

THE PUBLIC FRANCHISE TRADITION AS A LIMIT ON PATENT TAKINGS

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A longstanding debate exists over whether patents are forms of “private property” that the Takings Clause protects. Recently, in a different context, the Supreme Court stated that a patent is a specific form of property: a public franchise. Several scholars have argued that the public franchise characterization means patents are not protected by the Takings Clause at all. This Article identifies another potential implication of the public franchise framing. It argues that even if patents are viewed as protected by the Takings Clause, the public franchise framing suggests that the scope of that protection should be quite narrow.

To explore implications of the public franchise framing for patent takings, this Article analyzes case law from the nineteenth and early twentieth centuries about constitutional protections for public franchises. These cases reveal several key principles that can be used to define the scope of property interests in public franchises and to evaluate regulations that affect them. Under the public franchise model, public franchises are limited by ex ante conditions, strictly construed, and distinguished from physical property. The result is that the government has broad discretion to regulate in ways that affect public franchises without implicating constitutionally protected property interests or incurring financial liability, even if patents are viewed as protected by the Takings Clause.

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This Article then examines how courts could apply the public franchise model to evaluate patent takings claims. It argues that using the model would provide a set of clearer guidelines than the modern regulatory takings doctrine and would be normatively desirable. Under the public franchise model, almost all patent takings claims could be dismissed. For example, it clearly disposes of recent claims that the Medicare Drug Price Negotiation Program is a taking of pharmaceutical companies’ patents.

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INTRODUCTION

In recent years, courts have been faced with a series of patent takings claims.¹ Patent holders have argued that a range of government actions—from the use of new administrative review procedures to government patent infringement—amounted to unconstitutional takings of their patents.² The U.S. Court of Appeals for the Federal Circuit has consistently rejected patent takings claims.³ Nonetheless, patent holders continue to raise them, including in recent challenges to the constitutionality of the Medicare Drug Price Negotiation Program.⁴

One reason that patent holders continue raising patent takings claims is because the status of patents under the Takings Clause is surprisingly unsettled. The Takings Clause only requires the government to pay just compensation for takings of “private property.”⁵ Neither the Supreme Court nor the Federal Circuit has ever squarely addressed whether patents are forms of “private property” under the Takings Clause.⁶ Uncertainty therefore remains about whether patents confer cognizable

¹ See, e.g., *Christy, Inc. v. United States*, 971 F.3d 1332, 1335 (Fed. Cir. 2020) (claim that cancellation of patents in inter partes review was a taking); *Golden v. United States*, 955 F.3d 981, 988–89 (Fed. Cir. 2020) (claim that government patent use and inter partes review initiated by DHS were takings); *Celgene Corp. v. Peter*, 931 F.3d 1342, 1357–58 (Fed. Cir. 2019) (claim that retroactive application of inter partes review was a taking).

² See cases cited *supra* note 1.

³ *Golden*, 955 F.3d at 988–89; *Christy, Inc.*, 971 F.3d at 1336; *Celgene Corp.*, 931 F.3d at 1359–60.

⁴ *AstraZeneca Pharms. LP v. Becerra*, 719 F. Supp. 3d 377, 395–97 (D. Del. 2024), *aff’d* 137 F.4th 116 (3d Cir. 2025); *Bristol Myers Squibb Co. v. Becerra*, Nos. 3-3335 (ZNQ) (JBD), 23-3818 (ZNQ) (JBD), 2024 WL 1855054, at *4 (D.N.J. Apr. 29, 2024), *aff’d* 155 F.4th 245 (3d Cir. 2025).

⁵ U.S. CONST. amend. V.

⁶ *Golden*, 955 F.3d at 989 n.7 (citing *Oil States Energy Servs., LLC v. Greene’s Energy Grp., LLC*, 584 U.S. 325, 344 (2018)); see *infra* subpart I.A.

property interests under the Takings Clause, and if so, what the scope of that protection is.⁷

Several years ago, when addressing a different issue, the Supreme Court stated that a patent is a specific form of property: it is a “public franchise.”⁸ In the wake of that decision, several scholars have argued that patents are not protected by the Takings Clause because public franchises are not forms of private property.⁹ This Article explores another potential implication of the public franchise characterization of patents. Specifically, it analyzes how the public franchise framing could affect the scope of constitutional protection for patents, even if patents are viewed as protected by the Takings Clause.¹⁰

Examining this additional implication of framing patents as public franchises is important because the Supreme Court has shown a strong interest in property protection under the Takings Clause. In recent years, property owners have had a successful track record before the Supreme Court.¹¹ Moreover, the Court has held that trade secrets can be protected by the Takings Clause and suggested in dicta that patents can be too.¹²

⁷ Jonathan S. Masur & Adam K. Mortara, *Patents, Property, and Prospectivity*, 71 STAN. L. REV. 963, 989–93 (2019) (“From any perspective, the law is still far from recognizing patents as property subject to the protection of the Takings Clause.”).

⁸ *Oil States Energy Servs., LLC v. Greene’s Energy Grp., LLC*, 584 U.S. 325, 338 (2018).

⁹ Robin Feldman, *Patents as Property for the Takings*, 12 N.Y.U. J. INTELL. PROP. & ENT. L. 198, 245–51 (2023); Raj Bhargava et al., *The Constitutionality of Medicare Drug-Price Negotiation under the Takings Clause*, 51 J.L. MED. & ETHICS 961, 965–66 (2023). Several student notes have reached similar conclusions. Jordan T. Owens, Note, *Patents as Property: Oil States and Its Implications on the Takings Clause*, 41 CARDOZO L. REV. 1601, 1605–08 (2020); Jesse Wynn, Note, *Patents, Public Franchises, and Constitutional Property Interests*, 71 CASE W. RESV. L. REV. 887, 892–93 (2020). Others, however, have argued that patents are private property even after the Supreme Court’s characterization of patents as public franchises. See generally Letter Brief for Law Professors, Scholars, and Former Government Officials as Amici Curiae, *Arbutus Biopharma Corp. v. Moderna, Inc.*, No. 22-252, 2023 WL 2455979 (D. Del. Mar. 10, 2023).

¹⁰ The framing of patents as public franchises also has potential implications for the theory of regulation of patents. It is a project for future work to examine how the public franchise framing could affect the conditions placed on patents at the outset when Congress designs the patent system.

¹¹ See John G. Sprankling, *Property and the Roberts Court*, 65 KAN. L. REV. 1, 1 (2016) (“[U]nder the leadership of Chief Justice Roberts the Court has expanded the constitutional and statutory protections afforded to owners to a greater extent than any prior Court.”).

¹² *Ruckelshaus v. Monsanto Co.*, 467 U.S. 986, 1001–04 (1984); *Horne v. Dep’t of Agric.*, 576 U.S. 351, 359–60 (2015).

This Article argues that the public franchise framing shows that even if patents are protected by the Takings Clause, the scope of that protection should be very narrow. It analyzes the history and tradition of public franchise regulation in the United States to explore the scope of constitutional protections for public franchises. During the nineteenth and early twentieth centuries, the Supreme Court considered numerous constitutional challenges to regulations that impacted existing public franchises under both the Contract Clause and the Takings Clause.¹³ Several guiding principles derived from these cases form a model for construing the scope of property protections that public franchises confer. Under the public franchise model, public franchises are limited by ex ante conditions, strictly construed, and distinguished from physical property.¹⁴ The result is that the government has broad discretion to continue regulating in ways that affect public franchises without implicating constitutionally protected property rights or incurring financial liability.¹⁵

This Article argues that courts should look to the public franchise cases as persuasive authority in modern patent takings cases. Both the public franchise cases and patent takings cases are similar because they involve challenges to regulation based on prior regulatory grants.¹⁶ Moreover, they aim to balance similar policy goals of preserving regulatory flexibility, while at the same time allowing some entrenchment to induce parties to make investments in socially beneficial activities.¹⁷ The public franchise model would be useful for courts because it provides a set of rules that offer clearer guidance than the modern *Penn Central* balancing test for evaluating regulatory takings claims based on intangible grants.¹⁸ Furthermore, it strikes a balance between flexibility and entrenchment that would make good policy when considering the impact on incentives for regulators and investors, as well as values of fairness and democratic governance.¹⁹

This Article proceeds in three parts. Part I describes the unsettled status of patents under the Takings Clause. It explains

¹³ See *infra* subpart II.B.

¹⁴ See *infra* subpart II.C.

¹⁵ See *infra* section II.C.4.

¹⁶ See *infra* section III.A.1.

¹⁷ See *infra* section III.A.2.

¹⁸ See *infra* section III.D.1.

¹⁹ See *infra* section III.D.2.

how there is uncertainty both about what the scope of the property interest is if patents are viewed as protected property and about how to evaluate regulations that affect the value of patents. Part II analyzes the history and tradition of public franchise regulation. It examines the definition of the term “public franchise” and the threshold question of whether public franchises are entitled to constitutional protection. It then derives several guiding principles from Supreme Court cases involving public franchises during the nineteenth and early twentieth centuries. Part III considers how courts could apply the public franchise model to patent takings claims and whether they should do so. If patents are viewed as protected by the Takings Clause, the public franchise model has implications both for defining the scope of the property interest in a patent and for evaluating whether regulations have crossed the line into takings. Under the public franchise model, almost all regulations would clearly not be takings of patents because regulations that merely impact the value of a patent would not be takings. This Article argues that the public franchise cases should be persuasive authority for patent takings cases and that using the public franchise model would be beneficial to provide clearer guidance and promote policy goals, including regulatory flexibility, fairness, and democratic governance.

I

THE UNSETTLED STATUS OF PATENTS UNDER THE TAKINGS CLAUSE

Although patents have existed throughout the nation’s history, the nature of the rights that patents confer is not settled.²⁰ Scholars have vigorously debated whether patents are better characterized as forms of “private property” or instead more like regulatory licenses.²¹ The distinction has

²⁰ See Greg Reilly, *Power Over the Patent Right*, 95 TUL. L. REV. 211, 213 (2021) (“Despite the nearly 230-year history of the American patent system, a surprisingly active debate exists over the nature of the rights conferred by a patent.”).

²¹ See Jonathan S. Masur, *Institutional Design and the Nature of Patents*, 104 IOWA L. REV. 2535, 2544 (2019) (“The phrase ‘intellectual property’ is regularly invoked as an argument that patents should be treated as a species of property.”); ROBIN FELDMAN, *DRUGS, MONEY, AND SECRET HANDSHAKES* 106–08 (2019); Mark A. Lemley, Response, *Taking the Regulatory Nature of IP Seriously*, 92 TEX. L. REV. SEE ALSO 68, 68 (2014), <http://texaslawreview.org/wp-content/uploads/2015/08/Lemley-92-SeeAlso.pdf> [<https://perma.cc/G498-TXBK>] (“Modern IP is certainly more like regulation than it is like property, at least as people traditionally think of property”); Davida H. Isaacs, *Not All Property Is Created Equal: Why Modern Courts Resist Applying the Takings Clause to Patents, and Why They Are Right to Do So*, 15 GEO. MASON L. REV. 1, 41–42 (2007); Mark A. Lemley, *Property, Intellectual Property, and Free Riding*, 83 TEX. L. REV. 1031, 1033–46 (2005) (describing

implications for the constitutional protections that attach to patents after they are granted, including for whether they are protected by the Takings Clause.²² If patents are not protected by the Takings Clause, government actions categorically would not require compensation to patent holders, even if they restricted or revoked patent rights. On the other hand, if patents are protected by the Takings Clause, compensation could be required if government actions amounted to a taking of a patent. Because the doctrine is unsettled, scholars and courts continue to grapple with questions of whether different government actions are takings of patents.²³ This Part describes the current doctrine surrounding patent takings and issues of ongoing uncertainty.

A. Supreme Court Statements About Patent Takings

The Supreme Court has never directly addressed whether patents are private property protected by the Takings Clause.²⁴ This is significant because the Takings Clause only requires the government to pay compensation for takings of “private property.”²⁵ The Takings Clause is distinct from the Due Process Clause, for example, which prohibits the government from depriving any person of “property” without due process of law, rather than “private property.”²⁶ Although the Court has never definitively decided the question, it has made several statements that courts and scholars point to in debates over patent takings. This Section describes two Supreme Court decisions with statements relevant to patent takings debates.

the rise of real property theory and rhetoric in intellectual property law); Thomas F. Cotter, *Do Federal Uses of Intellectual Property Implicate the Fifth Amendment?*, 50 FLA. L. REV. 529, 558–65 (1998); see generally Joshua I. Miller, 28 U.S.C. § 1498(a) and the Unconstitutional Taking of Patents, 13 YALE J.L. & TECH. 1 (2010); Adam Mossoff, *Patents as Constitutional Private Property: The Historical Protection of Patents Under the Takings Clause*, 87 B.U. L. REV. 689, 700–11 (2007).

²² See U.S. CONST. amend. V.

²³ See *supra* notes 1 & 9 and accompanying text.

²⁴ Bhargava, *supra* note 9, at 965.

²⁵ U.S. CONST. amend. V.

²⁶ U.S. CONST. amend. XIV § 1; see also Michael Pappas, *A Right to Be Regulated?*, 24 GEO. MASON L. REV. 99, 105 (2016) (“[T]he scope of ‘property’ protected by procedural Due Process is more expansive than the scope of ‘property’ protected by the Takings clause.”) [hereinafter Pappas, *Right to be Regulated*]; Pappas, *Right to be Regulated*, *supra*, at 130–31 (describing differences between property entitled to procedural due process and compensation under the Takings Clause); Feldman, *supra* note 9, at 203 (observing that outside the Takings Clause, the term “property” is used in the Constitution in procedural contexts).

1. *The Horne Decision*

The Supreme Court injected new energy into arguments that patents are protected by the Takings Clause in its 2015 decision *Horne v. Dep't of Agriculture*.²⁷ In that case, the Court held that the Takings Clause compensation requirement for physical takings applies to personal property, in addition to real property.²⁸ The personal property at issue was raisins.²⁹ In holding that physical appropriations of raisins can be takings, the Court stated that history did not suggest a distinction between physical appropriations of land and personal property.³⁰ It then quoted language from *James v. Campbell*, a patent case from 1882.³¹ In *James*, the Court stated that a patent confers “exclusive property in the patented invention which cannot be appropriated or used by the government itself, without just compensation,” any more than the government can appropriate land.³²

The language in *Horne* about patents was dicta, since the issue in the case involved takings protection for raisins, not patents. The cited language from *James* is also widely understood to be dicta.³³ *James* involved a question of whether the government was liable for patent infringement. After making the brief statement about the “exclusive property” that a patent confers, the Court went on to dismiss the case on the ground that the patent was invalid.³⁴ Therefore, it did not make a binding decision about whether the government had to pay if it infringed a patent—there can be no infringement of an invalid patent. Therefore, although the Supreme Court has made fairly definitive statements about the status of patents under the Takings Clause in dicta, it has not yet addressed the issue in a binding way.

²⁷ 576 U.S. 351 (2015).

²⁸ *Id.* at 358.

²⁹ *Id.* at 356.

³⁰ *Id.* at 358.

³¹ *Id.* at 359–60; 104 U.S. 356, 358 (1882).

³² *Horne*, 576 U.S. at 359–60 (citing *James*, 104 U.S. at 358).

³³ That case was dismissed on grounds of patent invalidity. *James*, 104 U.S. at 382–83; Camilla A. Hrdy & Ben Picozzi, *The AIA Is Not a Taking: A Response to Dolin & Manta*, 72 WASH. & LEE L. REV. ONLINE 472, 476–79 (2016), <http://scholarlycommons.law.wlu.edu/cgi/viewcontent.cgi?article=1041&context=wlulr-online> [<https://perma.cc/ZZ75-XNRJ>]; see Mossoff, *supra* note 21, at 697 (agreeing that the language in *James* is dicta).

³⁴ See *James*, 104 U.S. at 357–58, 382–83.

2. *The Oil States Decision*

A few years after the *Horne* decision, the Supreme Court weighed in on whether patents are private property in *Oil States v. Greene's Energy*.³⁵ The case again did not directly address the question of whether patents are protected by the Takings Clause. But unlike *Horne*, this case suggested that patents are a form of public property, rather than private property.

The issue in *Oil States* was whether Article III of the Constitution precludes administrative agencies from revoking patents.³⁶ The case arose in response to the America Invents Act.³⁷ In that law, Congress created new post-grant review procedures that allow the U.S. Patent and Trademark Office (USPTO) to cancel patent claims that it concludes it issued in error.³⁸ Under Supreme Court precedent, private rights must be adjudicated before Article III courts, while public rights can be adjudicated by administrative agencies.³⁹ Pointing to the public rights doctrine, a patent holder and numerous amici in *Oil States* argued that the private property nature of patents required them to be adjudicated in Article III courts.⁴⁰ The Supreme Court rejected this argument on the ground that patents “convey only a specific form of property right—a public franchise.”⁴¹

In an opinion written by Justice Thomas, the Court explained that because patents are public franchises, patent rights are derived solely from statutes; patents do not confer

³⁵ 138 S. Ct. 1365, 1375 (2018).

³⁶ *Id.* at 1370.

³⁷ *Id.*; Leahy-Smith America Invents Act, Pub. L. 112-29, 125 Stat. 284 (2011).

³⁸ *Id.* § 6 (codified at 35 U.S.C. §§ 311–19).

³⁹ See *Crowell v. Benson*, 285 U.S. 22, 50 (1932). The contours of the public rights doctrine—a subject of much debate—is outside the scope of this Article.

⁴⁰ *Oil States*, 584 U.S. 325, 334, 337–39 (2018); 138 S. Ct. at 1372, 1375–76; Brief of Professor Dmitry Karshedt as Amicus Curiae Supporting Petitioner at 9–12, *Oil States Energy Servs. LLC v. Greene's Energy Grp., LLC*, 584 U.S. 325 (2018) (No. 16-712).; Brief of the Pharmaceutical Research and Manufacturers of America as Amicus Curiae Supporting Petitioner, *Oil States Energy Servs., LLC v. Greene's Energy Grp., LLC*, 584 U.S. 325 (2018) (No. 16-712); Brief of 27 Law Professors as Amici Curiae Supporting Petitioner at 10–17, *Oil States Energy Servs., LLC v. Greene's Energy Grp., LLC*, 584 U.S. 325 (2018) (No. 16-712).

