 YALE J. ON REG. 407, 409-10 (1992) ("Purchasing gas service [on the open market] requires considerable time and expertise. Its benefits are likely to exceed its costs only for consumers who purchase very large quantities of gas.").
145. *See Tracy*, 117 S. Ct. at 826.
146. *See id.*
small enough to derive some benefit from the LDCs’ bundled services. For this group of customers, a price differential between LDCs and out-of-state suppliers might affect their purchasing decisions.

Tracy posed a crucial difference from Arctic Maid: the in-state and out-of-state markets were not necessarily mutually exclusive; some overlap may have existed. The question was whether General Motors had made a sufficient showing of overlapping markets to require application of the dormant Commerce Clause antidiscrimination test. The Court answered “no.” The extent of the overlap, if any, depended on facts not before the Court as well as economic predictions about whether treating LDCs and out-of-state suppliers the same would increase or decrease competition. Given this uncertainty, the Court deferred to the state’s decision to treat LDCs and out-of-state suppliers differently. The Court did so out of institutional competence concerns. Courts generally do not have the fact-gathering capability or expertise to engage in economic forecasting:

The degree to which these very general suggestions might prove right or wrong . . . is not really significant; the point is simply that all of them are nothing more than suggestions, pointedly couched in terms of assumption or supposition. This is necessarily so, simply because the Court is institutionally unsuited to gather the facts upon which eco-

147. See id. ("[C]onsumers of middling volumes of natural gas who found some value in Ohio's state-imposed protections but not enough to offset lower price at some point" were at the middle of the spectrum).

148. See id. ("There is . . . a further market where the respective sellers of the bundled and unbundled products apparently do compete and may compete further.").

149. See id. ("[T]he question raised by this case is whether the opportunities for competition between [out-of-state suppliers] and LDCs . . . requires treating [them] alike for dormant Commerce Clause purposes.").

150. See id. at 829.

151. For example, the Court did not have any information indicating the size of the shared market. See id. ("[T]he record before this Court reveals virtually nothing about the details of that competitive market.").

152. For example, would removing the sales tax on out-of-state suppliers increase competition with LDCs or lead to other state regulation that would strengthen the position of the LDCs? See id. at 828.

153. See id. at 828-29.

154. See id.
economic predictions can be made, and professionally untrained to make them.¹⁵⁵

The legislative branch, however, is well equipped to handle the task: "Congress has the capacity to investigate and analyze facts beyond anything the judiciary could match, joined with the authority of the commerce power to run economic risks that the judiciary should confront only when the constitutional or statutory mandate for judicial choice is clear."¹⁵⁶ Consequently, Tracy limits the role of the Court to police interstate commerce to clear cases.¹⁵⁷

Tracy ultimately reinforces one dormant Commerce Clause principle and establishes another. First, Tracy reinforces that the dormant Commerce Clause is concerned only with state regulation that discriminates between in-state and out-of-state competitors. Second, the Court placed the burden on the party challenging the state regulation to show that the in-state and out-of-state actors actually compete. If the challenger's arguments rely on incomplete facts or contested economic predictions, then the Court will defer to the state's judgment that the discrimination is justified.

3. Dormant Commerce Clause First Principles

Baldwin, Hood, Arctic Maid, and Tracy crystallize two principles that undergird the dormant Commerce Clause. First, the Commerce Clause—in both its affirmative and negative aspects—is concerned with state interference with interstate competition. The Founders feared that states might exploit interstate commerce for local advantage.¹⁵⁸ Discrimination against out-of-state commerce, without more, is not the target; only discrimination between in-state and out-of-state competitors is targeted. Second, the effect of a state's regulation of interstate com-

¹⁵⁵. Id.
¹⁵⁶. Id. at 829.
¹⁵⁷. As discussed below, this clear statement rule fits well with similar rules the Court has formulated to protect federalism interests. See infra notes 371-95 and accompanying text.
merce must be judged based on the consequences for the national economy as a whole. As the Court said in *Hood*, "our economic unit is the Nation." The Court was not so much interested with how the state law affected the specific transaction at issue, but rather with the effect on the national economy of allowing such behavior in the long run. The detrimental effect of New York's milk laws on the single milk dealer in *Baldwin* or *Hood* might not have had a significant effect on the national economy, but allowing state action of that type would put the nation on a slippery slope to interstate trade barriers and other anticompetitive measures. Consequently, states should be allowed to regulate interstate commerce, even to the extent of blocking the flow of goods or services across their border, when doing so does not harm the welfare of the national economy.

In addition to these two principles, *Tracy* established a prudential limitation on the dormant Commerce Clause doctrine. The Court recognized that questions like competition and efficiency are both factually and theoretically complex. In deciding whether in-state and out-of-state commerce are in competition, courts may face contested facts or economic arguments. In such cases, institutional competence requires courts to defer to the state legislation.

In *Arctic Maid* and *Tracy*, the Court took seriously one first principle of the dormant Commerce Clause—that in-state and out-of-state commerce must be in competition. As discussed in the next section, however, the other first principle—that the discrimination harm the national economy—has not fared as well in the Court's case law. The principle is clear in *Baldwin* and *Hood*, but it is not mentioned in the following cases. Instead, the Court treats the two first principles as one, assuming that discrimination between in-state and out-of-state competitors necessarily harms the national economy.

C. Group Three—Enter Neoclassical Economics

The preceding section discussed two important points. First, the Court's dormant Commerce Clause antidiscrimination test

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159. *Id.* at 537.
rests on two interrelated principles: (1) states should not discriminate between in-state and out-of-state competitors (2) in a way that harms the national economy. Second, as Arctic Maid and Tracy showed, the Court has analyzed the first principle expressly, carefully reviewing whether in-state and out-of-state actors actually compete against one another. This section asks whether the Court has paid similarly close attention to the second principle—that the discrimination has caused harm to the national economy.

1. Betraying First Principles

In yet another milk case, decided about two years after Hood, the Court seemed to betray its dormant Commerce Clause first principles. Dean Milk Co. v. City of Madison\(^ {160}\) involved a city ordinance that effectively prohibited the sale of milk processed or bottled outside of the city.\(^ {161}\) Citing both Baldwin and Hood, the Court struck down the law because it interfered with interstate competition:

In . . . erecting an economic barrier protecting a major local industry against competition from without the State, Madison plainly discriminates against interstate commerce. This it cannot do, even in the exercise of its unquestioned power to protect the health and safety of its people, if reasonable non-discriminatory alternatives, adequate to conserve legitimate local interests, are available.\(^ {162}\)

Like Baldwin and Hood, Dean Milk retains a focus on state discrimination between in-state and out-of-state competitors. Unlike Baldwin and Hood, however, Dean Milk does not mention why the Commerce Clause restricts such discrimination. Recall

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\(^{160}\) 340 U.S. 349 (1951).

\(^{161}\) The Court has held that a city ordinance is subject to the dormant Commerce Clause even though it does not strictly discriminate between in-state and out-of-state commerce. See C & A Carbone, Inc. v. Town of Clarkstown, 511 U.S. 383, 390 (1994); Fort Gratiot Sanitary Landfill, Inc. v. Michigan Dept of Natural Resources, 504 U.S. 353, 361 (1992); Dean Milk, 340 U.S. at 354. For example, in Dean Milk, in-state milk processed outside of the city was treated the same as out-of-state milk. See id. at 350-51, 354 n.4.

\(^{162}\) Dean Milk, 340 U.S. at 354 (emphasis added).
that *Baldwin* and *Hood*, the earlier milk cases, explained that
discrimination was targeted because of its negative consequenc-
es for the national economy.'

Dean Milk drops this point. The Court's silence implies that it assumed that discrimination be-
tween in-state and out-of-state competitors necessarily harms
the national economy.

Dean Milk is important because it is the first dormant Com-
merce Clause antidiscrimination case to drop the focus on harm
to the national economy. Of course, at this distance in time, it is
impossible to know why the Court did so. Perhaps the Court did
not see the need to restate a point already made in *Baldwin* and
*Hood*. Or, perhaps the ordinance's harm to the national economy
was not questioned in the case. Whatever the reason, that first
principle was lost in the analysis.

After Dean Milk, the Court continued to neglect the national
harm requirement two decades later in *City of Philadelphia v.
New Jersey*. That case involved a New Jersey law that pro-
hibited shipment of most "solid or liquid waste" into the
state. The New Jersey law clearly treated waste generated
in-state differently than waste generated out-of-state. The issue
was whether this discrimination violated the dormant Commerce
Clause.

The Court began its analysis by accurately summarizing the
cases discussed in the preceding sections:

The opinions of the Court through the years have reflected

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165. *Id.* at 618 (forbidding importation of some "solid or liquid waste which orig-
inated or was collected outside the territorial limits of the State"). Solid waste and
its attendant hazards are described as follows:

Municipal solid waste consists of ordinary household garbage; commercial
solid wastes from restaurants, motels, stores, schools, hospitals, and other
businesses; and nonhazardous industrial wastes. Despite its innocuous
label, municipal solid waste often contains toxic materials. For instance,
many household products—such as household cleaners, automotive prod-
ucts, paint thinners, and pesticides—contain toxic constituents that would
force their regulation as hazardous wastes were they generated by industry.
Engel, supra note 37, at 1488.
166. See *City of Philadelphia*, 437 U.S. at 618.
an alertness to the evils of "economic isolation" and protectionism . . . . Thus, where simple economic protectionism is effected by state legislation, a virtually per se rule of invalidity has been erected.\textsuperscript{167}

For this reason, "[t]he crucial inquiry . . . must be directed to determining whether [the New Jersey law] is basically a protectionist measure."\textsuperscript{168} After this strong beginning, the Court's analysis took a fundamentally wrong turn. Instead of focusing, as it had previously done, on the effect of the state's regulation on the national economy, the Court focused narrowly on the discrimination against interstate commerce. In doing so, the Court created an equal-protection-like analysis for state laws that discriminate against interstate commerce: A state may not "discriminat[e] against articles of commerce coming from outside the State unless there is some reason, apart from their origin, to treat them differently."\textsuperscript{169}

To better understand the Court's new test, a comparison to equal protection analysis is helpful. Arguments about equality are about treating likes alike; the key task is to determine when things or people are "alike" or "different."\textsuperscript{170} Likeness and difference are referential concepts—they are assessed by reference to some standard.\textsuperscript{171} In the traditional equal protection analysis, the standard is the government purpose to be achieved; difference and similarity are judged by the empirical relationship between a particular trait and the government's purpose.\textsuperscript{172}

\textsuperscript{167} Id. at 623-24 (emphasis added).
\textsuperscript{168} Id. at 624.
\textsuperscript{169} Id. at 626-27.
\textsuperscript{171} See Peters, supra note 170, at 1216-17; Westen, supra note 170, at 547.
\textsuperscript{172} See Vacco, 117 S. Ct. at 2297; Romer v. Evans, 116 S. Ct. 1620, 1627 (1996) (noting that under the most lenient level of scrutiny, the court will ask whether "the legislative classification . . . bears a rational relation to some legitimate end"); McLaughlin v. Florida, 379 U.S. 184, 191 (1964); Tribe, supra note 3, § 16-2, at 1440.
New York City Transit Authority v. Beazer offers a good example of equal protection analysis at work. Beazer involved a New York City Transit Authority rule that prohibited employment of methadone users as subway train drivers. The rule was established to protect the safety of subway passengers. Specifically, the Transit Authority had to show an empirical relationship between the trait of methadone use and the inability to safely drive a subway train. Because evidence showed that methadone users, on average, posed a greater safety risk to subway passengers, methadone users were relevantly different from the general public and could be discriminated against by the Transit Authority.

As the above discussion illustrates, the choice of a standard of comparison will largely determine the outcome of the equal protection analysis. When the standard was “public safety,” methadone users were different from the general population. If the standard were “height,” however, methadone users, on average, would likely be the same, or substantially so, as the general population. Different standards of comparison may yield different conclusions about sameness and difference.

The standard of comparison is crucial to the equality analysis created by City of Philadelphia. In that case, the Court asked whether the in-state and out-of-state commerce were different in a way that is relevant to the subject matter of the state’s regulation. For example, in City of Philadelphia, the Court asked whether out-of-state garbage was different from in-state garbage in a way that was relevant to the act of disposing of

174. See id. at 570.
175. See id. at 578.
176. See id. at 588.
177. See id.
178. See id.
179. See Peters, supra note 170, at 1216-18; Westen, supra note 170, at 543-45, 548, 551.
garbage.\textsuperscript{181} Quite clearly, as the Court found, out-of-state garbage does not pose any differences for the process of waste disposal, and New Jersey did not argue otherwise.\textsuperscript{182}

The case of \textit{Maine v. Taylor}\textsuperscript{183} illustrates how the \textit{City of Philadelphia} test can be met. In \textit{Taylor}, Maine law prohibited the importation of certain baitfish to protect the health and safety of the state's waters.\textsuperscript{184} To survive the \textit{City of Philadelphia} equality test, Maine had to show that out-of-state baitfish were different from in-state baitfish in a way that was relevant to the state's purpose, protecting the state's waters.\textsuperscript{185} The Maine law passed the test because the record showed that some out-of-state baitfish carried parasites that did not exist in Maine waters.\textsuperscript{186} If Maine was to keep the parasites from infecting its waters, then Maine had to keep out-of-state baitfish from its waters.\textsuperscript{187} The in-state and out-of-state items of commerce were relevantly different.

\textit{City of Philadelphia}'s fundamental mistake was choosing the wrong standard of comparison for its equality analysis. Instead of focusing on the state's purpose for its regulation, the Court should have asked whether in-state and out-of-state commerce are different \textit{in relation to the Commerce Clause}'s purpose of protecting the welfare of the national economic market. In other words, does discriminating against out-of-state commerce harm the welfare of the national economy? If not, even if in-state and out-of-state commerce are otherwise identical, the state's regulation should be upheld. This test is more faithful to the dormant Commerce Clause first principles discussed in the preceding section. Recall that not all discrimination between in-state and out-of-state competitors is the problem; only such discrimination that harms the national economy. The dormant Commerce Clause prohibition of discrimination is a

\begin{thebibliography}{99}
\bibitem{}\textsuperscript{181} See \textit{id.} at 626-27, 629.
\bibitem{}\textsuperscript{182} See \textit{id.} at 629 ("[A]s New Jersey concedes, there is no basis to distinguish out-of-state waste from domestic waste.").
\bibitem{}\textsuperscript{183} 477 U.S. 131 (1986).
\bibitem{}\textsuperscript{184} See \textit{id.} at 132-33.
\bibitem{}\textsuperscript{185} See \textit{id.} at 144-47.
\bibitem{}\textsuperscript{186} See \textit{id.}
\bibitem{}\textsuperscript{187} See \textit{id.} at 147.
\end{thebibliography}
means to a prosperous national market, not an end in itself.

2. Due Process and Economic Assumptions

The Court's early milk cases (Baldwin and Hood) valued competition for its beneficial consequences for the nation. Interstate competition was seen as a means to national prosperity. Yet, Baldwin and Hood did not address whether interstate competition and prosperity were necessarily linked. In the subsequent antidiscrimination cases of Dean Milk and City of Philadelphia, however, the Court seemed to assume that the two were necessarily linked and therefore discrimination between in-state and out-of-state competitors necessarily harmed the nation. That Dean Milk did not acknowledge the assumption may be explained by the Court's then-prevailing view of economics. At the time the Court decided Dean Milk, the Court's substantive due process cases embraced a view of free market competition as the natural state of society. This section examines those cases, seeking an explanation for the economic assumption that free competition is necessarily in the nation's best interest.