⁴¹ *Oil States*, 584 U.S. at 338. Just as the Supreme Court's statements about patents under the Takings Clause can be interpreted as dicta, it is worth noting that the Supreme Court's public rights precedent does not suggest that inter partes review would necessarily be unconstitutional if patents were private rights either because there is an opportunity for judicial review by the U.S. Court of Appeals for the Federal Circuit. See *id.* at 345 (Breyer, J., concurring).

any rights beyond what statutes prescribe.⁴² Patents are therefore issued subject to conditions created by the patent laws, including the laws that allow post-grant review procedures at the USPTO. Justice Thomas explained that Article III permits this system because adjudication of patent validity is a matter involving public rights, which does not require a judicial determination.⁴³

The characterization of patents as *public* franchises might seem to dispose of the question of whether they are *private* property under the Takings Clause. But the Court went on to “emphasize the narrowness” of its holding.⁴⁴ It stated that its decision “should not be misconstrued as suggesting that patents are not property for purposes of the Due Process Clause or the Takings Clause.”⁴⁵ It then cited *James*, just as it did in the *Horne* decision. The opinion therefore left the specific question of whether patents are protected by the Takings Clause unsettled.⁴⁶

B. Patent Takings Precedent After *Oil States*

In the wake of the *Oil States* decision, the Federal Circuit has seen a series of patent takings cases.⁴⁷ It rejected each of these challenges, though it has continued to avoid the threshold question of whether patents are private property protected by the Takings Clause.⁴⁸

1. Government Patent Use

One type of unsuccessful challenge that patent holders raised was based on unauthorized government patent use. In

⁴² *Id.* at 338.

⁴³ *Id.* at 335–37.

⁴⁴ *Id.* at 344.

⁴⁵ *Id.*

⁴⁶ See Adam Mossoff, *Statutes, Common Law Rights, and the Mistaken Classification of Patents as Public Rights*, 104 IOWA L. REV. 2591, 2615 (2019) (describing the *Oil States* opinion as “the legal equivalent of an open invitation for future lawsuits raising these issues”).

⁴⁷ See, e.g., *Christy, Inc. v. United States*, 971 F.3d 1332, 1335 (Fed. Cir. 2020) (claim that cancellation of patents in inter partes review was a taking); *Golden v. United States*, 955 F.3d 981, 989 (Fed. Cir. 2020) (claim that inter partes review initiated by the Department of Homeland Security reduced value of patents and interfered with reasonable investment-backed expectations); *Celgene Corp. v. Peter*, 931 F.3d 1342, 1358 (Fed. Cir. 2019) (claim that retroactive application of inter partes review was a taking).

⁴⁸ *Golden*, 955 F.3d at 989 n.7 (noting that the threshold question remains unsettled); *Christy, Inc.*, 971 F.3d at 1336; *Celgene Corp.*, 931 F.3d at 1358.

Golden v. United States,⁴⁹ the court held that patent holders cannot pursue takings claims based on patent infringement by the federal government.⁵⁰ Because patent infringement is a tort, sovereign immunity traditionally shielded the government from liability for patent infringement.⁵¹ In 1910, Congress passed a limited waiver of sovereign immunity in a law commonly known as Section 1498.⁵² Section 1498 allows patent holders to recover “reasonable and entire compensation” for patent infringement by the government.⁵³ Therefore, the Federal Circuit held that Section 1498 provides the exclusive avenue for patent holders to pursue claims against the federal government based on patent infringement.⁵⁴

2. *Post-Grant Review Procedures*

Other unsuccessful takings challenges have been based on administrative procedures that allow the USPTO to cancel patents that it concludes it issued in error.⁵⁵ In *Celgene Corp. v. Peter*, for example, the court held that the retroactive application of new post-grant review procedures was not a taking.⁵⁶ The America Invents Act of 2011 created new post-grant procedures at the USPTO.⁵⁷ Pursuant to those procedures, the USPTO subsequently canceled claims in a patent that was issued before the America Invents Act passed.⁵⁸ The court reasoned that using these new procedures to cancel pre-existing patents was not a taking because similar administrative

⁴⁹ 955 F.3d 981 (Fed. Cir. 2020).

⁵⁰ *Id.* at 987–88; *see also* *Zoltek Corp. v. United States*, 442 F.3d 1345, 1350–53 (Fed. Cir. 2006), *abrogated on other grounds by* 672 F.3d 1309, 1326–27 (Fed. Cir. 2012) (en banc).

⁵¹ *Schillinger v. United States*, 155 U.S. 163, 169–72 (1894); *Pieczenik v. United States*, No. 1:22-cv-00111-LAS, 2023 WL 5031507, at *2 (Fed. Cir. Aug. 8, 2023).

⁵² Patent Act of 1910, Pub. L. 61-305, 36 Stat. 851; *see also* Pub. L. 80-773, 62 Stat. 861, 941–42 (1948) (codified as amended at 28 U.S.C. § 1498(a)). This provision applies both to patent infringement by government employees and government contractors who use or manufacture goods “by or for the United States.” 28 U.S.C. § 1498(a).

⁵³ 28 U.S.C. § 1498(a).

⁵⁴ *Golden*, 955 F.3d at 988.

⁵⁵ *Id.* at 988–89 (rejecting takings challenge based on patent cancellation through inter partes review); *Chisty, Inc.*, 971 F.3d. at 1336 (same).

⁵⁶ 931 F.3d 1342, 1357–63 (Fed. Cir. 2019).

⁵⁷ Leahy-Smith America Invents Act § 6, Pub. L. 112-29, 125 Stat. 284 (2011) (codified at 35 U.S.C. §§ 311–19).

⁵⁸ *Celgene Corp.*, 931 F.3d at 1346, 1348.

procedures had existed for forty years—before the relevant patent was issued.⁵⁹ The procedural differences between the new procedures and prior ones did not disrupt the long-settled expectation that patents can be reconsidered by the USPTO and canceled if it concludes that they should not have issue them in the first place.⁶⁰ Furthermore, the court noted that the plaintiff made no showing that the new procedures caused a permanent reduction in the value of patents, since the canceled claims could have been canceled under the long-existing procedures also.⁶¹

3. Medicare Price Negotiation

This Federal Circuit precedent makes it clear that patent claims are not available for government patent infringement or for patent cancellation through post-grant review procedures. Yet it leaves open questions about other types of government actions, such as regulations that affect the value of patents and regulations of how patent holders use their patents. Despite the poor track record for patent takings claims at the Federal Circuit, the court has not gone so far as to say that patents are categorically exempt from takings protection.⁶² Patent holders, therefore, continue to raise patent takings claims.

One example of these continuing challenges is a set of recent lawsuits challenging the constitutionality of the Medicare Drug Price Negotiation Program created by the Inflation Reduction Act in 2022.⁶³ In those cases, pharmaceutical companies

⁵⁹ *Id.* at 1359–60 (explaining that in the new procedures, patents are reviewed on the same substantive grounds, based on the same categories of prior art, and under the same evidentiary standard).

⁶⁰ The court observed that no one has a “vested right in any given mode of procedure.” *Id.* at 1361 (quoting *Denver & Rio Grande W. R.R. Co. v. Bhd. of R.R. Trainmen*, 387 U.S. 556, 563 (1967)). Furthermore, patent holders always had an expectation that patents could be cancelled by district courts. *Id.* at 1362. The Federal Circuit previously rejected similar arguments based on retroactive application of *ex parte* reexamination proceedings also. See *Joy Techs., Inc. v. Manbeck*, 959 F.2d 226, 228–29 (Fed. Cir. 1992); *Patlex Corp. v. Mossinghoff*, 758 F.2d 594, 600–05 (Fed. Cir. 1985).

⁶¹ *Celgene Corp.*, 931 F.3d at 1362; see also *Christy, Inc. v. United States*, 971 F.3d 1332, 1334–36 (Fed. Cir. 2020) (rejecting claim that collection of issuance and maintenance fees was an illegal exaction that needed to be refunded after a patent was cancelled in post-issuance proceedings).

⁶² *Golden v. United States*, 955 F.3d 981, 989 n.7 (Fed. Cir. 2020).

⁶³ See *Inflation Reduction Act of 2022*, Pub. L. 117-169, 136 Stat. 1818. At the time of this writing, one lawsuit raising a takings challenge remains pending. See *Merck & Co. v. Becerra*, No. 1:23-cv-01615 (D.D.C. June 6, 2023). Other takings challenges have not been successful. See *Bristol Myers Squibb v. Dep’t of*

asserted that Medicare drug price negotiation was a taking of their patents.⁶⁴ Their primary takings argument was that price negotiation is a physical taking of their drugs because the government is coercing them to sell their drugs to Medicare.⁶⁵ But several drug manufacturers also suggested that the fact that their drugs are covered by patents strengthened their takings claims, such as by making their drugs “doubly” protected by the Takings Clause.⁶⁶

C. Issues of Ongoing Debate

The Supreme Court and Federal Circuit precedent regarding patent takings leave several issues unresolved. The threshold question of takings protection remains unsettled. How takings claims should be evaluated if patents are in fact protected by the Takings Clause also remains unclear. This Section describes the scholarly debate surrounding these ongoing areas of uncertainty, including implications that the *Oil States* decision might have for these unsettled issues.

Health & Hum. Servs., 155 F.4th 245, 255–63 (3d Cir. 2025), *cert. denied*, 2026 WL 1377095 (U.S. May 18, 2026); Novartis Pharms. Corp. v. Dep’t of Health & Hum. Servs., 155 F.4th 223, 234 (3d Cir. 2025), *cert. denied*, 2026 WL 1377118 (U.S. May 18, 2026); Boehringer Ingelheim Pharms., Inc. v. Dep’t of Health & Hum. Servs., 150 F.4th 76, 91–93 (2d Cir. 2025), *cert. denied* 2026 WL 1377142 (U.S. May 18, 2026).

⁶⁴ See *infra* note 66.

⁶⁵ See Boehringer Ingelheim Pharms. v. Dep’t of Health & Hum. Servs., 150 F.4th 76, 91–93 (2d Cir. 2025) (rejecting argument that price negotiation “effects a *per se* physical taking of physical doses of [] Jardiance”); see also AstraZeneca Pharms. LP v. Becerra, 719 F. Supp. 3d 377, 395 (D. Del. 2024) (describing how AstraZeneca “was unable to articulate a coherent theory of why or how the IRA affects patent rights” in oral argument), *aff’d*, 137 F.4th 116 (3d Cir. 2025).

⁶⁶ Complaint ¶¶ 59–61, 89, Merck & Co. v. Becerra, No. 1:23-cv-01615 (D.D.C. June 6, 2023); Complaint ¶¶ 12, 91, Janssen Pharms., Inc. v. Becerra, *sub. nom.* Bristol Myers Squibb Co. v. Becerra, Nos. 23-3335 (ZNQ) (JBD), 23-3818 (ZNQ) (JBD), 2024 WL 1855054 (D.N.J. Apr. 29, 2024); Memorandum of Law in Support of Plaintiff’s Motion for Summary Judgment at 15, Bristol Myers Squibb Co. v. Becerra, Nos. 23-3335 (ZNQ) (JBD), 23-3818 (ZNQ) (JBD), 2024 WL 1855054 (D.N.J. Apr. 29, 2024), Dkt. No. 36-3 (arguing that patents confer an exclusive right that the government cannot appropriate without just compensation); Plaintiff’s Memorandum of Points and Authorities in Support of Motion for Summary Judgment at 13, Novartis Pharms. Corp. v. Becerra, No. 23-14221 (ZNQ) (JBD), 2024 WL 4524357 (D.N.J. Nov. 18, 2024), Dkt. No. 18 (“And Novartis’s patented pharmaceutical drugs, including ENTRESTO®, are also protected as a matter of intellectual property.”); Complaint ¶ 117, Boehringer Ingelheim Pharms., Inc. v. Dep’t of Health & Hum. Servs., No. 3:23-cv-01103 (MPS), 2024 WL 3292657 (D. Conn. July 3, 2024) (“BI’s patent rights . . . are also protected under the Takings Clause.”).

1. *The Threshold Question of Takings Protection*

Without any binding decision from the Supreme Court or the Federal Circuit, scholars continue to disagree over whether patents are constitutionally protected “private property.” Several scholars contend that the characterization of patents as “public franchises” in *Oil States* means that patents are not protected by the Takings Clause.⁶⁷ Professor Robin Feldman, for example, has argued that patents are not “private property” for takings purposes based on history, constitutional text, judicial interpretations, legal theory, and the nature of patents.⁶⁸ The Court of Federal Claims has also concluded that patents are not protected by the Takings Clause based on the *Oil States* decision, though the Federal Circuit affirmed that decision on other grounds.⁶⁹ Some scholars, however, maintain that patents are protected by the Takings Clause, citing back to the Supreme Court’s language in *Horne*.⁷⁰ This is the position that pharmaceutical companies have taken in litigation about the Inflation Reduction Act,⁷¹ and one district court cited the *Horne* discussion in its opinion in one of those cases.⁷²

So far, most of the debate has focused on the binary yes-or-no question of whether patents are cognizable property interests under the Takings Clause. Another issue that has received less attention though is how to define the property

⁶⁷ See *supra* note 9 and accompanying text.

⁶⁸ See generally Feldman, *supra* note 9.

⁶⁹ See *Christy, Inc. v. United States*, 141 Fed. Cl. 641, 658–60 (2019), *aff’d*, 971 F.3d 1332 (Fed. Cir. 2020); Bhargava et al., *supra* note 9, at 965–66.

⁷⁰ Letter Brief for Law Professors, Scholars, and Former Government Officials as Amici Curiae at 3, *Arbutus Biopharma Corp. v. Moderna Inc.*, No. 22-252, 2023 WL 2455979 (D. Del. Mar. 10, 2023) (“The modern Supreme Court has confirmed the long-standing rule that patents are property rights secured under the Takings Clause and Due Process Clauses.”) (citing *Horne v. Dep’t of Agric.*, 576 U.S. 351, 359–360 (2015)); see also Gregory Dolin & Irina D. Manta, *Taking Patents*, 73 WASH. & LEE L. REV. 719, 775 (2016) (“The Supreme Court left no doubt in *Horne*, however, as mentioned, that patents are subject to the Takings Clause.”); Adam Mossoff, *Supreme Court Recognizes that Patents are Property*, ANTONIN SCALIA L. SCH.: CTR. FOR INTELL. PROP. X INNOVATION POL’Y (June 22, 2015), <https://cip2.gmu.edu/2015/06/22/supreme-court-recognizes-that-patents-are-property/> [<https://perma.cc/WJ4D-X7ND>].

⁷¹ See *supra* note 66 and accompanying text.

⁷² *Bristol Myers Squibb Co. v. Becerra*, Nos. 23-3335 (ZNQ) (JBD), 23-3818 (ZNQ) (JBD), 2024 WL 1855054, at *4 (D.N.J. Apr. 29, 2024). This decision held that there was no taking, and that decision was affirmed on appeal. *Id.* at *4–9; *Bristol Myers Squibb v. Dep’t of Health & Hum. Servs.*, 155 F.4th 245, 255–63 (3d Cir. 2025), *cert. denied*, 2026 WL 1377095 (U.S. May 18, 2026).

interest at stake if patents are protected by the Takings Clause.⁷³ For example, one issue is whether patents that courts or the USPTO conclude are invalid should be considered cognizable property interests even if valid patents receive takings protection. In the *Celgene* case, for example, the USPTO did not dispute that a valid patent is property for purposes of the Takings Clause.⁷⁴ It argued that when the USPTO concludes that a patent is invalid, though, there cannot be a taking because the patent holder never had a valid property right in the first place.⁷⁵ The Federal Circuit avoided resolving this issue, since it concluded that the post-grant cancellation was not a taking regardless.⁷⁶

2. How to Evaluate Regulations

Another issue that remains unresolved is how courts should evaluate when regulations cross the line into takings, assuming that the Takings Clause applies to patents. There is little precedent generally for how to apply takings doctrine to intangible property.⁷⁷ Most takings cases involve physical property. In the realm of physical property, there are two theories for takings claims: physical takings and regulatory takings. The primary test for evaluating regulatory takings is the *Penn Central* balancing test. Under the *Penn Central* framework, courts consider: (1) the character of the regulation, (2) the diminution in value caused by the regulation, and (3) the extent to which the regulation interferes with reasonable, “investment-backed expectations.”⁷⁸ If a court concludes that a regulation goes “too far” under this test, it becomes a taking.⁷⁹ The *Penn Central* test is notoriously critiqued as unclear, though courts usually find

⁷³ Professor Caleb Nelson has analyzed historical understandings about when vested rights attach to franchises, focusing on the implications for whether adjudication requires an Article III court. Caleb Nelson, *Vested Rights, “Franchises,” and the Separation of Powers*, 169 U. PA. L. REV. 1429, 1439–84 (2021).

⁷⁴ *Celgene Corp. v. Peter*, 931 F.3d 1342, 1358 (Fed. Cir. 2019) (“The PTO does not dispute that a valid patent is private property for the purposes of the Takings Clause.”).

⁷⁵ *Id.*

⁷⁶ *Id.*

⁷⁷ Dave Owen, *The Realities of Takings Litigation*, 47 B.Y.U. L. REV. 577, 581–82 (2022) (finding that physical takings claims “overwhelmingly predominate” takings litigation before the Court of Federal Claims).

⁷⁸ *Penn Cent. Transp. Co. v. New York City*, 438 U.S. 104, 124 (1978); see also *Cedar Point Nursery v. Hassid*, 141 S. Ct. 2063, 2072 (2021); *Kaiser Aetna v. United States*, 444 U.S. 164, 175 (1979).

⁷⁹ *Pa. Coal Co. v. Mahon*, 260 U.S. 393, 415 (1922).

that government actions are not takings under this test.⁸⁰ Beyond the *Penn Central* test, the Court has also created categorical rules that certain actions are per se takings, such as when the government authorizes a physical invasion or restricts all economic uses of property.⁸¹

The test that should apply to intangible property like patents is not entirely clear. The possibility of a physical taking is nonexistent for intangible property. The Supreme Court has also not recognized any per se rules for takings of intangible property. In *Ruckelshaus v. Monsanto Co.*,⁸² the Court applied the *Penn Central* balancing test to evaluate a regulation that affected trade secrets.⁸³ The *Penn Central* test therefore seems to be the primary test that courts should use to evaluate patent takings claims.