The Court's substantive due process doctrine derives from the two due process clauses of the Constitution. Each clause protects individuals from restrictions on their "liberty" unless the government accords them "due process of law." On their face, each clause speaks only of process, implying that the government may restrict personal liberty if the proper procedures are followed. Yet, for over a century, the Court has held that the due process clauses have a substantive component that protects certain aspects of "liberty" regardless of what procedures the government follows. Under this sub-

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188. See supra Part I.B.1.
189. See supra Part I.C.1.
190. U.S. CONST. amend. V ("No person shall be . . . deprived of life, liberty, or property, without due process of law"); id. amend. XIV, § 1 ("No State shall . . . deprive any person of life, liberty, or property, without due process of law.")
191. See supra note 190.
193. See Planned Parenthood v. Casey, 505 U.S. 833, 846 (1992) ("Although a lit-
stantive component, laws that infringe individual interests that are "fundamental" to "liberty" must pass "strict scrutiny," the most stringent level of constitutional review, under which the government must show a compelling purpose for its law.\textsuperscript{194} To this date, the Court has recognized few fundamental liberty interests.\textsuperscript{195}

At the time of the \textit{Baldwin} decision, the Court's substantive reading of the Clause might suggest that it governs only the procedures by which a State may deprive persons of liberty, for at least 105 years . . . ., the Clause has been understood to contain a substantive component as well.\textsuperscript{194} (joint opinion of Kennedy, O'Connor, and Souter, JJ.); Daniels v. Williams, 474 U.S. 327, 331 (1986) (holding that the Due Process Clause "bar[s] certain government actions regardless of the fairness of the procedures used to implement them"). The Court first invoked substantive due process in \textit{Dred Scott v. Sanford}, 60 U.S. (19 How.) 393 (1857). In \textit{Dred Scott}, the Court held that the Missouri Compromise denied slave owners part of their property right in their slaves. See \textit{Chemerinsky}, supra note 3, § 9.3.1, at 549.

194. \textit{See} \textit{Roe v. Wade}, 410 U.S. 113, 155 (1973); \textit{Chemerinsky}, supra note 3, § 10.2.1, at 643. In its recent substantive due process cases, the Court's opinions have been somewhat confused on the precise standard of review for laws that infringe a fundamental liberty interest. For example, in \textit{Casey}, the Court claimed to follow the central holding of \textit{Roe v. Wade} that a woman has a fundamental right to choose to terminate her pregnancy. \textit{See} \textit{Casey}, 505 U.S. at 846. Yet, the joint opinion announcing the Court's judgment did not apply strict scrutiny to the Pennsylvania abortion law. \textit{See id.} at 844-901. Also, in the physician-assisted suicide cases decided during the 1996-97 term, the Court referred to, "heightened protection" for fundamental liberty interests but did not mention strict scrutiny. \textit{See} \textit{Washington v. Glucksberg}, 117 S. Ct. 2258, 2267 (1997). Although the Court has not officially abandoned strict scrutiny for fundamental liberty interests, its recent cases suggest that a change in standard of review may be underway. \textit{See} \textit{Casey}, 505 U.S. at 964-65 (Rehnquist, C.J., concurring in the judgment in part and dissenting in part).

195. The Court summarized this line of cases during the 1996-97 term:

\begin{quote}
In a long line of cases, we have held that, in addition to the specific freedoms protected by the Bill of Rights, the "liberty" specially protected by the Due Process Clause includes the rights to marry, to have children, to direct the education and upbringing of one's children, to marital privacy, to use contraception, to bodily integrity, and to abortion. We have also assumed, and strongly suggested, that the Due Process Clause protects the traditional right to refuse unwanted lifesaving medical treatment.
\end{quote}

due process cases protected economic freedom as a fundamental liberty interest. This line of cases is associated most closely with the Court's decision in *Lochner v. New York.*

In *Lochner,* the Supreme Court held that a New York law limiting bakers' working hours violated the Fourteenth Amendment's due process protection of "liberty." According to the Court, the then-existing common law rules of contract—which left the employer and the bakers free to set working hours—was a natural condition of liberty, free from government action. This free competition was necessary to the prosperity of the nation as a whole. Consequently, any law that restricted competition was not intended to improve national prosperity, but rather was intended to gain an unfair economic benefit for a narrow interest group.

A labor law like that in *Lochner* was viewed as obtaining an unfair advantage for either labor or management at the expense of free

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196. See CHEMERINSKY, supra note 3, § 8.2.2, at 480-85.
197. 198 U.S. 45 (1905). *Lochner* is not the first case to apply substantive due process to economic interests, but it is the most infamous, earning that period of judicial decisions the derisive name of the *Lochner* era. See Allgeyer v. Louisiana, 165 U.S. 578 (1897) (finding "liberty" to include more than merely the right to be free from physical restraint). The ghost of *Lochner* has haunted the Court ever since, with Justices invoking the case to accuse their opponents of unjustified judicial activism. See Griswold, 381 U.S. at 481-82; HOWARD GILLMAN, THE CONSTITUTION BE-SIEGED: THE RISE AND DEMISE OF LOCHNER ERA POLICE POWERS JURISPRUDENCE 4 (1993) ("[U]ntil recently virtually all major discussions of *Lochner* . . . took for granted that the case vividly illustrates the potential harm when activist judges turn away from important institutional norms and become more interested in making law than in interpreting it."); CASS R. SUNSTEIN, THE PARTIAL CONSTITUTION 45 (1993) ("[The *Lochner* period is often thought to symbolize an unjustified form of judicial 'activism.'"); WILLIAM M. WIECEK, LIBERTY UNDER LAW 123-25 (1988); McGinley, supra note 37, at 431 n.91.
198. See *Lochner,* 198 U.S. at 53, 64 ("The right to purchase or to sell labor is part of the liberty protected by" the Fourteenth Amendment).
199. See GILLMAN, supra note 197, at 27; SUNSTEIN, supra note 197, at 45. Of course, this view is seriously flawed. The so-called "free market" was made possible by a complex web of common law rules—of tort, contract, etc.—that protected the expectations of the participants in the market. See GILLMAN, supra note 197, at 26 ("Of course, this 'natural society' was produced by a complex and politically charged system of legal rules and principles concerning property rights, contractual obligations, and tortious liabilities whose social effects were far from neutral."); SUNSTEIN, supra note 197, at 50.
201. See id. at 32-33.
competition, and thus the national economy.\textsuperscript{202} The Court's wholesale adoption of neoclassical economic premises—free competition inexorably leads to prosperity—as a natural state of "liberty" helped the Court ignore that markets might have imperfections, such as severe inequality of bargaining power, that require some form of correction.

*Lochner*’s substantive due process approach tapped into a line of thought extending back to James Madison.\textsuperscript{203} In *Federalist No. 10*, Madison warned of the dangers of "faction."\textsuperscript{204} According to Madison, a faction was "a number of citizens, whether amounting to a majority or minority of the whole, who are unit-ed and actuated by some common impulse of passion, or of interest, adverse to the rights of other citizens, or to the permanent and aggregate interests of the community."\textsuperscript{205}

Madison’s concern with faction was similar to the *Lochner* Court’s concern with economic regulation. In *Federalist No. 10*, Madison explained that differences in wealth will be an important cause of faction:

\begin{quote}
[T]he most common and durable source of factions has been the various and unequal distribution of property. Those who hold, and those who are without property, have ever formed distinct interests in society. Those who are creditors, and those who are debtors, fall under a like discrimination. A landed interest, a manufacturing interest, a mercantile interest, a moneyed interest, with many lesser interests, grow up of necessity in civilized nations, and divide them into different classes, actuated by different sentiments and views.
\end{quote}

In these interests lies the "spirit of faction;" the danger for society is that government will be used as a tool to promote the in-

\begin{footnotes}
\item[202] See id. at 139-40.
\item[203] Madison was not the sole Framer to espouse this view. See id. at 28-33. The above discussion focuses on Madison because his thoughts were typical of ideas at large at that time. See generally RAKOVE, supra note 94 (exploring the “politics of constitution-making” the issues of constitutional theory and institutional design that Framers faced, and the place of “original meaning” in constitutional interpretation).
\item[204] The *Federalist No. 10*, at 42 (James Madison) (Max Beloff ed., 1987); see 1 RECORDS, supra note 52, at 134.
\item[205] The *Federalist No. 10*, supra note 204, at 42.
\item[206] Id. at 43; see 1 RECORDS, supra note 52, at 135.
\end{footnotes}
terests of one faction at the expense of another. One of the great aims of governing is to put aside the self-interest that derives from faction and pursue the "public good." Madison, not so naive as to think that faction could be avoided, argued for a lawmaking process that he believed would minimize the opportunity for factions to make law.

Madison drew a line between faction and the public good. The main question is what differentiates mere faction from the public good. For Madison and others, the difference was tied to a free market: Laws that restrained commercial competition were the product of faction and thus did not serve the public good. This faith in the free market was based on the assumption that unrestrained commercial activity would inure to the benefit of society as a whole. One commentator has explained the logic as follows:

"[M]any at the time of the founding considered the exercise of public power illegitimate precisely to the extent that it was designed merely to advance the special interests of particular classes or to interfere with the common law (natural and just) obligations imposed on competing participants in the market economy on behalf of favored classes. This sensibility was predicated on the assumption that the social relations constructed by the common law regime of contract and property were essentially fair and liberty loving—or at least would be in the United States, with its expansive frontier—and that the enforcement of common law obligations would not result in certain classes having to suffer under conditions of dependency or servitude vis-à-vis competing classes that might make reason-

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207. See THE FEDERALIST NO. 10, supra note 204.
208. Id. at 45.
209. See id. An important part of this scheme was a national government that encompassed a large geographical area. See id.; 1 RECORDS, supra note 52, at 136. A large nation would likely consist of many different regions with many different interests. The different regions with their different interests would be factions, but each faction would likely be small. Madison argued that a large nation with a large number of small factions would minimize the opportunity for any single faction to make law to promote its factious interests. See THE FEDERALIST NO. 10, supra note 204, at 46-47.
210. See GILLMAN, supra note 197, at 114 ("Market freedom, or 'liberty of contract,' was linked inextricably with the commitment to faction-free legislation.").
able requests for special government favors.211

The Framers acknowledged that free competition would not necessarily make all citizens prosperous. For those who might lose in the marketplace, a ready solution was available: "[T]he almost endless access to the freehold on the American frontier ensured that those who might happen to find themselves in pockets of dependency would always be able to escape these conditions and become free and independent citizens."212 So, free competition would make many prosperous, and those who did not succeed could seek self-sufficiency through land ownership. Because free competition inured to the benefit of all, government restriction of competition was viewed as a product of faction.213 Such restrictions could be justified only by a government purpose shared by all citizens, such as public health or safety.214

The Framers’s suspicion of factious self-interest grew out of their experiences with state legislatures.215 For example, Madison suggested that laws that promote manufacturing or grant debtor relief could be the product of faction.216 In each case, selfish interests—those of manufacturers and debtors respectively—stood to benefit from the government’s action. Without government action, the manufacturer and the debtor are left to the outcome dictated by the market. Government intervention on behalf of one faction or the other skews the market and unfairly privileges one interest over the other.

In light of Madison’s Federalist No. 10, the decision in

211. Id. at 27.
212. Id. at 21.
213. See id. at 23.
214. See id.
216. See GILLMAN, supra note 197, at 20 ("Those who supported the Philadelphia Constitution used [the idea of faction] in the hope of delegitimizing certain kinds of laws passed by democratic state legislatures in the 1780s, laws such as debtor-relief legislation and wage and price controls."); 1 RECORDS, supra note 52, at 134-36.
Lochner is more understandable. The Lochner Court saw the labor law that restricted bakers' hours as a product of faction.\textsuperscript{217} Bakers lacked the bargaining power to demand lower hours, so the government intervened on their behalf.\textsuperscript{218} The labor law was the product of an illegitimate factious impulse. Although the Court's logic might have been consistent with Madison's thought, it posed one main problem: There was no evidence that Madison—or any other Framer—believed that judges should strike down factious laws. Rather, the clear implication of Federalist No. 10 was that the structure of government was supposed to be the main protection against faction.\textsuperscript{219}

Lochner eventually collapsed under the weight of economic experiences that exposed the flaws in the Court's economic assumptions. The Great Depression offered strong evidence that free competition would not necessarily inure to the benefit of the nation as a whole.\textsuperscript{220} The undeniable economic reality of the time led the Court to reject the economic premises of Lochner in Nebbia v. New York,\textsuperscript{221} another New York milk law case. In Nebbia, New York law set minimum prices for all milk sold in the state.\textsuperscript{222} The New York law clearly restrained free competition—prices were set by the government, not competition among private firms. Yet, unlike Lochner, the Court found such government interference justified.\textsuperscript{223} The Court accepted the state's argument that the New York milk market suffered from imper-

\begin{footnotesize}
\begin{enumerate}
\item See GILLMAN, supra note 197, at 126-29.
\item See id. at 115-16.
\item See id. at 32.
\item What the country ended up with in 1787, in both the structure of its national institutions and in the ideology that supported that structure, was a representative style of government that was avowedly hostile to an overtly class-based politics, as illustrated by the (allegedly) unsavory behavior of overactive state legislatures in the decade following independence. Id.
\item See id. at 183-86. The Great Depression was probably the then most recent and most dramatic evidence of the point. Generally, though, the rapid industrialization of the United States had already undermined the assumption that commercial competition would inure to the benefit of society as a whole. See id. 63-64; TRIBE, supra note 3, § 8-6, at 578-81; McGinley, supra note 37, at 432-33.
\item 291 U.S. 502 (1934).
\item See id. at 505-07 (discussing the Milk Control Law).
\item See id. at 538-39.
\end{enumerate}
\end{footnotesize}
fections that "could not be expected to right themselves through the ordinary play of the forces of supply and demand, owing to the peculiar and uncontrollable factors affecting the industry." Consequently, states had the power to "curb unrestrained and harmful competition." Significantly, the Court recognized that, in some cases, competition could be harmful. The Court was no longer willing to give constitutional protection to free competition.

The Court formally abandoned _Lochner_ substantive due process in _West Coast Hotel v. Parrish_. _Parrish_ echoed Nebbia's recognition that free competition is not a cure-all and that the government may play a role in correcting market inefficiencies. In upholding a state minimum wage law, the Court explained that:

> There is an additional and compelling consideration which recent economic experience has brought into strong light. The exploitation of a class of workers who are in an unequal position with respect to bargaining power and are thus relatively defenseless against the denial of a living wage is not only detrimental to their health and well being but casts a direct burden for their support upon the community .... We may take judicial notice of the unparalleled demands for relief which arose during the recent period of depression ....

Although minimum wage laws are generally criticized as inefficient, the Court was addressing a larger point than the specific state law at issue. The Court drew on the recent experience of the Great Depression to recognize that economic competition, such as that protected by _Lochner_ in the predepression era, could produce harmful consequences for the national economy. Instead of worshipping at the alter of free competition,

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224. _Id._ at 518.
225. _Id._ at 537 (emphasis added). The Court explained that "unrestricted competition aggravated existing evils and the normal law of supply and demand was insufficient to correct maladjustments detrimental to the community." _Id._ at 530.
226. 300 U.S. 379 (1937).
227. _Id._ at 399.
228. _See_ POSNER, _supra_ note 24, at 361-63.
229. _See_ GILLMAN, _supra_ note 197, at 175-93; TRIBE, _supra_ note 3, § 8-6, at 578-
the Court recognized that proper economic policy was a controversial point that should be left to the political branches.\textsuperscript{230} \textit{Lochner} was thus no longer an appropriate rule.