The Federal Circuit has not explicitly cited the *Penn Central* case in its recent takings decisions, but it seems to have implicitly endorsed the *Penn Central* approach.⁸⁴ In *Celgene*, it relied on the fact that patent holders had a longstanding “expectation” that the validity of patents could be challenged to reject the takings claim.⁸⁵ The court further addressed the character of the government regulation (that it aimed to correct prior agency errors) and dismissed arguments about an alleged reduction in value of patents.⁸⁶ By rejecting all takings claims so far, the Federal Circuit’s approach is in line with how courts generally apply the *Penn Central* framework.⁸⁷ While scholars

⁸⁰ See Owen, *supra* note 77, at 579, 594 (describing academic critiques of modern takings doctrine, including the *Penn Central* test); James E. Krier & Stewart E. Sterk, *An Empirical Study of Implicit Takings*, 58 WM. & MARY L. REV. 35, 62–64 (2016) (finding that courts almost always hold that government actions are not takings under the *Penn Central* framework).

⁸¹ See, e.g., *Cedar Point Nursery*, 141 S. Ct. at 2079–80; *Loretto v. Teleprompter Manhattan CATV Corp.*, 458 U.S. 419, 434–35 (1982); *Lucas v. S.C. Coastal Council*, 505 U.S. 1003, 1015–20 (1992). These *per se* rules do not apply if the regulation is consistent with longstanding background principles of property law, such as the government’s power to abate nuisances. *Cedar Point Nursery*, 141 S. Ct. at 2079; *Lucas*, 505 U.S. at 1029–30.

⁸² 467 U.S. 986 (1984).

⁸³ *Id.* at 1013–14. The Court’s decision was also based on the extent to which Monsanto had a cognizable trade secret under Missouri law. *Id.* at 1003–04.

⁸⁴ See *Golden v. United States*, 955 F.3d 981, 989 (Fed. Cir. 2020); *Celgene Corp. v. Peter*, 931 F.3d 1342, 1358–63 (Fed. Cir. 2019).

⁸⁵ *Celgene*, 931 F.3d at 1361–63; see also *Golden*, 955 F.3d at 989.

⁸⁶ *Celgene*, 931 F.3d at 1361–62; see also *Golden*, 955 F.3d at 989.

⁸⁷ See *supra* note 80 and accompanying text.

generally agree with the Federal Circuit's approach,⁸⁸ some scholars have argued that the Federal Circuit should more broadly find government actions to be patent takings.⁸⁹

II

HISTORY AND TRADITION OF PUBLIC FRANCHISE REGULATION

Outside the patent context, there is a long history of parties challenging governmental power to regulate in ways that affect existing regulatory grants. Constitutional questions under both the Takings Clause and the Contract Clause arose repeatedly in the nineteenth and early twentieth centuries in the context of grants of public franchises. This Part explores the history and tradition of public franchise regulation in the United States to explore how the public franchise characterization could influence unresolved questions about patent takings. History and tradition show that the Supreme Court consistently construed property interests narrowly and took the position that the government had broad power to regulate in ways that affected public franchises without violating the Constitution or incurring financial liability. Even during the time period known as the *Lochner* era, which is associated with strong property protections, the Court interpreted the scope of constitutional protections for public franchises to be quite narrow.

A. Defining "Public Franchise"

The phrase "public franchise" does not have a single, clear definition.⁹⁰ During the nineteenth and early twentieth centuries, the phrase "franchise" typically referred to a grant from the government that allowed a corporation to exercise privileges.⁹¹ The phrase "public franchise," more specifically, was often

⁸⁸ See Hrды & Picozzi, *supra* note 33, at 481–85 (arguing that the America Invents Act is not a taking under takings doctrine); see also Brief of Law Scholars as Amicus Curiae In Support of Appellees and Affirmance at 15–34, *Bristol Myers Squibb Co. v. Becerra*, 155 F.4th 245 (3d Cir. 2025) (Nos. 24-1820, 24-1821) (arguing that Medicare drug price negotiation, and even price regulation generally, for patented drugs does not implicate the Takings Clause).

⁸⁹ Dolin & Manta, *supra* note 70, at 725–26, 788–96 (arguing that the America Invents Act is a taking under the *Penn Central* test because of the resulting reduction in value of patents and alternatively, that it is a per se taking based on an analogy to physical takings).

⁹⁰ JOSEPH ASBURY JOYCE, A TREATISE ON FRANCHISES: ESPECIALLY THOSE OF PUBLIC SERVICE CORPORATIONS §§ 1–3 (1909); Nelson, *supra* note 73, at 1441.

⁹¹ JOYCE, *supra* note 90, § 3 (observing widespread adoption of definition of franchises as "special privileges conferred by the government upon individuals,

used to describe grants to perform public functions, such as to build a railroad on a public road or a bridge on a public river.⁹² Franchises originated not from natural rights, but instead from legislative grants.⁹³

The most common form of franchises were grants of corporate charters.⁹⁴ Corporate charters were typically granted by state legislatures, and many charters authorized companies to take actions that required permission from the government.⁹⁵ For example, although individuals typically could not obstruct the public right of navigation along a river, a franchise could grant a private company authority to build a bridge over the river or to operate a ferry across it.⁹⁶ Similarly, franchises could

which do not belong to the citizens of the country generally of common right" (quoting *Denver & Swansea Ry. Co. v. Denver City Ry. Co.*, 2 Colo. 673, 682 (1875)); JOYCE, *supra* note 90, § 9; JOYCE, *supra* note 90 § 144 (observing that no private person can establish a public highway, ferry, or railroad or charge tolls for their use without a legislative grant); Nelson, *supra* note 73, at 1440–41, 1463; Stephen A. Siegel, *Understanding the Nineteenth Century Contract Clause: The Role of the Property-Privilege Distinction and "Takings" Clause Jurisprudence*, 60 S. CAL. L. REV. 1, 7 n.16 (1986) ("State-granted franchises involve rights which all individuals do not possess as part of the common law, but which the government bestows, typically upon some, and not others."); 1 ALLEN RIPLEY FOOTE, *THE LAW OF INCORPORATED COMPANIES OPERATING UNDER MUNICIPAL FRANCHISES* 201 (Charles E. Everett, ed., Cincinnati, Robert & Clarke Co. 1892) ("Strictly speaking, a franchise is a right or privilege possessed by a person or company, and granted by the sovereign power, to enjoy or exercise rights or privileges which are not possessed of right by citizens in general."); G. LLOYD WILSON, JAMES M. HERRING & ROLAND B. EUTSLER, *PUBLIC UTILITY REGULATION* 21 (1st ed. 1938) ("In a general sense a franchise is any grant of a special right or privilege by a legislative body to persons or corporations, such as the right to exist in a corporate capacity, to carry on a particular business, or to enjoy special privileges.").

⁹² See, e.g., *Slaughter-House Cases*, 83 U.S. (16 Wall.) 36, 120–21 (1873) (Bradley, J., dissenting) (describing "exclusive privileges for erecting ferries, railroads, markets, and other establishments of a public kind" as "public franchises" that "can only be exercised under authority from the government"); JOYCE, *supra* note 90, §§ 13–14 (distinguishing a private franchise from a public franchise, noting that a private franchise does not include an obligation to perform public functions).

⁹³ FOOTE, *supra* note 91, at 203 ("[W]hether granted by constitutional provision, by general or special act of the legislature, or by municipal authorities, the courts, or the people of a municipality by virtue of delegated authority, the grant has its origin in the only source of sovereignty, the people.").

⁹⁴ FOOTE, *supra* note 91, at 201 ("Perhaps the most common form of franchise grant is that of corporate existence, with which are often coupled numerous rights in the nature of franchises, such as the right to use highways, to take tolls, etc.").

⁹⁵ *Id.*

⁹⁶ See, e.g., *Covington Drawbridge Co. v. Shepherd*, 62 U.S. (21 How.) 112, 123 (1858) (noting that navigable portion of a river was "not subject to be bridged by an individual assuming to exercise a mere private right" because building a bridge required "public authority" to impair the public right of navigation); see also JOYCE, *supra* note 90, § 15. Franchises could also authorize companies to

grant utility companies authority to dig up city streets and lay water or gas lines, even though citizens ordinarily could not obstruct city streets.⁹⁷

B. The Threshold Question of Constitutional Protection

Whether public franchises conferred constitutionally protected property interests was a frequently litigated issue in the nineteenth and early twentieth centuries.⁹⁸ In general, courts held that public franchise holders had cognizable property interests if they had vested rights.⁹⁹ If an aspect of the franchise grant vested, public franchise holders could receive some constitutional protections.¹⁰⁰ Public franchise holders brought property-based challenges to regulations that affected their franchises under two constitutional provisions: the Contract Clause and the Takings Clause.¹⁰¹

The Contract Clause prohibits states from enacting any law “impairing the Obligation of Contracts.”¹⁰² As an originalist matter, it is unclear whether the Founders intended for public grants to fall within the scope of the clause.¹⁰³ Yet in 1819, the Supreme Court broadly interpreted the clause

collect fees when members of the public used their bridges or ferries. JOYCE, *supra* note 90 § 17.

⁹⁷ JOYCE, *supra* note 90, § 16; *see also* FOOTE, *supra* note 91, at 115–16; WILSON ET AL., *supra* note 91, at 21.

⁹⁸ *See, e.g.*, BENJAMIN FLETCHER WRIGHT, JR., THE CONTRACT CLAUSE OF THE CONSTITUTION 53, 64–68 (1938) (describing debate over constitutional protection for public grants).

⁹⁹ JAMES W. ELY, GUARDIAN OF EVERY OTHER RIGHT: A CONSTITUTIONAL HISTORY OF PROPERTY RIGHTS 62–63 (3d ed. 2007).

¹⁰⁰ The constitutional protections turned on whether a right had vested, not whether it was granted by a state or federal legislature. Therefore, although most public franchises were granted by state legislatures, the inquiry about the scope of vested rights that they conferred is still relevant for discussions about federal grants of patents. *See infra* section II.C.1.

¹⁰¹ *See* FOOTE, *supra* note 91, at 150 (“Legislative power to control, regulate, alter, or repeal the powers granted corporations, and the special grants and privileges which may be made, is limited primarily by the provisions of the federal constitution forbidding the impairing of the obligation of contracts.”); *Bridge Co. v. United States*, 105 U.S. 470, 481–82 (1882) (raising Takings Clause challenge to order requiring changes to bridge franchise); *Louisville Bridge Co. v. United States*, 242 U.S. 409, 416 (1917) (same).

¹⁰² U.S. CONST., art. I, § 10.

¹⁰³ WRIGHT, *supra* note 98, at 15–18 (observing that in the Founding era, most assumed that the Contract Clause only applied to contracts between private parties); *id.* at 26, 68 n.23.

to apply to corporate charters.¹⁰⁴ Since the Contract Clause prohibits state actions that impair contracts, it offered an avenue to enjoin government action. It therefore became the primary tool for challenging the government's power to regulate in ways that affected the value of existing public franchises.¹⁰⁵

Public franchise holders also challenged some regulations under the Takings Clause, although these challenges were not as frequent as Contract Clause challenges.¹⁰⁶ Unlike the Contract Clause, the Takings Clause does not prohibit government action if the taking is for a public use. Instead, it requires just compensation, which in turn could increase the costs of regulation. The Supreme Court did not squarely decide whether public franchises are "private property" within the scope of the Takings Clause.¹⁰⁷ Similarly to its statements regarding patents, though,¹⁰⁸ it made several statements in dicta suggesting that public franchises could be cognizable property interests for takings purposes.¹⁰⁹

¹⁰⁴ WRIGHT, *supra* note 98, at 39–44. The decision was controversial at the time. *Id.* at 53.

¹⁰⁵ WRIGHT, *supra* note 98, at 95, 128 ("Before 1889 the contract clause had been considered by the Court in almost forty per cent of all cases involving the validity of state legislation."); Siegel, *supra* note 91, at 7 (observing that the vast majority of Contract Clause litigation in the 1800s involved state-granted franchises). The Contract Clause only applies to state governments, but most franchises were granted by state legislatures. See Nelson, *supra* note 73 at 1453–54; WILLIAM J. NOVAK, *NEW DEMOCRACY: THE CREATION OF THE MODERN AMERICAN STATE* 117–18 (2022).

¹⁰⁶ Takings challenges were brought both against federal and state governments. See *infra* subpart II.C. The Fifth Amendment originally applied only to the federal government. See Siegel, *supra* note 91, at 94. It was incorporated against the states in 1897. See Chi., Burlington & Quincy R.R. Co. v. Chicago, 166 U.S. 226, 241 (1897). Many state constitutions also contain takings clauses. Maureen E. Brady, *Property's Ceiling: State Courts and the Expansion of Takings Clause Property*, 102 VA. L. REV. 1167, 1168 (2016).

¹⁰⁷ Although some cases contain dicta observing that franchises were entitled to Takings Clause protection, those cases involved either voluntary compensation by the government or physical appropriations also. See, e.g., *Monongahela Navigation Co. v. United States*, 148 U.S. 312, 337 (1893) ("If a man's house must be taken, that must be paid for, and, if the property is held and improved under a franchise from the State, with power to take tolls, that franchise must be paid for, because it is a substantial element in the value of the property taken."); *City of Los Angeles v. L.A. Gas & Elec. Corp.*, 251 U.S. 32, 39–40 (1919) (holding that taking of company's electric system was outside government's police power); *W. River Bridge Co. v. Dix*, 47 U.S. (6 How) 507, 530 (1848).

¹⁰⁸ See *supra* section I.A.1.

¹⁰⁹ See *supra* notes 31–33 (describing dicta in patent cases) & note 107 (describing dicta in franchise cases).

C. The Public Franchise Model

Although the Supreme Court recognized that public franchises could sometimes confer property interests that were cognizable under the Constitution, it took a narrow view of the scope of those property interests.¹¹⁰ In this Section, I analyze four principles derived from the Supreme Court's public franchise case law under the Contract Clause and the Takings Clause during the nineteenth and early twentieth centuries. Using these principles, public franchises are limited by *ex ante* conditions, construed narrowly, and distinguished from physical property. The result is that the government retains broad discretion to regulate in ways that impact the value of public franchises without implicating constitutional property protections. These guiding principles placed significant limits on the scope of constitutional protection afforded to public franchises.

1. *Ex Ante Discretion*

Legislatures had broad discretion over whether to grant a franchise and to whom.¹¹¹ This discretion included the ability to place conditions on grants. Legislatures placed a wide array of conditions on public franchises.¹¹² Some required franchisees to perform "important duties of a public character,"¹¹³ like providing telegraph services, while others set out criteria upon which a franchise could be revoked.¹¹⁴ These conditions provided a

¹¹⁰ Government actions were found unconstitutional only in limited situations, such as when the government changed course on an express promise to a franchise holder and was not acting under a legitimate police power. *See* WRIGHT, *supra* note 98 at 134, 138, 142, 146, 175–76, 207; *see also* *City of Louisville v. Cumberland Tel. & Tel. Co.*, 224 U.S. 649, 664–65 (1912); *Mo., Kan., & Tex. Ry. Co. v. Oklahoma*, 271 U.S. 303, 310 (1926).

¹¹¹ Nelson, *supra* note 73 at 1438, 1464 ("[G]enerally speaking, no one had a vested right to obtain a franchise in the first place.").

¹¹² Nelson, *supra* note 73, at 1461 ("Of course, even if the charters that state legislatures granted to private corporations amounted to contracts, the legislatures could determine the wording of the charters that they granted, and hence the terms of the deal."); Nelson, *supra* note 73, at 1463 ("The state did not have to grant such franchises, and the state could build appropriate qualifications into the franchises that it chose to grant."); FOOTE, *supra* note 91, at 214 (noting that franchises are "within the control of the legislature" until the power to grant a franchise has been exercised).

¹¹³ Nelson, *supra* note 73, at 1441 (quoting *Calif. State Tel. Co. v. Alta Tel. Co.*, 22 Cal. 398, 422 (1863), *overruled in part on other grounds by* *City of San Francisco v. Spring Valley Water Works*, 48 Cal. 493 (1874)).

¹¹⁴ JOYCE, *supra* note 90, § 485.

source of continuing regulation.¹¹⁵ If a franchisee failed to meet a required condition, the franchise could be forfeited.¹¹⁶ For example, in *Farnsworth v. Minnesota & Pacific Railroad Co.*, the Supreme Court held that a company forfeited a franchise when it did not build a railroad track by a date specified in the franchise grant.¹¹⁷ Moreover, legislatures could require companies to make changes to their franchise operations pursuant to express conditions. In *Bridge Co. v. United States*,¹¹⁸ for example, the Court held that Congress could require a bridge company to make changes to its bridge without providing compensation because of an express condition in the franchise.¹¹⁹ That franchise grant reserved power for Congress to “direct the necessary modifications and alterations” of the bridge as needed to allow free navigation of a river.¹²⁰ Because this express provision was

¹¹⁵ See *Louisville Bridge Co. v. United States*, 242 U.S. 409, 419–20 (1917) (describing how condition in franchise that bridge not obstruct navigation allowed for continuing regulation under the Commerce Clause); *Union Bridge Co. v. United States*, 204 U.S. 364, 402–03 (1907) (observing that conditions in franchise grants can create continuing duties, such as to ensure bridges comply with regulation of navigable waters); *Chi., Burlington & Quincy Ry. Co. v. Illinois ex rel. Drainage Comm’rs*, 200 U.S. 561, 589–90 (1906) (describing conditions that placed continuing duties on railroads); *Railroad Commission Cases*, 116 U.S. 307, 331–33 (1886) (explaining that condition in charter that internal affairs would be done in compliance with state laws allowed state to regulate the company’s internal affairs without impairing contract).

¹¹⁶ See JOYCE, *supra* note 90, § 485; *Bridge Co. v. United States*, 105 U.S. 470, 476–79 (1882) (describing conditions placed on continued existence of bridge franchises); WRIGHT, *supra* note 98, at 160 (describing holding of no vested rights when electricity company did not build plant).

¹¹⁷ 92 U.S. 49, 65–67 (1876).

¹¹⁸ 105 U.S. 470 (1882).

¹¹⁹ 105 U.S. 470, 475, 81–82 (1882) (“The first question which presents itself is, whether, on the face of the several acts of Congress, any liability rests on the United States to pay the bridge company the cost of the change that was directed in the plan of its bridge.”). In this case, the Court concluded that the determination of whether conditions were satisfied was a matter of legislative discretion that did not require judicial determination. *Id.* at 480–81. There is an academic debate over whether forfeiture of a franchise required adjudication before an Article III court when the franchise allowed for revocation upon specified conditions. Compare Nelson, *supra* note 73, at 1459–60, 1465–66 & n.221 (arguing that judicial determination of underlying facts was required, subject to some limitations); with Gregory Ablavsky, *Getting Public Rights Wrong: The Lost History of the Private Land Claims*, 74 STAN. L. REV. 277, 284–85 (2022) (arguing that there were circumstances where vested rights could be adjudicated without judicial involvement); see also JOYCE, *supra* note 90, § 485 (noting that “forfeiture may be declared by legislative act without judicial proceedings” where a required deadline is not met). Whether judicial power is needed to revoke or modify franchises is outside the scope of this Article.