After \textit{Lochner}, the Court's dormant Commerce Clause and substantive due process cases contained two complementary threads. On the one hand, the dormant Commerce Clause prohibited state regulation of interstate competition that harmed the national economy. On the other hand, the substantive due process cases of \textit{Nebbia} and \textit{Parrish} recognized that free competition will not necessarily lead to national prosperity. The logical synthesis of these two lines of cases should be that interstate competition will not necessarily produce national prosperity, and, by negative implication, state interference with interstate competition might, in some cases, promote national prosperity. As discussed above, the Court never embraced this synthesis.\textsuperscript{231} Instead, in cases like \textit{Dean Milk} and \textit{City of Philadelphia}, the Court proceeded on the assumption that state laws that restrict interstate competition necessarily harm the national economy by discriminating between in-state and out-of-state competitors.\textsuperscript{232} In \textit{Dean Milk}, the Court assumed that discrimination between in-state and out-of-state milk producers necessarily harmed the national economy; in \textit{City of Philadelphia}, the Court assumed that discrimination between in-state and out-of-state waste necessarily harmed the national economy. The Court's dormant Commerce Clause cases still embrace the economic assumption that its substantive due process cases rejected over fifty years ago—that free competition necessarily increases the welfare of the nation as a whole. Parts II and III use the Prisoner's Dilemma to explain that the Court should now abandon this assumption in its dormant Commerce Clause cases.

3. Enter the Prisoner's Dilemma

\textit{Dean Milk} and \textit{City of Philadelphia} illustrate that the Court's antidiscrimination dormant Commerce Clause test has embraced

\begin{flushleft}
\textsuperscript{81} McGinley, supra note 37, at 433.  \\
\textsuperscript{230} See \textit{Parrish}, 300 U.S. at 398-400.  \\
\textsuperscript{231} See supra notes 160-82 and accompanying text.  \\
\textsuperscript{232} See supra Part I.C.1.
\end{flushleft}
the neoclassical assumption that free competition among self-interested, rational economic actors will produce the optimal result for society.\textsuperscript{233} The neoclassical view, however, is not uncontroversial. In law, the Court’s repudiation of \textit{Lochner} economic substantive due process ended constitutional protection of the economic theory.\textsuperscript{234} In economics, game theory takes issue with the application of neoclassical economics to problems of strategic behavior.\textsuperscript{235} Neoclassical economics assumes that economic actors are oblivious to the choices of their competitors, and instead respond to the impersonal, aggregate market forces of supply and demand.\textsuperscript{236} Game theorists, however, rightly argue that in some situations people act strategically—they act in response to the actions of others and assume that others will do so too.\textsuperscript{237} Sometimes, such strategic behavior will lead rational, self-interested people to act inefficiently—to choose a less preferred course of conduct.\textsuperscript{238} The Prisoner’s Dilemma models one such situation.

We are now in a position to see the relevance of game theory to the Court’s dormant Commerce Clause cases. \textit{City of Philadelphia} and its progeny are based on neoclassical economic assumptions; game theory offers a different view of the world. The question is which view of the world best fits the position of states with respect to solid waste—neoclassical economics or game theory. In Part II, we turn to this question.

\textsuperscript{233} See Engel, supra note 23, at 297 ("According to [neoclassical economics,] competition among market participants leads to efficient outcomes for society as a whole"); see also Wallace E. Oates & Robert M. Schwab, \textit{Economic Competition Among Jurisdictions: Efficiency Enhancing or Distortion Inducing?}, 35 \textit{J. PUB. ECON.} 333, 342 (1988) (discussing environmental policy and taxes within the interjurisdictional competition context).

\textsuperscript{234} See supra notes 220-30 and accompanying text.

\textsuperscript{235} See \textit{SEIDENFELD}, supra note 25, at 85; Engel, supra note 23, at 299-300.

\textsuperscript{236} See Engel, supra note 23, at 311 (stating that neoclassical economics assumes that "no-single market participant can have enough market power to affect the price of a good"; "price is determined by the total market supply and demand curves and taken as a given by market participants"); supra notes 32-33 and accompanying text.

\textsuperscript{237} See BAIRD ET AL., supra note 25, at 1; RASMUSEN, supra note 25, at 9; \textit{SEIDENFELD}, supra note 25, at 85; Engel, supra note 23, at 299-300.

\textsuperscript{238} See Ayres, supra note 33, at 1315-16 ("Game theoretic analysis demonstrates rigorously that under at least certain assumptions markets can fail to promote social welfare."); Taney, supra note 33, at 346-47.
II. THE PRISONER'S DILEMMA

The Prisoner's Dilemma\(^{239}\) involves a collective action problem dealing with noncooperative\(^{240}\) strategic behavior. As noted at the outset of this Article, strategic behavior is the focus of game theory and refers to situations where people are aware that their actions affect the actions of others.\(^{241}\) For example, two large firms act strategically if they know that each will set their production and price levels in response to the decisions of their competitor.\(^{242}\) This type of strategic behavior usually is found among a small number of actors or where some actors in the market have disproportionate market power.\(^{243}\) In these cases, individual actors will be more likely to affect the decisions of others. In a large market with many competitors, however, strategic behavior is less likely to occur; price and production levels are set in response to impersonal market forces, not the specific choices of others.\(^{244}\)

A. The Prisoner's Dilemma Hypothetical

The Prisoner's Dilemma models strategic behavior in the following story. Two criminals are arrested; they have committed jointly the same serious crime. After their arrest, the criminals

\(^{239}\) The discussion of the Prisoner's Dilemma that follows draws on several sources. See Baird et al., supra note 25, at 33-34; Thomas C. Schelling, Micromotives and Macrobehavior 216-17 (1978); Seidenfeld, supra note 25, at 85-89; Stearns, supra note 44, at 117-19.

\(^{240}\) The behavior is noncooperative to the extent that individuals make decisions based solely on their rational self-interest; any apparent cooperation between individuals is the product of a rational fear that cooperation is better to one's self-interest than uncoordinated behavior. See Kreps, supra note 24, at 9.

\(^{241}\) See Baird et al., supra note 25, at 1 ("Strategic behavior arises when two or more individuals interact and each individual's decision turns on what the individual expects the others to do."); Rasmussen, supra note 25, at 9 ("Game theory is concerned with the actions of decision makers who are conscious that their actions affect each other.").

\(^{242}\) See supra notes 28-33 and accompanying text.

\(^{243}\) See Ayres, supra note 33, at 1317 ("Game theorists respond that the broad generalization of price theory is inappropriate when small numbers of players act strategically—that is, when the assumptions of price theory are violated."); Engel, supra note 23, at 314-15.

\(^{244}\) See Engel, supra note 23, at 299-300.
are placed in separate cells and are not allowed to communicate with one another. The district attorney assigned to the case has two choices in charging the criminals: (1) she can charge the criminals with the serious crime for which they were arrested, which entails a ten-year sentence, or (2) she can charge them with a lesser crime, which entails a two-year sentence. The district attorney knows that she cannot convict either criminal of the serious crime without a confession from the other. Without a confession, however, the district attorney could convict both criminals of the lesser crime. If both criminals confess, then the district attorney will prosecute, and convict, both criminals for the serious crime, but will ask the judge for a reduced sentence of six years for each criminal. If one criminal confesses but the other remains silent, then the district attorney will let the criminal who confessed go free and prosecute and convict the other criminal for the serious crime.

The district attorney explains the information in the preceding paragraph to each criminal. Each criminal realizes that her sentence will depend in part on the actions of the other criminal; the criminals are faced with a strategic behavior problem. Under the circumstances, the criminals each face three possible scenarios. First, if both criminals remain silent, then the district attorney will be able only to convict the criminals of the lesser crime, and each will receive two years in prison. Second, if one criminal confesses and the other remains silent, the criminal who confesses will receive no jail time, and the one who remains silent will receive ten years for the serious crime. Third, if both criminals confess, then both will receive the reduced sentence of six years for the serious crime. The chart in Table One summarizes the choices the two criminals face.

245. For purposes of the Prisoner's Dilemma, we assume that the district attorney is not lying to the criminals and the criminals know this.
**Table One**  
Prisoner's Dilemma for Criminals $A$ and $B$

*Scenario No. 1:* If both criminals remain silent, then each criminal will be convicted of the lesser crime and will receive two years in prison.

*Scenario No. 2:* If one criminal confesses and the other criminal remains silent, then the criminal who confesses will go free and the one who remains silent will be convicted of the more serious crime and receive ten years in prison.

*Scenario No. 3:* If both criminals confess, both criminals will be convicted of the more serious crime, but the district attorney will request a lesser punishment of six years for each criminal.

<table>
<thead>
<tr>
<th>Prisoner's Dilemma for Criminals $A$ and $B$</th>
<th>Criminal $A$ is Silent</th>
<th>Criminal $A$ Confesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Criminal $B$ is Silent</td>
<td>$A = 2$ years</td>
<td>$A = 0$ years</td>
</tr>
<tr>
<td></td>
<td>$B = 2$ years</td>
<td>$B = 10$ years</td>
</tr>
<tr>
<td>Criminal $B$ Confesses</td>
<td>$A = 10$ years</td>
<td>$A = 6$ years</td>
</tr>
<tr>
<td></td>
<td>$B = 0$ years</td>
<td>$B = 6$ years</td>
</tr>
</tbody>
</table>
Given the choices in Table One, the criminals must now decide whether to confess or to remain silent. To determine how the criminals will choose, we need to make certain assumptions about the preferences that the rational person would have under the circumstances. First, we assume that each criminal wants to minimize her jail time. Second, we assume that each criminal is indifferent to how much time the other criminal spends in jail. To the extent these assumptions do not hold, we will have weakened the ability of the Prisoner’s Dilemma model to predict how a person will behave.

We are now ready to predict how the criminals will act. Recall that the criminals cannot speak with one another and thus cannot agree to act in concert. Instead, they must act under a condition of uncertainty; they do not know how their counterpart will act. In this situation, each criminal will try to determine whether one of the two strategies—confess or remain silent—will make her better off regardless of what the other criminal chooses to do. If one strategy satisfies this criterion, then it is called, in the vernacular of game theory, the strictly dominant choice or strategy in that situation.

246. As a branch of economics, game theory assumes that all people are rational—that is, that all people wish to maximize their well-being. Admittedly, because game theory is best understood as a branch of economics, it shares with neoclassical economics several common assumptions. For instance, both assume that individuals are instrumentally rational and thus have ordered preferences over various desires. Additionally, both assume that the satisfaction of individual preferences yield “utility” and that individuals wish to maximize their utility. Engel, supra note 23, at 300; see BAIRD ET AL., supra note 25, at 11; KREPS, supra note 24, at 26. 247. See BAIRD ET AL., supra note 25, at 33. 248. See id. 249. See Ayres, supra note 33, at 1311-13. Of course, we can imagine situations where these assumptions do not hold. For example, if the criminals are family members, then they may not be indifferent about how each other is treated. Or, a person with deep moral or religious beliefs may feel that they deserve to suffer a punishment that fits any crime they commit. Such a person would not necessarily try to minimize their jail time. Each of these counterexamples rely on common human feelings that could override the assumptions in a particular case. See generally Sunstein, supra note 24 (discussing empirical research that suggests people do not always act rationally in an economic sense). Regardless of such counterexamples, economics starts with assumptions of rational behavior as the baseline for modeling interactions between self-interested agents. 250. See BAIRD ET AL., supra note 25, at 11-12. Dominance is not the only ap-
For our two criminals, the dominant strategy is to confess. We can see this by referring back to Table One and examining criminal A's choices. First, let's determine A's best strategy if B decides to remain silent. If B remains silent, A will receive two years in jail if she remains silent, but no jail time if she confesses; confessing is the better strategy if B remains silent. Now, let's determine A's best strategy if B confesses. If B confesses, A will receive ten years in jail if she remains silent, but only six years if she confesses; once again, confessing is the better strategy. Regardless of what B does, A's better strategy is to confess; confessing is the dominant strategy. B will do the same analysis and also conclude that confessing is her dominant strategy.

A and B, being rational people, will realize that confessing will minimize their jail time and will both confess, which will place them in the bottom right, bold quadrant of Table One. Although confessing may be the dominant strategy in the Prisoner's Dilemma, it is certainly not the best joint outcome for the criminals. If each knew how the other would act, then their best overall choice would be to both remain silent—the top left quadrant of Table One, where each criminal would receive only two years. This solution, however, is not possible because the criminals have imperfect information—each does not know

251. This outcome is known as the "sucker's payoff" because it is the best outcome for one of the players but the worst outcome for the other player. See Jenna Bednar & William N. Eskridge, Jr., Steady the Court's "Unsteady Path": A Theory of Judicial Enforcement of Federalism, 68 S. CAL. L. REV. 1447, 1471-72 (1995).

252. Both criminals will have the same dominant strategy because the Prisoner's Dilemma is a symmetric game—both players are aware of all elements of the game before deciding how to act. See RASMUSEN, supra note 25, at 45.

253. See BAIRD ET AL., supra note 25, at 34.
what choice the other will make. This uncertainty exists because the criminals cannot make an enforceable agreement and thus cannot bind each other to remain silent.

Even if the criminals' actions were not simultaneous, the criminals would still both confess. Assume A must act first, and B acts second knowing what choice A has made. A would realize that remaining silent would allow B to then confess and receive no jail time. A would then receive ten years, the sucker's payoff. A would thus confess and B, to avoid the sucker's payoff, would also confess. Even if the two criminals could tell each other how they intended to act—that is, whether they will confess or remain silent—they have no way to ensure that the other criminal will keep her word. After all, they are criminals. Under this uncertainty, the criminals will default to the dominant strategy: Both will confess.

B. The Prisoner's Dilemma, Game Theory, and Decision Making

The Prisoner's Dilemma is what is called a "normal form game" in the world of game theory. A normal form game has three elements that must be defined before the game can be solved: (1) the players; (2) the choices or strategies that the players can make; and (3) the payoffs for each combination of strategies. The Prisoner’s Dilemma has all three elements: (1) the players are the two criminals; (2) the players have two strategies, confess or remain silent; and (3) the payoff, or jail time, for each combination of strategies is listed in the four quadrants of Table One.

Another aspect of any game is the amount of information the players possess. Game theory measures two types of information: (1) the player’s knowledge of the elements of the game, and

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254. See id. at 9-10, 34.
255. See id. at 34.
256. See id. (noting that the criminal’s jointly preferred outcome is “possible only when the players can reach a binding agreement”); RASMUSEN, supra note 25, at 18 (“If promises are not binding, then although the two prisoners might agree to [remain silent], they would Confess anyway when the time came to choose actions.”).
257. BAIRD ET AL., supra note 25, at 6-8. This type of game is also known as a “strategic form game.” KREPS, supra note 24, at 10.
258. See BAIRD ET AL., supra note 25, at 8, 311; RASMUSEN, supra note 25, at 10.
(2) the player's knowledge of the other player's actions prior to choosing a strategy. With the first type of information, a player is said to have complete information if she knows all of the elements of the game and incomplete information if she does not know the elements. The Prisoner's Dilemma is a game with complete information because both criminals are aware of each other, their strategies (confess or remain silent), and the payoffs of the various strategies. With the second type of information, a player is said to have perfect information if she knows the other player's chosen strategy before acting and imperfect information if she does not know the chosen strategy before acting. In the Prisoner's Dilemma, as discussed in the preceding section, the criminals have imperfect information because neither can bind the other to choose one strategy or the other, and thus neither knows how the other will act before making her decision.