¹²⁰ *Bridge Co.*, 105 U.S. at 480. The franchise also allowed Congress to revoke the bridge franchise if it “substantially and materially obstructed” free navigation. *Id.*

included in the franchise grant, Congress did not owe any compensation under the Takings Clause for the cost of changes it required the company to make to the bridge.¹²¹

Beyond placing specific conditions on franchises, legislatures sometimes included broad reservation clauses in grants, which generally reserved power for legislatures to revoke or amend franchises at their discretion.¹²² Reservation clauses became common in the nineteenth century.¹²³ When states created general incorporation laws, they often included “global” reservation clauses that reserved power to alter all corporations created under those laws.¹²⁴ When states reserved powers to revoke franchises at will, the franchises typically were considered not to confer any vested rights.¹²⁵

The widespread use of reservation clauses therefore limited any constitutional property protection for public franchises.¹²⁶ For example, in *Shields v. Ohio*,¹²⁷ the Supreme Court held that an Ohio state constitutional provision that reserved the power to “alter[], revoke[], or repeal[]” all corporate charters allowed the legislature to impose rate regulation on a railroad after its franchise was granted.¹²⁸ In *Greenwood v. Freight Co.*,¹²⁹ the

¹²¹ *Id.* at 481–83; *see also* *Hannibal Bridge Co. v. United States*, 221 U.S. 194, 205–07 (1911) (holding that requirement to alter bridge “was not a taking of the property of the owners of [] bridges” when the legislation granting the franchise “expressly reserves the right to alter or amend it so as to prevent or remove all material obstructions to the navigation of [a] river by the construction of bridges”); *W. Chi. St. R.R. Co. v. Illinois ex rel. Chi.*, 201 U.S. 506, 524–26 (1906) (no taking when condition of grant required tunnel not to interrupt navigation).

¹²² *See* Nelson, *supra* note 73, at 1461; Siegel, *supra* note 91, at 30 n.138, 33; *The Pennsylvania College Cases*, 80 U.S. (13 Wall.) 190, 212–14 (1872); *Pub. Serv. Comm’n of P.R. v. Havemeyer*, 296 U.S. 506, 517 (1936) (describing distinction between reservations to repeal a grant at the legislature’s discretion and reservations to repeal only upon certain conditions); *United States v. Union Pac. Ry. Co.*, 160 U.S. 1, 37–38 (1895).

¹²³ Nelson, *supra* note 73, at 1461; Siegel, *supra* note 91, at 33 n.153; JAMES W. ELY, JR., *THE CONTRACT CLAUSE: A CONSTITUTIONAL HISTORY* 39 (2016); WRIGHT, *supra* note 98, at 58–60, 84–85.

¹²⁴ Nelson, *supra* note 73, at 1462; WRIGHT, *supra* note 98, at 84–85.

¹²⁵ *See* Nelson, *supra* note 73, at 1533; WRIGHT, *supra* note 98, at 178 (observing that limits based on vested rights “has not become an important restriction upon the effectiveness of reservation clauses”); *see also* *Miller v. New York*, 82 U.S. (15 Wall.) 478, 488–89 (1873) (explaining how reservation clauses qualify franchise grants).

¹²⁶ *See* WRIGHT, *supra* note 98, at 170–73; JOYCE, *supra* note 90, § 485.

¹²⁷ 95 U.S. 319 (1877).

¹²⁸ *Id.* at 321–22, 324 (quoting OHIO CONST. art. 1, § 2). The Court noted, however, that the “power of alteration and amendment” was not unlimited; alterations must be “reasonable . . . in good faith, and [] consistent with the scope and object of the act of incorporation.” *Id.* at 324.

¹²⁹ 105 U.S. 13 (1881).

Court held that a law that reserved the power to amend or repeal corporate charters “at the pleasure of the legislature” gave the Massachusetts state legislature discretion to repeal a railroad charter without any explanation.¹³⁰ In both cases—and in many others—the Court concluded that subsequent regulation did not violate the Contract Clause because the legislature reserved power to amend or repeal the franchise up front.¹³¹

2. *Strict Construction Rule*

In addition to recognizing broad *ex ante* discretion to place conditions on public franchises at the outset, the Supreme Court developed a strict construction rule, which strictly construed franchise grants against the grantee and in favor of the public.¹³² Under the strict construction rule, courts typically enforced express provisions of franchise grants but were reluctant to imply any property protections for franchisees.¹³³ Given the strict construction rule, legislatures did not need to expressly reserve the power to regulate for health, safety, and welfare.¹³⁴ Therefore, even when grants did not expressly include reservation clauses, the rule of strict construction provided legislatures discretion to continue regulating franchises without violating the Contract Clause or incurring liability under the Takings Clause.¹³⁵

The well-known *Charles River Bridge* case provides an example of how the strict construction rule limited the scope

¹³⁰ *Id.* at 16–18 (1882). After doing so, the legislature could also authorize another corporation to operate a railroad on the same streets. *Id.* at 22.

¹³¹ *Id.* at 23–24; *Shields*, 95 U.S. at 324; see also WRIGHT, *supra* note 98, at 173 (“[T]he Court has many times given effect to such reservation clauses.”); *Miller*, 82 U.S. at 495–98 (upholding state legislation that authorized a city to elect more directors of a corporation based on reservation clause).

¹³² JOYCE, *supra* note 90, §§ 23, 254–57. The strict construction rule was usually applied in cases involving public utilities in disputes about issues of exclusiveness, duration of the franchise, and rate regulation. WRIGHT, *supra* note 98, at 162.

¹³³ Siegel, *supra* note 91, at 36; ELY, *supra* note 99, at 71 (“The Supreme Court regularly followed the principle of strict construction of grants and charters, refusing to enlarge corporate rights by implication.”).

¹³⁴ Christopher Serkin, Penn Central *Take Two*, 92 NOTRE DAME L. REV. 913, 934 (2016) (“In other words, the police power is so important that a government seeking to bargain it away must do so expressly.”) [hereinafter Serkin, Penn Central *Takes Two*]; Siegel, *supra* note 91, at 42–43, 42 n.208 (collecting cases).

¹³⁵ Siegel, *supra* note 91, at 40 (“The strict construction principle was a major undermining of the contract clause’s protection of state-granted franchises.”); see also *Louisville Bridge Co. v. United States*, 242 U.S. 409, 419–21 (1917) (applying rule to find no taking).

of any property interests in public franchises.¹³⁶ In that case, Massachusetts granted the Charles River Bridge a charter to operate a toll bridge for forty years.¹³⁷ Before the Charles River Bridge charter expired, the Massachusetts legislature chartered a second bridge that would serve the same transportation route.¹³⁸ The Charles River Bridge corporation sought to enjoin the operation of the second bridge, arguing that it violated the Contract Clause because the charter gave it the exclusive right to operate a bridge in the area. Applying the strict construction rule, the Supreme Court held that the Charles River Bridge franchise was not exclusive because the charter did not expressly state that it was.¹³⁹ The Court therefore declined to halt the operation of the second bridge.¹⁴⁰

The Court applied the strict construction rule to reject other Contract Clause challenges as well. In *Providence Bank v. Billings*, the Supreme Court held that a bank charter did not implicitly surrender the state's taxation power.¹⁴¹ The Court noted that the power to tax was "essential to the existence of government" and thus "relinquishment of such a power is never to be assumed."¹⁴² The bank charter did not allow the bank to restrain the government from "passing any act which may indirectly destroy the profits of the bank."¹⁴³

Similarly, in the *Railroad Commission Cases*, the Court upheld a state legislature's power to regulate railroad rates where a franchise did not expressly limit its ability to do so.¹⁴⁴

¹³⁶ See generally *Proprietors of the Charles River Bridge v. Proprietors of the Warren Bridge*, 36 U.S. (11 Pet.) 420 (1837).

¹³⁷ *Id.* at 585–86 (Story, J., dissenting). The corporation was originally established for a forty-year term. In 1792, the legislature granted an additional thirty years as compensation for the loss of tolls due to the chartering of a partially competing bridge. *Id.*

¹³⁸ *Id.* at 550 (majority opinion). The Warren Bridge was allowed to charge a toll to pay for its construction costs and a 5% profit. Once the costs were recaptured or six years elapsed, the bridge was to become free and the property of the state. *Id.* at 570–71 (McLean, J., concurring).

¹³⁹ *Id.* at 548–50 (majority opinion). The Court reached this conclusion even though bridge franchises were typically exclusive at the time. *Id.* at 618–30 (Story, J., dissenting); see also JOYCE, *supra* note 90, § 23 (describing requirement for express language to grant exclusive rights in franchises); THOMAS M. COOLEY, *THE GENERAL PRINCIPLES OF CONSTITUTIONAL LAW IN THE UNITED STATES OF AMERICA* 306–07 (1880) (same).

¹⁴⁰ *Proprietors of the Charles River Bridge*, 36 U.S. at 553.

¹⁴¹ 29 U.S. (4 Pet.) 514, 559–60 (1830).

¹⁴² *Id.* at 561.

¹⁴³ *Id.* at 560.

¹⁴⁴ 116 U.S. 307, 329–30 (1886).

The charter authorized the railroad company to collect tolls but was silent as to whether the legislature could regulate the rates of those tolls.¹⁴⁵ It was settled that states had the power to regulate railroad rates. To the extent that this power could be bargained away, it could only be done through express language.¹⁴⁶

The strict construction rule also limited the availability of takings claims. In *Louisville Bridge Co. v. United States*, the Supreme Court used the strict construction rule to reject a takings claim.¹⁴⁷ A bridge franchise specified that the bridge would be a lawful structure if built according to the specifications set out in the grant.¹⁴⁸ Under a subsequently passed law, the Secretary of War took steps to require alterations to the bridge because it obstructed navigation.¹⁴⁹ The Court reasoned that the grant did not explicitly say that the bridge would be lawful in perpetuity or expressly promise not to amend the franchise.¹⁵⁰ Therefore, it could be interpreted as only declaring that the bridge was lawful at the time it was constructed. The government retained power to continue regulating under the Commerce Clause, and the subsequent order requiring the

¹⁴⁵ *Id.*

¹⁴⁶ *Id.* at 325–29 (discussing cases applying the strict construction rule and describing the power to regulate rates as “continuing in its nature”). Furthermore, the Court held that legislatures could not bargain away certain inalienable powers, even through express language. *Stone v. Mississippi*, 101 U.S. 814, 819 (1880). The inalienable powers doctrine allowed governments to modify express terms of public franchises without violating the Contract Clause. *Nelson*, *supra* note 73, at 1471 (“[N]o one could acquire a vested right to be exempt from core aspects of a state’s police powers.”); *Siegel*, *supra* note 91, at 31 (“[R]ights contained in state-granted franchises that were ‘inalienable aspects of sovereignty’ were subject to retrospective legislative modification and revocation, even if their grant was express and not subject to a reserve clause.”); *see also* *Fertilizing Co. v. Hyde Park*, 97 U.S. 659, 663–65, 667 (1878) (holding that state could prohibit transportation of certain materials and their use in fertilizers despite an express charter authorizing a company to do so because the business had become a nuisance); *Beer Co. v. Massachusetts*, 97 U.S. 25, 32–33 (1878) (noting that state would have power to prohibit liquor manufacture despite corporate charter authorizing company to manufacture liquor, even without an express reservation clause); *Butchers’ Union Slaughter-House & Live-Stock Landing Co. v. Crescent City Live-Stock Landing & Slaughter-House Co.*, 111 U.S. 746, 747–50 (1884) (holding that Contract Clause did not restrain legislature from ending monopoly granted to slaughter-house); *Tex. & New Orleans R.R. Co. v. Miller*, 221 U.S. 408, 413–15 (1911) (holding that Contract Clause did not prevent state legislature from overriding a corporate charter provision that exempted a railroad company from tort liability for the death of its employees).

¹⁴⁷ 242 U.S. 409, 419–21 (1917).

¹⁴⁸ *Id.* at 414.

¹⁴⁹ *Id.* at 415–16.

¹⁵⁰ *Id.* at 419.

franchisee to alter the bridge did not require compensation under the Takings Clause.¹⁵¹

3. *Distinguishing Physical Appropriation*

In disputes over the government's power to regulate public franchises, the Supreme Court recognized distinctions between the intangible franchise grant itself and underlying physical assets that companies acquired while operating a franchise.¹⁵² In making this distinction, the Court allowed for more protection against physical appropriations and invasions of property than for intangible grants.¹⁵³

For example, in *Bridge Co. v. United States*, the Supreme Court rejected a takings claim when the government revoked a bridge franchise because the grant included a condition reserving the power to do so.¹⁵⁴ Although the franchise was a species of property, its "continued existence was dependent on the will of Congress," as the franchise grant made clear.¹⁵⁵ The Court observed that the revocation of the franchise may make the company's underlying property less valuable but "that was a risk . . . the company voluntarily assumed when it expended its money under the limited license" from Congress.¹⁵⁶ Significantly, however, the Court noted that Congress could not physically appropriate the

¹⁵¹ *Id.* at 421. The Court emphasized that the government had power to regulate obstructions to navigation under the Commerce Clause. *Id.* at 420–21. The Supreme Court rejected takings claims in other similar situations as well. See *infra* section II.C.4.

¹⁵² See Siegel, *supra* note 91, § 34 (arguing that courts interpreted reservation clauses to allow franchises to be repealed, but did not affect underlying assets); JOYCE, *supra* note 90 ("[T]he franchise of being a corporation . . . is considered as property separate and distinct from the property or franchises which the corporation may itself acquire subsequent to its incorporation by the use of its franchise.").

¹⁵³ WRIGHT, *supra* note 98, at 150 ("In every case where the state has attempted to take property of a corporation without compensation the Court has found its act to be invalid."). The Court also recognized more protection for physical invasions and appropriations than for regulations of how property could be used, a principle that continues today. See *Mugler v. Kansas*, 123 U.S. 623, 668–69 (1887); *supra* subsection II.B.

¹⁵⁴ 105 U.S. 470, 478–82 (1882).

¹⁵⁵ *Id.* at 482.

¹⁵⁶ *Id.*; see also *Beer Co. v. Massachusetts*, 97 U.S. 25, 32 (1878) ("We do not mean to say that property actually in existence, and in which the right of the owner has become vested, may be taken for the public good without due compensation.").

corporation's underlying property used to build the bridge without compensation.¹⁵⁷

The Court drew a similar distinction between the franchise and physical property in *Greenwood v. Freight Co.*¹⁵⁸ As discussed above, the Court held in that case that a reservation clause authorized the state legislature to repeal a railroad charter at its discretion without violating the Contract Clause.¹⁵⁹ A question then arose about the legislature's power to subsequently authorize another company to operate a railroad in the same area and to acquire existing tracks. The Court explained that the railroad company had no continuing rights to use the city streets once its franchise was revoked.¹⁶⁰ It therefore had no recourse when the legislature granted a franchise to another company to operate on city streets. Rights over personal property acquired by the corporation during its existence, however, were not destroyed by the repeal of a franchise.¹⁶¹ In dicta, the Court observed that even when a legislature repealed a railroad franchise, the corporation could still retain property rights in its stock, horses, stables, debts owed to it, and other money.¹⁶² Therefore, the company would still be entitled to compensation when another company took over its physical railroad tracks.¹⁶³

The Court expressed similar deference to physical property in the context of rate regulation. It broadly upheld the power of legislatures to regulate prices charged by public utility companies.¹⁶⁴ Yet it also recognized that rate regulation could amount

¹⁵⁷ *Bridge Co.*, 105 U.S. at 482. If physical assets were appropriated, the franchise could be relevant to determine the value of those physical assets. See *Monongahela Navigation Co. v. United States*, 148 U.S. 312, 329–30 (1893) (holding the valuation of lock and dam must consider the owner's public franchise to collect tolls).

¹⁵⁸ 105 U.S. 13, 19 (1881).

¹⁵⁹ See *supra* section II.C.1.

¹⁶⁰ *Greenwood*, 105 U.S. at 19 (explaining that once a franchise is revoked, it ceases to exist).

¹⁶¹ *Id.* The Court did not explore the full scope of which property rights remain, though it stated that corporations retain personal and real property, rights of contract, and causes of action that “do not in their nature depend upon the general powers conferred by the charter.” *Id.*

¹⁶² *Id.* at 21.

¹⁶³ *Id.* at 21–23. In that case, the government voluntarily offered compensation. The law created a procedure for the new railroad company to pay for any tracks it acquired. The Court observed that there could be no valid objection to this because the eminent domain power allows the government to take property of corporations for public use in exchange for compensation. *Id.* at 22.

¹⁶⁴ See Note, *Price and Sovereignty*, 135 HARV. L. REV. 755, 762–67 (2021) (discussing *Munn v. Illinois*, 94 U.S. 113 (1877)).

to a taking of the company's underlying assets if the rates were set too low given other service requirements. When the Court upheld the state's authority to regulate rates after a railroad franchise was granted in the *Railroad Commission Cases*, it noted that "[t]his power to regulate is not a power to destroy, and limitation is not the equivalent of confiscation."¹⁶⁵ Accordingly, legislatures could not, under the pretense of regulating rates, require a railroad to carry passengers or property without payment at all, nor could it do what "amounts to a taking of private property for public use without just compensation."¹⁶⁶ Therefore, the ability to regulate franchises did not extend to government actions that physically appropriated a company's underlying assets.

4. *Broad Zone of Permissible Regulation*

The Court consistently applied these principles to find that governments could continue to broadly regulate public franchises without violating constitutional property rights conferred by public franchises. Notably, the Court repeatedly rejected takings challenges based on regulations that required public franchise holders to spend money to make changes to their businesses.¹⁶⁷ In rejecting takings claims, the Court discussed both the character of the government regulation and the reasonable expectations of public franchise holders—two factors of the modern *Penn Central* test. And like courts applying the

¹⁶⁵ 116 U.S. 307, 331 (1886); *see also* *Reagan v. Farmers' Loan & Tr. Co.*, 154 U.S. 362, 399, 409–13 (1894); *Covington & Lexington Tpk. Rd. Co. v. Sandford*, 164 U.S. 578, 596–97 (1896); *Smyth v. Ames*, 169 U.S. 466, 546–47 (1898). The Court's initial cases about confiscatory rate-making were unclear about whether confiscatory rates violated the Takings Clause or the Due Process Clause, but the Court later clarified that the doctrine is rooted in the Takings Clause. Daniel F. Spulber & Christopher S. Yoo, *Access to Networks: Economic and Constitutional Connections*, 88 CORN. L. REV. 885, 934 (2003).

¹⁶⁶ *Railroad Commission Cases*, 116 U.S. at 331. Yet the Court in that case did not address what would amount to a taking because the Commission had not yet set a rate. *Id.*

¹⁶⁷ *See, e.g.*, *Union Bridge Co. v. United States*, 204 U.S. 364, 389–99 (1907) (describing cases rejecting takings challenges); *Chi., Burlington & Quincy Ry. Co. v. Illinois ex rel. Drainage Comm'rs*, 200 U.S. 561, 588, 595 (1906) (requirement for company to remove bridge and construct a new one without compensation not a taking because "corporations such as appellant do not hold their property and exercise their franchises strictly in a private right, but [] from the nature of their business and their relation to society they are public corporations in a sense and are subject to public control and regulation . . ."); William Michael Treanor, *The Original Understanding of the Takings Clause and the Political Process*, 95 COLUM. L. REV. 782, 797 n.81 (1995) (collecting cases where valid exercises of police power were not considered takings).

Penn Central test, it typically concluded that government actions did not violate constitutional property protections.

For example, in *New Orleans Gas Light Co. v. Drainage Commission*,¹⁶⁸ a gas company argued that it was entitled to compensation when the city required it to move its pipes to make way for a drainage system. The company built the gas pipes under a public franchise grant that gave it the exclusive right to supply gas to the city and to build pipes under city streets.¹⁶⁹ The grant did not specify any particular location within the city where the company had the exclusive right to build pipes.¹⁷⁰ The Court acknowledged that the gas company should have reasonably expected the potential for regulatory change, stating that the company built its pipes subject to the "risk that they might be, at some future time, disturbed, when the state might require for a necessary public use that changes in location be made."¹⁷¹ It also analyzed the nature of the regulation, observing that the city was exercising its legitimate police power to protect public health and safety and that the city did not interfere with the gas company's property more than was necessary.¹⁷² The city, therefore, did not need to compensate the gas company for expenses incurred to move its pipes, notwithstanding its public franchise.¹⁷³

The Court applied similar reasoning to reject a takings claim in *Union Bridge Co. v. United States*, where the federal government ordered a bridge company to modify its bridge without compensation.¹⁷⁴ The Court again pointed to the investment-backed expectations of the bridge company. When the company built and operated its bridge, it "did so with knowledge of the paramount authority of Congress to regulate commerce among the States."¹⁷⁵ It therefore built the bridge "subject to the possibility that Congress might, at some future time, when the public interest demanded, exert its power by appropriate legislation to protect navigation against

¹⁶⁸ 197 U.S. 453 (1905).

¹⁶⁹ *Id.* at 458.

¹⁷⁰ *Id.* at 459.

¹⁷¹ *Id.* at 461. ("It would be unreasonable to suppose that in the grant to the gas company of the right to use the streets in the laying of its pipes it was ever intended to surrender or impair the public right to discharge the duty of conserving the public health.").

¹⁷² *Id.* at 460-61.

¹⁷³ *Id.* at 462.

¹⁷⁴ 204 U.S. 364, 388 (1907).

¹⁷⁵ *Id.* at 400.

unreasonable obstructions.”¹⁷⁶ Furthermore, an express condition in the public franchise grant put the bridge company on notice that it was under a continuing duty to ensure that its bridge did not obstruct navigation.¹⁷⁷ The Court also considered the character of the regulation, noting that the bridge’s injury was merely incidental to the government’s exercise of its power to regulate interstate commerce.¹⁷⁸ The federal government accordingly had no obligation to compensate the bridge company for alterations that it ordered to stop an unreasonable obstruction to navigation.

The Supreme Court made similar observations when it broadly upheld the government’s continuing regulatory power in Contract Clause cases. In *Stone v. Mississippi*, for example, the Supreme Court held that because a legislature retains inalienable power to prohibit lotteries notwithstanding any express grants, lottery companies should expect that future regulation could stop their operations.¹⁷⁹ The opinion stated that anyone who accepts a lottery charter does so with an “implied understanding” that the government may subsequently exercise its power to suppress lotteries at any time.¹⁸⁰ It therefore did not violate the Contract Clause when the Mississippi legislature granted a charter to a lottery company for twenty-five years, but then prohibited all lotteries only one year later.¹⁸¹

The Court also emphasized the need to preserve a broad zone for regulatory flexibility in its Contract Clause case law.

¹⁷⁶ *Id.* The fact that the government was previously silent about the unreasonable obstruction did not create a constitutional obligation to pay when it decided to exert its power to prohibit obstructions to free navigation. *Id.* at 400–01.

¹⁷⁷ *Id.* at 401 (observing that the franchise grant “expressly warned the company that its bridge must not obstruct navigation”).

¹⁷⁸ *Id.* at 397, 399–400; *see also* *United States v. Joint Traffic Ass’n*, 171 U.S. 505, 570–71 (1898) (holding that the Takings Clause is “plainly irrelevant” when federal antitrust laws prohibited price-fixing agreement between railroad companies operating under public franchises).

¹⁷⁹ 101 U.S. 814, 821 (1880).

¹⁸⁰ *Id.*; *see also* *Sproles v. Binford*, 286 U.S. 374, 390 (1932) (“Contracts which relate to the use of the highways must be deemed to have been made in contemplation of the regulatory authority of the State.”); *WRIGHT*, *supra* note 98, at 163, 168, 199.

¹⁸¹ *Stone*, 101 U.S. at 817, 819. Given the Court’s decisions about inalienable police powers, constitutional challenges to government actions often boiled down to whether actions were legitimate exercises of police power under the Due Process Clause. *See* *Nelson*, *supra* note 73, at 1483. During this time, referred to as the *Lochner* era, the Supreme Court held that states had greater discretion to regulate businesses “affected with a public interest,” a category in which public franchises were classic examples. *Id.* at 1483–84 (quoting *Munn v. Illinois*, 94 U.S. 113, 126 (1877)).

Under the inalienable powers doctrine, it held that certain core governmental powers could not be contracted away, including the eminent domain power. On several occasions, for example, franchise holders argued that the Contract Clause prevented the government from exercising its power of eminent domain over their intangible grants.¹⁸² The Court consistently rejected these challenges, holding that no franchise can divest the government of its powers under the Takings Clause. For example, in *West River Bridge Co. v. Dix*,¹⁸³ the Court rejected an argument that the existence of a bridge franchise could stop condemnation proceedings.¹⁸⁴ In that case, the Vermont legislature granted a bridge company a charter to operate exclusively in a geographic area for 100 years.¹⁸⁵ Before the franchise expired, the state began condemnation proceedings to convert the bridge into a public highway.¹⁸⁶ The bridge company sought to enjoin the proceedings, contending that they violated the Contract Clause.¹⁸⁷ The Court held that voluntary condemnation proceedings do not violate the Contract Clause, observing that all types of property, including franchises, are subject to a state's eminent domain power.¹⁸⁸ Similarly, in *New Orleans Gas Co. v. Louisiana Light Co.*,¹⁸⁹ the Court noted that although the Contract Clause limited the state's ability to revoke an exclusive franchise to provide gas to the city of New Orleans, the state could exercise its powers of eminent domain and provide just compensation to the gas company.¹⁹⁰ Therefore, the Contract Clause did not restrain subsequent regulation because the

¹⁸² See, e.g., *Contributors to the Pa. Hosp. v. City of Philadelphia*, 245 U.S. 20, 21–22 (1917); *New Orleans Gas Co. v. La. Light Co.*, 115 U.S. 650, 655 (1885).

¹⁸³ 47 U.S. (6 How) 507 (1848).

¹⁸⁴ *Id.* at 532.

¹⁸⁵ *Id.* at 530.

¹⁸⁶ *Id.* County courts exercised the eminent domain power pursuant to a statutory delegation. *Id.* at 530–31. By beginning condemnation proceedings, the government voluntarily offered compensation in this case. *Id.*

¹⁸⁷ *Id.* at 531.

¹⁸⁸ *Id.* at 532. As part of its reasoning, the Court noted that a franchise does not confer greater rights than other forms of property. *Id.* at 534.

¹⁸⁹ 115 U.S. 650 (1885).

¹⁹⁰ *Id.* at 672–73 (“In that way the plighted faith of the public will be kept with those who have made large investments upon the assurance by the State that the contract with them will be performed.”); see also COOLEY, *supra* note 139, at 307 (“[T]he State has, and must have, the power to make conflicting grants when the public needs seem to require them; and the progress of the State could or might be embarrassed or stayed by improvident or dishonest state concessions if this were otherwise.”).

eminent domain power could always be used to compensate for any taking of vested property interests.

III

LESSONS FOR MODERN PATENT TAKINGS CLAIMS

The history and tradition of public franchise cases before the Supreme Court have several potential implications for modern patent takings claims if patents are viewed as protected by the Takings Clause. This Part argues that, to the extent that patents are assumed to be protected by the Takings Clause, courts should use the public franchise case law as persuasive authority in patent takings cases, given the Supreme Court's characterization of patents as public franchises and similarities between the two contexts. It then describes how the public franchise model could be applied to evaluate patent takings claims and contends that using the public franchise model in these ways would be normatively desirable to evaluate takings claims if patents are viewed as protected by the Takings Clause.

A. Parallels Between Public Franchise Cases and Patent Takings Cases

Because the Supreme Court held in *Oil States* that patents are forms of public franchises, there is a strong argument that the public franchise case law described above is binding in patent takings disputes, to the extent that courts consider the merits of patent takings claims.¹⁹¹ The public franchise cases address questions about how to define the scope of property protections that attach to public franchises, and courts may face these same questions when considering patent takings claims. The Takings Clause cases also directly address claims about takings of public franchises.

Nonetheless, the binding nature of the public franchise cases is debatable because many of the cases arose under the Contract Clause, not the Takings Clause. Furthermore, the takings cases arose before the development of the modern regulatory takings doctrine.¹⁹² Yet even if the case law is not

¹⁹¹ See *Oil States Energy Servs., LLC v. Greene's Energy Grp., LLC*, 584 U.S. 325, 338 (2018).

¹⁹² See *Pa. Coal Co. v. Mahon*, 260 U.S. 393, 415 (1922). Justice Gorsuch also suggested in his dissent in *Oil States* that courts treated patents differently than other forms of exclusive rights in the Founding Era, for instance construing patents liberally rather than strictly. See *Oil States*, 584 U.S. at 35–56 (Gorsuch, J., dissenting).

binding, courts could look to it as persuasive authority when adjudicating patent takings claims.

To the extent that courts continue to assume that patents are protected by the Takings Clause, the public franchise case law should be persuasive in the analysis of whether regulations amount to takings. The Supreme Court's holding in *Oil States* that patents are forms of public franchises alone provides a reason for courts to look to public franchise cases when considering modern patent takings claims. Furthermore, the current Supreme Court's interest in using history and tradition in constitutional law cases may make the historical public franchise cases appealing to courts.¹⁹³ Yet beyond the *Oil States* holding and the history and tradition approach at the Supreme Court, similarities in the contexts and policy goals at issue in both public franchise cases and modern patent takings cases support treating the public franchise cases as persuasive.

1. *Regulating Positive, Intangible Grants*

Similarities between patents and other forms of public franchises warrant looking to public franchise cases for guidance in patent takings cases. Both patents and public franchises are intangible grants that were positively created by legislatures.¹⁹⁴ In both scenarios, legislatures granted privileges to private parties to encourage socially beneficial behavior. Public franchises often granted companies exclusive rights to operate in a geographic area.¹⁹⁵ These exclusive rights were typically justified on the grounds that they provided an incentive to encourage companies to undertake "risky" investments to build and operate important public services, such as railroads, ferries, and

¹⁹³ See, e.g., *Vidal v. Elster*, 144 S. Ct. 1507, 1518 (2024) ("But, in evaluating a solely content-based trademark restriction, we can consider its history and tradition, as we have done before when considering the scope of the First Amendment."); *New York State Rifle & Pistol Ass'n v. Bruen*, 142 S. Ct. 2111, 2126–30 (2022) (describing the approach of relying on history in constitutional law cases and holding that "[o]nly if a firearm regulation is consistent with this Nation's historical tradition may a court conclude that the individual's conduct falls outside the Second Amendment's 'unqualified command'" (quoting *Konigsberg v. State Bar*, 366 U.S. 36, 50 n.10 (1961))).

¹⁹⁴ See *supra* subpart I.A.; 35 U.S.C. § 101; Oren Bracha, *The Commodification of Patents 1600–1836: How Patents Became Rights and Why We Should Care*, 38 LOY. L.A. L. REV. 177, 216–39 (2004) (describing history of patents in the United States, where patents consistently derived purely from legislative grants rather than common law).

¹⁹⁵ JOYCE, *supra* note 90, § 4.

bridges.¹⁹⁶ Similarly, exclusive rights in patents are typically justified on the grounds that they encourage investment in the development of innovative technologies.¹⁹⁷ These similarities make public franchises a better analogy to patents than other forms of tangible property, like land.¹⁹⁸ Public franchise cases, therefore, provide guidance for how to understand the property interests at stake in patent cases.

Furthermore, the questions raised in Contract Clause cases involving public franchises are analogous to questions raised in patent takings cases. Both contexts ask courts to consider the power of governments to regulate in ways that affect grants previously given by the government. The Contract Clause cases dealt with the power of state legislatures to enact new laws that affected public franchises previously granted by that same legislature.¹⁹⁹ Similarly, patent takings claims often deal with questions about the power of Congress to enact new laws that affect patents previously authorized by Congress. Although the remedy for Contract Clause violations is different than the remedy for unconstitutional takings, the reasoning in Contract Clause cases shows how the Supreme Court has traditionally balanced property interests created by legislatures with new initiatives of those same legislatures. The *Charles River Bridge* case, for example, is particularly instructive because in that case, the bridge company sought to enforce a government grant of exclusivity in a certain geographic area, which is analogous to patent grants of exclusivity.²⁰⁰ In this context, the Supreme Court showed reluctance to let one legislature bind a future legislature without clear language.²⁰¹

The takings cases described above were decided before the Supreme Court developed the modern regulatory takings doctrine, but the issues involved in these cases are similar to the

¹⁹⁶ MORTON J. HORWITZ, *THE TRANSFORMATION OF AMERICAN LAW, 1780–1860*, at 117–18 (1977).

¹⁹⁷ Masur & Mortara, *supra* note 7, at 969–70. The patent system also encourages companies to produce and disclose information. See Sean B. Seymore, *Symposium: The Disclosure Function of the Patent System*, 69 VAND. L. REV. 1455, 1455–57 (2016).

¹⁹⁸ See *Chi., Burlington & Quincy R.R. Co. v. Nebraska ex rel. Omaha*, 170 U.S. 57, 72 (1898) (observing that “other principles apply” when “rights and powers were created for public purposes, by legislative acts”).

¹⁹⁹ See *supra* subpart II.B.

²⁰⁰ See *Proprietors of the Charles River Bridge v. Proprietors of the Warren Bridge*, 36 U.S. (11 Pet.) 420, 548–50 (1837).

²⁰¹ See *supra* notes 132–140 and accompanying text.

issues involved in modern regulatory takings cases.²⁰² Scholars have observed that prior to the development of the regulatory takings doctrine, courts only found takings based on physical invasions of property, such as when the government physically appropriated property.²⁰³ This, however, does not mean that courts never addressed claims of intangible takings. Because public franchises are intangible forms of property, takings claims based on public franchises were not based on physical invasions. Instead, they raised questions about whether regulations affecting intangible franchises were takings, either because the regulations required public franchise holders to increase expenses or even revoked the franchises altogether.²⁰⁴ The public franchise takings cases, therefore, involve situations where the Supreme Court considered the impact of regulations that did not cause physical invasions of property—a similar inquiry to the *Penn Central* regulatory takings analysis.²⁰⁵ The public franchise model is also consistent with how courts have approached these questions with respect to other forms of intangible grants.²⁰⁶ Therefore, public franchise cases under both the Contract Clause and the Takings Clause provide guidance about how the Supreme Court has traditionally answered questions about the government's power to regulate in ways that affect existing intangible grants.

2. *Balancing Flexibility and Entrenchment*

Beyond descriptive similarities between public franchise cases and patents, similar policy goals in the two contexts also support looking to public franchise cases for guidance in patent takings cases. Both Contract Clause and Takings

²⁰² See *Penn Cent. Transp. Co. v. New York City*, 438 U.S. 104, 124 (1978); *Pa. Coal Co. v. Mahon*, 260 U.S. 393, 415 (1922).

²⁰³ See, e.g., Treanor, *supra* note 167, at 792–97.

²⁰⁴ See *supra* subpart II.C.

²⁰⁵ See *Penn Cent. Transp. Co.*, 438 U.S. at 124. Within the regulatory takings framework, there is a *per se* rule for regulations that authorize physical invasions. See *Cedar Point Nursery v. Hassid*, 141 S. Ct. 2063, 2072 (2021) (“Whenever a regulation results in a physical appropriation of property, a *per se* taking has occurred, and *Penn Central* has no place.”); *Horne v. Dep’t of Agric.*, 576 U.S. 351, 360–61 (2015).

²⁰⁶ See Pappas, *Right to be Regulated*, *supra* note 26, at 116–18, 120–21 (describing how courts have required a clear indication of legislative intent to find protection of expectations in taxi medallions and rejected takings protection for grazing permits based on explicit disclaimers in federal law); *id.* at 129 (describing how cases have found “protected rights in regulation only when legislative language clearly conveys interests that cannot be revoked or altered.”).