The Prisoner's Dilemma predicts how rational people will act in a normal form game under complete but imperfect information. The game shows that imperfect information will lead the criminals, acting in their individual self-interest, to a worse result than if they acted jointly under perfect information. With imperfect information, the criminals both confess, receiving six years each (lower right quadrant of Table One). Conversely, with perfect information, the criminals would both remain silent, receiving only two years each (upper left quadrant of Table One). Changing the information available in the game—for example, by allowing the criminals to make an enforceable agreement—enables the players to reach a better joint result. A normal form game like the Prisoner's Dilemma, then, allows us to

260. See id.
261. See id. at 312.
262. See id. at 10.
263. See id. at 312; see supra notes 253-55 and accompanying text.
264. See BAIRD ET AL., supra note 25, at 9-10, 33-34.
265. See id. at 34; RASMUSEN, supra note 25, at 18; Engel, supra note 23, at 301 ("In everyday parlance, the Prisoner's Dilemma is simply an abstract formulation of a common situation whereby what is best for each participant individually leads to an outcome that is socially suboptimal, whereas with mutual cooperation everyone would have been better off.").
test the optimality of alternate rules.\textsuperscript{266} We now turn to Part III and use the Prisoner's Dilemma to test the rule of \textit{City of Philadelphia v. New Jersey}.\textsuperscript{267}

\section*{III. \textit{CITY OF PHILADELPHIA, SOLID WASTE, AND THE PRISONER’S DILEMMA}}

In any normal form game, we need to define the elements and the rules of the game. The next two sections do so for a game based on state regulation of solid waste. The final section then solves the game, explaining that the rule in \textit{City of Philadelphia} forces states into a Prisoner's Dilemma and a suboptimal result.

\subsection*{A. Elements of the Game}

\textbf{1. The Players}

In the solid waste disposal context, the relevant actors are the states. Although private actors participate in the process, this Article focuses on the choices the states face under the dormant Commerce Clause in regulating solid waste disposal.\textsuperscript{268} Specifi-
cally, it is important to know how the states will act given the Supreme Court's decisions in the area. The relevant players are thus the states.

The question remains, however, how many actors we should include in the game. One obvious answer is fifty; after all, there are fifty states. Also, one could build other actors into the model, such as state regulatory agencies and even private interest groups. But, for the purposes of this Article, the two-player game of the Prisoner's Dilemma—with each player a single state—is sufficient to model the problem. The Prisoner's Dilemma, though not as complex as actual interstate interaction, will identify the primary incentives that work on the states and provide an initial test of the Supreme Court's decision in City of Philadelphia.269

2. The Strategies

The states have three basic strategies for addressing disposal of solid waste. First, a state could site a landfill and accept solid waste from all sources.270 Second, a state could refuse to site a landfill, keeping any solid waste from being disposed within its borders. Third, a state could site a landfill, but restrict or ban the importation of solid waste. Because the Court in City of Philadelphia prohibits the third strategy,271 the states will be

269. See JAMES A. BRANDER, ECONOMIC POLICY FORMATION IN A FEDERAL STATE: A GAME THEORETIC APPROACH, in INTERGOVERNMENTAL RELATIONS 48 (Richard Simeon ed., 1985) (stating that a Prisoner's Dilemma model of interstate action "does capture, in the purest possible setting, non-cooperative incentives faced by provincial governments. Real policy decisions certainly have an element of this rivalry, leading to outcomes that reduce national welfare."); Engel, supra note 23, at 302 ("the Prisoner's Dilemma model provides a simple, useful heuristic that captures the essence of incentives that might be faced by state actors engaged in interstate competition for mobile capital, and thus provides a useful starting place for understanding the more complicated real world interstate interactions."). On the use of assumptions in modeling, see Bone, supra note 266, at 525-27.

270. For a general discussion of landfill regulation, see Shortlidge & White, supra note 268.

271. The Court has also held unconstitutional the similar strategy of direct and indirect limitations on the amount of out-of-state waste disposed of in-state. See Chemical Waste Management v. Hunt, 504 U.S. 334 (1992) (invalidating an additional state tax levied on out-of-state waste to decrease the amount of such waste flow-
limited to the first two strategies—site or do not site.

Although alternative strategies other than the three listed above exist, they are either the functional equivalent of one of the above three strategies or are not legally permissible.\(^2\)

First, a state could site a landfill, but set dumping fees prohibitively high so as to effectively prevent out-of-state waste from being dumped in the state. This choice, however, is really equivalent to a refusal to site a landfill. If a state imposes a nondiscriminatory, prohibitive burden on all solid waste disposal, then in-state waste will be prevented from being disposed along with out-of-state waste. The same point has been made in briefing before the Supreme Court:

An equal fee high enough to provide any significant deterrent to the importation of hazardous waste for landfilling in the State would amount to an attempt by the State to avoid its responsibility to deal with its own problems, by tending to cause in-state waste to be exported for disposal.\(^2\)

And, one commentator has suggested that just such measures could be used to make a state a net waste exporter.\(^2\)

Second, a state could take over all solid waste disposal in the state and avail itself of what is called the market participant exception to the dormant Commerce Clause.\(^2\) In a line of cases starting in the mid-1970s, the Court has held that the dormant Commerce Clause does not apply to a state that merely participates in an existing market as if it were a private actor.\(^2\) If a
state could avail itself of this exception, then it could exclude out-of-state waste without fear of a dormant Commerce Clause challenge.\textsuperscript{277} The market participant doctrine could pose a possible strategy.

In the case that originated the market participant exception, a state enacted a program to remove scrapped cars that had been abandoned on the state's roadways.\textsuperscript{278} To achieve this goal, the state paid scrap processors a bounty for each scrapped car the processor received.\textsuperscript{279} The state, however, offered this bounty only to in-state processors.\textsuperscript{280} The Supreme Court upheld the statute against a dormant Commerce Clause challenge, holding that the state acted as a participant in the scrap business—just as a private purchaser of scrap would—and thus the program was not subject to the dormant Commerce Clause.\textsuperscript{281}

Although the market participant exception is well established in the Court's case law, it may not provide an option for states faced with a solid waste problem.\textsuperscript{282} Lower courts have split on the question whether a state can avoid the dormant Commerce Clause by taking over all waste disposal.\textsuperscript{283} Those cases focus on the central requirement of the exception, that a state must be acting like a private actor in that market to be considered a market participant.\textsuperscript{284} The cases generally hold that a state is a market participant when it operates a state-owned landfill site.\textsuperscript{285} In that situation, the state may discriminate between

\begin{itemize}
\item \textsuperscript{277} See Randall S. Abate & Mark E. Benett, \textit{Constitutional Limitations on Anti-Competitive State and Local Solid Waste Management Schemes: A New Frontier in Environmental Regulation}, 14 \textit{Yale J. on Reg.} 156, 188-92 (1997); Campbell, \textit{supra} note 275, at 181-96 (discussing North Carolina as an example, but warning that the Court has signaled the vulnerability of this strategy under the Commerce Clause).
\item \textsuperscript{278} See Hughes, 426 U.S. at 796-800.
\item \textsuperscript{279} See id. at 797.
\item \textsuperscript{280} See id. at 799.
\item \textsuperscript{281} See id. at 809-10.
\item \textsuperscript{282} The Court specifically left this issue open in \textit{City of Philadelphia v. New Jersey}, 437 U.S. 617, 627 n.6 (1978) ("We express no opinion about New Jersey's power, consistent with the Commerce Clause, to restrict to state residents access to state-owned resources . . . "). See Campbell, \textit{supra} note 275.
\item \textsuperscript{283} See Weinberg, \textit{supra} note 37, at 61-63.
\item \textsuperscript{284} See Reeves, Inc. v. Stake, 447 U.S. 429, 436 (1980) (focusing on the "basic distinction . . . between States as market participants and States as market regulators").
\item \textsuperscript{285} See Swin Resource Sys., Inc. v. Lycoming County, 883 F.2d 245, 250-51 (3d
in-state and out-of-state waste in setting the policies at its own facility. But merely operating a landfill is not enough for a state to protect itself from out-of-state waste. The state must also ban the disposal of out-of-state waste by private actors. In doing so, however, the state engages in conduct—lawmaking—that private firms do not have the power to engage in and, thus, is not acting as a market participant.286

The market participant exception does not pose an additional strategy. Although states can ban out-of-state waste from their own facilities, such action does not address private waste disposal within the state's borders. To prevent private disposal of out-of-state waste, the state must regulate the conduct of private actors in the market. Yet, regulation of private actors does not fall within the market participant exception. States, therefore, cannot use the market participant exception to ban or limit disposal of out-of-state waste.287

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286. See SSC Corp. v. Town of Smithtown, 66 F.3d 502, 512-13 (2d Cir. 1995); USA Recycling, Inc. v. Town of Babylon, 66 F.3d 1272, 1282-83 (2d Cir. 1995); Atlantic Coast Demolition and Recycling, Inc. v. Board of Chosen Freeholders, 48 F.3d 701, 717 (3d Cir. 1995) (asserting that a state's "market participation does not . . . confer upon it the right to use its regulatory power to control the actions of others in that market"); GSW, Inc. v. Long County, 999 F.2d 1508, 1510-16 (11th Cir. 1993) (determining that the market participant doctrine does not apply to government landfill owned by a private company); Washington State Bldg. & Constr. Trades v. Spellman, 684 F.2d 627, 631 (9th Cir. 1982) (declaring that government is not a market participant if it uses "civil and criminal penalties which only a state and not a mere proprietor can enforce"); Condon v. Andino, 961 F. Supp. 323, 328 (D. Me. 1997) (holding that a local government was not a market participant because "[n]o private actor could . . . impose a regulatory regimen" like the one enacted by the government); Waste Recycling, Inc. v. Southeast Ala. Solid Waste Disposal Auth., 814 F. Supp. 1566, 1571-77 (N.D. Ala. 1993).

287. Regardless of whether those arguments ultimately prove successful, and whether one agrees with their logic, states in districts or circuits refusing to apply the market participant exception do not have that option. And states in districts or circuits that do apply the market participant exception act with the risk that the Supreme Court will later find the doctrine unacceptable. Many states take the risk that their disposal of in-state waste will require them to accept waste from all sources.
Of course, the market participant exception poses a potential criticism of this Article—why not focus on expanding the market participant exception instead of overruling City of Philadelphia? This criticism would miss two central points. First, it assumes there is no significant difference between a public and private solution of a problem, a proposition that cannot be supported. Forcing states to take on solid waste disposal would raise all of the old arguments over the relative advantages of public versus private action, a debate that need not be settled to see that the two are not equivalents.288

Second, the criticism ignores that the dormant Commerce Clause—and the larger subject of federalism of which that doctrine is a part—is fundamentally about the power of states.289 Accepting City of Philadelphia and focusing solely on the market participant doctrine concedes significant restrictions on state power. For the state that wants to exclude out-of-state waste, City of Philadelphia removes the option of regulation of private behavior. As this Article argues, this significant limitation contradicts the underlying purpose of the dormant Commerce Clause. Arguing for the market participant exception would be a doctrinal band-aid that treats only the symptom; this Article seeks a cure for the underlying tension between City of Philadelphia and the federalism principles underlying the Commerce Clause.

A third alternative strategy, known as reciprocity laws, has been struck down by every court of appeals to consider them.290


289. See TRIBE, supra note 3, § 6-1, at 401 (noting that the Commerce Clause is one of the provisions that “centrally define the relationship of the states to one another and delineate the treatment that one state must accord the citizens of another”); Maltz, supra note 60, at 122 (“For most of American history, debates over the structure of American federalism have focused in substantial measure on the interpretation of the Commerce Clause.”).

290. See National Solid Waste Management Ass’n v. Meyer, 63 F.3d 652, 660-61 (7th Cir. 1995) (striking down a Wisconsin statute that excluded waste from states that did not have similar recycling statute to Wisconsin’s); Hazardous Waste Treatment Council v. South Carolina, 945 F.2d 781, 790-93 (4th Cir. 1991) (striking down
In these cases, states site a landfill, but exclude waste from states that do not allow disposal of out-of-state waste.\textsuperscript{291} Although the overwhelming judicial disapproval is enough to remove reciprocity laws as a strategy, they should be ignored for another reason: Such laws are the functional equivalent—for purposes of our Prisoner's Dilemma game—of an outright ban on out-of-state solid waste. Under these reciprocity statutes, a state will not have to accept out-of-state waste if other states agree to do so. Once other states site a landfill and agree to accept out-of-state waste, these states have addressed their solid waste problem and thus decreased the need to ship their waste out of state.

Fourth, Congress can provide an exit from the game in two ways. First, Congress could enact legislation\textsuperscript{292} that authorizes states to discriminate between in-state and out-of-state solid waste, effectively overruling City of Philadelphia.\textsuperscript{293} Congress

\textsuperscript{291} See discussion \textit{supra} note 290.

\textsuperscript{292} When I refer to Congress "making law" or "enacting legislation" in this context, it is used as a shorthand for the entire legislative process of bicameralism and presentment—whereby both houses of Congress must pass a bill and present it to the President—set forth in Article I. See U.S. CONST. art. I, § 7, cl. 2.

can do so because the Court has held that Congress has the power to authorize state conduct that would otherwise violate the dormant Commerce Clause.\textsuperscript{294} Second, Congress could impose a solution to the solid waste problem through federal legislation; under the Supremacy Clause, this federal legislation would preempt all state law in the area.\textsuperscript{295} To this date, Congress has done neither; and, although the states certainly may lobby Congress and the president, neither strategy is one that the states as players can unilaterally implement.\textsuperscript{296} Thus, for purposes of this game, assume that Congress has not acted, and that such action is not a strategy available to the states.

3. The Payoffs

The payoffs in a game represent the outcomes of different combinations of strategies. Again, two basic strategies—site a landfill or refuse to site a landfill—have been identified. In a two-player game, three combinations of strategies exist: (1) one state sites a landfill although the other does not; (2) both states site a landfill; and (3) neither state sites a landfill. For each combination, we must determine the payoff to each state. Consider each combination in turn.


295. See supra note 4. Of course, any federal law would have to comply with constitutional restrictions on Congress's power, including federalism limits. See New York v. United States, 505 U.S. 144, 166-69, 177 (1992) (determining that a federal law requiring states to either adopt the federal hazardous waste scheme or take title to all waste within state borders was an unconstitutional attempt to commandeer the state legislatures).

296. For example, according to a majority of the Supreme Court, federal representatives and senators represent the people of the nation as a whole, not solely the people of their state. See U.S. Term Limits, Inc. v. Thornton, 514 U.S. 779, 820-22 (1995).
First, assume that one state sites a landfill while the other state does not. In this situation, solid waste will likely flow from the state without a landfill to the state with a landfill.\footnote{See infra notes 313-15 and accompanying text.} So, the payoff of this strategy combination will be:

1. The state with the landfill disposes of both states' solid waste.
2. The state without a landfill will not dispose of any solid waste.