Clause cases raise issues of how to balance the policy goals of preserving flexibility for regulation with allowing the government to entrench policies.²⁰⁷ When governments grant public franchises—from bridges to patents—the goal is to encourage companies to invest in developing valuable goods and services for the public.²⁰⁸ To ensure that companies will invest in these public infrastructure projects, the government must be able to provide some guarantee that the companies can rely on the government grant.²⁰⁹ In other words, there must be some entrenchment of the government policy to allow the grant to serve its intended goal. In public franchise cases, the Court observed that some constitutional protection for public franchises was desirable to induce private parties to invest in socially beneficial activities like building bridges and railroads. For example, as the Court noted in a case involving an exclusive franchise for a gas company, the exclusivity privileges were an inducement to get the private company to invest in supplying gas to the city, which provided an important public benefit.²¹⁰

Moreover, the Court recognized that some stability in expectations was important to encourage franchise holders to make investments in various operations that promoted public welfare, such as building railroads, bridges, and other public utilities.²¹¹ The Supreme Court has also recognized the importance of stability in investment-backed expectations in modern

²⁰⁷ See Masur & Mortara, *supra* note 7, at 983 (“The goal of policymakers within the patent system should be to find a means of permitting updates to the law while simultaneously protecting existing reliance interests to the degree necessary to encourage continued investment.”).

²⁰⁸ HORWITZ, *supra* note 196, at 117–18; Masur & Mortara, *supra* note 7, at 969–70.

²⁰⁹ See Christopher Serkin, *Public Entrenchment through Private Law: Binding Local Governments*, 78 U. CHI. L. REV. 879, 885–88 (2011) [hereinafter Serkin, *Public Entrenchment*].

²¹⁰ *New Orleans Gas Co. v. La. Light Co.*, 115 U.S. 650, 670 (1885).

²¹¹ See *Louisville Bridge Co. v. United States*, 242 U.S. 409, 420 (1917) (observing likelihood that “investors were satisfied with the prospect of the profit to be gained from the use of the bridge in the meantime”); *New Orleans Gas Co.*, 115 U.S. at 670 (“Without that grant it was inevitable either that the cost of supplying the city and its people would have been made, in some form, a charge upon the public, or the public would have been deprived of the security in person, property, and business which comes from well-lighted streets.”). Critics of the strict construction rule argued that it threatened economic development because stability in investment was crucial to incentivize companies to engage in such development. See *Proprietors of the Charles River Bridge v. Proprietors of the Warren Bridge*, 36 U.S. (11 Pet.) 420, 597–98, 608 (1837) (Story, J., dissenting); Siegel, *supra* note 91, at 39 n.196.

regulatory takings; indeed, that is one of the factors in the *Penn Central* balancing test.²¹²

Yet at the same time, democratic governments need flexibility to respond to changing public preferences and to emerging conditions in society, like public health or safety threats.²¹³ In public franchise cases, the Supreme Court repeatedly acknowledged the need for regulation to adapt over time as society evolved.²¹⁴ If legislatures had to provide compensation too broadly in these circumstances, the Court expressed concern that it would threaten the ability of the government to effectively promote public welfare.²¹⁵ The Supreme Court has expressed similar concerns in modern regulatory takings cases.²¹⁶ Therefore, when courts consider modern takings claims based on patents, they are being asked to balance similar policy goals as the Supreme Court did in the public franchise cases discussed above. Public franchise cases under the Contract Clause and Takings Clause, therefore, provide guidance for how the Supreme Court has traditionally balanced the competing policy goals of maintaining stability for investors and preserving flexibility for regulators.

B. How Courts Could Use the Public Franchise Model

If courts were to look to the public franchise cases as persuasive authority for patent takings cases, the public franchise model could have implications for both areas of continuing

²¹² *Penn Cent. Transp. Co. v. New York City*, 438 U.S. 104, 124 (1978).

²¹³ See Serkin, *Public Entrenchment*, *supra* note 209, at 935–36 (describing concerns about entrenchment for democratic governance).

²¹⁴ See *Louisville Bridge Co.*, 242 U.S. at 419 (“[O]ur interstate and foreign commerce is a thing that grows with the growth of the people, and its instrumentalities change with the development and progress of the country”); *Stone v. Mississippi*, 101 U.S. 814, 819 (1880) (explaining that governmental power is “continuing in [] nature,” which is required to deal with “the special exigencies of the moment”).

²¹⁵ See *Hadacheck v. Sebastian*, 239 U.S. 394, 409–10 (1915) (describing continuing police power as necessary for development and progress in society); *Chi., Burlington & Quincy Ry. Co. v. Illinois ex rel. Drainage Comm’rs*, 200 U.S. 561, 588 (1906) (observing that attached private property rights to every highway and waterway over which railroads built would create “obstacles to [the state’s] progress and a menace to its general welfare”); *Mugler v. Kansas*, 123 U.S. 623, 669 (1887) (observing that in order to have an organized society, governments cannot be required to pay compensation to property holders when they prohibit noxious uses of property that harm society at large).

²¹⁶ See *Pa. Coal Co. v. Mahon*, 260 U.S. 393, 413 (1922); *Lucas v. S.C. Coastal Council*, 505 U.S. 1003, 1018 (1992) (noting that these concerns “do[] not apply to the relatively rare situations where the government has deprived a landowner of all economically beneficial uses”).

uncertainty regarding patent takings.²¹⁷ First, assuming that patents are entitled to some takings protection, courts could use the public franchise model to define the scope of the property interest that a patent confers. Second, courts could use the public franchise model as guidance to evaluate whether regulations have gone “too far” under the regulatory takings analysis. Even if courts continue to avoid the threshold question of whether patents can ever grant cognizable property interests under the Takings Clause, the public franchise model could be used in these two ways to dismiss almost all takings claims based on patents. Courts could do this because under the public franchise model, regulations that merely affect the value of patents without altering vested patent protections would not be takings, even if patents were protected by the Takings Clause.

1. *Defining the Property Interest*

Under the public franchise model, patents would be strictly construed, limited by *ex ante* conditions, and distinguished from physical property. Applying these principles to patents would mean that the scope of any vested property interests in patents would be very limited. The narrow scope of any vested rights would limit the availability of takings claims because regulations that do not directly affect vested patent rights would not be takings of patents. For example, subsequent regulations that merely carry out conditions placed on patent grants would not invoke constitutional scrutiny because they would not affect any vested rights. Just as it was not a taking for governments to cancel franchises for failure to meet conditions in the grants, it would not be a taking for the government to cancel patents that fail to meet the statutory patentability requirements or to use powers it reserved at the time patents were granted.²¹⁸ The patent grant was always limited by those conditions.

Moreover, because patents do not grant an affirmative right to use or sell patented inventions on the market,²¹⁹ regulations

²¹⁷ See *supra* subpart I.C.

²¹⁸ See *supra* section II.C.1; see also generally Laura E. Dolbow, *Public Patent Powers*, 123 MICH. L. REV. 599 (2025) (describing powers Congress has expressly given agencies to regulate how patents are used in commerce).

²¹⁹ See *Patterson v. Kentucky*, 97 U.S. 501, 505, 509 (1879) (upholding Kentucky law that prohibited sale of patented oil, observing that patents are held subject to state police powers of tangible property).

of how patent holders can use or sell their physical property would categorically not be takings of patents.²²⁰ Patents simply authorize patent holders to exclude others from making, using, or selling patented inventions. They give no vested rights to sell products or otherwise use them in particular ways. Companies must separately obtain approval from the Food and Drug Administration (FDA), for example, to be able to sell drugs in interstate commerce. It would hardly be a taking of any patent rights if the FDA declined to approve a drug that was not shown to be safe and effective.²²¹ FDA approval decisions affect the profitability of patents, but have no impact on patent rights themselves—even without FDA approval, the patent holder retains the ability to license its patent and sue others for patent infringement.

If a regulation does not directly affect a vested patent right, courts could categorically dismiss takings challenges. The reason courts could do so is implicit in the modern takings doctrine. Most regulatory takings claims are based on regulations of physical property, where it is more obvious that the regulation directly affects how property owners can use cognizable property interests. In the cases where the Supreme Court has considered regulatory takings claims, all regulations have directly affected the bundle of rights attached to physical property, such as the right to exclude and the right to use. For example, the regulation involved in the *Penn Central* case prohibited owners of historical landmarks from destroying those landmarks or fundamentally altering their character.²²² This was a clear restriction on how they could use their property, including their airspace. Other regulatory takings cases involved situations where legislation prohibited a landowner from

²²⁰ If a physical taking of a patented invention occurred, the fact that the patent holder has a patent might be relevant to determine what constitutes just compensation, but it would not give rise to a separate takings claim based on the patent. See *Monongahela Navigation Co. v. United States*, 148 U.S. 312, 329 (1893) (holding the valuation of locks and dams must consider the owner's public franchise to collect tolls).

²²¹ See, e.g., *Mosca v. United States*, 417 F.2d 1382, 1384–86 (Ct. Cl. 1969) (holding no taking of patent rights when the Department of Agriculture refused to permit a patented fungicide to be sold without adequate data to show efficacy).

²²² *Penn Central Transp. Co. v. New York*, 438 U.S. 104, 111 (1978) (“Final designation as a landmark results in restrictions upon the property owner's options concerning use of the landmark site.”); see also *Pa. Coal Co. v. Mahon*, 260 U.S. 393, 413–14 (1922) (observing that law was “admitted to destroy previously existing rights of property and contract” where it prohibited companies from mining coal and therefore “purports to abolish what is recognized in Pennsylvania as an estate in land”).

building houses on his lots²²³ and a regulation that limited a landowner's right to exclude others by authorizing union organizers to enter someone's land.²²⁴ The *Horne* decision, which found a regulatory taking of raisins, dealt with a regulation that required farmers to give a portion of their crops to the government.²²⁵ These regulations all directly impacted how property owners could use their property.

Yet when it comes to intangible property, the boundaries of the property interest are particularly murky. The Supreme Court's sole case about intangible property under the modern regulatory takings doctrine continues the underlying assumption that a regulation must directly affect a property interest to give rise to a regulatory takings claim. In *Ruckelshaus*, the Supreme Court held that a trade secret that is cognizable under state law could be a property right protected by the Takings Clause.²²⁶ The alleged taking involved public disclosure of the trade secrets by the EPA.²²⁷ Public disclosure undoubtedly affects any vested property interests in trade secrets because, as the Court recognized, once information becomes public, it is no longer a trade secret.²²⁸ The Court then held that public disclosure of a company's trade secrets by the EPA could be a taking under limited circumstances.²²⁹ If takings doctrine were expanded to include regulations that only indirectly affect property interests, such as by reducing their profitability, there would be no limiting principle.²³⁰

Categorically dismissing takings claims where regulations do not directly affect vested property interests is also consistent with the public franchise model. In the public franchise cases,

²²³ *Lucas v. S.C. Coastal Council*, 505 U.S. 1003, 1016–19 (1992).

²²⁴ *Cedar Point Nursery v. Hassid*, 141 S. Ct. 2063, 2072 (2021).

²²⁵ *Horne v. Dep't of Agric.*, 576 U.S. 351, 361–62 (2015).

²²⁶ *Ruckelshaus v. Monsanto Co.*, 467 U.S. 986, 1001–04 (1984).

²²⁷ *Id.* at 990.

²²⁸ *Id.* at 1011 (“Once the data that constitute a trade secret are disclosed to others, or others are allowed to use those data, the holder of the trade secret has lost his property interest in the data.”). The Court also noted that any taking was based on the destruction of the competitive advantage from secret information. *Id.* at 1011 n.15.

²²⁹ *Id.* at 1010–14.

²³⁰ *Andrus v. Allard*, 444 U.S. 51, 65 (1979) (observing that regulation often “curtails some potential for the use or economic exploitation of private property” and that “[t]o require compensation in all such circumstances would effectively compel the government to regulate by *purchase*”); *Pa. Coal Co. v. Mahon*, 260 U.S. 393, 413 (1922) (“Government hardly could go on if to some extent values incident to property could not be diminished without paying for every such change in the general law.”).

the Supreme Court categorically dismissed takings claims that did not affect vested rights.²³¹ It rejected takings claims, for example, when the government required bridge companies to make changes to their bridges and the franchise grant either reserved power for the government to require changes to a bridge²³² or did not expressly promise not to require future changes.²³³

Therefore, where regulations do not affect vested property interests, courts can categorically reject regulatory takings claims. In the patent context, applying the public franchise model would allow courts to categorically reject most takings challenges. The only types of government actions that would affect any cognizable vested rights would be those that directly affect the right to exclude granted in a valid patent.²³⁴ Examples might be government decisions to revoke valid patents or to force patent holders to assign their patents to another entity.

2. *Evaluating Regulations*

Courts could also use the public franchise model when evaluating whether regulations have gone “too far” and become takings, to the extent that regulations affect a vested patent interest under the public franchise framing.²³⁵ The public franchise case law supports using the standard *Penn Central* framework to consider patent takings claims. The *Penn Central* balancing test considers (1) the character of the regulation, (2) the diminution in value, and (3) the interference with reasonable, investment-backed expectations.²³⁶ Under the *Penn Central* framework, courts have typically found that regulations are not takings.²³⁷ The Court applied similar reasoning in public franchise cases to reach similar results.²³⁸ When it broadly upheld the government’s power to flexibly regulate without invoking constitutional scrutiny, it consistently considered the nature of the regulation, such as whether actions were legitimate exercises of state police powers and federal commerce

²³¹ See *supra* subpart II.C.

²³² See *Bridge Co. v. United States*, 105 U.S. 470, 481–83 (1882).

²³³ See *Louisville Bridge Co. v. United States*, 242 U.S. 409, 419–21 (1917); *Union Bridge Co. v. United States*, 204 U.S. 364, 400–01 (1907).

²³⁴ These sorts of actions still might not be takings in some circumstances. See *infra* note 261 and accompanying text.

²³⁵ See *Pa. Coal Co.*, 260 U.S. at 415.

²³⁶ *Penn Cent. Transp. v. New York*, 438 U.S. 104, 124 (1978).

²³⁷ *Krier & Sterk*, *supra* note 80, at 62–64.

²³⁸ See *supra* subpart II.C.

powers.²³⁹ It also pointed to the expectations of franchise holders, observing that they made investments subject to the risk of future regulatory changes and that express conditions in grants put them on notice about future regulation.²⁴⁰ Therefore, the public franchise model supports continuing the Federal Circuit's approach of considering the *Penn Central* factors and rejecting patent takings challenges.²⁴¹

Courts could apply the public franchise principles in conducting the *Penn Central* analysis as well, such as using the strict construction rule. The Supreme Court's decision in *Ruckelshaus*—a modern takings case about intangible property—uses reasoning similar to the strict construction rule in its application of the *Penn Central* test. There, the Court held that without an express promise, investors should not reasonably expect the government to refrain from taking actions. The Court reasoned that an applicant for pesticide registration could not have a reasonable, investment-backed expectation that the Environmental Protection Agency (EPA) would keep its data confidential beyond “the limits prescribed in the amended statute itself.”²⁴² For certain periods of time, the language of the statute put applicants on notice about how the EPA was authorized to use and disclose any data submitted with an application.²⁴³ During other periods, the law was silent about the EPA's authority to use and disclose data.²⁴⁴ The Court held that “absent an express promise,” the applicant had no reasonable, investment-backed expectation that the EPA would keep its information secret.²⁴⁵ Given that the industry had long been subject to extensive regulation, the Court opined that there was a substantial possibility that the federal government could find disclosure of health, safety, and environmental data in the public interest.²⁴⁶ Therefore, no taking occurred for any data the EPA used or disclosed during these time periods.²⁴⁷

²³⁹ See *supra* section II.C.4.

²⁴⁰ See *supra* section II.C.4.

²⁴¹ See *supra* subpart I.B.

²⁴² *Ruckelshaus v. Monsanto Co.*, 467 U.S. 986, 1006 (1984).

²⁴³ *Id.*

²⁴⁴ *Id.* at 1008.

²⁴⁵ *Id.*

²⁴⁶ *Id.* at 1008–09. The Court rejected an argument that the Trade Secrets Act, which generally provided penalties for government employee disclosure of trade secrets, created an expectation that the government would not use or disclosure the submitted data. *Id.*

²⁴⁷ *Id.* at 1013.

When the governing statute expressly promised not to disclose data, however, the Court reached a different conclusion. From 1972 to 1978, the relevant law explicitly prohibited the EPA from disclosing or using trade secret data to evaluate other applications.²⁴⁸ Given this express promise, the Court concluded that the applicant had a reasonable, investment-backed expectation in the secrecy of its data for that limited time period.²⁴⁹ During this time, EPA use or disclosure of trade secret data could be a taking if it conflicted with the express promises of the law.²⁵⁰

Furthermore, courts could use the public franchise model if parties argued that an ex ante condition on a patent grant was an unconstitutional condition that amounted to a taking.²⁵¹ The regular use and approval of broad reservation clauses in public franchise grants suggests that the government has wide discretion to put conditions on public grants without crossing the line into a taking.²⁵² The Court pointed to the government's broad power to place ex ante conditions on public grants in the *Ruckelshaus* decision, too. In that case, the plaintiff argued that requiring applicants for pesticide registration to allow the EPA to use or disclose submitted data that otherwise would have been trade secrets was an unconstitutional condition that amounted to a taking of its trade secrets.²⁵³ The Court rejected this argument. It reasoned that the government had broad power to regulate the sale and use of pesticides, based on longstanding concerns about public safety.²⁵⁴ So long as the applicant was aware of the conditions under which it submitted data and the conditions were rationally related to a legitimate government interest, the Court concluded that "a voluntary submission of data by an applicant in exchange

²⁴⁸ *Id.* at 1010–11.

²⁴⁹ *Id.* at 1011. The Court did not decide whether a taking had occurred, though, because arbitration for use of the data, which would involve compensation, had not yet occurred. *Id.* at 1013.

²⁵⁰ Disclosure would only be a taking if the government did not adequately compensate applicants for the loss in market value of the data. *Id.* at 1013–14.

²⁵¹ *See, e.g.,* *Christy, Inc. v. United States*, 971 F.3d 1332, 1334–36 (Fed. Cir. 2020) (rejecting claim that imposition of issuance and maintenance fees was an illegal exaction that needed to be refunded after patent cancellation).

²⁵² *See supra* section II.C.1.

²⁵³ *Ruckelshaus v. Monsanto Co.*, 467 U.S. 986, 990, 1007 (1984).