Second, assume that both states site a landfill. In this situation, both states will dispose of some solid waste. Each state might handle only its own waste, or each may handle a mix of in-state and out-of-state waste. The precise mix, if any, will be determined by other market forces.\footnote{For example, transportation costs may mean that it is cheaper for border communities to ship their waste across state lines instead of transporting the waste farther within the state. See Fitzgerald, supra note 37, at 43-44; McGinley, supra note 37, at 439. Also, the relative cost of land in each state will affect the cost of disposal. See Engel, supra note 37, at 1490-91. To the extent that disposal is cheaper in one state than another, some interstate movement of waste will be economically beneficial.}

Third, assume that neither state sites a landfill. Without sites for solid waste disposal, some solid waste will accumulate in an unsafe manner. One commentator has described a similar situation:

Presently, solid waste disposal capacity is so scarce that some cities are loading their waste on ships destined for the Caribbean, Africa, and South America. The Long Island "garbage barge" is the most noted incident, but Philadelphia shipped 13,500 tons of its waste (nearly five times the amount shipped by Long Island) to Panama, and the waste sought a home for more than seventeen months after Panama rejected the waste. Recent articles indicate undeveloped nations are threatening to shoot dumpers who illegally dispose of United States waste within their territorial borders. Even within the United States, states are so lacking in disposal capacity that cities ship their solid waste up to 850 miles just to use available disposal capacity. Such desperate acts would not occur if adequate disposal capacity existed.\footnote{Kovacs & Anderson, supra note 293, at 783; see also Engel, supra note 37,}
Most waste, though, ultimately finds a home somewhere. But, as states refuse to site new landfills, this waste increasingly is disposed of in ways that pose great risks to public health and safety:

"Experience suggests that when we make it impossible to dispose of waste materials in carefully regulated, state-of-the-art (albeit imperfect) facilities, they are often disposed of in far more environmentally unsound, often illegal, ways and settings, i.e., dumped in back lots; stored in unsafe warehouses or worse yet, above ground; pumped surreptitiously into lakes, rivers, streams and sewers; mixed with more conventional wastes and either incinerated or placed in landfills totally unsuited to the particular type of waste."  

If neither state sites a landfill, then the payoff will be that solid waste either accumulates or is disposed of in an illegal or unsafe manner.

Having identified the payoffs for each of the three strategy combinations, we next assess the relative utility that each state would receive from each outcome. To be able to do so, however, we must first know the states' preferences regarding solid waste—do they want more or less? Do they care about how much waste other states receive? The next section turns to these questions.

B. The States' Rational Preferences

The Prisoner's Dilemma relies on assumptions about a rational person's preferences. For example, that game assumes that a person would prefer less jail time to more and that a person would be indifferent to how much jail time her cocriminal received. Although these assumptions might not hold for all people, they are a rough mean that help to model behavior.

at 1491 ("[L]andfills will close either because they have reached capacity or because they are unable to meet more stringent environmental standards. Only a small percentage of the landfills that close will be replaced.") (citations omitted).


301. See supra notes 246-49.
Similarly, it is important to make assumptions about the states’ preferences regarding solid waste disposal. Three such assumptions will follow, the first two of which parallel the assumptions of the Prisoner’s Dilemma: (1) a state wants to minimize the amount of solid waste disposed within its borders; (2) a state is indifferent to the amount of solid waste that is disposed in another state; and (3) a state prefers to neglect its waste problem rather than address the problem and be forced to accept solid waste from all states.

As with the Prisoner’s Dilemma, assumptions regarding states’ preferences will be neither unexceptionable nor uncontroversial. That said, three justifications are offered for the selected assumptions. First, these assumptions have gone unchallenged before the Supreme Court. Second, the assumptions are supported by state experiences. Third, even if some states have different preferences, the model still has predictive power for interactions among the remaining states. Each justification is addressed in turn.

1. Supreme Court Acceptance

Both litigants before the Court and dissenting justices have made these assumptions in their arguments. The common theme has been that states should be free to take care of their own solid waste problem and should not be forced to address problems created by their neighbors’ refusal to address the solid waste problem.\(^{302}\) In each instance, the Court has not challenged the assumptions, but rather has stated that the assumptions are irrelevant to the dormant Commerce Clause analysis. As an example, consider *Chemical Waste Management, Inc. v. Hunt*.\(^{303}\)

*Hunt* involved an Alabama statute that imposed an additional

\(^{302}\) See Brief of Respondent St. Clair County at 42, *Fort Gratiot Sanitary Landfill, Inc. v. Michigan Dep’t of Natural Resources*, 504 U.S. 353 (1992) (No. 91-636) ("Other states with the solid waste problem must exercise the same responsibility that is being exercised by" states that choose to site landfills); Brief of Respondent Michigan Department of Natural Resources at 90, *Fort Gratiot Sanitary Landfill, Inc.* (No. 91-636) ("To the extent sufficient [landfill] capacity may not exist in other states, it is because of a lack of political will.").

disposal fee on out-of-state waste. Applying City of Philadelphia, the Court held that the additional fee violated the dormant Commerce Clause. Under City of Philadelphia, the discriminatory fee could be upheld only if out-of-state waste posed different disposal problems than in-state waste. Because there was "absolutely no evidence that waste generated outside Alabama is more dangerous than waste generated in Alabama," the Court invalidated the statute.

The State of Alabama, amici curiae, and the dissenting justice in Hunt all argued that states would refuse to site landfills rather than be forced to accept all out-of-state waste. Also, the states would do this even if it meant that the state's own waste problem might go unaddressed. First, consider the argument of the respondent, the State of Alabama:

Public awareness of the dangers associated with hazardous waste has made the permitting of new hazardous waste disposal facilities very difficult. A holding by this Court that any such facility which is permitted must be allowed to import and leave the local community burdened with such additional hazardous waste as the operator of the facility may choose would make the permitting of any new commercial hazardous waste landfill a political impossibility. . . . [N]o one is so foolish as to allow their local community or their State to become the toxic waste dump for the entire nation.

Alabama, however, was more than willing to address its own waste problem and a manageable portion of out-of-state waste. The state could only do so, however, if given the ability to protect itself from states without the political will or discipline to address their own waste.

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304. See id. at 336.
305. See id. at 346-48.
306. See id. at 340-41.
307. Id. at 344.
308. See id. at 348.
310. Prior to enacting the law challenged in Hunt, 90% of the waste disposed of in Alabama was from outside the state. See Hunt, 504 U.S. at 338.
311. See Engel, supra note 37, at 1492 ("[T]hose who block the siting of new
Clarification by this Court that States may permit the development of hazardous waste disposal facilities free of the fear that such development will result in the local community being drowned in an uncontrolled flood of imported waste will greatly facilitate, not impair, the development of adequate disposal capacity to manage the nation's waste.\(^{312}\)

The state, then, was making an argument entirely consistent with the dormant Commerce Clause first principles discussed in Part I—state discrimination against interstate commerce will, in this instance, improve the working of the national market, not hinder it. By prohibiting such discrimination, City of Philadelphia created a perverse incentive toward a national waste crisis.

In his dissent in Hunt, Chief Justice William Rehnquist raised the state's argument about the perverse incentives established by City of Philadelphia:

Under force of this Court's precedent,... it increasingly appears that the only avenue by which a State may avoid the importation of hazardous wastes is to ban such waste disposal altogether, regardless of the waste's source of origin. I see little logic in creating, and nothing in the Commerce Clause that requires us to create, such perverse regulatory incentives.\(^{313}\)

Once again, the point is that states will refuse to site landfills before they will open their borders to out-of-state waste.

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\(^{312}\) Brief of Respondents at 48, Hunt (No. 91-471) (emphasis added).

\(^{313}\) Hunt, 504 U.S. at 350 (Rehnquist, C.J., dissenting). Chief Justice Rehnquist made the same point in Fort Gratiot Sanitary Landfill, Inc. v. Michigan Department of Natural Resources, 504 U.S. 353, 373 (1992) (Rehnquist, C.J., dissenting), writing: The Court today penalizes the State of Michigan for what to all appearances are its good-faith efforts, in turn encouraging each State to ignore the waste problem in the hope that another will pick up the slack. The Court's approach fails to recognize that the latter option is one that is quite real and quite attractive for many States—and becomes even more so when the intermediate option of solving its own problems, but only its own problems, is eliminated.

\(^{Id.\) (Rehnquist, C.J., dissenting) (emphasis added).}
The Petitioner in Hunt, a private waste hauling firm, did not dispute the states’ claim that governments would refuse to site landfills instead of being forced to accept all out-of-state waste. Rather, the Petitioner argued that such facts were *irrelevant* to the dormant Commerce Clause analysis. If the states were concerned about such impending problems, then “Congress—not the Court—is the appropriate forum for such arguments.” The Court’s opinion in Hunt did no better, totally ignoring the arguments of the state and the dissent on the issue. Through its unflinching devotion to City of Philadelphia, the Court has blinded itself to arguments that strike at the core of that decision.

Even if one ultimately doubts the factual arguments regarding state incentives made by the litigants and the dissent in Hunt, these assumptions should be the starting point for criticism of the Court’s waste cases. The Supreme Court has consistently held *not* that these assumptions are incorrect, but rather that they are *irrelevant* to dormant Commerce Clause analysis. The first mission of this Article is to challenge the Supreme Court on its own terms and, in doing so, shift the focus of the debate. This Article argues for the relevance of the states’ preferences and their affect on the overall welfare of the national economy. Once that focus has shifted, the debate can begin on the factual bases for the assumptions. Also, as will be argued below, to the extent that the factual and logical bases for the assumptions are in dispute, the Court should follow Tracy and defer to the states on the issue.

314. See Reply Brief of Petitioner at 15, Hunt (No. 91-471).
315. Id. The waste company made this argument without any analysis of potential problems states might have in getting Congress to act on the issue. First, one would want to know what interest groups have formed around the issue and the relative incentives of these groups, based on the cost and benefits of such legislation. Second, one would want to know how many states would be interested in obtaining a solution that allows discrimination against out-of-state waste. The more populous states might want legislation that forces the less populous states with greater land area to accept out-of-state waste. Whatever the actual incentives, regional differences should come into play in creating such legislation.
2. State Experiences

State experiences confirm the arguments of the state and amici in *Hunt*—individual states do not want to become the nation's dumping ground. Consider two examples—South Dakota and Pennsylvania. For over a decade, South Dakota has been trying to site a solid waste landfill that will receive about ninety-five percent of its waste from outside the state. After that time, the proposal has been challenged before state administrative agencies, in state and federal court, and before the state legislature. After a prolonged battle at each level of government, the landfill seemed cleared for approval. Then the public spoke in the form of a referendum, which sought to withdraw approval for the landfill. Of course, the referendum landed the state back in court. In the last reported disposition of that case, the Sixth Circuit struck down the referendum under the dormant Commerce Clause, returning the battle to the state political arena. So, after a decade, the situation is close to where it was when the state began its attempt to site a landfill.

Ironically, Pennsylvania has experienced a backlash due in part to the Supreme Court victory of one of its municipalities in *City of Philadelphia v. New Jersey*. Pennsylvania learned that as landfills close, the creation of new landfills becomes politically unpalatable, in part because of the fear that the state will have to bear the unfair burden of waste from other states. One commentator has described the problem as follows:

Pennsylvania's Municipal Waste Planning, Recycling and Waste Reduction Act, the Solid Waste Management Act and the regulations promulgated pursuant to those laws encouraged a reduction in the volume of municipal waste generated within the Commonwealth. These Acts and regulations also encouraged a reduction in the amount of landfill space and processing capacity required for the disposal of waste gener-

316. See SDDS, Inc. v. South Dakota, 47 F.3d 263, 265-67 (8th Cir. 1995) (discussing the history of the state's effort to site a landfill).
317. See id.
318. See id.
319. See id. at 266.
320. See id.
321. See id. at 272.
ated within Pennsylvania. It became apparent, however, that those measures failed to address the problems created by an influx of waste generated outside of Pennsylvania. . . . Statistics compiled by DER indicated that there was a substantial increase in the rate of waste imports into the Commonwealth. Landfills in neighboring states were quickly reaching their capacity and were being closed, threatening the Commonwealth’s comprehensive efforts to preserve its natural resources. . . . Thus, as Pennsylvania began to effectively remedy the state’s own waste problems, the laws and policies of neighboring states encouraged the citizens of those states to dispose of municipal waste in other states, including Pennsylvania. 322

Again, the state makes two related points. First, the state is willing to aggressively attack the waste problem within its borders. The state does so with a two-pronged attack—siting landfills and decreasing the amount of in-state waste through aggressive conservation and recycling programs. In other words, the state takes responsibility for all aspects of its waste problem. Second, the state’s carefully planned strategy is thwarted because no matter how much the state tries to reduce in-state waste creation, City of Philadelphia allows irresponsible neighboring states to flood more responsible states with their refuse. The state has a simple goal—reduce the amount of waste disposed in the state. No matter how hard a state tries to reduce waste disposal by reducing waste creation, the goal cannot be achieved because regardless of how much progress the state makes in reducing waste creation, out-of-state waste will always flow into the state. In the end, many states and municipalities ask themselves, “Why even try?” 323

All of the above sources—state legislation, litigant’s briefs, and Supreme Court opinions—teach that two factors are at work. First, the public dislikes landfills and will mobilize political opposition against government attempts to site one. 324 Sec-

323. See Engel, supra note 37, at 1453-97.
324. Public protestors will fight the decision to site a landfill every step of the
ond, public dislike of landfills intensifies when citizens perceive they are being taken advantage of by neighboring states who neglect their waste problem. Most states are willing to address their waste problem by enacting a multipronged program that includes recycling and other waste reduction measures. These responsible states, however, resent that slothful states—with the blessing of the Supreme Court—can ignore their waste problem secure in the knowledge that neighboring states must accept their refuse. This, the public believes, is unfair. To avoid such unfair treatment, states would neglect their own waste problem rather than become their neighbors' dumping ground.

3. Nonconforming Preferences Do Not Change the Relevance of the Model

States that do not share the preferences listed above can very easily act based on their different preferences while still leaving other states in a Prisoner's Dilemma. To see this, assume that a state in fact wants to profit from the business of solid waste disposal and thus decides to invite other states to dispose of waste within its borders. Practical problems would keep some of the other states from exporting their waste to the importing state. For example, states face costs of transportation that might make exporting waste prohibitively expensive. Indeed, some states already are net waste importers—taking in large volumes of out-of-state waste—and yet the solid waste problem persists.
And the problem will get worse as existing landfills close and states refuse to site new landfills. The important point is that states with nonconforming preferences will not eliminate the Prisoners Dilemma for all states.

C. Relative Utility of the Payoffs

We can now assess the relative utility each state would place on each payoff. First, because a state prefers to minimize the amount of waste disposed of within its borders, a state will most prefer a payoff of disposing of no waste. Second, the desire to minimize waste means that a payoff where the state disposes of both states' waste will be a state's least preferred payoff. Third, a payoff where the state disposes of some share of the overall waste will fall somewhere between the first two payoffs. To summarize, we now have the following rank of payoffs, listed from most desired to least desired:

First, dispose of no waste.
Second, dispose of a mix of in-state and out-of-state waste.
Third, dispose of all waste.

Next, we must determine how the payoff "undisposed or unsafely disposed waste" fits within this rank ordering. Clearly, a state would prefer having no waste over having unsafe waste disposal. The prior discussion shows that states are willing to handle their fair share of the waste problem before they close off their borders to waste; so states will prefer disposing of some waste to unsafe waste disposal. The prior discussion also showed, however, that states would rather neglect the solid waste problem than be forced to dispose of a disproportionate share of out-of-state waste. So, unsafe disposal should fall between the second and third payoffs listed above. The final, revised rank ordering of payoffs, from most desired to least desired, is therefore:

(1) Dispose of no waste.
(2) Dispose of a mix of in-state and out-of-state waste.
(3) Waste is undisposed or unsafely disposed.
(4) Dispose of all waste.

328. See supra notes 297-325 and accompanying text.
329. See supra notes 297-325 and accompanying text.
These payoffs will be used to model the state's behavior under City of Philadelphia v. New Jersey.

D. The Players' Information

Next, we must determine whether the states have perfect or imperfect information, and whether they have complete or incomplete information. First, consider perfect versus imperfect information. Recall that in the Prisoner's Dilemma, the two criminals had imperfect information because neither knew how the other player would act before selecting her strategy. The criminals lacked this information because they were not able to bind one another to a specific strategy; they were each free to do as they pleased at the moment of decision. Similarly, states cannot unilaterally bind one another to a strategy; the Constitution requires congressional consent for any "agreement or compact" between states to be binding. Because a state must select a strategy without knowing how the other states will act, the players have imperfect information.

Second, consider complete versus incomplete information. Recall that the criminals in the Prisoner's Dilemma had complete information because they knew who the players were, what the strategies were, and what the payoffs were. The states are in the same position. First, each state knows who the other players are—the other states. Second, the states know their strategies. As discussed above, states have been experimenting with different solutions to the solid waste problem, routinely deciding whether to site a landfill. Similarly, states know that other states make these same decisions. Third, states

330. See supra notes 253-55 and accompanying text.
331. See supra note 255 and accompanying text.
333. See supra notes 260-61 and accompanying text.
334. See supra notes 37-39 and accompanying text.
335. See supra notes 302-25 and accompanying text. Indeed, states often criticize other states' failure to site a landfill to address their own solid waste problem.
realize the payoffs of the different strategy combinations. As discussed earlier, states know that if they site a landfill, *City of Philadelphia* means that the state will attract waste from around the nation.336 Further, states know that if they do not site a landfill, waste will be improperly or illegally disposed.337

In sum, the states are in an imperfect but complete information game, just as the criminals in the Prisoner’s Dilemma. Each state does not know the other states’ strategy before acting, but does know all the elements of the game, players, strategies, and payoffs. We are now ready to solve the states’ solid waste game.

E. Solving the States’ Solid Waste Game

It is time to solve the states’ solid waste game. Before doing so, recall our main objective: to test the efficiency of *City of Philadelphia’s* prohibition of discrimination against out-of-state waste. By solving the states’ solid waste game, we can determine whether the rational, self-interested actions of the states will lead to the best joint solution—the best solution for the overall national economy—or will leave the states in a Prisoner’s Dilemma.

Now, on to solving the game. Our two states are trying to decide what to do about their solid waste. Each state must decide whether to site a landfill; if a state chooses to site a landfill, then the state cannot discriminate between in-state and out-of-state sources. The states know that if both of them site a landfill, both states will handle a balanced mix of in-state and out-of-state waste. If neither state sites a landfill, the waste will either go undisposed or be disposed of in an illegal or unsafe manner. If one state sites a landfill and the other does not, then the state that sites the landfill will dispose of both states’ waste. Table Two summarizes these scenarios.

336. See supra notes 302-25 and accompanying text.
337. See supra notes 299-300 and accompanying text.
**TABLE TWO**  
Prisoner's Dilemma for States $A$ and $B$

*Scenario No. 1:* If both states refuse to site a landfill, solid waste either will go undisposed or will be disposed of in an illegal or unsafe manner.

*Scenario No. 2:* If State $A$ sites a landfill and State $B$ does not site a landfill, State $B$ will ship its waste to State $A$, and *City of Philadelphia* will force State $A$ to accept State $B$'s waste. The converse will be true if State $B$ is the only state to site a landfill.

*Scenario No. 3:* If both states site a landfill, both states will dispose of a mix of in-state and out-of-state waste.

<table>
<thead>
<tr>
<th>Prisoner’s Dilemma for States $A$ and $B$</th>
<th>State $A$ Sites a Landfill</th>
<th>State $A$ Does Not Site a Landfill</th>
</tr>
</thead>
<tbody>
<tr>
<td>State $B$ Sites a Landfill</td>
<td>$A = \text{Disposes of a mix of waste}$</td>
<td>$A = \text{Ships all its waste to State } B$</td>
</tr>
<tr>
<td></td>
<td>$B = \text{Disposes of a mix of waste}$</td>
<td>$B = \text{Disposes of all waste from } A \text{ and } B$</td>
</tr>
<tr>
<td>State $B$ Does Not Site a Landfill</td>
<td>$A = \text{Disposes of all waste from } A \text{ and } B$</td>
<td>$A = \text{No disposal or unsafe disposal}$</td>
</tr>
<tr>
<td></td>
<td>$B = \text{Ships all its waste to State } A$</td>
<td>$B = \text{No disposal or unsafe disposal}$</td>
</tr>
</tbody>
</table>
Next, it is important to determine whether each state has a strictly dominant strategy—a strategy that it prefers regardless of how the other state acts. To answer this question, recall the state preferences as discussed above:\footnote{338}

1. Dispose of no waste.
3. Waste goes undisposed or is unsafely disposed.
4. Dispose of all waste.

Now, consider whether State A has a dominant strategy if State B sites a landfill (the top row of Table Two). In that situation, State A will dispose of a mix of in-state and out-of-state waste if it sites a landfill, but will ship all of its waste to State B if it does not site a landfill. Under the states' preferences, State A would prefer to dispose of no waste in-state, which it could do by sending its waste to State B. State A will thus refuse to site a landfill.

Now consider whether State A has a dominant strategy if State B does not site a landfill (the bottom row of Table Two). In that situation, State A will dispose of both states' waste if it sites a landfill but will allow waste to go undisposed or unsafely disposed if it does not site a landfill.\footnote{339} Under the states' preferences, State A would prefer no disposal or unsafe disposal to disposing of both states' waste; State A will again refuse to site a landfill.

In sum, State A will refuse to site a landfill regardless of which strategy State B chooses; and State B will do the same regardless of which strategy State A chooses. Thus, under the City of Philadelphia regime, in which a state cannot discriminate against out-of-state waste, the states have a strictly dominant strategy: do not site a landfill, leaving solid waste undisposed or unsafely disposed. The states, however, could achieve a mutually superior solution if they both sited a landfill. In that case, each state would dispose of a balanced mix of waste, a preferable payoff to undisposed or unsafely disposed waste. Yet, the states' inability to bind one another to a strategy, imperfect information, forecloses this option, leading them to act in their own self-interest, which, in turn, leads them to the mutually inferior solution in the bottom

\footnote{338. See supra notes 328-29 and accompanying text.}

\footnote{339. Recall that this is the sucker's payoff, in which one player receives its best payoff and the other player receives its worst payoff. See supra note 251.}
right quadrant of Table Two. *City of Philadelphia* places the states in a Prisoner's Dilemma.

**IV. REEVALUATING THE COURT'S ANTIDISCRIMINATION TEST**

The discussion of the Prisoner's Dilemma in Part II concluded that the criminals could both achieve a better result—shorter sentences—if we changed the rules of the game to allow each criminal to bind the other to a course of action. Because both criminals would be better off, the new solution would not only provide individual benefits, but would be a joint improvement.  

Part III showed that states acting under the Supreme Court's decision in *City of Philadelphia* faced a Prisoner's Dilemma that forced each state to accept a less preferred outcome. The next question is whether changing the rule from *City of Philadelphia*—by allowing states to keep out the waste of another state—will allow states to achieve more preferable outcomes.

**A. The Post-*City of Philadelphia* Solid Waste Game**

If we assume that *City of Philadelphia* has been overruled, then we must go back and define the elements of our new game. The states' strategies, however, must be redefined. In addition to siting a landfill or not siting a landfill, states now have a third strategy: site a landfill, but restrict, or even ban, disposal of out-of-state waste. This third strategy must be built into the new, post-*City of Philadelphia* game. So each player now has three strategies—(1) site a landfill; (2) do not site a landfill; and (3) site

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340. In the terms of economists, allowing the criminals to bind one another would be "Pareto superior" to not allowing them to do so. A solution is Pareto superior when it makes at least one person better off without making any person worse off. *See Robert Cooter & Thomas Ulen, Law and Economics* 33-37 (2d ed. 1997); Guido Calabresi, *The Pointlessness of Pareto: Carrying Coase Further*, 100 YALE L.J. 1211, 1215-17 (1991).

341. The states' information remains the same—complete (both states know all players, strategies, and payoffs) but imperfect (neither state knows how the other state will act before acting). *See supra* notes 330-37 and accompanying text.

342. Recall that restrictions on the amount of out-of-state waste can be either direct (e.g., weight limits on out-of-state waste) or indirect (e.g., an additional fee on the disposal of out-of-state waste).
a landfill, but restrict or ban disposal of out-of-state waste.

The player's payoffs—the consequences that follow from different combinations of state strategies—will change because we have additional strategy combinations. We will still have the three payoffs from the City of Philadelphia game. First, if both states refuse to site a landfill, then waste will either go undisposed or be unsafely disposed. Second, if both states site a landfill, then each state will dispose of some mix of in-state and out-of-state waste. Third, if one state sites a landfill and the other does not, then the state that sites a landfill will dispose of both states' waste.

With the addition of the new strategy—site a landfill, but restrict disposal of out-of-state waste—we have three new strategy combinations to which we must assign payoffs:

1. One state sites a landfill with restrictions on out-of-state waste, and the other state sites a landfill with no restrictions.
2. One state sites a landfill with restrictions on out-of-state waste, and the other state refuses to site a landfill.
3. Both states site a landfill with restrictions on out-of-state waste.

Given the same assumptions about the states' rational preferences—that is, they wish to dispose of less waste themselves and they are indifferent to how much waste the other state disposes—\(^\text{343}\)—it is important to determine the payoffs for the three new strategy combinations.

First, consider the scenario in which one state sites a landfill with restrictions on out-of-state waste, and the other state sites a landfill with no restrictions. In this situation, each state will largely dispose of its own waste. Of course, as when both states sited a landfill in the prior game, if a state does not ban out-of-state waste, some waste will flow across state borders due to economic forces such as transportation costs and the relative cost of disposal.\(^\text{344}\) The payoff should be that each state will dispose of an acceptable mix of in-state and out-of-state waste.

Second, we have the scenario in which one state sites a landfill with restrictions on out-of-state waste, and the other state

\(^{343}\) See supra note 301 and accompanying text.

\(^{344}\) See supra note 298 and accompanying text.
refuses to site a landfill. In this case, the state that sites the landfill will be able to control precisely how much out-of-state waste it will accept. The state that refused to site, however, will have much of its waste either undisposed or unsafely disposed because the other state is no longer forced to accept all out-of-state waste.

Third, consider the scenario in which both states site a landfill with restrictions on out-of-state waste. In this situation, the states will again largely dispose of their own waste, accepting only the out-of-state waste that they choose. Each state will dispose of an acceptable mix of in-state and out-of-state waste.

Based on the players, strategies, and payoffs just discussed, Table Three depicts the post-City of Philadelphia game.
TABLE THREE
The Post-City of Philadelphia Game

Scenario No. 1: If both states refuse to site a landfill, then solid waste either will go undisposed or will be disposed of in an illegal or unsafe manner.

Scenario No. 2: If State $A$ sites a landfill without restrictions on out-of-state waste and State $B$ does not site a landfill, then State $A$ will dispose of both states' waste. The converse would be true if State $B$ is the only state to site a landfill without restrictions.

Scenario No. 3: If both states site a landfill, then both states will dispose of a mix of in-state and out-of-state waste.

Scenario No. 4: If State $A$ sites a landfill with restrictions on disposal of out-of-state waste and State $B$ sites a landfill with no restrictions, then both states will dispose of a mix of in-state and out-of-state waste.

Scenario No. 5: If State $A$ sites a landfill with restrictions on out-of-state waste and State $B$ refuses to site a landfill, then State $A$ will dispose of a mix of in-state and out-of-state waste and State $B$ will have waste that either goes undisposed or is disposed in an illegal or unsafe manner.

Scenario No. 6: If both states site a landfill with restrictions on out-of-state waste, then both states will dispose of a mix of in-state and out-of-state waste.

<table>
<thead>
<tr>
<th>State $B$ Sites a Landfill</th>
<th>State $A$ Sites a Landfill with Restrictions on Out-of-State Waste</th>
<th>State $A$ Does Not Site a Landfill</th>
</tr>
</thead>
<tbody>
<tr>
<td>$A = $ Disposes of a mix of waste $B = $ Disposes of a mix of waste</td>
<td>$A = $ Disposes of a mix of waste $B = $ Disposes of a mix of waste</td>
<td>$A = $ Ships its waste to State $B$ $B = $ Disposes of all waste from $A$ and $B$</td>
</tr>
<tr>
<td>State $B$ Sites a Landfill with Restrictions on Out-of-State Waste</td>
<td>$A = $ Disposes of a mix of waste $B = $ Disposes of a mix of waste</td>
<td>$A = $ Disposes of a mix of waste $B = $ Disposes of a mix of waste</td>
</tr>
<tr>
<td>State $B$ Does Not Site a Landfill</td>
<td>$A = $ Disposes of all waste from $A$ and $B$ $B = $ Ships its waste to State $A$</td>
<td>$A = $ Disposes of a mix of waste $B = $ No disposal or unsafe disposal</td>
</tr>
</tbody>
</table>
Once again, it is important to ask whether the states have a strictly dominant strategy—a strategy that will make each state better off regardless of the strategy the other state chooses. To answer this question, we must define the states' rational preferences; the preferences should remain the same as before:

1. Dispose of no waste.
3. Waste goes undisposed or is unsafely disposed.
4. Dispose of all waste.

Table Three shows that the states do not have a strictly dominant strategy. None of the three strategies dominates the others. To see this point, for each strategy that State A can choose, determine whether either of the other two strategies make State A better off regardless of what strategy State B chooses. For example, consider State A’s strategy of siting a landfill (first column in Table Three). We must ask whether siting a landfill is State A’s best choice regardless of what State B does. To do this, first look at the upper left quadrant of Table Three where States A and B both site a landfill. In that quadrant, both states dispose of a mix of in-state and out-of-state waste. Now, look to see if State A would be better off selecting another strategy given State B’s decision to site a landfill. The answer is “yes”; if State B sites a landfill, then State A would be better off not siting a landfill because that combination of strategies results in State A disposing of no waste. So, the strategy of siting a landfill is not dominant for State A. Doing the same analysis for State A’s other two strategies, siting a landfill with restrictions (second column in Table Three), and not siting a landfill (third column in Table Three) shows that neither of those two strategies is dominant.345

Having concluded that no strategy is dominant, we must use another method of game theory to predict how the states will act.