²⁵⁴ *Id.* at 1007.

for the economic advantages of a registration can hardly be called a taking.”²⁵⁵

Finally, the public franchise model could be useful to determine the proper remedy in constitutional challenges as well. If the rare situation arose where a court concluded that a regulation was a taking of a patent, the public franchise cases reiterate that the proper remedy is to order compensation, not to halt government action altogether. In the challenges to the Medicare Drug Price Negotiation Program, for example, pharmaceutical companies did not seek compensation, but instead sought to have the program declared unconstitutional.²⁵⁶ The public franchise model helps confirm that even if a regulation were a taking, the proper remedy would be to require just compensation, not to stop the government action. In public franchise cases, the Court emphasized that the government always retained the inalienable power to use eminent domain to move forward by paying compensation, notwithstanding the Contract Clause.²⁵⁷

C. Hypothetical Applications of the Model

Applying these principles, any property protections that patents confer under the Takings Clause would be quite limited. Virtually all patent takings claims could be categorically dismissed. To make the above discussion more concrete, this subsection discusses how courts could apply the public franchise model with respect to specific types of regulations, including evaluating the recent challenges to the Medicare Drug Price Negotiation Program.

²⁵⁵ *Id.* at 1007–08 (citing *Corn Prods. Refining Co. v. Eddy*, 249 U.S. 427, 431–32 (1919) (noting that the right to maintain trade secrets was held “subject to the right of the State, in the exercise of its police power and in promotion of fair dealing, to require that the nature of the product be fairly set forth”)). Although the case found a taking, the Supreme Court more recently observed, in *Cedar Point Nursery v. Hassid*, 141 S. Ct. 2063 (2021), that a requirement to allow access for health and safety inspections as a condition of granting a public permit would not be a taking. *Id.* at 2079 (noting that such conditions exist for grants of pesticide registrations, hydroelectric project permits, pharmaceutical approvals, and nuclear material approvals).

²⁵⁶ See, e.g., Complaint ¶ 103, *Merck & Co. v. Becerra*, No. 1:23-cv-01615 (D.D.C. June 6, 2023).

²⁵⁷ See *New Orleans Gas Co. v. Louisiana Light Co.*, 115 U.S. 650, 673 (1885); *W. River Bridge Co. v. Dix*, 47 U.S. (6 How) 507, 530 (1848).

1. *Regulation of Physical Property*

As discussed above, because intangible patents are distinct from physical property, regulations about how patent holders can use or sell their physical property would not be patent takings.²⁵⁸ Because patent grants do not include an express promise that a patent holder can sell their products or use them in any particular way, the public franchise model counsels that patent holders should expect that continuing regulations may influence how they are able to use their physical property, which in turn could predictably influence how profitable their patents would be. Moreover, even if the government physically appropriated a company's assets, the company would still retain its patent rights to exclude third parties from making, using, and selling its invention.

The Medicare Drug Price Negotiation Program is an example of a regulation of physical property, rather than a regulation of patents themselves. The law requires Medicare to select drugs that have been on the market for a certain number of years and do not yet face competition for price negotiation.²⁵⁹ Because the program targets drugs that do not face competition, all drugs that were selected for the first round of price negotiation were covered by patents.²⁶⁰ Yet the program has no impact on the drug companies' limited right to *exclude* others from making, using, or selling their patented drugs.²⁶¹ It does not affect their ability to license their patents to others or sue

²⁵⁸ Unlike many public franchises, which gave companies affirmative permission to operate bridges, power lines, railroads, and the like, patents provide no affirmative permission to use or sell the patented invention. See *Patterson v. Kentucky*, 97 U.S. 501, 505, 509 (1879) (upholding Kentucky law that prohibited sale of patented oil, observing that patents are held subject to state police powers of tangible property).

²⁵⁹ See CTRS. FOR MEDICARE & MEDICAID SERVS., DEP'T OF HEALTH & HUM. SERVS., DRAFT GUIDANCE ON THE MEDICARE DRUG PRICE NEGOTIATION PROGRAM (2024).

²⁶⁰ See Laura Dolbow, *How Patents Contribute to High Drug Prices*, REGUL. REV. (Oct. 16, 2023), <https://www.theregreview.org/2023/10/16/dolbow-how-patents-contribute-to-high-drug-prices/> [https://perma.cc/BF29-U5VF].

²⁶¹ The District of Delaware reached this conclusion about patent rights when rejecting due process claims. *AstraZeneca Pharms. LP v. Becerra*, 719 F. Supp. 3d 377, 395–96 (D. Del. 2024), *aff'd*, 137 F.4th 116 (3d Cir. 2025), *cert. denied* 2026 WL 1377100 (U.S. May 18, 2026). Furthermore, for future drugs that receive patent protection, the Inflation Reduction Act now makes clear that Medicare price negotiation will be implemented if the drugs do not face competition for a certain number of years. See Inflation Reduction Act of 2022, Pub. L. No. 117-169, § 11001 136 Stat. 1818, 1833–54 (2022); Arti K. Rai, Rachel E. Sachs, & W. Nicholson Price II, *Cryptic Patent Reform Through the Inflation Reduction Act*, 37 HARV. J.L. & TECH. 57, 72–82 (2023) (explaining how the program may operate to influence how patent holders use their patents). This is the type of *ex ante*

for patent infringement. Instead, it is a regulation about the price at which companies can sell their physical drugs to Medicare beneficiaries. Therefore, the price negotiation program is clearly not a patent taking.

Furthermore, contrary to drug manufacturers' assertions that their patented drugs are "doubly" protected by the Takings Clause,²⁶² the public franchise model would make clear that patents do not give rise to any separate takings claim in addition to any physical takings claims. Instead, when companies allege physical takings like they have done in the Medicare cases, the situation should be evaluated under the Supreme Court's longstanding case law involving physical appropriations. As courts have thus far recognized, the physical takings claims in the Medicare cases are weak because companies voluntarily choose to participate in Medicare.²⁶³ But if the government actually required companies to sell drugs at regulated prices, the public franchise model makes clear that this still would not be a taking of any patent rights. For that type of claim, courts should look to precedent about physical takings. The Supreme Court's case law on rate regulation, which considers whether physical assets are required to be sold at confiscatory rates, would be a more appropriate lens for thinking about a physical taking claim.²⁶⁴

The public franchise model could clearly dispose of patent takings claims in a variety of other contexts as well. Consider if Congress added requirements to the FDA approval process that made it more lengthy and costly. This sort of change could lead to a reduction in the value of a specific set of patents and might be considered to interfere with reasonable, investment-backed expectations. Yet the public franchise model makes clear that it would not be a taking of any patent rights because it is merely

condition that easily takes subsequent government action out of the zone of the Takings Clause under the public franchise model.

²⁶² See Complaint ¶ 59, *Merck & Co. v. Becerra*, No. 1:23-cv-01615 (D.D.C. June 6, 2023) ("Pharmaceutical drugs are doubly protected because they are also patented.").

²⁶³ See *Bristol Myers Squibb v. Dep't of Health & Hum. Servs.*, 155 F.4th 245, 255–63 (3d Cir. 2025), *cert. denied* 2026 WL 1377095 (U.S. May 18, 2026); *Novartis Pharms. Corp. v. Dep't of Health & Hum. Servs.*, 155 F.4th 223, 234 (3d Cir. 2025), *cert. denied*, 2026 WL 1377118 (U.S. May 18, 2026); *Boehringer Ingelheim Pharms., Inc. v. Dep't of Health & Hum. Servs.*, 150 F.4th 76, 91–93 (2d Cir. 2025), *cert. denied*, 2026 WL 1377142 (May 18, 2026).

²⁶⁴ See *supra* section II.C.3. The ownership of a valid patent could be relevant to determining if the government has provided just compensation for physical property. See *supra* note 220 and accompanying text.

a regulation of how physical property can be sold in interstate commerce, not a regulation of the patent right to exclude.

2. *Revocation of Patents*

Using the public franchise model, patent takings claims would only be potentially entertained in some situations where the government regulates the patent itself. Takings claims would be limited to situations where the government changes course on something expressly promised at the time of a patent grant, such as by revoking valid patents or forcing assignment of patents for reasons not reserved at the time of the grant.²⁶⁵

Still not all revocations would be takings though. Revoking patents for failure to meet conditions set on patents up front would categorically not be takings. Congress has placed numerous conditions on patents. To receive a patent, the applicant must meet numerous patentability conditions. An applicant must show they have invented something that is useful, new, and nonobvious,²⁶⁶ and they must provide sufficient disclosure to enable others to make and use the invention and to show they have invented what they claim.²⁶⁷ Under the public franchise framework, it is clearly not a taking when the government later revokes patents that are shown to not meet those threshold conditions because there are no vested rights.²⁶⁸ Beyond the patentability conditions, Congress has also required patent holders to pay issuance fees and maintenance fees to keep their patents for certain time periods²⁶⁹ and has created procedures for administrative review of

²⁶⁵ Changes to remedies available for patent infringement would be a closer call, but likely would not affect any vested rights because patent laws generally do not entitle patent holders to a specific type of remedy. See WRIGHT, *supra* note 98, at 229–30 (describing scenarios where the Supreme Court concluded that a change in remedy did not impair a contract because the new law still fulfilled the purposes of the contract). If a government action totally removed a remedy for infringement of a valid, valuable patent, however, then a takings claim may be available. See *Hampton-Empire Co. v. United States*, 323 U.S. 386, 413–15 (1945), *modified at* 324 U.S. 570, 574 (1945) (describing royalty-free patent licenses as effectively confiscation of patent rights and ordering instead licenses at “uniform reasonable royalties”); see also Jorge Contreras, *A Brief History of FRAND: Analyzing Current Debates in Standard Setting and Antitrust Through a Historical Lens*, 80 ANTITRUST L.J. 39, 89–91 (2015) (describing cases involving royalty-free licenses and analyzing differences between royalty-free licenses for valuable and unvaluable patents).

²⁶⁶ 35 U.S.C. §§ 101–103.

²⁶⁷ *Id.* § 112.

²⁶⁸ See *supra* section II.C.1.

²⁶⁹ 35 U.S.C. § 41.

patents after they are granted.²⁷⁰ The post-grant review procedures set forth in the America Invents Act, for example, are now prospectively included as conditions up front when new patents are granted.²⁷¹ The public franchise model makes clear that the Takings Clause would not be implicated if the government subsequently canceled a patent for failure to pay a maintenance fee or through an administrative procedure.²⁷²

Takings claims would only be theoretically viable for revoking patents if the government revoked patents for reasons not reserved at the time the patents were granted. It is worth noting that the government has very rarely even contemplated taking this type of action. One example is the Atomic Energy Act of 1946.²⁷³ In that law, Congress revoked all existing patents covering inventions that could be used exclusively to produce fissionable materials.²⁷⁴ Yet even in that situation, the government voluntarily provided compensation to patent holders whose patents were revoked.²⁷⁵ The government has also voluntarily offered compensation in laws that allow the government to obtain patents and patent licenses from third parties, as well as to order compulsory patent licenses.²⁷⁶

If the government did not provide compensation in this type of situation, though, courts may consider whether the action amounted to a taking under the public franchise model if the patent holder met all other statutory criteria for patentability and paid all required fees. Using guidance from the public franchise cases, courts could then apply the *Penn Central* balancing test to evaluate whether the regulation went too far and amounted to a taking. Courts could consider the nature of the government action, such as whether the government

²⁷⁰ *Id.* §§ 311–329.

²⁷¹ *Id.*

²⁷² Prior courts have come to this conclusion already with respect to failure to pay maintenance fees. *Michels v. United States*, 72 Fed. Cl. 426, 429–31 (2006); *Korsinsky v. Godici*, No. 05 Civ. 2791(DLC), 2005 WL 2312886, at *5 (S.D.N.Y. Sep. 22, 2005) (“If a patent expires because a maintenance fee is not paid, ‘it is not that plaintiff’s personal property is taken away . . . but rather the conditions of the privilege are no longer satisfied.’”) (quoting *Figuerroa v. United States*, 57 Fed. Cl. 488, 502–03 (2003)).

²⁷³ Pub. L. No. 79-585, § 11, 60 Stat. 755, 768–70 (codified as amended at 42 U.S.C. § 2181).

²⁷⁴ 42 U.S.C. § 2181.

²⁷⁵ *Id.* § 2181(b); see Isaacs, *supra* note 21, at 18–19 (observing that voluntary compensation may explain absence of takings claims in response to Atomic Energy Act).

²⁷⁶ See Dolbow, *supra* note 218, at 615–36.

generally revoked a class of patents for national security reasons, and the reasonable, investment-backed expectations of patent holders.²⁷⁷

D. Normatively Assessing the Public Franchise Model

As described above, using the public franchise model to evaluate patent takings claims would allow courts to categorically dismiss almost all patent takings claims. This framework would be normatively desirable for multiple reasons. First, the public franchise model offers clearer guidance about patent takings claims than the current doctrine, which would be beneficial for regulators and courts. Moreover, even if patents are viewed as protected by the Takings Clause, the public franchise model could help ensure that the government can flexibly regulate to promote public welfare and promote democratic governance values while at the same time respecting fundamental fairness values.

1. *Potential for Clearer Guidance*

Applying the public franchise principles to modern takings cases would be useful because it could provide clearer guidelines about what regulatory actions fall outside the scope of the Takings Clause. The regulatory takings doctrine is frequently criticized for its lack of clarity.²⁷⁸ The public franchise principles, on the other hand, offer a set of bright-line rules for interpreting the scope of property interests conferred by patents.²⁷⁹ The public franchise model offers a more predictable

²⁷⁷ In the rare situation where a regulation directly impacts a vested patent right, courts could also consider whether the regulation is consistent with long-standing patent regulations, such as antitrust regulation. Throughout the Supreme Court's takings jurisprudence, it has recognized that regulations consistent with background principles of property law, such as those that abate nuisances, are not takings even if they physically appropriate property or totally diminish its value. See *Cedar Point Nursery v. Hassid*, 141 S. Ct. 2063, 2079 (2021); *Lucas v. S.C. Coastal Council*, 505 U.S. 1003, 1029 (1992). These exceptions trace back to the Court's decision in *Mugler v. Kansas*, 123 U.S. 623 (1887), which relied on Contract Clause cases involving franchises to hold that all property is subject to police power regulations to protect public health, safety, and welfare, for the same reasons that contracts are. *Id.* at 664–65 (discussing cases, including *Stone v. Mississippi*, 101 U.S. 814, 816–19 (1880)).

²⁷⁸ See Owen, *supra* note 77, at 579, 594 (describing academic critiques of modern takings doctrine, including the *Penn Central* test); Isaacs, *supra* note 21, at 16–17, 25–28 (discussing the “unpredictability” of the *Penn Central* test and describing regulatory takings doctrine as a “muddle” (quoting Cotter, *supra* note 21, at 529)).

²⁷⁹ See *supra* sections II.C.1–C.3.

set of guidelines for courts as they consider whether to dismiss takings claims, regardless of whether patents are “private property” under the Takings Clause. Because courts have shown a tendency to resolve cases this way, clearer guidance on what constitutional protections would attach even if patents were protected by the Takings Clause would be helpful to conserve judicial resources. Clearer guidance would also be helpful to put legislators, regulators, and investors on notice about the scope of the government’s power to regulate in ways that affect the value of patents.

Several examples illustrate how the public franchise model could provide clearer guidance than modern regulatory takings cases about the scope of the government’s power. First, consider the challenges brought against the America Invents Act. When a patent holder argued that the law amounted to a taking, the Federal Circuit applied the *Penn Central* factors to hold that the America Invents Act was not a taking.²⁸⁰ It reasoned that even though the law applied the post-grant review procedures to patents that had already been issued, the law did not change patent holders’ expectations that the USPTO could cancel invalid patents and rejected arguments about a decrease in the value of patents.²⁸¹ Professors Greg Dolin and Irina Manta used the same *Penn Central* test to argue that new post-grant review procedures constituted a taking because they decreased the value of issued patents and interfered with patent holders’ reasonable expectations.²⁸² Although the *Penn Central* test usually results in courts finding that regulations are not takings, as the Federal Circuit did, the murky factors open up the potential for litigants to raise arguments about patent value and expectations, as Professors Dolin and Manta did.

These questions would be even murkier if Congress created totally new procedures to “weed out bad patent claims,” which was the goal of the America Invents Act.²⁸³ Under current law, patents are only enforced through private actions. Third parties can challenge patent validity as a defense in a patent infringement suit, in a declaratory judgment action, or in a post-grant review proceeding.²⁸⁴ If Congress created a new

²⁸⁰ *Golden v. United States*, 955 F.3d 981, 989 (Fed. Cir. 2020).

²⁸¹ *Id.*; see also *Celgene Corp. v. Peter*, 931 F.3d 1342, 1358–63 (Fed. Cir. 2019).

²⁸² See Dolin & Manta, *supra* note 70, at 791–95.

²⁸³ See *Thryv, Inc. v. Click-to-Call Techs.*, 140 S. Ct. 1367, 1374 (2020) (describing purpose of the America Invents Act).

²⁸⁴ 35 U.S.C. § 282(b)(2) (defense of invalidity); 35 U.S.C. § § 311(a), 321(a) (post-grant review); *Asia Vital Components Co. v. Asetek Danmark*, 837 F.3d

cause of action that allowed an administrative agency to sue to invalidate patents that it thinks were issued in error, it would be creating a totally new cause of action for challenging patent validity that has no analog in current procedures.²⁸⁵ Agency enforcement of patent validity might decrease the value of issued patents, and it would pose a closer call in terms of reasonable, investment-backed expectations, because whether similar procedures previously existed would be more debatable.²⁸⁶

Under the public franchise framework, both the America Invents Act and the hypothetical agency enforcement of patent validity would clearly not be takings, even if retroactively applied to existing patents. The procedures created by these laws would simply allow the USPTO to cancel patents that are shown not to meet the statutory patentability conditions. Because those patentability conditions were placed on the patent grants from the outset, any regulations that allow the government to cancel invalid patents would not be a taking.²⁸⁷

The litigation against the Medicare Drug Price Negotiation Program provides another example of how the public franchise model could provide clearer guidance about takings claims. In cases challenging the constitutionality of the program, pharmaceutical companies have not developed their patent takings claims in detail.²⁸⁸ Yet they could assert an argument under the *Penn Central* test that the Medicare Drug Price Negotiation Program reduces the value of their existing patents, targets a small group of patent holders, and interferes with their reasonable, investment-backed expectations. Under the public franchise model, however, the Medicare Price Negotiation Program

1249, 1252, 1256 (Fed. Cir. 2016) (holding that third party had standing to bring a declaratory judgment action).

²⁸⁵ Agencies would ordinarily not satisfy the Article III standard in district court and cannot bring post-grant review actions before the USPTO. See *Return Mail, Inc. v. U.S. Postal Serv.*, 139 S. Ct. 1853, 1866 (2019).

²⁸⁶ There would be a strong argument that even this would not interfere with reasonable, investment-backed expectations because patents always could be invalidated.