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345. To see this, examine each strategy on Table Three. First, determine whether the strategy to site a landfill with restrictions (second column) is dominant. The strategy is not dominant because State A is better off not siting a landfill if State B decides to site a landfill. Second, determine whether the strategy to not site a landfill (third column) is dominant. That strategy is not dominant because State A would be better off siting a landfill, with or without restrictions, if State B sites a landfill with restrictions, where State A will dispose of a mix of in-state and out-of-state waste.
The solution concept most often used when no strategy is dominant is what game theorists call the "Nash Equilibrium." A combination of strategies constitute a Nash Equilibrium if neither player can do better by choosing another strategy. There is no easy way to determine the Nash Equilibrium. Each box of Table Three must be analyzed and one must ask whether either state could improve its payoff by selecting another strategy given the strategy of the other state. If one state can improve, then the square is not a Nash Equilibrium; if neither state can improve, then the square is a Nash Equilibrium. It is possible that a game will have more than one Nash Equilibrium.

To see how the Nash Equilibrium solution concept works, consider the top, left square of Table Three. We must ask whether either state can improve its payoff by choosing another strategy. First, consider State A. In the top, left box, State A's payoff is "dispose of a mix of waste." Holding State B's strategy constant (State B sites a landfill), can State A improve its payoff by choosing another strategy? Consider the two remaining strategies. State A will not improve by siting a landfill with restrictions (top, center square) because State A will still dispose of a mix of waste. State A will improve, however, by refusing to site a landfill (top, right square) because State A will not have to dispose of any waste (the states' most preferred payoff). Because State A can improve its payoff by selecting another strategy, the top, left square is not a Nash Equilibrium.

Repeating the same process for the remaining eight squares of Table Three shows that there is only one Nash Equilibrium—the center square where each state sites a landfill with restrictions. In that square, neither state can improve its payoff given the strategy of the other state. The game has a single Nash Equilibrium that game theory predicts the states will choose. The solution of

346. See supra note 250.
347. See supra note 250.
348. Consider the position of State A in that square. In the center square, State A will dispose of a mix of waste. Given that State B will site a landfill with restrictions, State A cannot improve on this payoff—State A will either (1) dispose of a mix of waste if it sites a landfill without restrictions or (2) have undisposed or unsafely disposed waste if it refuses to site a landfill. Neither of these payoffs improves on the payoff in the center square. The same result follows for State B.
the post-City of Philadelphia solid waste game is that both states will site a landfill with restrictions on the disposal of out-of-state waste, leading each state to dispose of a mix of in-state and out-of-state waste.

We are now in a position to assess whether overruling City of Philadelphia will improve the national welfare. To do so, we must compare the solutions to the City of Philadelphia game, discussed in Part III, and the post-City of Philadelphia game, discussed in this Part IV. The solution of the post-City of Philadelphia game is for both states to site a landfill with restrictions on out-of-state waste (the shaded, center box in Table Three), which will lead both states to dispose of some mix of in-state and out-of-state waste. The question is whether this outcome is preferable to the solution of the City of Philadelphia game, in which both states refuse to site a landfill (bottom right quadrant of Table Two), and both states face undisposed or unsafely disposed waste. We turn to that question in the next section.

B. Return to Dormant Commerce Clause First Principles

The Prisoner's Dilemma shows how City of Philadelphia violates dormant Commerce Clause first principles. Recall the first principles discussed earlier. The antidiscrimination test of the dormant Commerce Clause was intended to promote the welfare of the national economy. Under this purpose, states offend the Commerce Clause when they restrict interstate competition to the detriment of the national economy. Baldwin and Hood showed states discriminating against out-of-state competitors to the detriment of the national economy. Baldwin and Hood showed states discriminating against out-of-state competitors to the detriment of the national economy, in direct conflict with dormant Commerce Clause first principles.

349. See supra Part I.B.1.

350. See supra Part I.B.1. Of course, free competition in the marketplace does not mean the absence of any government regulation. Indeed, one important legacy of the New Deal era has been the recognition that there is no marketplace free from all government regulation. See MARK V. TUSHNET & LOUIS MICHAEL SEIDMAN, REMNANTS OF BELIEF 66-68 (1996). Recall that this was the fatal sin of Lochner v. New York, 198 U.S. 45 (1905), in which the Supreme Court held unconstitutional a state law that regulated the working hours of bakers. The same can be said for the interstate market involved in the dormant Commerce Clause cases. This market surely is regulated by many state and federal laws. Under the dormant Commerce Clause,
In the solid waste disposal context, the remaining question is whether state discrimination against out-of-state waste, as modeled in the post-\textit{City of Philadelphia} game, reduces national welfare compared to a legal regime that prohibits such discrimination, as modeled in the \textit{City of Philadelphia} game. To answer this question, we must compare the solution to each game. In the post-\textit{City of Philadelphia} game—allowing discrimination—both states will site a landfill, with a payoff that both states will dispose of a mix of in-state and out-of-state waste. In the \textit{City of Philadelphia} game—prohibiting discrimination—neither state will site a landfill, with a payoff that waste will either go undisposed or be illegally or unsafely disposed. The next question is which payoff makes the nation better off.

As discussed earlier, if both states refuse to site a landfill, three main things could happen to the waste generated by the states.\(^{351}\) First, the waste could be unsafely disposed, as waste accumulates in storage facilities ill-suited to the task of solid waste disposal. Second, waste could be disposed of illegally, again in a manner ill-suited to safe solid waste disposal. Third, the waste could be shipped to another jurisdiction—such as a foreign country or a distant state—for disposal. In the first two cases, the safety hazards posed by those actions decrease the welfare of the national economy. In the third case, the states’ artificial restriction on the supply of landfill space will harm the national economy. Each effect is discussed in turn.

Solid waste disposal poses many risks to public health and safety.\(^{352}\) For example, solid waste contains chemicals that can contaminate groundwater used for drinking, bathing, and agriculture.\(^{353}\) Also, improperly disposed waste can result in air pollution and can ruin the soil of neighboring property. For these reasons, states that site landfills regulate carefully the construction

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\(^{351}\) See supra notes 299-300 and accompanying text.

\(^{352}\) See \textit{Engel}, supra note 37, at 1487-89 (“Despite its innocuous label, municipal solid waste often contains toxic materials.”).

\(^{353}\) See id. at 1488 (“Groundwater contamination from toxic ‘leachate,’ the rainwater that seeps through landfills, presents the primary environmental threat from solid waste landfills.”) (citation omitted).
and maintenance of those sites. States require that solid waste landfills be constructed and maintained so as to minimize the threat to public health and safety.

Constructing and operating a safe landfill is not cheap. The cost of such a project is passed on to those who generate the waste by means of waste disposal fees and other similar charges. These fees are part of a beneficial economic process known as *internalizing* costs. To the economist, costs are internalized when the party engaging in an activity bears all the costs of that activity. If the party engaging in the activity does not bear all the costs of the activity, but instead imposes those costs on parties external to the activity, then the costs not borne are referred to as *externalities*. Externalities do not disappear; they are borne by other members of society.

As an example of internalized costs and externalities, consider a firm that produces widgets. As a by-product of the widget-making process, the firm produces several tons of solid waste in a given time period. Disposal of the waste as well as any harm that the waste could cause, such as groundwater or soil contamination, are costs of the widget-making process. If groundwater or soil is contaminated, either someone will have to clean them up, which costs money, or they will remain unusable, the resources will have lost their value. The cleanup cost or lost value are both properly allocated as costs of the widget-making process. If the firm pays for any harm done by the waste, then the firm has *internalized* that cost of the widget-making process. If, however, the firm dumps the waste illegally or allows it to accumulate unsafely, then the firm may avoid these costs, forcing society to bear them. In that case, the firm has *externalized* that cost from the widget-making process. Put another way, the cost of the firm's solid waste

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354. *See id.* at 1490-91.
355. *See id.*
357. *See R. H. Coase,* *The Firm, The Market,* and *The Law* 24 (1988) (defining an externality as "the effect of one person's decision on someone who is not a party to that decision"); *Cooter & Ulen, supra* note 340, at 139-40; *Seidenfeld, supra* note 25, at 63. Economists also apply the same concept to the benefits generated by an activity.
358. This example is taken in part from *Seidenfeld, supra* note 25, at 63-64.
is an externality borne by society.

When a state sites a landfill and regulates solid waste disposal, the state provides a mechanism for internalizing the costs of activities that generate solid waste.\textsuperscript{360} By providing a relatively safe disposal alternative, regulated landfills minimize costs for society by reducing the risk of water or soil contamination. The cost of the landfill itself is passed along to the firm that generated the waste through fees charged for waste disposal. Thus, by siting a landfill, a state helps to internalize the cost of solid waste, thereby reducing externalities. Conversely, if a state refuses to site a landfill, then solid waste will be dumped illegally or unsafely, externalizing that cost.

Reducing externalities will enhance the welfare of the national economy. To understand this point, one must know why it is important for an activity to bear all of its costs. Economics is concerned generally with the efficient allocation of scarce resources. Ideally, the market allocates resources based on the prevailing supply and demand for the good.\textsuperscript{361} The supply that a producer will offer will depend, in large part, on the producer's cost of producing the good. The lower the cost, the more that the producer will offer at any given price, and vice versa. If a cost such as solid waste disposal is not borne by the producer, then the producer's costs will be lower.\textsuperscript{362} With lower costs, the producer will offer more of the good at any given price than if the cost was internalized. Externalities, therefore, cause greater production of goods than the market would otherwise dictate.\textsuperscript{363}

In sum, externalities pose two main problems. First, they cause an inefficient allocation of scarce resources, causing overproduction of some goods. Second, they impose costs on other actors who must bear those costs as a deadweight loss. Both of these negative consequences would flow from a regime in which

\begin{itemize}
  \item \textsuperscript{360} Tort liability for harm caused by waste would be another method of internalizing costs. That option, however, suffers from high transaction costs, costs of litigation, that could offset any gains from internalizing costs of pollution.
  \item \textsuperscript{361} For an excellent, eminently readable explanation of this point, see SEIDENFELD, supra note 25, at 23-34.
  \item \textsuperscript{362} See SULLIVAN & HARRISON, supra note 29, at 10-25.
  \item \textsuperscript{363} See COOTER & ULEN, supra note 340, at 39; SEIDENFELD, supra note 25, at 64.
\end{itemize}
states refused to site a landfill. In that case, solid waste would be illegally or unsafely disposed, which would externalize the cost of solid waste. With solid waste as an externality, activities in society would no longer reflect their true costs, which would lead to a misallocation of resources. Society would be better off if the state sited a landfill, providing a mechanism for internalizing the costs of solid waste.

In addition to creating externalities, a state's refusal to site a landfill could increase the cost of solid waste disposal in two other ways. First, recall that not all waste will be illegally or unsafely disposed. Rather, some waste will seek out distant disposal sites. Forcing waste to travel long distances will force those disposing of waste to bear additional transportation costs for the waste.364

Second, a state's refusal to site a landfill will also harm the national economy by artificially restricting the supply of landfill space, thereby increasing the cost of disposing at existing landfills. The cost of disposing in a landfill will reflect, in part, the supply of landfill space and the demand for that space. If the supply of landfill space decreases while demand stays constant or increases, then an increase in the price of waste disposal at existing landfill sites should occur. By artificially restricting the supply of landfill space—by refusing to site landfills—the two states have caused the market to set a higher price for waste disposal than would occur if entry into the landfill market was less restricted. If, however, each state sited a landfill, then there would be increased competition among landfills, corresponding to the increase in the supply of landfill space, and the waste disposal process would be more efficient. Once again, the states' refusal to site a landfill has reduced the efficiency of solid waste disposal, thereby reducing the welfare of society.

In sum, the welfare of the national economy is better served if states site a landfill than if states refuse to site a landfill. Refusing to site a landfill leads to inefficient behavior, due to externalized costs, increased transportation costs, and an artificial reduction of landfill space. City of Philadelphia—which prohibits discrimination against out-of-state waste—forces states

364. See supra note 298.
into a Prisoner's Dilemma in which they refuse to site a landfill. Allowing discrimination, by overruling City of Philadelphia, however, will lead the states to site a landfill which, in turn, will enhance the welfare of society.

Now, we can assess the assumption underlying the Court's dormant Commerce Clause antidiscrimination test: that discrimination between in-state and out-of-state competitors necessarily harms the national economy. As discussed earlier, the Court's assumption is based on the neoclassical economic view that free competition among rational, self-interested actors necessarily enhances the welfare of society. Conversely, game theory posits that the neoclassical view of economics will break down—indeed, may decrease the welfare of society—when people or entities act strategically. In the Prisoner's Dilemma, the criminals' rational self-interest led them both to confess, even though that strategy combination yielded a worse joint outcome—each criminal receives a six-year sentence—than if both criminals remained silent, in which case each criminal would receive a two-year sentence.

Similarly, as Part III of this paper showed, City of Philadelphia forces states into a Prisoner's Dilemma with respect to solid waste disposal. In their Prisoner's Dilemma, both states will refuse to site a landfill, even though that strategy yielded a worse joint outcome. Solid waste will be either undisposed or unsafely disposed, but if both states had sited a landfill, each state would address a portion of the solid waste problem. Game theory shows that City of Philadelphia—and its neoclassical view of economics—forces states into a Prisoner's Dilemma in which each state's pursuit of its rational self-interest leads to a less preferred outcome for the nation.

365. See supra notes 23, 233 and accompanying text.
366. See supra Part III.
367. As other commentators have suggested, a federal solution would be the most preferable solution to the states' situation. See Engel, supra note 37, at 1551-60. On the general topic of the comparative desirability of state versus federal regulation, see Paul E. Peterson, The Price of Federalism (1995); David L. Shapiro, Federalism: A Dialogue (1995); Susan Rose-Ackerman, Cooperative Federalism and Co-optation, 92 Yale L.J. 1344 (1983); Susan Rose-Ackerman, Does Federalism Matter?: Political Choice in a Federal Republic, 89 J. Pol. Econ. 152 (1981); Susan Rose-Ackerman, Risk Taking and Reflection: Does Federalism Promote Innovation?, 9 J.
In sum, the Court's prevailing dormant Commerce Clause antidiscrimination test takes the neoclassical economic view, assuming states do not act strategically. Parts II and III, however, show that states will act strategically in some cases, undermining the Court's neoclassical economic assumption. Consequently, interstate competition will not always maximize national welfare; discrimination against out-of-state competition may do so in some cases. The next section incorporates these points into a new dormant Commerce Clause antidiscrimination test.

C. A Reconstructed Dormant Commerce Clause Antidiscrimination Analysis

The preceding parts of this Article have been critical, exposing the flawed economic assumption that underlies the Court's dormant Commerce Clause antidiscrimination cases. This section turns to a constructive task, suggesting how the antidiscrimination test can be reconstructed around the lessons from game theory.

1. Return to First Principles

Reconstruction of the Court's antidiscrimination test should begin at its foundation. With the dormant Commerce Clause, the foundation consists of the two first principles discussed in Part I. First, as the Court has recognized continuously, the dormant Commerce Clause focuses on state interference with interstate competition. For the antidiscrimination test, this means state discrimination between in-state and out-of-state competitors. This first principle is alive and well in the Court's case law. Up through last term, in cases like Arctic Maid and Tracy, the Court has asked whether in-state and out-of-state commerce are in competition. In reconstructing the antidiscrimination test, this aspect of the Court's practice should remain.

Second, the dormant Commerce Clause is concerned with state regulation that harms the welfare of the national economy.

LEGAL STUD. 593 (1980).

368. See supra Part I.B.1.
The Court has neglected this principle since its decision at mid-century in *Dean Milk*. In *Dean Milk*, the Court upheld a city ordinance that discriminated between in-state and out-of-state milk because the law interfered with interstate competition.\(^{369}\) The Court never asked whether the state law harmed the national economy. The Court continued to neglect the harm principle in *City of Philadelphia*. In that case, the Court struck down a discriminatory state law without asking whether the law harmed the national economy.\(^{370}\) In these two cases, the Court assumed that state interference with interstate competition necessarily harmed the national economy, adopting a neoclassical economic perspective.

Game theory exposes the flaw in the Court's neoclassical economic perspective: In some cases, states will act strategically, and unfettered competition will lead to a less preferred outcome on the national level. When states act strategically, the neoclassical preference for free competition is no longer valid. Instead, one must analyze what outcomes strategic behavior will yield under different legal rules. Parts III and IV showed that, in the waste disposal context, the national economy is better off if states are allowed to discriminate between in-state and out-of-state waste; free competition does not yield the best national result.

To reconstruct the antidiscrimination test and remain faithful to the first principle of avoiding harm to the national economy, the Court's flawed economic assumption must be discarded. The Court should no longer assume that all discrimination between in-state and out-of-state competitors harms the national economy. Instead, the Court must determine specifically whether such harm exists. After deciding that a state law discriminates between in-state and out-of-state competitors, the Court should *ask whether that discrimination makes the national economy worse off than prohibiting discrimination*.

Determining whether discrimination makes the national economy worse off will likely focus on a further question—does the case present a strategic behavior situation? Recall that neoclas-
sical economics is generally valid when strategic behavior is not present. In such cases, the Court can properly apply its neoclassical economic assumption that state discrimination between in-state and out-of-state competitors necessarily makes the nation worse off. If, however, strategic behavior is present, then the Court should not default to its neoclassical assumption.

2. Deference to State Law: Institutional Competence and Federalism

The question of strategic behavior will not be an easy one. In many cases, including the solid waste disposal situation, parties will likely dispute the facts as well as the proper characterization of the facts. Parties will undoubtedly argue about whether the states—or any other actors in the case—act strategically in the segment of commerce subject to the state regulation. In such cases, the Court should return to the principle of deference articulated in Tracy.

In Tracy, recall that the Court had to determine whether in-state and out-of-state natural gas suppliers competed with one another. After reviewing the record and the arguments of the parties, the Court determined that it lacked both sufficient facts and expertise in economics to answer the question. After all, the Court is not a fact-gathering body; that is a legislative function. Also, the Court does not exercise expert judgment on nonlegal questions; this is more of a legislative or executive (through administrative agencies) function. For these reasons, based on relative institutional competence, the Court did not resolve reasonably contested factual or economic contentions.

371. One author has suggested that states will necessarily act strategically because there are a few, easily identified actors who can monitor one another’s behavior. See Engel, supra note 23. If that is the case, then the Court should wholly abandon neoclassical economic premises and turn instead to game theory.

372. See General Motors Corp. v. Tracy, 117 S. Ct. 811, 824 (1997); supra notes 132-57 and accompanying text.

373. See Tracy, 117 S. Ct. at 828-29.

374. See supra notes 151-57 and accompanying text. Professor Lawrence Lessig's translation theory of constitutional interpretation urges a similar form of deference. See Lawrence Lessig, Fidelity and Constraint, 65 FORDHAM L. REV. 1365, 1400-12 (1997); Lawrence Lessig, Understanding Changed Readings: Fidelity and Theory, 47 STAN. L. REV. 395 (1995). Deference is part of what Professor Lessig calls the Erie-
Instead, the Court deferred to the states and upheld the state law.\textsuperscript{375} Tracy deference should also apply to the question of whether
deference, typified by the classic Supreme Court case \textit{Erie R.R. v. Tompkins}, 304 U.S. 64 (1938). \textit{Erie} addressed the issue of whether federal courts in diversity cases should apply state common law or federal common law. About a century before, in \textit{Swift v. Tyson}, 41 U.S. (16 Pet.) 1 (1842), the Court had held that general federal common law must govern. As Professor Lessig explains, \textit{Swift} was based on the then-prevailing view that judges find the common law, but do not make it. See Lessig, \textit{Fidelity and Constraint}, supra, at 1400-02. Common law rules were \textit{external} to the judge—something to be found—and were not affected by the judge's personal preferences, biases, or beliefs. See id. at 1403. This view of law made some sense in the context of commercial cases, such as \textit{Swift}, where the common law consisted of customary business practices that formed default rules against which parties could contract. See id. at 1402. \textit{Swift}, however, was not limited to this narrow context; it was later applied to all diversity actions. See id. at 1403. Over time, under the harsh criticism of the legal realists and others, \textit{Swift}'s assumption that judges merely find the common law was openly contested by those who believed that common lawmaking required a substantial exercise of discretion. See id. at 1406-08. In other words, credible arguments were voiced that common law rules were not \textit{external} from the judges, but rather were the product of judges' unguided judgment. See id. at 1408 ("Whatever the view before, \textit{today} the law is not conceived except as the expression of a political will.").

When \textit{Swift}'s view of the law became openly contested, the Court was attacked for illegitimately making law for the states. As long as common law rules were viewed as \textit{external} to federal judges, those judges were merely finding preexisting common law principles that existed independent of who ultimately applied them, state or federal judges. See id. at 1407-08. Once that view of law was openly contested, however, federal judges could be criticized as imposing their political will on the states under the guise of a general federal common law. See id. To avoid this criticism, the Court in \textit{Erie} returned common lawmaking power to the state courts, holding that federal courts must apply state common law in diversity cases. See id. at 1409-11. When a background assumption of \textit{Swift} became openly contested, the Court reallocated the decision making authority to resolve criticisms created by the now-contested assumption. The Court effectively deferred to another decision maker; this deference is part of the \textit{Erie-effect}.

The \textit{Erie-effect} bolsters this Article's critique of the Court's current dormant Commerce Clause anti-discrimination test. Recall that the Court's antidiscrimination test rests on the assumption that state discrimination between in-state and out-of-state competitors necessarily reduces national welfare. On the strength of that assumption, the Court strikes down laws duly enacted by state legislatures. This Article argues that developments in economics—specifically, in game theory—show that the Court's assumption is now contested, calling into question the Court's power to strike down state laws under the antidiscrimination test. Under the \textit{Erie-effect}, the Court should respond to this challenge by reallocating power to avoid illegitimacy. As suggested in the above text, the Court can do so by leaving contested questions of fact or economic reasoning to the states. As in \textit{Erie} itself, the \textit{Erie-effect} counsels deference to the states.

\textsuperscript{375} See Tracy, 117 S. Ct. at 828-29.
state discrimination between in-state and out-of-state competitors harms the national economy. The same type of factual and economic arguments will be made on this issue, raising the same concerns of institutional competence. When the facts or theories are contested reasonably, the Court should defer to the state.

In addition to institutional competence concerns, Tracy deference would also serve important federalism values. The Court has held routinely that the balance of federalism should not be disturbed unless the Court has a clear warrant for doing so. This federalism principle has appeared recently in the Court's interpretation of federal statutes. Specifically, the Court will not interpret a federal statute to regulate state actors or an area of traditional state law, for example, debtor-creditor relations, unless Congress has evidenced its intent clearly. This canon of statutory interpretation recognizes that the states' representation in Congress is their main bulwark against unwarranted expansion of federal power. For the political process to en-

376. The Court's constitutional cases also evidence renewed protection for state sovereignty. In United States v. Lopez, 514 U.S. 549 (1995), for the first time in over fifty years, the Court struck down a federal statute as outside of Congress's Commerce Clause power. Similarly, in City of Boerne v. Flores, 117 S. Ct. 2157 (1997), the Court gave a narrow reading to Congress's power to enact legislation enforcing the Fourteenth Amendment. In New York v. United States, 505 U.S. 144 (1992), and Printz v. United States, 117 S. Ct. 2365 (1997), the Court held that Congress could not coerce state legislatures or law enforcement officials to enact or implement federal legislation. Additionally, in the physician-assisted suicide cases, the Court declined to find a blanket due process right, instead encouraging states to wrestle with the issue on their own. See Washington v. Glucksberg, 117 S. Ct. 2255, 2275 (1997).

377. See BFP v. Resolution Trust Corp., 511 U.S. 531, 539 (1994) ("Absent a clear statutory requirement to the contrary, we must assume the validity of [a] state-law regulatory background and take due account of its effect."); Gregory v. Ashcroft, 501 U.S. 452, 467 (1991) (stating that the Court would not interpret the federal age discrimination statute to include state judges "unless Congress has made it clear that [state] judges are included").

sure protection of state interests, Congress must be aware that its legislation might affect the states. A clear statement rule looks for evidence of congressional deliberation on the face of the statute to prevent unthinking or incidental encroachment on states and their laws.\(^{379}\)

An example of the clear statement rule can be seen in \textit{BFP v. Resolution Trust Corp.}\(^ {380}\) \textit{BFP} involved a claim that a bankrupt debtor had fraudulently transferred assets just before filing for bankruptcy.\(^ {381}\) Under federal bankruptcy law, a fraudulent transfer occurs when the debtor receives "less than a reasonably equivalent value in exchange for such transfer."\(^ {382}\) At issue was the foreclosure sale of a house owned by the debtor.\(^ {383}\) The creditor argued that although the foreclosure sale was conducted in accordance with state law, the sale price was less than fair market value.\(^ {384}\) The Court had to decide whether the phrase "reasonably equivalent value" meant fair market value, as urged by the creditor, or the price fetched at a lawful state foreclosure

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\textit{REV. 543 (1954).}

379. See \textit{Gregory}, 501 U.S. at 464. The Court cited Professor Laurence Tribe's constitutional law treatise on the point: "[T]o give the state-displacing weight of federal law to mere congressional ambiguity would evade the very procedure for law-making" established in the Constitution. \textit{Id.} (quoting TRIBE, supra note 3, § 6-25, at 480).


381. See \textit{id.} at 533-34.


(An interest of the debtor in property, or any obligation incurred by the debtor, that was made or incurred on or within one year before the date of the filing of the petition [for bankruptcy], if the debtor voluntarily or involuntarily —

(1) made such transfer or incurred such obligation with actual intent to hinder, delay, or defraud any entity to which the debtor was or became, on or after the date that such transfer was made or such obligation was incurred, indebted; or

(2)(A) received less than a reasonably equivalent value in exchange for such transfer or obligation; and

(B)(i) was insolvent on the date that such transfer was made or such obligation was incurred, or became insolvent as a result of such transfer or obligation . . . .

\textit{Id.}

383. See \textit{BFP}, 511 U.S. at 533-34.

384. See \textit{id.}
sale, as urged by the debtor.\footnote{385}

The Court interpreted "reasonably equivalent value" to include the price fetched at a valid state foreclosure sale.\footnote{386} The Court explained that to do otherwise would thrust the federal government into judging the validity of foreclosure sales, an area traditionally governed by state law, thus possibly upsetting the finality of state law property titles.\footnote{387} Such federal action would "radically readjust[] the balance of state and national authority."\footnote{388} Before Congress takes such action, it should think hard about the issue, and the product of that deliberation should appear clearly in the text of the statute. Otherwise, courts should interpret the federal statute so as to leave state law undisturbed.\footnote{389}

The Court has developed several other canons of construction to protect the states from undue federal intrusion. First, the Court will not interpret a federal statute to preempt state law unless Congress expresses a clear intent to do so.\footnote{390} Preemption is a major intrusion on state power, bluntly substituting federal regulation for that of the states.\footnote{391} Once again, the Court hopes to encourage careful deliberation on the federalism consequences of such action before Congress acts.\footnote{392}

Second, the Court will not interpret a federal statute to abrogate states' Eleventh Amendment immunity from suit in federal court unless Congress clearly states its intent to do so.\footnote{393} Accord-

\footnote{385. See id. at 536.}
\footnote{386. Id. at 545.}
\footnote{387. See id. at 544 (noting that if the statute were interpreted to mean fair market value, then "[t]he title of every piece of realty purchased at foreclosure would be under a federally created cloud").}
\footnote{388. Id. (quoting Felix Frankfurter, Some Reflections on the Reading of Statutes, 47 COLUM. L. REV. 527, 539-40 (1947)).}
\footnote{389. See id. at 544-45.}
\footnote{390. See Maryland v. Louisiana, 451 U.S. 725, 746 (1981) ("Consideration under the Supremacy Clause starts with the basic assumption that Congress did not intend to displace state law."); Rice v. Santa Fe Elevator Corp., 331 U.S. 218, 230 (1947) ("[W]e start with the assumption that the historic police powers of the States were not to be superseded by the Federal Act unless that was the clear and manifest purpose of Congress.").}
\footnote{391. See TRIBE, supra note 3, § 6-25, at 479-80; McGreal, supra note 4, at 838-41.}
\footnote{392. See TRIBE, supra note 3, § 6-25, at 480; McGreal, supra note 4, at 840-41.}
ing to the Court, states entered the Union with an immunity to suit that attaches to any sovereign government. 394 Once again, a clear statement rule protects against inadvertent or ill-considered abrogation of a fundamental attribute of state sovereignty. 395

Each of the above canons of construction carefully protects the states against the admittedly supreme power of the federal government. In each case, the Court requires a clear signal from either Congress or the Constitution before taking action that will restrict state sovereignty. The dormant Commerce Clause is a natural candidate for such caution because it has dramatic consequences for state sovereignty, removing state lawmaking power over portions of an entire subject, interstate commerce. Also, the doctrine is riddled with uncertainty. To begin with, the doctrine is based on a dubious inference from constitutional text. Additionally, in its application, the dormant Commerce Clause antidiscrimination test raises issues—such as competition and harm to the national economy—that are ill-suited to judicial scrutiny. All of these reasons urge deference to state law, unless state law clearly violates dormant Commerce Clause first principles.

V. CONCLUSION

The Court's dormant Commerce Clause cases make assumptions about how states act. This Article used game theory to test the Court's assumptions. After reviewing the history and case law of the dormant Commerce Clause and the economic assumptions of both, we are left with three points to guide a new dormant Commerce Clause antidiscrimination test:

(1) The Court should continue to ask whether the state law discriminates between in-state and out-of-state actors who are in

the Court held that Congress may not use its Commerce Clause power, over either interstate commerce or Indian commerce, to abrogate state Eleventh Amendment immunity. After Seminole Tribe, it appears that Congress may be able to abrogate state immunity only through its power to enforce the Fourteenth Amendment. See U.S. CONST. amend. XIV, § 5.

395. See id. at 1123; Dellmuth v. Muth, 491 U.S. 223, 227-28 (1989) (stating that the clear statement rule is meant "to temper Congress' acknowledged powers of abrogation with due concern for the Eleventh Amendment's role as an essential component of our constitutional structure"); Atascadero, 473 U.S. at 238-39.
competition. If so:

(2) The Court should ask whether state law discrimination makes the national economy worse off than if states did not discriminate.

(3) If the answer to either question requires the resolution of reasonably contested factual or economic contentions, the Court must defer to the states and uphold the challenged law. If the Court takes federalism seriously, and is truly concerned about protecting states from undue federal interference, then it should be open to new arguments that question old assumptions, and should back away when what was once clear has been shown to be uncertain. The antidiscrimination rule of City of Philadelphia and its progeny is one such area, and should be discarded in favor of a rule constructed on dormant Commerce Clause first principles and the lessons of economic reasoning.