²⁸⁷ There is a robust debate about whether the cancellation requires a judicial determination, as opposed to an agency determination. This was the issue in *Oil States. Oil States Energy Servs., LLC v. Greene's Energy Grp., LLC*, 584 U.S. 325, 333 (2018). But whether the action is a *taking* that requires the government to compensate the patent holder is a distinct issue.

²⁸⁸ See *AstraZeneca Pharms. LP v. Becerra*, 719 F. Supp. 3d 377, 395–97 (D. Del. 2024) (observing that patent takings arguments were not well developed during oral argument), *aff'd*, 137 F.4th 116 (3d Cir. 2025), *cert. denied*, 2026 WL 1377100 (U.S. May 18, 2026).

is clearly not a patent taking for the reasons discussed above—it does not affect any vested patent rights.²⁸⁹

2. Policy Goals of Regulatory Flexibility, Fairness, and Democratic Governance

The public franchise model would be a normatively desirable way to balance policy goals at stake in patent takings claims. Under the public franchise model, the substantive protections afforded to patents even if they are protected by the Takings Clause would be very limited. The only potentially successful takings claims would arise in situations where the government changes course on an express promise, such as by revoking a valid patent before it expires, without compensation. Recognizing that the vast majority of government actions clearly do not require compensation would be good policy for several reasons, including the impact on regulatory incentives, fundamental fairness values, and democratic governance values.

The public franchise model would likely have a net positive effect on incentives for regulators. By providing a set of clear rules that most regulations are not patent takings, the public franchise model would reduce the costs of flexibility for regulators to make changes to promote public welfare. The clearer rules would reduce both the threat of litigation costs and the threat of liability to patent holders.²⁹⁰ Although there is debate about how much the threat of compensation requirements impacts regulators in practice,²⁹¹ thousands of patents

²⁸⁹ See *supra* section III.B.1.

²⁹⁰ See Serkin, *Penn Central Take Two*, *supra* note 134, at 929 (noting that “the threat of takings liability is likely to affect regulatory incentives”); Masur & Mortara, *supra* note 7, at 975 (describing how public benefits of banning a toxic chemical may outweigh harm to investment incentives); Isaacs, *supra* note 21, at 3 (“If regulatory takings claims could arise from those changes, the government might hesitate to make socially valuable reforms, thus injuring the public.”).

²⁹¹ Compare RICHARD A. EPSTEIN, *BARGAINING WITH THE STATE* 84–86 (1993), and Frederic Bloom & Christopher Serkin, *Suing Courts*, 79 U. CHI. L. REV. 553, 576 (2012) (describing conventional economic view that “sees the compensation requirement as a way to force the government to internalize the costs of its actions, thereby preventing fiscal illusion and ensuring that government actions create more benefit than harm”), with Michael Pappas, *Disclaiming Property*, 42 HARV. ENV'T L. REV. 391, 431–34 (2018) (estimating that disclaiming takings liability is unlikely to meaningfully reduce legislative costs or impact regulatory behavior) [hereinafter Pappas, *Disclaiming Property*], and Daryl J. Levinson, *Making Government Pay: Markets, Politics, and the Allocation of Constitutional Costs*, 67 U. CHI. L. REV. 345, 345 (2000) (arguing that governments respond differently to financial costs than private firms because governments respond to political costs, rather than financial costs), and Lawrence Blume & Daniel L. Rubinfeld, *Compensation*

exist across all sectors of the economy, and a plethora of laws across economic sectors have the potential to affect the value of patents. Adjudicating takings claims about the value of patents would be both difficult and expensive, especially since the boundaries of individual patents are notoriously uncertain.²⁹² Articulating bright-line rules about the limited scope of the property protections that attach to patents would help reduce regulatory costs that could hinder socially valuable regulation. Regulations that decrease the value of existing patents are sometimes needed to flexibly respond to emerging technologies and policy concerns.²⁹³ For example, if Congress wanted to ban a newly developed dangerous weapon from being sold in interstate commerce, litigation over the regulation's impact on existing patents covering those weapons could increase the costs of that socially beneficial regulation. Under the public franchise model, however, that type of regulation is clearly a regulation of physical property that does not implicate any patent property protections.²⁹⁴

One potential concern in response is that limited takings protection could reduce the value of patents, which in turn could reduce investment in research and development. However, the value of takings protection of any individual patent is likely small compared to the overall value of the patent.²⁹⁵

Moreover, courts have never awarded compensation for a

for Takings: *An Economic Analysis*, 72 CALIF. L. REV. 569, 621 (1984) (arguing that under an economic efficiency model, compensation should be paid "only if the government completely disregards all nonbudgetary costs and correctly values all benefits").

²⁹² See Masur & Mortara, *supra* note 7, at 986 ("A new legal rule that invalidates thousands of existing patents could lead to claims against the government for billions of dollars or more."); *id.* at 986–87 (noting that the market value of a patent is usually "harder to discern than the market value of real property"); Feldman, *supra* note 9, at 251 ("Changes in regulations, interpretations of those regulations, and even changes to the Patent Act itself would be met with an avalanche of patent holders claiming their Fifth Amendment right to just compensation for having violated their investment-backed expectations in property."); see also Isaacs, *supra* note 21, at 20, 23–24 (describing rise in patent applications over the years and "risk of significant unexpected cost to the government" if regulatory takings possible for changes to patent laws); Isaacs, *supra* note 21, at 40 (observing that requiring compensation to patent holders for loss in value could lead government to maintain "less-than-socially optimal exclusivities").

²⁹³ Compensation requirements can also create one-way ratchets, where the government would face liability for restricting the use of patents, but not for expanding them. See Serkin, *Penn Central Take Two*, *supra* note 134, at 939.

²⁹⁴ See *supra* section II.C.3.

²⁹⁵ See Pappas, *Right to be Regulated*, *supra* note 26, at 137–39.

patent taking, so expectations of takings protection liability have not been clearly established.²⁹⁶ Furthermore, the Takings Clause is not the only avenue to protect investor expectations about patents. Patents receive protection under the Due Process Clause, which creates procedural requirements before entitlements can be revoked and allows substantive review of the rationale behind legislation.²⁹⁷ Moreover, patent holders often have substantial resources to make their views heard through the political process, so they have alternative avenues to seek protection for their interests.²⁹⁸ Furthermore, physical assets receive independent protection under the Takings Clause, which provides protection for investments.²⁹⁹

Another policy goal behind takings jurisprudence is to protect fundamental fairness values. The Supreme Court has stated that one goal of regulatory takings is to prevent the government from singling out individuals to shoulder burdens that most fairly should be shared by the public at large.³⁰⁰ The public franchise model supports fairness values because it takes into account values of notice and reasonable expectations. When conditions are placed on public grants up front, parties are on notice about future regulation that may happen to carry out those conditions moving forward.³⁰¹ Intangible grants like patents are distinct from other forms of tangible property like land because they do not exist before the government creates

²⁹⁶ See *supra* subpart I.A. This view accords with the Supreme Court's decision in *Oil States* as well, which explained that Congress has broad discretion to prospectively place conditions on patents. *Oil States Energy Servs. v. Greene's Energy Grp.*, 584 U.S. 325, 337–42 (2018).

²⁹⁷ *Masur & Mortara*, *supra* note 7, at 989; *Fla. Prepaid Postsecondary Educ. Expense Bd. v. Coll. Sav. Bank*, 527 U.S. 627, 630 (1999). Similarly, many regulations that affect the value of patents are taken by administrative agencies. Those actions are subject to judicial review under the Administrative Procedure Act, which requires agencies to provide a reasoned explanation for final actions. 5 U.S.C. § 706.

²⁹⁸ See *Serkin, Penn Central Take Two*, *supra* note 134, at 940 (“Holders of regulatory property often constitute discrete groups with a strong interest in preserving their entitlements. This is a recipe for disproportionate political influence.”); *Pappas, Right to Be Regulated*, *supra* note 26, at 139; *Pappas, Disclaiming Property*, *supra* note 291, at 432 (describing how political costs limit actions to curtail regulatory property regardless of takings protection); *Pappas, Disclaiming Property*, *supra*, at 418 (describing how political clout has made grazing permits stable).

²⁹⁹ See *supra* section II.C.3.

³⁰⁰ See, e.g., *Ruckelshaus v. Monsanto Co.*, 467 U.S. 986, 1005 (1984).

³⁰¹ *Pappas, Disclaiming Property*, *supra* note 291, at 415–16 (describing how cases upholding property disclaimers in intangible grants have relied on notions of positivism and notice).

them.³⁰² Therefore, parties do not have any pre-existing expectations of how they could use their property before the initial grant, which is limited by the conditions placed on that grant.³⁰³ Moreover, in regulated industries, the Supreme Court has long acknowledged that parties generally should expect a level of regulatory change.³⁰⁴ In public franchise cases, the Court considered these expectations of regulatory change as a rationale for upholding a broad zone of regulatory power.³⁰⁵

Furthermore, the non-rivalrous nature of information distinguishes patents from land and supports the fairness of limited takings protection for patents.³⁰⁶ If the government uses a patented invention, for example, it does not deprive the patent holder of her property in the same way it would when it uses land. In the patent context, the government's use of a patented invention does not prevent the patent owner from using the patented invention herself or from using her patent to continue to exclude others. Given the absence of rivalry, it makes sense that takings should be defined more narrowly for patents than for land; fewer fairness concerns arise when government actions do not interfere with a property owner's use of their property.

Finally, takings protection implicates democratic governance values as well. It is a core principle of democratic governance that one government cannot bind future governments by passing un-repealable legislation.³⁰⁷ Democratic governments must be able to respond to the will of their constituents and to changed circumstances over time.³⁰⁸ Nonetheless, there are many ways that governments can entrench policy choices by imposing costs on

³⁰² Pappas, *Right to Be Regulated*, *supra* note 26, at 145; *see also* Bracha, *supra* note 194, at 218–27 (describing how early history of American patents resembled the English model, where patents were granted at the discretion of the government).

³⁰³ Pappas, *Right to Be Regulated*, *supra* note 26, at 145.

³⁰⁴ *See, e.g.*, *Lucas v. S.C. Coastal Council*, 505 U.S. 1003, 1027 (1992) (noting that expectations for regulation should be particularly strong for personal property, given the government's "traditionally high degree of control over commercial dealings").

³⁰⁵ *See supra* section II.C.4.

³⁰⁶ *See* Oren Bracha & Talha Syed, *A Law and Political Economy of Intellectual Property*, 103 TEX. L. REV. 1403, 1412–13 (2025) (arguing that nonrivalry removes justifications for property protections in information).

³⁰⁷ *See* Christopher Serkin, *Condemning Decisions of the Past: Eminent Domain and Democratic Accountability*, 38 FORDHAM URB. L.J. 1175, 1176 (2011) [hereinafter Serkin, *Democratic Accountability*].

³⁰⁸ *Id.*; Serkin, *Public Entrenchment*, *supra* note 209, at 881.

future governments to change course.³⁰⁹ When governments do this, they reduce the ability of future governments to respond to changed conditions and changed preferences. Eminent domain is one tool governments can use to change course by paying compensation for vested rights granted by previous governments.³¹⁰ Yet when takings protection attaches to government grants, it increases the entrenching effect of those grants because it can require compensation when future governments change course.³¹¹ As discussed above, some entrenchment is good because it allows the government to induce private parties to invest in publicly beneficial activities like conducting research.³¹² When entrenchment goes too far, though, it can limit the ability of the government to respond to the will of the people, including in light of changed circumstances.³¹³

Recognizing that the vast majority of government actions clearly do not require compensation to patent holders would limit the entrenching effect of patents. This would promote democratic governance values by retaining regulatory flexibility to respond to changed conditions and public preferences. Limiting the availability of takings suits would preserve government flexibility to respond when the public is concerned about how patents are being used—as Congress did when it created the Medicare Drug Price Negotiation Program amidst widespread public concern about high drug prices.³¹⁴ Similarly, the public franchise model retains flexibility for the government to respond to rapidly emerging technologies and changed

³⁰⁹ Serkin, *Public Entrenchment*, *supra* note 209, at 885–915.

³¹⁰ Serkin, *Democratic Accountability*, *supra* note 307, at 1176; Serkin, *Public Entrenchment*, *supra* note 209, at 917–18.

³¹¹ See Serkin, *Public Entrenchment*, *supra* note 209, at 888–90.

³¹² See *supra* section III.A.2.; see also Serkin, *Public Entrenchment*, *supra* note 209, at 934–38 (describing costs and benefits of entrenchment).

³¹³ See Serkin, *Penn Central Take Two*, *supra* note 134, at 927 (observing that government preferences and conditions in the world change over time); *id.* at 939 (describing the “commonsense understanding that legal rules are and should be responsive to changes in the world, whether technological, ecological, or societal”).

³¹⁴ See Grace Sparks et al., *Public Opinion on Prescription Drugs and Their Prices*, KFF, fig. 7 (Oct. 4, 2024), <https://www.kff.org/health-costs/poll-finding/public-opinion-on-prescription-drugs-and-their-prices/#> [<https://perma.cc/8J94-J6M3>] (“Before the IRA was passed in 2022, majorities across partisans[h] supported a wide range of proposals including allowing the federal government to negotiate with drug companies to get a lower price on medications for people with Medicare.”).

conditions.³¹⁵ The public franchise model also leaves policy choices about how to weigh costs and benefits of regulation predominantly with the legislature, a democratically accountable branch, rather than allowing unelected judges to play a large role in balancing the costs and benefits of regulations.³¹⁶ Furthermore, legislative flexibility provides a political check on monopoly power that can arise when patent holders have market power.³¹⁷

One critique of this approach is that by decreasing the entrenching effect of patents, the public franchise model would decrease their value in encouraging investment in research and development. This impact is unlikely, though, since the expected value of takings protection is only a small fraction of the expected value of investments in patents, and no court has ever awarded compensation for a patent taking, as discussed above.³¹⁸ Another potential critique of this view is that the Takings Clause provides protection against anti-majoritarian abuse. Takings liability protects individuals who lose out in the political process when legislatures are informed by majority preferences.³¹⁹ Yet these concerns for patent holders are low. Patent holders—like the pharmaceutical companies that raised takings challenges to the Medicare Drug Price Negotiation Program—often have resources that allow them to lobby and influence the political process.³²⁰

³¹⁵ Pappas, *Right to Be Regulated*, *supra* note 26, at 143–44 (observing that “subject matter of regulation may require relatively more flexibility,” including for changing technologies, emerging industries, and evolving information, which “tend to require more adaptive response[s]” than interests in land).

³¹⁶ See Pappas, *Right to be Regulated*, *supra* note 26, at 142.

³¹⁷ See Pappas, *Disclaiming Property*, *supra* note 291, at 436–37.

³¹⁸ There are also other legal and political avenues to protect patent investments. See *supra* notes 296–299. There are also empirical questions about whether patents actually incentivize innovation in practice. See, e.g., James Hicks, *Do Patents Drive Investment in Software?*, 118 Nw. U. L. REV. 1277, 1283 (2024) (“I find no evidence that a startup company’s first patent grant has an effect on subsequent venture capital investment and no evidence that the grant increases the likelihood that a company will later be acquired or launch an initial public offering.”); Rachel E. Sachs, *The Uneasy Case for Patent Law*, 117 MICH. L. REV. 499, 499 (2018) (showing that companies “develop[ed] microbiome-based therapies largely in the absence of patent protection”); JAMES BESSEN & MICHAEL J. MEURER, *PATENT FAILURE* 11–16 (2008).

³¹⁹ See Pappas, *Disclaiming Property*, *supra* note 291, at 416–17, 419 (describing concerns about the “positivist trap”).

³²⁰ See, e.g., Nicholas Florko, *After a Pharma Lobbying Blitz, Congress Softens Legislation on Drug Patents*, STAT (June 21, 2019), <https://www.statnews.com/2019/06/21/pharma-win-congress-patents/> [<https://perma.cc/WF2K-S666>]; see also Pappas, *Disclaiming Property*, *supra* note 291, at 418

Patents by their nature grant economic power to patent holders, which in turn often increases their resources for political lobbying. Indeed, every time that Congress has either revoked patents or granted compulsory licenses through statute, it has voluntarily offered compensation to patent holders.³²¹ The political power of patent holders makes it less likely that they would need a judicial avenue to protect their interests. Instead, takings protection would likely work to provide yet another avenue for patent holders to challenge regulation that the public prefers.³²²

CONCLUSION

Throughout this country's history, governments have granted companies permission to take actions that they could not take without a government grant. These intangible grants have aimed to encourage private companies to serve a variety of public goals, from setting up gas companies, to building bridges and railroads, to promoting innovation. When the government gives a company a grant, it forms a type of intangible property that is uniquely within the government's control. This heightened control has raised complicated questions about whether and to what extent constitutional protections should attach to regulatory grants. These questions have recently manifested in litigation over whether regulations are takings of patents.

During the nineteenth and early twentieth centuries, the Supreme Court developed several principles for dealing with questions about the government's power to continue regulating existing government grants. Government grants, commonly referred to as public franchises, were strictly construed, limited by *ex ante* conditions, and distinguished from physical property. The Court consistently recognized a broad zone for the government to continue regulating without implicating constitutionally protected property interests in public franchises. In doing so, the Court balanced the policy goals of preserving regulatory flexibility to promote public welfare with allowing entrenchment to promote investment in publicly beneficial activities.

(describing how grazing permit holders have been able to use political power to protect permits). Reducing takings protection could increase incentives for more lobbying, though this is unlikely given the uncertain status of takings protection for patents currently.

³²¹ See Dolbow, *supra* note 218, at 620–21, 627–34.

³²² Pappas, *Disclaiming Property*, *supra* note 291, at 419 (observing that “scholarship has noted how takings protection will typically favor powerful interests”).

The modern regulatory takings doctrine aims to balance similar policy goals. When regulatory takings claims are raised based on patents, the situation is similar to the situations behind constitutional challenges to public franchise regulation in the nineteenth and early twentieth centuries. Indeed, the Supreme Court has described patents as forms of public franchises. Courts should therefore look to the public franchise model when considering patent takings claims. The public franchise model helps illustrate several key limits on takings liability when the government acts in ways that decrease the value of patents, even assuming that patents are sometimes entitled to takings protection. These limiting principles would be useful to weed out weak takings claims and to offer a set of clearer guidelines than modern takings doctrine for assessing the scope of government power over existing patents. Using the public franchise model to assess patent takings claims would continue the longstanding tradition of recognizing the government's broad power to regulate regulatory property.